

**NEC**

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# **NEAX<sup>®</sup> 2400IMX**

**Business Features and Specifications  
With Fusion Call Control Signaling (FCCS)**

**JUNE, 2000**

**NEC America, Inc.**

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This page is for your notes.

**NEAX2400 IMX Business Features**

<b>LEGEND</b>					
	<b>X</b>	- Available			
	<b>—</b>	- Not Applicable			
	<b>N</b>	- Not Available			
	<b>E</b>	- Enhanced or Changed			
	<b>→</b>	- Feature carried over to next software series			
<b>Index</b>	<b>Feature Description</b>	<b>Series 7300</b>		<b>Series 7400</b>	
		<b>Non- Network</b>	<b>FCCS</b>	<b>Non- Network</b>	<b>FCCS</b>
A-1	Attendant Camp-On with Tone Indication	X	X	→	→
A-2	Attendant-Controlled Conference	X	X	→	→
A-3	Attendant Console	X	X	→	→
A-4	Attendant Keypad	X	—	→	—
A-5	Attendant Lockout	X	—	→	—
A-6	Attendant Loop Release	X	—	→	—
A-7	Attendant Override	X	X	→	→
A-8	Automatic Recall	X	—	→	—
A-8D	Automatic Recall - D <sup>term</sup>	X	—	→	—
A-15	Announcement Service	X	X	→	→
A-16	Alternate Routing	X	X	→	→
A-17	Audible Indication Control	X	—	→	—
A-18	Account Code	X	X	→	→
A-19	Attendant Night Transfer	X	N	→	N
A-20	Authorization Code	X	X	→	→
A-21	Automatic Trunk Test	X	N	→	N
A-29	Authorization Code - Tie Line Incoming Routes	X	X	→	→
A-30	Automatic/Manual Intercom	X	N	→	N
A-52	Account Code - Attendant	X	X	→	→
A-53	All Zone Paging	X	X	→	→
A-59	Announcement Service - Attendant	X	X	→	→
A-60	Attendant-To-Attendant Calling	X	X	→	→
A-69	Automatic Idle Return	X	X	→	→
A-78	Automatic Number Identification (ANI)	X	N	→	N
A-82	Automated Attendant	X	X	→	→
A-98	Answer Hold - Attendant	X	X	→	→
A-99	Authorization Code Display Elimination	X	—	→	—

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
	<b>X</b>	- Available			
	<b>—</b>	- Not Applicable			
	<b>N</b>	- Not Available			
	<b>E</b>	- Enhanced or Changed			
	<b>→</b>	- Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
A-105	Attendant Overflow	X	N	→	N
A-121	Add On Conference - 8 Party	X	X	→	→
A-125	Analog Caller ID (Class SM)	X	X	→	→
A-127	Analog Caller ID - Station	X	X	E	→
B-2	Busy Lamp Field - Flexible	X	N	E	X
B-3	Busy Verification	X	X	→	→
B-5D	Boss - Secretary Override - D <sup>term</sup>	X	N	→	N
B-6	Brokerage - Hotline	X	X	→	→
B-8	Boss - Secretary - Message Waiting Lamp Control	X	N	→	N
B-11	Boss - Secretary Transfer	X	N	→	N
B-12	Brokerage Hotline - Outside	X	X	→	→
B-17	Blind Transfer To Attendant	X	X	→	→
B-18	Blind Transfer To Station	X	X	→	→
C-1	Call Back	X	X	→	→
C-1D	Call Back - D <sup>term</sup>	X	X	→	→
C-2	Call Forwarding - Busy Line	X	X	→	→
C-2D	Call Forwarding - Busy Line - D <sup>term</sup>	X	X	→	→
C-3	Call Forwarding - Don't Answer	X	X	→	→
C-3D	Call Forwarding - Don't Answer - D <sup>term</sup>	X	X	→	→
C-5	Call Forwarding - All Calls	X	X	→	→
C-5D	Call Forwarding - All Calls - D <sup>term</sup>	X	X	→	→
C-6	Call Hold	X	X	→	→
C-6D	Call Hold - D <sup>term</sup>	X	X	→	→
C-7	Call Pickup - Group	X	X	→	→
C-7D	Call Pickup - Group - D <sup>term</sup>	X	X	→	→

## NEAX2400 IMX Business Features (Continued)

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
C-8	Call Processing Indication	X	X	→	→
C-9	Call Queueing	X	—	→	—
C-10	Call Transfer - Attendant	X	X	→	→
C-11	Call Transfer - All Calls	X	X	E	→
C-11D	Call Transfer - All Calls - D <sup>term</sup>	X	X	E	→
C-12	Call Waiting - Terminating	X	X	→	→
C-13	Call Waiting Lamp	X	—	→	—
C-14	CCSA Access	X	—	→	—
C-15	Class Of Service - Individual	X	—	→	—
C-17	Consultation Hold - All Calls	X	X	→	→
C-17D	Consultation Hold - All Calls - D <sup>term</sup>	X	X	→	→
C-20	Centralized Attendant Service (CAS)	X	N	→	N
C-21	Code Calling Access	X	—	→	—
C-22D	Called Station Status Display - D <sup>term</sup>	X	X	→	→
C-24D	Calling Number Display - D <sup>term</sup>	X	X	→	→
C-25	Call Forwarding-Intercept / Announcement	X	X	→	→
C-26	Call Forwarding - Override	X	—	→	—
C-27D	Call Waiting - Answer - D <sup>term</sup>	X	X	→	→
C-28	Call Forwarding - All Calls - Outside	X	X	→	→
C-29	Call Park	X	N	→	X
C-30	Call Pickup - Direct	X	X	→	→
C-31	Call Waiting - Originating	X	X	→	→
C-33	Consecutive Dialing - Attendant	X	—	→	—
C-59	Called Number Display - Attendant	X	—	→	—
C-60	Call Forwarding - Busy Line - Outside	X	X	→	→
C-62	Consecutive Speed Calling - System	X	—	→	—
C-69	Call Forwarding - All Calls - Announcement	X	—	→	—

## NEAX2400 IMX Business Features (Continued)

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
C-73	Call Back - Delayed	X	X	→	→
C-74	Call Forwarding - Don't Answer - Outside	X	X	→	→
C-75	Call Forwarding - Intercept / Announcement - Attendant	X	X	→	→
C-76	Call Waiting Lamp - UCD	X	X	→	→
C-81	Call Forwarding - I'm Here	X	X	→	→
C-109	Centrex Compatibility	X	—	→	—
C-133	Call Forwarding - Don't Answer To UCD Queue	X	X	→	→
C-146	Call Hold - Conference	X	N	→	X
C-150	Call Block	X	X	→	→
C-151	Call Return	X	X	→	→
C-154	Call Hold Pick Up	X	N	→	N
C-157	Calling Party Number - Name Assignment and Display	X	X	→	→
C-160	Call Trace	X	X	→	→
D-2	Dial Access To Attendant	X	X	→	→
D-3	Dictation Access	X	—	→	—
D-5	Digital Display - Station	X	X	→	→
D-6	Digital Display - Trunk	X	X	→	→
D-7	Direct-In Termination (DIT)	X	X	→	→
D-8	Direct Inward Dialing (DID)	X	X	→	→
D-9	Direct Outward Dialing (DOD)	X	X	→	→
D-10	Distinctive Ringing	X	—	→	—
D-11D	Do Not Disturb - D <sup>term</sup>	X	—	→	—
D-13D	Dial Monitor - D <sup>term</sup>	X	—	→	—
D-15	Day/Night Class of Service	X	X	→	→
D-16	Direct Digital Interface	X	—	→	—
D-31	Delay Announcement - UCD	X	X	→	→

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
D-32D	Dual Hold - D <sup>term</sup>	X	X	→	→
D-87	Dial Intercom	X	N	→	N
D-90D	Delayed Ringing - D <sup>term</sup>	X	N	→	N
D-114	Delay Announcement - Attendant	X	X	→	→
D-149	Direct Station Selection (DSS) Console	X	N	→	N
D-153	Distinctive Ringing - Caller ID	X	X	→	→
D-156	Dual Station Call	X	X	→	→
E-1	Executive Right-of-Way	X	X	→	→
E-1D	Executive Right-of-Way - D <sup>term</sup>	X	X	→	→
E-3D	Elapsed Time Display - D <sup>term</sup>	X	—	→	—
E-4D	Exclusive Hold - D <sup>term</sup>	X	—	→	—
E-11	Emergency Call	X	X	→	→
E-18	E911-ANI Unified Number Of Digits	X	X	→	→
E-26	Expanded Multiple Line Operation - D <sup>term</sup>			X	X
F-1	Flexible Numbering of Stations	X	X	→	→
F-2	FX Access	X	N	→	N
F-3D	Flash Button - D <sup>term</sup>	X	—	→	—
F-4D	Flash Entry - D <sup>term</sup>	X	—	→	—
F-5D	Flexible Ringing Assignment - D <sup>term</sup>	X	—	→	—
F-6	Faulty Trunk Report	X	—	→	—
F-7	Forced Account Code	X	—	→	—
F-17	Flexible Assignment of Function Buttons	X	—	→	—
F-31	Follow Phone	X	N	→	N
F-35	Flexible Routing - FCCS	—	X	—	→

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
F-36	FCCS Networking via IP			—	X
G-2	Group Calling	X	X	→	→
H-1	Hotline	X	X	→	→
H-2	House Phone	X	X	→	→
H-4D	Hands-free Answer Back - D <sup>term</sup>	X	—	→	—
H-5D	Hands-free Dialing/Monitoring - D <sup>term</sup>	X	—	→	—
H-9	Hotline - Outside	X	X	→	→
I-1	Immediate Ringing	X	—	→	—
I-2	Incoming Call Identification	X	—	→	—
I-3	Incoming Central Office Call to Tie-Line Connection	X	X	→	→
I-4	Individual Trunk Access	X	X	→	→
I-5	Inter-position Transfer	X	X	→	→
I-6	Individual Attendant Access	X	X	→	→
I-7D	I-Hold Indication - D <sup>term</sup>	X	—	→	—
I-8D	I-Use Indication - D <sup>term</sup>	X	—	→	—
I-9	Intercom Calling	X	N	→	N
I-10D	Intermediate Station Number Display - D <sup>term</sup>	X	X	→	→
I-11	Inter-Office Off-Hook Queuing	X	X	→	→
I-20	Immediate Ringback Tone	X	—	→	—
I-21	Internal Zone Paging	X	N	E	N
L-1	Lamp Check	X	—	→	—
L-3	Line Lockout	X	—	→	—
L-5	Least Cost Routing - 3/6-Digit	X	X	E	→



**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
L-6	Last Number Called - Single-Line Station	X	X	→	→
L-6D	Last Number Called - D <sup>term</sup>	X	—	→	—
L-7D	Line Reconnect - Same Line - D <sup>term</sup>	X	X	→	→
L-8D	Line Reconnect - Other Line - D <sup>term</sup>	X	X	→	→
L-9D	Line Pre-selection - D <sup>term</sup>	X	X	→	→
L-10	LCR - Time Of Day Routing	X	N	→	X
L-11	Line Load Control	X	—	→	—
L-20	Line Load Control - Automatic	X	—	→	—
L-21	Line Load Control - MAT	X	—	→	—
L-24	Listed Directory Number	X	—	→	—
L-28	LDN Night Connection	X	N	→	N
L-30	LDN Night Connection - Outside	X	X	→	→
M-1	Meet-Me Paging	X	N	→	N
M-2	Miscellaneous Trunk Access	X	—	→	—
M-3	Miscellaneous Trunk Restriction	X	—	→	X
M-4	Multiple Console Operation	X	—	→	—
M-7	Music On Hold	X	—	→	—
M-11	Meet-Me Paging - Attendant	X	N	→	N
M-15	Maintenance Printout	X	—	→	—
M-18	Maintenance Administration Terminal (MAT)	X	X	→	→
M-19	Message Reminder	X	X	→	→
M-19D	Message Reminder - D <sup>term</sup>	X	X	→	→
M-20D	Multiple Line Operation - D <sup>term</sup>	X	N	→	N
M-23	Message Waiting Lamp Setting - Attendant	X	X	→	→
M-24	Multiple Call Forwarding - Busy Line	X	X	→	→
M-25	Multiple Call Forwarding - Don't Answer	X	X	→	→

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
	<b>X</b>	- Available			
	<b>—</b>	- Not Applicable			
	<b>N</b>	- Not Available			
	<b>E</b>	- Enhanced or Changed			
	<b>→</b>	- Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
M-26	Message Center Interface	X	X	→	→
M-30	Message Waiting Lamp Setting - Station	X	X	→	→
M-44	Multiple Call Forwarding - All Calls	X	X	→	→
M-47	Manual Signaling	X	N	→	N
M-48	Multi Channel Recording - DAT	X	N	→	N
M-84	MF Signaling - DID	X	X	→	→
M-85D	Message Waiting Indication - D <sup>term</sup>	X	X	→	→
M-101	MF ANI to SMDR	X	X	→	→
N-1	Night Connection - Fixed	X	N	→	X
N-2	Night Connection - Flexible	X	N	→	X
N-3	Non-delay Operation	X	X	→	→
N-7D	Non-exclusive Hold - D <sup>term</sup>	X	—	→	—
N-8D	Non-square Line Assignment - D <sup>term</sup>	X	—	→	—
N-17	Night Connection Outside - System	X	X	→	→
N-28	Name Display - System	X	X	→	→
O-1	On-line Maintenance	X	X	→	→
O-2	Outgoing Trunk Queuing	X	X	→	→
O-2D	Outgoing Trunk Queuing - D <sup>term</sup>	X	X	→	→
O-6	Off-Hook Alarm	X	X	→	→
O-7	Off-Hook Queuing	X	X	→	→
O-13	Overflow - UCD	X	X	→	→
O-16	Outgoing Trunk Queuing - Attendant	X	X	→	→
O-21	Outgoing Trunk Busy Announcements	X	—	→	—
O-37D	Off-Hook Line Number Display - D <sup>term</sup>	X	X	→	→

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
P-1	Paging Access	X	X	→	→
P-2	Passing Dial Tone	X	X	→	→
P-3	Power Failure Transfer	X	—	→	—
P-4	Pushbutton Calling	X	—	→	—
P-5	Pushbutton Calling - Attendant Only	X	—	→	—
P-6	Pushbutton to Rotary Conversion	X	—	→	X
P-7	Peg Count	X	X	→	→
P-9	Priority Call	X	X	→	→
P-10	Paging Transfer	X	X	→	→
P-11	Periodic Time Indication Tone	X	—	→	—
P-13D	Prime Line Pickup - D <sup>term</sup>	X	—	→	—
P-14D	Privacy - D <sup>term</sup>	X	—	→	—
P-15D	Privacy On All Lines - D <sup>term</sup>	X	—	→	—
P-18	Privacy Release	X	N	→	N
P-30	Priority Paging	X	N	→	N
P-57	Pad Lock	X	—	→	—
P-59	Personal Ringer	X	N	→	N
R-2	Remote Access to System	X	X	→	→
R-3	Reserve Power	X	—	→	—
R-4	Restriction from Outgoing Calls	X	—	→	X
R-5	Rotary Dial Calling	X	—	→	—
R-6	Route Advance	X	X	→	→
R-7	Remote Maintenance	X	X	→	→
R-16	Radio Paging	X	X	→	→
R-27	Route Restriction - Announcement	X	—	→	—
R-37	RS-464A PAD	X	—	→	—

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
R-49	Ringer Mute	X	—	→	—
R-51	Route Name Display	X	X	→	→
S-1	Single-Digit Station Calling	X	X	→	→
S-2	Special Dial Tone	X	—	→	—
S-3	Speed Calling - System	X	X	→	→
S-3D	Speed Calling - System - D <sup>term</sup>	X	X	→	→
S-4	Splitting	X	—	→	—
S-4D	Splitting - D <sup>term</sup>	X	—	→	—
S-6	Station-Controlled Conference	X	—	→	—
S-7	Station Hunting - Circular	X	X	→	→
S-8	Station Hunting - Secretarial	X	X	→	→
S-9	Station Hunting - Terminal	X	X	→	→
S-10	Station Message Detail Recording (SMDR)	X	X	→	→
S-11	Station-to-Station Calling	X	X	→	→
S-12	Station-to-Station Calling - Operator Assistance	X	X	→	→
S-13	Step Call	X	X	→	→
S-15	Serial Call	X	X	→	→
S-19	Single-Digit Feature Code	X	—	→	—
S-21	Speed Calling - Station	X	X	E	→
S-23	Speed Calling - Group	X	X	E	→
S-24D	Save And Repeat - D <sup>term</sup>	X	X	→	→
S-25D	Service Display - D <sup>term</sup>	X	X	→	→
S-26D	Speed Calling - One Touch - D <sup>term</sup>	X	X	→	→
S-27	Service Feature Peg Count	X	N	→	N
S-33	Software Line Appearance	X	N	→	N
S-61	Speed Calling Override - System	X	X	→	→

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
X	-	Available			
—	-	Not Applicable			
N	-	Not Available			
E	-	Enhanced or Changed			
→	-	Feature carried over to next software series			
Index	Feature Description	Series 7300		Series 7400	
		Non-Network	FCCS	Non-Network	FCCS
S-62	Station 5db PAD	X	X	→	→
S-64	Serial Call - Loop Release	X	X	→	→
S-99	Split Call Forwarding	X	X	→	→
S-106	Slumber Time - Do Not Disturb	X	X	→	→
S-127	Serial Call - D <sup>term</sup>	X	X	→	→
S-129	SMDR Output Expansion - ANI/CPN	X	X	→	→
T-1	Tandem Switching of TIE Trunks - 2/4-Wire	X	X	→	→
T-2	Three-Way Calling	X	X	→	→
T-2D	Three-Way Calling - D <sup>term</sup>	X	X	→	→
T-3	TIE Line Access	X	X	→	→
T-5	TIE Line Connection With Pad Control	X	X	→	→
T-6	Toll Denial/Toll Diversion	X	—	→	X
T-7	Toll Restriction - 3/6-Digit	X	X	→	→
T-8	Trunk Answer from Any Station (TAS)	X	—	→	—
T-9	Trunk Group Busy Lamp	X	N	E	X
T-10	Trunk-to-Trunk Connection	X	X	→	X
T-12	Tenant Service	X	X	→	→
T-18D	Time Display - D <sup>term</sup>	X	—	→	—
T-23	Trunk Line Appearance	X	N	→	N
T-28	Trunk-to-Trunk Third-Party Cancellation	X	X	→	→
T-62	Timed Reminder	X	—	→	—
T-63	Tone Block	X	X	→	→
U-1	Uniform Call Distribution (UCD)	X	X	→	→
U-3	Universal Sender	X	—	→	—

**NEAX2400 IMX Business Features (Continued)**

<b>LEGEND</b>					
	<b>X</b>	- Available			
	<b>—</b>	- Not Applicable			
	<b>N</b>	- Not Available			
	<b>E</b>	- Enhanced or Changed			
	<b>→</b>	- Feature carried over to next software series			
<b>Index</b>	<b>Feature Description</b>	<b>Series 7300</b>		<b>Series 7400</b>	
		<b>Non-Network</b>	<b>FCCS</b>	<b>Non-Network</b>	<b>FCCS</b>
V-1	Variable Timing Parameters	X	—	→	—
V-2	Voice Call	X	X	→	→
V-2D	Voice Call - D <sup>term</sup>	X	X	→	→
V-3D	Volume Control - D <sup>term</sup>	X	—	→	—
W-1	WATS Access	X	—	→	—

# A-1 Attendant Camp-On with Tone Indication

## General Description

This feature permits the Attendant, when a desired station is busy, to hold an incoming call in a special waiting mode. The Attendant sends a distinctive Camp-On Tone Indication to the busy station. When that station becomes idle, it is automatically rung and connected to the waiting trunk party upon answering.

## Operating Procedure

### To activate Camp-On from the ATTENDANT CONSOLE [A-3]:

1. ATTENDANT CONSOLE [A-3] indicates incoming call.
2. Press the ANSWER or INCOMING CALL IDENTIFICATION [I-2] key.
3. Dial the busy telephone number; receive busy tone.
4. Press the RELEASE key; warning tone is sent and Camp-On is set.

### To cancel Camp-On from the ATTENDANT CONSOLE [A-3]:

1. Press the loop key corresponding to held call; connect to the waiting trunk party.
2. Press the DEST key; hear busy tone.
3. Press the CANCEL key, automatically returns to the trunk party.

## Service Conditions

1. Camp-On is controlled entirely from the ATTENDANT CONSOLE [A-3].
2. Only one incoming call may be camped-on to a particular station at any given time. Multiple Camp-On is not allowed.
3. Calls that remain camped-on for longer than the predetermined timing will initiate AUTOMATIC RECALL [A-8]. See VARIABLE TIMING PARAMETERS [V-1].
4. The camped-on station can answer a Camp-On call using the CALL HOLD [C-6] feature if permitted via CLASS OF SERVICE - INDIVIDUAL [C-15].
5. When Camp-On is denied, the Attendant may place the incoming call into a hold mode by pressing the HOLD key.
6. The maximum number of simultaneous Camp-On's per ATTENDANT CONSOLE [A-3] is 6. If ATTENDANT LOOP RELEASE [A-6] is provided, the maximum number is 12.
7. Camp-On may be denied if the busy station is:
  - a.) dialing or in the LINE LOCKOUT [L-3] mode.
  - b.) listening to tone.
  - c.) being rung.
  - d.) already camped-on by a previous call.
  - e.) protected from Camp-On by CLASS OF SERVICE - INDIVIDUAL [C-15].
  - f.) protected by DATA LINE SECURITY [D-12]. ASFC SFI 11 = 0.
  - g.) being connected to an Attendant loop.
  - h.) activating any conflicting feature, such as:
 

ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
CALL BACK	[C-1]
CALL HOLD	[C-6]
CALL TRANSFER	[C-10, C-11, C-11D]

**Service Conditions (cont'd)**

CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, C-17D]
DATA LINE SECURITY	[D-12]
DATA PRIVACY ON DEMAND	[D-17]
DIAL ACCESS TO ATTENDANT	[D-2]
EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
EXECUTIVE RIGHT-OF-WAY	[E-1, E1D]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
OFF-HOOK QUEUING	[O-7]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY - D <sup>term</sup>	[P-14D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL - D <sup>term</sup>	[V-2D]

**Note:** *In each of the above instances, the Attendant will receive reorder tone.*

8. This feature can be denied on DICTATION ACCESS [D-3] and PAGING ACCESS [P-1] connections by assigned office data.
9. The ATTENDANT CAMP-ON WITH TONE INDICATION feature is limited to one call waiting per station line. The check to allow call waiting limits this feature to calls on a steady 2-party talking state with a trunk or another station. There is no limit to the number of lines to which this feature can be assigned.
10. CALL HOLD [C-6]: Attendant Camp-On is denied to a station that has a call on hold or to a station that has been placed on hold.
11. Any restriction that prevents a call from terminating directly at a station also prevents a call from waiting at that station.
12. DATA LINE SECURITY [D-12]: Attendant Camp-On is denied to a station with this restriction.
13. STATION HUNTING [S-7, 8, 9]: This feature takes precedence over Attendant Camp-On. If all stations in the hunt group are busy, the call will wait at the called station.
14. LINE LOCKOUT [L-3]: A call is not allowed to wait on a line that has been locked out.
15. ATTENDANT CAMP-ON WITH TONE INDICATION is denied if the called station has activated CALL BACK [C-1], OUTGOING TRUNK QUEUING [O-2] or has another call waiting.
16. BUSY VERIFICATION [B-3]: This feature is not allowed when a call is waiting. Attendant Camp-On is denied to a station in a 3-way call as a result of busy station verification.
17. CALL BACK [C-1]: Camp-On is denied if another station has activated the CALL BACK [C-1] feature toward the station.
18. CALL FORWARDING [C-2, 3, 5]: When Call Forwarding is in effect, the forwarding operation occurs before any call waiting is allowed. Once a call has been forwarded, the call may wait at the new station if call waiting is allowed.
19. HOT LINE [H-1]: Attendant Camp-On is allowed toward the Hot Line.
20. THREE-WAY CALLING [T-2]: Calls are not allowed to wait on any station involved in a Three-Way Call.
21. DATA PRIVACY ON DEMAND [D-17]: Attendant Camp-On is denied to a user who has activated Data Privacy On Demand.



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## Interactions

1. System Data 2, Index 2, Bit 5 will enable ATTENDANT LOOP RELEASE [A-6], which allows 12 calls to be camped-on to stations by Attendant Console.
2. The Attendant Console must first be provided.
3. Route Restrictions disallowing a call to terminate at a station will also disallow ATTENDANT CAMP-ON.
4. STATION HUNTING [S-7, 8, 9] and UNIFORM CALL DISTRIBUTION [U-1] take precedence over ATTENDANT CAMP-ON WITH TONE INDICATION. If all stations in the Station Hunting group are busy, the call will wait at the called station.
5. HOTLINE [H-1]: ATTENDANT CAMP-ON is allowed toward the Hotline.
6. TIE LINE ACCESS [T-3]: ATTENDANT CAMP-ON is denied to a station over a TIE Line (distant end).
7. ATTENDANT CAMP-ON WITH TONE INDICATION and SERIAL CALL [S-15] are mutually exclusive.
8. ATTENDANT CAMP-ON WITH TONE INDICATION is usually denied to a station connected to Value-Added Modules (VAM).
9. ATTENDANT CAMP-ON WITH TONE INDICATION is applicable only with incoming C.O. or TIE Line calls to a busy station. Attendant-assisted station-to-station calls cannot be camped-on.

## A-2 Attendant-Controlled Conference

### General Description

This feature permits the Attendant to establish a conference among as many as eight parties. The conferees may consist of any combination of stations and/or trunks, whether inside or outside parties.

### Operating Procedure

#### To activate ATTENDANT CONTROLLED CONFERENCE:

1. Station calls Attendant to request conference.
2. Attendant connects a party to one of the assigned line circuits.
3. Attendant sequentially calls all desired parties and connects them to the other line circuits on the conference.
4. Once all parties are connected, the conference leader with a push-button telephone may dial digit "0" to block additional participants, thereby assuring privacy.
5. If the conference leader dials the digit "#", all conferees will be disconnected. Otherwise, the conference is terminated only after all parties have hung up.
6. To release from a conference circuit individually, a user must hang up. The remaining conferees may continue without interruption.

### Service Conditions

1. Conference units are designed to provide adequate amplification, but the condition of the Central Office connections will affect transmission.
2. Conference extension numbers should be placed in a STATION HUNTING - TERMINAL [S-9] group with only the pilot number being published.
3. If the conference leader connected to the conference unit dials digit "#" during the course of the conference, all conferees will be disconnected.
4. The conference leader with a push-button telephone must be connected to level "0" of the conference circuit.
5. Override services such as BUSY VERIFICATION [B-3], ATTENDANT OVERRIDE [A-7] or EXECUTIVE Right-of-Way [E-1] are denied on conference call.
6. Additional hardware is required to implement this feature.

### Interactions

The Attendant Console must first be provided.

# A-3 Attendant Console

## General Description

The ATTENDANT CONSOLE operates on a switched loop basis. Six Attendant loops terminate at each console via the associated position circuit. The Attendant can answer, originate, hold, extend and re-enter calls through each loop. The number of calls may be effectively increased to 12 through use of the ATTENDANT LOOP RELEASE [A-6] feature.

## Operating Procedure

Refer to the description of each service feature related to Attendant Console.

## Service Conditions

1. Each ATTENDANT CONSOLE is equipped with dual handset jacks, one on either side. For training purposes, both jacks may be used simultaneously. For normal operation, the Attendant may choose the most convenient side.

**Note:** *A drop in volume may be noticed while a second handset/headset is connected.*

2. A console switched loop may receive a second call immediately upon release of the first, regardless of whether or not the call has been answered by a station when using the ATTENDANT LOOP RELEASE [A-6] feature.
3. A maximum of 4 consoles per PIM can be provided.
4. The maximum number of consoles allowed per system is:

1 IMG System:	16
4 IMG System:	60
IMX-U System:	60
5. The ATTENDANT CONSOLE is equipped with a digital time display.
6. The ATTENDANT CONSOLE is equipped with a numerical call waiting display.
7. When answering a CALL FORWARDING [C-2, 3, 5, 25] call, the Attendant can identify the called telephone number on display area instead of the trunk number by assigned System Data.
8. The Desk Console for Business System can display a maximum of 24-digit calling/called station number (telephone number) on the LCD. In addition, the calling number of Caller ID service can be displayed.
9. The Desk Console can display 8-bit ASCII characters.
10. Name Display is available when Name Display service is available for the D<sup>term</sup>. The content of the name display is the same as that of the D<sup>term</sup>.
11. The maximum number of digits for the Name Display are as shown below:
  - 16 for the name assigned by the MAT
  - 15 for the calling name sent from the Central Office
12. When the calling number is not received, the route/trunk number or the Central Office Code (COC) is displayed instead.
13. The Desk Console and the current Attendant Console can be used together in a system. However, the Attendant Console can display a maximum of 24 digit telephone numbers and Caller ID information is not displayed.
14. The data setting of the station number display pattern for the Attendant Console (SYS1, INDEX 82) is unavailable for the Desk Console.

### Service Conditions (cont'd)

15. A PA-CS33 circuit card is required. The switch setting for PA-CS33 (ATI) is shown below:

Switch Name		Setting
SW16	1	OFF (fixed)
	2	ON (fixed)

16. The Attendant Console must be accommodated in one LN only when used in the IMX-U system.
17. A terminating node (FPC) must be assigned in the FCCS network.
18. Identical system data related to Attendant Console should be programmed at all nodes.
19. A different destination for C.O. incoming call (ring down) cannot be set at each tenant group.

### Interactions

There are no known interactions.

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# A-4 Attendant Keypad

## General Description

This feature permits the Attendant to dial all calls from the ATTENDANT CONSOLE [A-3] via a push-button PAD.

## Operating Procedure

Refer to the description of each service feature related to Attendant Console.

## Service Conditions

1. Whether the NEAX2400 IMX is equipped with DP or DTMF trunk lines, signals from the ATTENDANT KEY PAD will be converted.
2. Via the key pad, the Attendant may originate calls, process incoming calls, and activate various service features. They are as follows:
  - a.) Pushbutton Calling [P-4]
  - b.) Pushbutton Calling - Attendant only [P-5]
  - c.) Rotary Dial Calling [R-5]
3. The ATTENDANT KEY PAD generates DC signals, which in turn are converted to either DP or DTMF signals by the Attendant interface circuit.
4. The key pad consists of twelve (12) keys used to generate digits 0 through 9, plus the "\*" and "#" keys.

# A-5 Attendant Lockout

## General Description

This feature denies an Attendant the ability to re-enter an established trunk/station connection without being recalled by the station.

## Operating Procedure

No manual operation is required once this feature has been programmed into system data.

## Service Conditions

1. This feature is, by definition, mutually exclusive with:  
ATTENDANT OVERRIDE [A-7]  
BUSY VERIFICATION [B-3]
2. Lockout is inoperative on TRUNK-TO-TRUNK CONNECTION [T-10] when the release signal is not provided from the distant end.
3. Lockout is not used unless the feature is provided which gives 2-party hold capability. Without this capability, the completed call is removed from the ATTENDANT CONSOLE [A-3] loop, so the Attendant cannot reenter for assistance or any other purpose.

## Interactions

1. ATTENDANT OVERRIDE [A-7]: In those cases where answer supervision is returned on TRUNK-TO-TRUNK CONNECTIONS [T-10], the Attendant can override the busy condition by using the ATTENDANT OVERRIDE [A-7] feature.
2. TRUNK-TO-TRUNK CONNECTION [T-10]: Privacy is automatically disabled for TRUNK-TO-TRUNK calls, if the release signal is not provided from the distant end.
3. SPLITTING [S-4]: The Privacy feature works with the SPLITTING [S-4] feature to cause automatic splitting.
4. Switched Loop Operation: Call processing is modified so that pressing a loop key does not cause the Attendant to be bridged on an established call unless the Attendant is recalled. An exception is a TRUNK-TO-TRUNK CONNECTION [T-10] when the release signal is not provided from the distant end.
5. ATTENDANT-CONTROLLED CONFERENCE [A-2]: When the Attendant reenters a conference connection to answer a recall, only the Attendant and the recalling station are connected together.

# A-6 Attendant Loop Release

## General Description

This feature allows an ATTENDANT CONSOLE loop to become available for a second call as soon as the Attendant has directed the first call to a station, even if that station does not answer.

## Operating Procedure

1. ATTENDANT CONSOLE indicates an incoming call.
2. Press the ANSWER or INCOMING CALL INDICATION [I-2] key.
3. Dial the desired telephone number; receive ringback tone.
4. Before the station answers, press the RELEASE key.
5. The loop is now available for another call.

## Service Conditions

1. Unanswered calls will be routed to the Attendant within the predetermined time via AUTOMATIC RECALL [A-8]. See VARIABLE TIMING PARAMETERS [V-1].
2. If all Attendant Loop circuits are busy when AUTOMATIC RECALL [A-8] is activated, the system will automatically scan for an idle Loop every 8 seconds.
3. A maximum of six calls (one per Loop) may be released simultaneously from any single ATTENDANT CONSOLE.
4. This feature provides the Attendant with the equivalent of 12 switching loops.
5. In a MULTIPLE CONSOLE OPERATION [M-4], the Attendant who initiated the Loop Release will be recalled.
6. ATTENDANT LOOP RELEASE is only applicable to incoming trunk calls extended to an unanswered station or busy station (Camped-On).
7. Calls that are held by the Attendant, using the HOLD key, cannot be released from the ATTENDANT CONSOLE [A-3]. These calls remain on the switched loop until they are either extended by the Attendant or abandoned by the calling party.
8. After the ATTENDANT LOOP RELEASE is activated, the Attendant cannot interact with the call until altered by the AUTOMATIC RECALL [A-8] feature.
9. ATTENDANT CAMP-ON: This feature, when active, permits the Attendant to CAMP-ON [A-1] to a busy called station. Upon ATTENDANT CAMP-ON WITH TONE INDICATION [A-1], the Attendant may release the call from the ATTENDANT CONSOLE [A-3].

## Interactions

1. The Attendant Console must first be provided.
2. ATTENDANT LOOP RELEASE and CALL FORWARDING - DON'T ANSWER [C-3] on calls extended to a station via the Attendant Console (System Data 2, Index 6, Bit 7) are mutually exclusive.
3. ATTENDANT LOOP RELEASE is only applicable to incoming station or trunk calls extended to an unanswered station or busy station. See ATTENDANT CAMP-ON WITH TONE INDICATION [A-1].
4. Calls placed on CALL HOLD [C-6] by the Attendant Console are not released from the console. These calls remain on the loop until they are either extended by the Attendant or abandoned by the calling party.
5. A maximum of six calls per console can be released and stored in the system memory. A seventh call extended (unanswered/camped-on) will remain in the loop.

**Interactions (cont'd)**

6. Calls processed via SERIAL CALL [S-15] are not released from the Attendant Console. These calls remain in the loop until completion.



# A-7 Attendant Override

## General Description

This feature permits an Attendant to enter a busy trunk connection within the NEAX2400 IMX, via the Attendant Console [A-3]. Upon activation, a warning tone will be heard by the connected parties, after which they will be connected with the Attendant in a three-way bridge.

## Operating Procedure

1. Press the TKSL key.
2. Dial the desired trunk route (2 or 3 digits) and the identification numbers (3 digits).
3. Upon receiving busy tone, press the Busy Verification (BV) key.
4. A two-burst tone is sent to the connected parties.
5. The Attendant can now monitor or join the connection.
6. Press the RELEASE key to disengage.

## Service Conditions

1. This feature may be utilized during trunk-to-trunk calls (COT, FX, WATS, CCSA, TIE Lines).
2. This feature cannot be activated when the connected station/trunk is:
  - a.) dialing
  - b.) connected to a three-way connection.
  - c.) when a PRIVACY [P-14D, P-15D] feature is activated.
  - d.) connected to a route programmed for Line/Trunk, Privacy, CDN 44:PRV.
  - e.) listening to a tone (Dial, Reorder, Service Set, Busy, Ringback).
  - f.) protected by DATA LINE SECURITY [D-12].
  - g.) being connected to an Attendant loop.
  - h.) activating any conflicting feature, such as:

BUSY VERIFICATION	[B-3]
BOSS- SECRETARY OVERRIDE	[B-5]
CALL HOLD	[C-6, C-6D]
CALL TRANSFER	[C-10, C-11, C-11D]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, C-17D]
DATA LINE SECURITY	[D-12]
DATA PRIVACY ON DEMAND	[D-17]
DIAL ACCESS TO ATTENDANT	[D-2, D-71]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]
EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
OFF-HOOK QUEUING	[O-7]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY - D <sup>term</sup>	[P-14D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL	[V-2]

In each of the above instances, the Attendant will receive reorder tone.

3. ATTENDANT OVERRIDE and ATTENDANT LOCKOUT [A-5] are mutually exclusive features.

## Service Conditions (cont'd)

4. Each tone burst is 0.08 seconds in duration and is used to alert both parties that the Attendant is overriding the conversation.
5. This feature can be denied on DICTATION [D-3] and PAGING [P-1] connections by assigned ARTD data.
6. It is possible, via System Data, to completely disable the sending of warning tone during an ATTENDANT OVERRIDE connection. Normally the two burst Warning Tone is sent when the ATTENDANT OVERRIDE connection is initiated and then is repeated approximately every 15 seconds. The initial tone burst is also disabled. If the trunk is connected to a D<sup>term</sup>, the display is as follows:

<p><b>OPE BV</b></p> <p><b>(Time Display)</b></p>
---

After 5 seconds, the display returns to the normal Conference display, CONF.

7. ATTENDANT OVERRIDE is temporarily denied and reorder tone heard if any of the following features are active:
  - a.) EXECUTIVE RIGHT-OF-WAY [E-1]: If the called trunk is connected to a line on which EXECUTIVE RIGHT-OF-WAY is being used.
  - b.) Trunk Restriction: If the called tie trunk was routed to reorder tone as a result of trunk restriction.
  - c.) SPECIAL DIAL TONE [S-2]: If the called trunk is on hold.
  - d.) ATTENDANT CAMP-ON WITH TONE INDICATION [A-1]: If the called trunk is camped-on to a busy station.
  - e.) SERIAL CALL [S-15]: ATTENDANT OVERRIDE is denied to the parties held on the console.
  - f.) ATTENDANT INTERACTION: During the normal operation of PBX features, situations may arise whereby a trunk may be connected to an ATTENDANT CONSOLE [A-3]. While the trunk is connected to the ATTENDANT CONSOLE [A-3] or is in queue at an ATTENDANT CONSOLE [A-3], the Attendant at the Console or an Attendant at any other Console (when multiple consoles are provided) is not allowed to bridge on the connection. The trunk must be connected to a station in a talking mode in order for the ATTENDANT OVERRIDE feature to function.
8. The ATTENDANT CONSOLE cannot specify a trunk accommodated in a different node in the FCCS network.

## Interactions

1. With ATTENDANT OVERRIDE, the following trunk types may be verified (busy or idle status):
  - a.) One-way incoming trunks
  - b.) One-way outgoing trunks
  - c.) Bothway trunk
2. Trunks in a station-to-trunk connection or TRUNK-TO-TRUNK CONNECTION [T-10] can be verified when busy.
3. ATTENDANT LOCKOUT [A-5]: The Attendant is prevented from overriding a busy trunk which is connected to a loop held at the Attendant Console. Since the lockout feature applies only to calls held on an Attendant Console loop, ATTENDANT OVERRIDE of those trunks will be denied and the Attendant will hear reorder tone.
4. CALL FORWARDING - ALL CALLS [C-5], BUSY [C-2] or DON'T ANSWER [C-3]: If an Attendant attempts to busy verify an idle or busy station line that has activated the Call Forwarding feature, busy verification of the destination station will occur. If an Attendant attempts to busy verify an idle or busy station which is call forwarded to the Attendant Console, ATTENDANT OVERRIDE will not be allowed.

**Interactions (cont'd)**

5. DICTATION ACCESS [D-3]: ATTENDANT OVERRIDE will be denied towards the Dictation Access trunks.
6. PAGING ACCESS [P-1]: ATTENDANT OVERRIDE is denied to the Paging Access trunks.
7. DATA PRIVACY - CCIS [D-67] [D-68]: To prevent interruption of data transmission, the Attendant cannot override a trunk connected to a busy station line when the user activates this feature.

# A-8 Automatic Recall

## General Description

This feature works as a timed reminder. When a call handled by the Attendant remains on hold, camped-on, or ringing unanswered for a fixed interval, the Attendant is automatically alerted.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. AUTOMATIC RECALL [A-8] timing is preset in System Data at 30 seconds. See VARIABLE TIMING PARAMETERS [V-1] for other selectable timing choices.
2. If the Attendant reenters a held or camped-on trunk, timing is reset when the trunk is returned to the previous condition.
3. The Attendant Console buzzer will sound to signal Recall, provided no calls are being processed, in addition to the standard visual indication for incoming calls.
4. This feature is denied on INCOMING CENTRAL OFFICE CALL TO TIE LINE CONNECTION [I-3].
5. When an Attendant answers AUTOMATIC RECALL, either the dialed number or the calling telephone/trunk number can be displayed (on System Data basis).
6. The indication on the ATTENDANT CONSOLE [A-3] follows DIGITAL DISPLAY - STATION [D-5]. When the dialed number (destination) is displayed, the display is as follows:
 

Tenant Number:	Blank Space
Trunk Route Restriction Class:	Blank Space
Telephone Number:	Dialed Number (Last Digits)

## Interactions

1. This feature is available on calls extended to a branch PBX via a CENTRALIZED ATTENDANT SERVICE [C-20] (CAS) position.
2. System Data 2, Index 6, Bit 7. On a per-tenant basis, allow this Bit for CALL FORWARD - DON'T ANSWER [C-2] via the Attendant Console. During this operation, the call will ring at the called station for the time interval set in System Data 1, Index 141 (ASYD 145 must be longer than 141). The call is then forwarded and rings at the forwarded station for the time interval set in Index 145. If the call is still not answered, it will be recalled to the Attendant Console via the AUTOMATIC RECALL feature.
3. System Data 1, Index 70, Bit 0 (Called Number Display). This Bit does not affect the display on the Attendant Console for recalled calls. It is used for DIDs that have call forwarded to the Attendant or if the Attendant reenters the loop on an extended call before AUTOMATIC RECALL has taken place.
4. When a trunk call recalls back to the Attendant Console, the destination telephone number will display, and the SOURCE (SRC) LED will be lit. By pressing the SRC key, the display will change to the originating route and trunk number. By pressing the DEST key, the display will change to the destination station.
5. The station will continue to ring even as the call recalls to the Attendant Console. If the station should answer at the same time the Attendant answers the recalling call, a three-way conversation will take place (if conferencing is allowed and a conference card is programmed and installed). The Attendant can press the SRC, DEST, or TALK keys to achieve the desired conversation or press the RELEASE key to get out of the conversation.

## A-8D

# Automatic Recall - D<sup>term</sup>

### General Description

This feature works as a timed reminder. When a D<sup>term</sup> handled call remains on hold (EXCLUSIVE HOLD [E-4D] or NON-EXCLUSIVE HOLD [N-7D]) or during an unattended transfer for a variable, programmable period of time, the D<sup>term</sup> is automatically alerted.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. AUTOMATIC RECALL - D<sup>term</sup> timing is default in System Data at 30 seconds. See VARIABLE TIMING PARAMETERS [V-1] for other selectable timing choices.
2. If the D<sup>term</sup> reenters a held or transferred call, timing is reset when the call is returned to a RECALL position.
3. When a held call returns to the D<sup>term</sup>, a continuous ring of 0.5 seconds ON, 0.5 seconds OFF, and an LED flashing at 240 IPM occurs until the call is retrieved. The upper LCD goes blank during recall. The signal occurs whether the D<sup>term</sup> is on-hook or off-hook.
4. When an unattended transfer returns to the originator of the transfer, the D<sup>term</sup> will ring normally for 30 seconds (VARIABLE TIMING PARAMETERS [V-1]), if the release signal is not provided from the distant end. The LCD displays:

	Transferred Station	Transferring Station/Trunk
<b>RECALL</b>	<b>XXXX</b>	<b>XXXX</b>
<b>(Time Display)</b>		

**Note:** When the telephone number of the transferred/transferring station exceeds 8 digits, the last 8 digits are displayed. However, a maximum of 16 digits transferring telephone number can be displayed on the middle line of LCD depending on the System Data.

5. When a D<sup>term</sup> holds a call by NON-EXCLUSIVE HOLD [N-7D] during a THREE-WAY CALL [T-2D], the AUTOMATIC RECALL - D<sup>term</sup> feature cannot be activated.

# A-15 Announcement Service

## General Description

This feature allows a user to hear a prearranged announcement when the user dials a predetermined access code.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the announcement trunk access code.
3. Listen to the message from the announcement machine.

## Service Conditions

1. This feature requires one of the following hardware alternatives:
  - a.) Central Office Trunk (COT) or 2W E&M trunk (TLT) and an announcement machine.
  - b.) Digital Announcement Trunk (DAT).
2. The following connections are available:
  - a.) multi connection: many users or tie line trunks can connect to one announcement trunk at the same time.
  - b.) single connection: at any given time, only one station/trunk can connect to one announcement trunk.
3. This feature is also available for tie line trunk access to announcement trunk.
4. This connection can be continuous until a user hangs up or it can be disconnected after 30 seconds. This function can be selected on a per announcement trunk basis.
5. Before connection to the announcement machine is made, the system can be programmed to send ringback tone.
6. When this feature is activated from a tie line, an answer supervision signal will be sent to the far end PBX.
7. ANNOUNCEMENT SERVICE can be provided for a maximum of 127 trunks, which include the announcement trunks for CALL FORWARDING - INTERCEPT/ANNOUNCEMENT [C-25].
8. This feature is available from the Attendant Console. The Attendant dials the announcement trunk access code and listens to a message from the announcement machine.
9. ANNOUNCEMENT SERVICE is provided to FCCS nodes that have no announcement trunk in the remote node.

## Interactions

1. Each route connected to an announcement machine is also an EQP. The same route can be assigned as different EQP's. However, it is best to separate EQP functions by route.
2. 8TLT, 16 COT, or 4DAT cards may be used.

# A-16

# Alternate Routing

## General Description

This feature automatically routes outgoing on or off-net calls over alternate facilities when the first-choice trunk group is busy. The user selects the first-choice route by dialing the corresponding access code, and the equipment then routes the call through alternate trunk groups only if the first is busy. The NEAX2400 IMX will also add or delete digits, when necessary, to complete the call to the desired station.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. No indication is provided to a user as to whether the call is routed over first-choice or subsequent choice facilities.
2. STATION MESSAGE DETAIL RECORDING [S-10] may be used in conjunction with this feature.
3. The same route can be included in two or more alternative groups.
4. The total number of routes that can be included in a single route advance group is 15.
5. The total number of routes that can be contained in the system is 255.
6. The same route can be included in two or more alternative groups.
7. The maximum number of trunks to be included in a route is 255.
8. ALTERNATE ROUTING [A-16] occurs only when the dialed code accesses the first-choice trunk group in the ALTERNATE ROUTING list.
9. The outgoing call to the trunk belonging to the different node in the FCCS network is available. For more detailed information, see the NEAX2400 IMX Fusion Network System Manual.

## Interactions

1. ALTERNATE ROUTING may be affected by TOLL RESTRICTION -3/6 DIGIT [T-7]. For example, two routes of WATS provide the same service but for two separate Route Restriction Classes. Stations of one RSC will be allowed to advance to the second WATS route while the other RSC will not.
2. If LEAST-COST ROUTING [L-5] is used, ALTERNATE ROUTING is not used. However, they may be made available in the same system.
3. ALTERNATE ROUTING provides for no digit translation, therefore, only routes of the same type may be used. Keep this in mind when coordinating Route Advance groups consisting of DDD and FX routes.

# A-17 Audible Indication Control

## General Description

This feature allows the Attendant to adjust the audible indications provided to the ATTENDANT CONSOLE [A-3].

## Operating Procedure

The Attendant Console is equipped with a volume control that can raise or lower the internal speaker level. The volume control is located on the left side of the Attendant Console. The audible indication may also be turned off when required.

## Service Conditions

Each Attendant Console can adjust the audible indications to the ambient noise level, or completely disable this feature where necessary.



# A-18

# Account Code

## General Description

This feature is an adjunct to STATION MESSAGE DETAIL RECORDING [S-10], which provides a user with the capability to enter a cost-accounting or client-billing code (up to 10 digits) into the system before dialing a long distance number.

## Operating Procedure

### To enter an ACCOUNT CODE:

1. Lift the handset; receive dial tone.
2. Dial the feature access code; receive service set tone.
3. Dial the ACCOUNT CODE (up to 10 digits).
4. Receive dial tone and dial the called number.

**Note:** *Feature access code - Access code for ACCOUNT CODE entry will be a maximum of 3 digits.*

### To enter an ACCOUNT CODE after an AUTHORIZATION CODE [A-20]:

1. Lift the handset; receive dial tone.
2. Dial the feature access code for AUTHORIZATION CODE and receive service set tone.
3. Dial the AUTHORIZATION CODE (up to 10 digits) and receive second service set tone.
4. Dial the ACCOUNT CODE and receive dial tone.
5. Dial the called number.

## Service Conditions

1. The maximum number of digits for an ACCOUNT CODE is 10. There is no limitation to the number of account codes used per system.

**Note:** *Service set tone after the feature access code can be eliminated by System Data. System Data is common for ACCOUNT CODE, AUTHORIZATION CODE [A-20] and FORCED ACCOUNT CODE [F-7].*

2. A user can enter an ACCOUNT CODE of fewer digits than the maximum length defined and indicate the end of entry by pressing the # key.
3. The user may decide if ACCOUNT CODE follows the AUTHORIZATION CODE (per tenant basis).
4. ACCOUNT CODE dialing is also effective while in CONSULTATION HOLD [C-17]. A special dial tone is received after entering the ACCOUNT CODE.
5. Stations are assigned this feature via Class of Service.
6. ACCOUNT CODES can be output in the SMDR record for calls handled with OUTGOING TRUNK QUEUING [O-2] and OFF-HOOK QUEUING [O-7].

## Interactions

1. If FORCED ACCOUNT CODES [F-7] are used, ACCOUNT CODES, by definition, are not.
2. ACCOUNT CODE is also effective while in CONSULTATION HOLD [C-17]. A special dial tone is received after the ACCOUNT CODE.
3. When using this feature on a single-line telephone or D<sup>term</sup>, the user can use the SPEED CALLING-SYSTEM, GROUP, INDIVIDUAL or SPEED CALLING-ONE TOUCH (D<sup>term</sup>) to complete the call.
4. ACCOUNT CODES cannot be entered by a station upon answering an incoming trunk call. The ACCOUNT CODE can be entered by the Attendant Console before extending the call to a station.

**Interactions (cont'd)**

5. The access code for ACCOUNT CODES is restricted to a maximum of three digits.
6. STATION MESSAGE DETAIL RECORDING [S-10] Split Billing (System Data Option): On transferred calls, or incoming calls via the Attendant Console, the ACCOUNT CODE will be recorded in all the call records.
7. When OUTGOING TRUNK QUEUING [O-2] is initiated, the ACCOUNT CODE will be recorded when the call is completed.
8. When a D<sup>term</sup> user initiates the LAST NUMBER DIALED [L-6D] feature, the ACCOUNT CODE will be recorded, if previously dialed.

# A-19

# Attendant Night Transfer

## General Description

When the ATTENDANT CONSOLE [A-3] is in night mode, any operator calls (dial 0 calls) are automatically routed to a predetermined night station.

## Operating Procedure

### To answer night call:

1. The user dials the operator call code; receives ringback tone.
2. An operator call is automatically transferred to the night answer station.
3. The calling party hears ringback tone.
4. Ringing signal is sent back to the night station.
5. The night station goes off-hook to answer the call. If necessary, this station can transfer the call to another station within the system or an outside party, using the CALL TRANSFER - ALL CALLS [C-11] feature, or transfer to an outside party, using TRUNK-TO-TRUNK CONNECTION [T-10] for incoming tie trunk calls to the operator.

## Service Conditions

1. If the Night Station to which an operator call has been directed is busy, the calling party will receive a ringback tone until the Night Station becomes idle.
2. This service feature may be provided with NIGHT CONNECTION - FLEXIBLE [N-2] or NIGHT CONNECTION - FIXED [N-1] to a Night Station. The night connection station can also be assigned as a Night Station for ATTENDANT NIGHT TRANSFER.
3. If the Night Station is set for CALL FORWARDING - ALL CALLS [C-5], operator calls terminated to that station will be forwarded to the designated station.
4. The Night Station can be assigned as a station in a STATION HUNTING [S-7, 8, 9] group.
5. One Night Station per tenant is available in multi-tenant arrangements.
6. The Night Station can set CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2], CALL FORWARDING - DON'T ANSWER [C-3] to another station. When the Night Station has set CALL FORWARDING - BUSY LINE [C-2] to Attendant, the call is placed in a queue until the Night Station becomes idle. When the Night Station has set CALL FORWARDING - DON'T ANSWER [C-3] to Attendant, the call is not forwarded, and the station keeps ringing.
7. PRIORITY CALL [P-9] and OFF-HOOK ALARM [O-6] are not routed by this function.
8. The Night Station can be assigned as a station in a UCD [U-1] group.
9. If an incoming call terminates at the Night Station assigned by NIGHT CONNECTION - FIXED/FLEXIBLE [N-1, 2], and the station has set CALL FORWARDING - ALL CALLS [C-5] to the ATTENDANT CONSOLE [A-3], the incoming call will be forwarded to a Night Station assigned by ATTENDANT NIGHT TRANSFER [A-19].
10. This operation is not applicable to LDN calls. Refer to LDN NIGHT CONNECTION [L-28] for more details.
11. Operator calls from a station or TIE LINE trunk in a satellite system (CAS [C-20]) can be transferred to the Night Station.
12. Programmed Night Stations can use CALL HOLD [C-6], CALL TRANSFER [C-10, 11] and THREE-WAY CALLING [T-2], provided these features are programmed into the CLASS OF SERVICE - INDIVIDUAL [C-15].

**Service Conditions (cont'd)**

13. Operator calls after Consultation Hold is not transferred to the Night Station.
14. Individual Attendant calls are not transferred to the Night Station assigned by ATTENDANT NIGHT TRANSFER.
15. The Night Station can set CALL FORWARDING - ALL CALLS - OUTSIDE [C-28], CALL FORWARDING - BUSY LINE - OUTSIDE [C-60], and CALL FORWARDING - DON'T ANSWER - OUTSIDE [C-74].
16. When a DIT call terminates to a station that has set CALL FORWARDING - ALL CALLS [C-5] to Attendant, the call will be forwarded to a Night Station assigned by this service.
17. In case a station places an incoming call on hold and calls an Attendant, this service is not activated and the station receives reorder tone (including CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2]).
18. An incoming call is transferred to a station in the same node that accommodates the calling station/trunk in the FCCS network.
19. A telephone number cannot be used (must be Physical Station Number).

**Interactions**

1. There can be only one ATTENDANT NIGHT TRANSFER station per tenant.
2. The ATTENDANT NIGHT TRANSFER telephone number must be programmed using the MAINTENANCE ADMINISTRATION TERMINAL [M-18] (MAT). This telephone number may be the same number as the NIGHT CONNECTION-FIXED/FLEXIBLE [N-1, N-2] number, but each must be individually assigned. PRIORITY CALL [P-9] and OFF-HOOK ALARM [O-6] calls cannot be answered by the ATTENDANT NIGHT TRANSFER station.
3. Stations CALL FORWARDING [C-2,3,5] calls to the operator (dial 0) will be directed to the ATTENDANT NIGHT TRANSFER station.
4. CALL WAITING [C-12]: This feature cannot be activated at the ATTENDANT NIGHT TRANSFER station for operator directed (dial 0) calls.
5. STATION HUNTING [S-7,8,9]: If the ATTENDANT NIGHT TRANSFER station is in a station hunting group and all stations in the group are busy, the call will wait in queue at the ATTENDANT NIGHT TRANSFER station and will be answered by the first available station in the hunt group.
6. A telephone number cannot be used (must be Physical Station Number).

# A-20

# Authorization Code

## General Description

An AUTHORIZATION CODE is a numerical code dialed by users (up to 10 digits), which will override the station CLASS OF SERVICE - INDIVIDUAL [C-15] for facility access restriction.

The AUTHORIZATION CODE can be masked on the D<sup>term</sup> display if necessary using the AUTHORIZATION CODE DISPLAY ELIMINATION [A-99].

When a wrong code is received from a station/trunk, detailed information on the unauthorized user is output as System Message [26-M]. This message is Toll Fraud Report.

## Operating Procedure

There are two procedures for entering an AUTHORIZATION CODE in the system database. One of the following choices will be employed:

### Procedure 1

- Without an ACCOUNT CODE [A-18]:
  1. Lift the handset and receive dial tone.
  2. Enter the feature Access Code and receive service set tone.
  3. Enter the AUTHORIZATION CODE (up to 10 digits).
  4. Receive dial tone.
  5. Enter the number to be called.

**Note:** *The feature access code for AUTHORIZATION CODE will be a maximum of three digits.*

- With an ACCOUNT CODE [A-18]:
  1. Lift the handset and receive dial tone.
  2. Enter the feature Access Code and receive service set tone.
  3. Enter the AUTHORIZATION CODE and receive second service set tone.
  4. Enter the ACCOUNT CODE [A-18] and receive dial tone.
  5. Enter the number to be called.

### Procedure 2 (only for LEAST COST ROUTING [L-5] calls)

- Without an ACCOUNT CODE [A-18]:
  1. Lift the handset and receive dial tone.
  2. Enter the number to be called.
  3. If an AUTHORIZATION CODE is required, the caller will receive special dial tone.
  4. If special dial tone is received, enter the AUTHORIZATION CODE (up to 10 digits) or the call is denied.
- With an ACCOUNT CODE [A-18]:
  1. Lift the handset and receive dial tone.
  2. Enter the feature access code for the ACCOUNT CODE [A-18] and receive service set tone.
  3. Enter the ACCOUNT CODE [A-18] and receive dial tone.
  4. Enter the number to be called.
  5. If AUTHORIZATION CODE is required, the caller will receive special dial tone.
  6. If special dial tone is received, enter AUTHORIZATION CODE (up to 10 digits) or the call is denied.

**Note:** *The feature access code for ACCOUNT CODE will be a maximum of three digits.*

## Service Conditions

1. A maximum of 10 digits for AUTHORIZATION CODE can be dialed, and 8 digits will be registered on STATION MESSAGE DETAIL RECORDING [S-10].
2. The maximum number of AUTHORIZATION CODES is 4,000. This number is dependent upon system configuration.

These specifications are based on the digits being assigned as follows:

1st digit:	A (when A equals a unique digit from 0 - 9)
2nd digit:	B - C (when b, c equal any two unique digits from 0 - 9)
3rd digit:	D-E (when d, e equal any two unique digits from 0 - 9)
4th digit:	F-G-H (when f, g, h equal any three unique digits from 0 - 9)
5th - 8th digits:	Any combination 0 - 9
9th & 10th digits:	Assigned using the checksum. These are for validation purposes only. See ETI: 091 for more details.

**Note:** See ETI: 082 for details on AUTHORIZATION CODE/FORCED ACCOUNT CODE [F-7] assignment.

3. Service set tone is common to AUTHORIZATION CODE, ACCOUNT CODE [A-18] and FORCED ACCOUNT CODE [F-7], but can be eliminated by System Data as required.
4. AUTHORIZATION CODE and FORCED ACCOUNT CODE [F-7] cannot be provided simultaneously for the same tenant group. System Data determines, on a per-tenant basis, whether AUTHORIZATION CODE or FORCED ACCOUNT CODE [F-7] is used.
5. AUTHORIZATION CODE dialing (Procedure 1) is also effective with CONSULTATION HOLD [C-17]. Special dial tone is received instead of dial tone after AUTHORIZATION CODE.
6. Procedure 2 is effective only for LEAST-COST ROUTING - 3/6-DIGIT [L-5] calls.
7. Stations must be assigned for Procedure 1 and 2 via CLASS OF SERVICE - INDIVIDUAL [C-5] programming in System Data.
8. In Procedure 1, System Data can determine, on a per-tenant basis, whether or not an ACCOUNT CODE [A-18] follows the AUTHORIZATION CODE.
9. Assigned AUTHORIZATION CODES can be used for the REMOTE ACCESS TO SYSTEM [R-2] function.
10. OG TRUNK QUEUING [O-2] and OFF-HOOK QUEUING [O-7] can be set according to the Service Feature Class of the user's AUTHORIZATION CODE.
11. AUTHORIZATION CODE can be recorded in the STATION MESSAGE DETAIL RECORDING [S-10] for Procedure 2.
12. A maximum of 10 digits for AUTHORIZATION CODE is not included in the information block of Condition B on the SMDR output format.
13. The registered/non-registered condition of the AUTHORIZATION CODE is not included in the information block of Condition B on the SMDR output format.
14. Attendant cannot activate this feature by Procedure 1.

## Interactions

1. If FORCED ACCOUNT CODES [F-7] are used, AUTHORIZATION CODES are not used within the same tenant.
2. AUTHORIZATION CODES may be used in conjunction with ACCOUNT CODES [A-18].
3. When assigning an AUTHORIZATION CODE Restriction of 1 in AATC, the RSC must be constructed in ARSC.
4. AUTHORIZATION CODES can be unrestricted or assigned one of 15 Route Restriction Classes (RSC) - 15.

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**Interactions (cont'd)**

5. There are no restrictions regarding the first digit of AUTHORIZATION CODES, except what is programmed in AMND. Tenant 0 does not conflict with the PBX numbering plan. This is true when separate tenant tables are provided. If common tenant tables are used, a conflict between LCR(S) and OGC(A), used with SMDR, will occur.

**Note:** *The access code to the service feature AUTHORIZATION CODE must be assigned within the PBX numbering plan.*

6. If ASPA, SRV = LCR (Least Cost Route Selection) / LCRS (Register Sender LCR) AH parameter is assigned as data "1", the request for an AUTHORIZATION CODE is determined by the ARSC assignment of the station in relationship to the chosen route.
7. When a D<sup>term</sup> user initiates the LAST NUMBER DIALED [L-6D] feature, the AUTHORIZATION CODE will be recorded if previously dialed.
8. The AMND command determines the length of AUTHORIZATION CODES, based on the first digit of the code.
9. AUTHORIZATION CODES are recorded by STATION MESSAGE DETAIL RECORDING [S-10], Procedure 2.
10. AUTHORIZATION CODES cannot be entered by the Attendant Console.
11. PEG COUNTS [P-7] of invalid AUTHORIZATION CODES are not available.
12. AUTHORIZATION CODES can be dialed by a user when establishing a CONSULTATION HOLD [C-17] connection.
13. For Procedure 2, LCR(S) must be provided.

# A-21

# Automatic Trunk Test

## General Description

The AUTOMATIC TRUNK TEST capability provides a functional test on a large number of trunks at a prearranged time. The results of the test are reported at the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18]. The test can include: Ringback Tone Test, 1 KHz Test Tone and Trunk Selection Test, by having the proper test trunk termination at the distant office.

## Operating Procedure

**To activate the AUTOMATIC TRUNK TEST, input the route and trunk number to be tested by using the TTLC command:**

1. Input the TTLC and ATTD command.
2. The system will prompt for either Immediate or Scheduled Execution of this feature. If Scheduled execution is chosen, the time when the test begins is entered via the MAT.
3. The system will ask for the route number to be tested as RT on CRT.
4. Input a route number from 1 - 255.
5. The system will ask for the trunk number(s) to be tested as TK on CRT.
6. Input the trunk number from 1 through 255. Input the trunk number(s) to be tested as the test goes from TRK NUMBER to TRK NUMBER.
7. The system will execute the trunk test based on the data input above. Test results will be printed out after all trunks have been tested.

## Service Conditions

1. Additional hardware required consists of one LTST (PH-M16) card, one 8TLT card, and one line circuit and LTST cable.
2. Trunks are tested in conjunction with the connecting office through the selected trunk, on a one-at-a-time basis. The following different trunk functions can be tested on all trunks in a specified group:
  - a.) trunk selection,
  - b.) detection of ringback tone sent back from the connecting office after test number outpulsing,
  - c.) detection of test tone (1 kHz) returned from AUTOMATIC TRUNK TEST facility if provided at the connecting office.
3. As part of the AUTOMATIC TRUNK TEST facility, an AUTOMATIC TRUNK TEST is provided at the NEAX2400 IMX to answer incoming test calls. Upon terminating the incoming test call from the originating office through a selected test trunk, the AUTOMATIC TRUNK TEST generates a 1 kHz tone to the originating office as an acknowledgment signal.
4. If scheduled execution is chosen, the time when the test begins is entered via the MAT. The MAT is dedicated to the AUTOMATIC TRUNK TEST function from the time the test is ordered until the completion of the test.

## Interactions

1. A four-wire TIE Line must be provided with the AUTOMATIC TRUNK TEST. See TIE LINE ACCESS [T-3] for details of the required programming.
2. The test station must be located in the same LP as the PH-LTST circuit card.



# A-29 Authorization Code - Tie Line Incoming Routes

## General Description

This service feature offers an outside party the ability to enter an AUTHORIZATION CODE [A- 20] through an incoming TIE Line trunk.

## Operating Procedure

**When the incoming route is restricted or when an AUTHORIZATION CODE [A-20] is always required:**

1. The called number, office code, and terminal number are received by the TIE Line trunk.
2. The outside calling party hears a special dial tone.
3. Dial the AUTHORIZATION CODE [A-20].
  - a.) The connection is established when the AUTHORIZATION CODE [A-20] is valid.
  - b.) Busy tone is sent to the calling party when the AUTHORIZATION CODE [A-20] is invalid.

## Service Conditions

1. The outside calling party must be able to generate DTMF signals to the NEAX2400 IMX when entering AUTHORIZATION CODE [A-20].
2. An AUTHORIZATION CODE [A-20] can be used for incoming calls to a uniform station or for LEAST-COST ROUTING [L-5] tandem connections.
3. CALL WAITING - TERMINATING [C-12] is available when the called station is busy, after the AUTHORIZATION CODE [A-20] is entered and validated.
4. INTER-OFFICE OFF-HOOK QUEUING [I-11] is available if the called route is busy, after the AUTHORIZATION CODE is entered and validated.
5. Through programming, the system defines the AUTHORIZATION CODE [A-20] to be required for all TIE Line incoming calls or when a restriction is encountered. This is assigned on a per-tenant basis.

**Note:** *There are two methods of AUTHORIZATION CODE assignment - Full Implementation and the Checksum. In the Full Implementation method, the whole AUTHORIZATION CODE is assigned in the AATC command, and System Data 1, Indexes 12, 13, & 14 are assigned 00H. In the Checksum method, partial assignment for each AUTHORIZATION CODE is assigned in the AATC command. The last one or two digits (programmable option) are determined by the system according to the data assignments in ASYD, System Data 1, Indexes 12, 13, & 14.*

## Interactions

1. If FORCED ACCOUNT CODES [F-7] are used, AUTHORIZATION CODES-TIE LINE INCOMING ROUTES are not allowed within the same tenant.
2. AUTHORIZATION CODES-TIE LINE INCOMING ROUTES may be used in conjunction with ACCOUNT CODES [A-18].
3. When assigning an AUTHORIZATION CODE Restriction of 1 in AATC, the RSC must be constructed in ARSC.
4. AUTHORIZATION CODEs can be unrestricted or assigned one of 15 Route Restriction Classes (RSC 1 to 15).
5. There are no restrictions regarding the first digit of AUTHORIZATION CODEs, except what is programmed in AMND. Tenant 0 does not conflict with the PBX numbering plan.

**Note:** *The access code to the feature AUTHORIZATION CODE - TIE LINE INCOMING ROUTES must be assigned within the PBX numbering plan.*

**Interactions (cont'd)**

6. If ASPA, SRV: LCR (Least Cost Route Selection) / LCRS (Register Sender LCR) AH parameter is assigned as data "1", the request for an AUTHORIZATION CODE is determined by the ARSC assignment of the station in relationship to the route chosen. For AUTHORIZATION CODE - TIE LINE INCOMING ROUTES, no RSC is assigned against the incoming TIE Line, therefore, AUTHORIZATION CODEs are always required. Trunk connection will be determined against the RSC of the dialed code.
7. When a D<sup>term</sup> user initiates the LAST NUMBER CALLED - D<sup>term</sup> [L-6D] feature, the AUTHORIZATION CODE will be recorded if previously dialed.
8. The AMND command determines the length of AUTHORIZATION CODEs based on the first digit of the code.
9. AUTHORIZATION CODEs are recorded by STATION MESSAGE DETAIL RECORDING [S-10].
10. AUTHORIZATION CODEs cannot be entered by the Attendant Console.
11. PEG COUNTS [P-7] of invalid AUTHORIZATION CODEs are not available.
12. AUTHORIZATION CODEs can be dialed by a user, when establishing a CONSULTATION HOLD [C-17] connection.
13. For Procedure 2, LCR(S) must be provided.
14. For senderized TIE Lines, see UNIVERSAL SENDER [U-3]. Also, the ANND command must be programmed for senderized TIE Lines. If other services, such as, STATION MESSAGE DETAIL RECORDING [S-10] and LEAST-COST ROUTING [L-5], the AMND command will be programmed. If digit translation is required, go to the ASTP and AOSP command.
15. MISCELLANEOUS TRUNK RESTRICTION [M-3]. Restrictions to TIE trunks are determined by the Route Service Class (RSC) assigned to the AUTHORIZATION CODE.

# A-30 Automatic/Manual Intercom

## General Description

This feature permits multiple D<sup>term</sup> users to simultaneously call all the stations in a preassigned group, regardless of their idle/busy status. An INTERCOM member can optionally override another INTERCOM station in a two-party INTERCOM connection. This service is referred to as INTERCOM BRIDGE. INTERCOM service is separated into two types, AUTOMATIC INTERCOM (AICM) and MANUAL INTERCOM (MICM).

## Automatic Intercom

All stations in the INTERCOM group are alerted simultaneously with a lamp indication. Ringing is directed to one predefined station, as in a button and buzzer INTERCOM arrangement.

## Manual Intercom

All stations in the INTERCOM group are called simultaneously with a lamp indication. The calling INTERCOM station manually sends a one-second tone to the called INTERCOM signal station, as in a button and buzzer INTERCOM arrangement.

## Operating Procedure

- AUTOMATIC INTERCOM

**To initiate an Automatic INTERCOM call:**

1. The INTERCOM station presses the AICM key and goes off-hook (within 5 - 10 seconds).
2. The INTERCOM station will hear ringback tone. A specified station rings.
3. One of the called INTERCOM group stations answers the call and is connected to the calling station.

**To answer an Automatic INTERCOM call:**

1. The AICM key will flash, indicating an incoming INTERCOM call. The called station will also ring according to the preassigned system parameters.
2. If the called station is already engaged in a conversation with a non-INTERCOM call, the station may press the AICM key after pressing the HOLD key. Ringing will stop.

**To bridge into an Automatic INTERCOM call:**

1. When two stations are engaged in an INTERCOM call, a third station in the same INTERCOM group presses the AICM key and goes off-hook.
2. A three-party conference is established. The called stations may hear a Warning Tone when the station bridges into the call. This Warning Tone is pre-assigned in System Data.

- MANUAL INTERCOM

**To originate a Manual INTERCOM call:**

1. A station presses the MICM key and goes off-hook (within 5 seconds).
2. The station will hear ringback tone.
3. The calling station sends a chime to the INTERCOM station by pressing the SIG key.
4. When one of the called INTERCOM stations answers the call, the calling station will be connected. Also, all stations in the group share the common talk path and can pick up an unanswered INTERCOM call.

**To answer a Manual INTERCOM call:**

1. The MICM key will flash, indicating an incoming INTERCOM call. The called station may also hear one second of ringing from the calling INTERCOM station.
2. If the called station in the INTERCOM group is already engaged in a conversation with a non-INTERCOM call, the station may press the MICM key after pressing the HOLD key.

## Operating Procedure (cont'd)

### To bridge into a Manual INTERCOM call:

1. When two stations are engaged in an INTERCOM call, a third station, belonging to the same INTERCOM group, will press the MICM key and go off-hook.
2. A three-party conference is established. The called stations may hear a Warning Tone when the station bridges into the call. This Warning Tone is preassigned in System Data.

### Use of the SIG key:

1. The Manual INTERCOM Signal (SIG) key is operational at all times. An INTERCOM call is not required. If the signaled station is ringing from another call, the Manual INTERCOM signal will interrupt that ringing.
- PRIME LINE PICK UP - D<sup>term</sup> [P-13D]  
The D<sup>term</sup> may be programmed to seize the incoming call on the AUTOMATIC, MANUAL, or DIAL INTERCOM [D-87] lines before the Prime Line. If two incoming calls terminate simultaneously to the Prime Line and the MICM line, when the user goes off-hook, PRIME LINE PICK UP-D<sup>term</sup> [P-13D] will seize the MICM line before the Prime Line. If only the Prime Line is ringing when the user goes off-hook, PRIME LINE PICK UP-D<sup>term</sup> [P-13D] will seize the Prime Line.

## Service Conditions

1. Only D<sup>term</sup>s can be assigned as a member of an INTERCOM group.
2. All members of the same INTERCOM group must be assigned in the same Module Group (MG).
3. Up to 16 stations may be assigned to one INTERCOM group. Each station in the INTERCOM group can be assigned as both a Manual and Automatic INTERCOM member of two different groups.
4. No more than one connection can be established at the same time in one INTERCOM group.
5. A three-party conference can be established in an INTERCOM group if INTERCOM Bridge service is available. If a fourth party tries to activate INTERCOM Bridge service, the connection will be denied.
6. The maximum number of INTERCOM groups (Automatic or Manual) in a NEAX2400 IMX PBX is 50 per MG.
7. It is possible to assign one group of stations as an AICM group, Dial INTERCOM group, and an MICM group at the same time.
8. The DISTINCTIVE RINGING [D-10] sent from an incoming AICM station takes priority over the ringing of multi-line appearances.
9. Service features normally available to multi-line appearances are not available for INTERCOM lines.
10. INTERCOM lines cannot be held with the activation of the HOLD key.
11. When MANUAL SIGNALING [M-47] is performed by a user, this ringing (one second) takes priority over any other incoming call indications from the multi-line appearance.
12. When a station is moved from one INTERCOM group to another INTERCOM group, through system commands, the AICM or MICM key on the associated D<sup>term</sup> must be cancelled before the change is made.
13. Port traffic and station PEG COUNT [P-7] reports will not record the use of the INTERCOM feature.
14. Dedicated feature keys on the D<sup>term</sup> cannot be used while on an INTERCOM call. Only the SPEAKER key can be used for hands-free operation.
15. FCCS link is not available for this feature.

## Interactions

1. The RECALL key will not operate on an INTERCOM call.
2. THREE-WAY CALLING [T-6] must first be provided.
3. The AICD Command must be assigned before the AKYD command.
4. When assigning the PRI parameter in AKYD, the following data selections are available.

Priority PRI	1	2	3
0	Prime Line	-	-
1	Dial Intercom	Prime Line	-
3	Automatic Intercom	Prime Line	-
3	Manual Intercom	Prime Line	-
4	Automatic Intercom	Manual Intercom	Prime Line

5. No programming is required to enable the SIG key to remain active at all times.
6. The SIG key, when pressed by a calling station, will interrupt other ringing signals at the called station.
7. Hands-Free operation is available with AUTOMATIC/MANUAL INTERCOM. When an incoming call terminates to a station, by pressing the SPEAKER key, the line seized is based on the PRI assignment of the AKYD command.
8. MANUAL SIGNALING [M-47] will not operate if the DATA key has been pressed.

## A-52

# Account Code - Attendant

### General Description

This feature provides the ATTENDANT CONSOLE [A-3] with the capability to enter an Account Code into the system after talking with a CO outgoing/incoming call.

### Operating Procedure

#### The Attendant talks with the CO trunk call.

1. Press the START key.
2. Dial the Account Code feature access code. Service set tone is heard.
3. Dial the Account Code (up to 10 digits).
4. Dial the desired telephone number.

### Service Conditions

1. The Account Code may be a maximum of 10 digits.
2. When the Account Code is entered again for the same call and station, the last code entered will be recorded on SMDR [S-10, 47].
3. Account Code dialing is available for an ATTENDANT CONSOLE [A-3] connected to a trunk.
4. The feature access code for Account Code will be a maximum of 3 digits.
5. An Attendant can enter an Account Code of fewer digits than the maximum length defined, indicating the end of entry by the pound “#” key.

# A-53

# All Zone Paging

## General Description

This feature provides both the Attendant and a user with dial access to multiple zone paging equipment.

## Operating Procedure

### To operate from a station:

1. The station goes off-hook; receives dial tone.
2. The station dials the ALL-ZONE PAGING access code.
3. Connections to multiple paging equipment are established.

## Service Conditions

1. This feature allows only Paging access. PAGING TRANSFER [P-10] and MEET-ME PAGING [M-11] are not provided.
2. A maximum of seven Paging Zones can be accessed simultaneously.
3. When a user or an ATTENDANT CONSOLE [A-3] has a held station or trunk, this feature is not activated.
4. If the Paging trunk is busy, the Paging connection is not established to the busy zone. PRIORITY PAGING [P-30] access code + ALL-ZONE PAGING [A-53] access code dialing is possible. Even if this dialing operation is performed, the PRIORITY PAGING [P-30] function is not activated when the line is busy; i.e., it has the same result as ALL-ZONE PAGING access code dialing.
5. One trunk circuit is required for each PAGING ACCESS [P-1].
6. Amplifiers and speakers must be customer provided.
7. Where TENANT SERVICE [T-12] is provided, separate access codes and hardware should be provided for each tenant.
8. The ALL-ZONE PAGING access code is three digits maximum. (Outgoing Call Alternative [OGCA])
9. Both the COT card and the TLT card can be used as the paging trunk.
10. Loop signaling is the recommended signaling type.
11. This feature can be activated via FCCS.

## Interactions

1. MEET-ME PAGING [M-1, 11] and ALL-ZONE PAGING [A-53] can be provided simultaneously in the same system.
2. To directly answer ALL-ZONE PAGING by the Attendant Console, the Paged party should use the INDIVIDUAL TRUNK ACCESS [I-4] feature.
3. Paging is limited to stations, Attendant Consoles, or TIE Trunks. Other parties (CO trunk calls) must have the Attendant Console or user perform the Paging operation.
4. BUSY VERIFICATION [B-3], EXECUTIVE RIGHT-OF-WAY [E-1]: These features will be denied if the Paging route has been assigned for Privacy. Verify the data in the Assignment of Route Data command, ARTD, CDN 44:PRV. If TCL is assigned as Data 8, CDN 44:PRV is not required.
5. For simple ALL-ZONE PAGING, assignments in ASFC are not required. Refer directly to the other Paging service features, such as PAGING TRANSFER [P-10].
6. The Attendant Console can dial Priority Page access code and release a station.
7. When disconnecting from a Paging trunk, the trunk becomes idle immediately.

**Interactions (cont'd)**

8. ALL-ZONE PAGING is not possible from CONSULTATION HOLD [C-17].
9. CALL HOLD [C-6]: A Paging trunk cannot be placed on Call Hold.
10. The D<sup>term</sup> LCD display indicates BUSY when the Paging trunk is Busy. Reorder tone is returned.
11. If Priority Page is to be used with ALL-ZONE PAGING in ARTD, CDN 6:TCL must be assigned as Data 8, Page with ringback tone. SYS1, Index 73 affects the operation of Page routes assigned Page with ringback tone. Therefore, if the Priority Page is used with ALL-ZONE PAGING, then MEET-ME PAGING [M-1, 11] and PAGING TRANSFER [P-10] are not available to the system.
12. Priority Page access will not disconnect an Attendant Console engaged in a Paging trunk connection.



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# A-59                      Announcement Service - Attendant

## General Description

This feature allows the Attendant, via the ATTENDANT CONSOLE [A-3], to hear a prearranged announcement when the Attendant dials a predetermined access code.

## Operating Procedure

1. Press an idle loop key.
2. Dial the announcement trunk access code.
3. Listen to the message from announcement machine.

## Service Conditions

1. This feature requires one of the following hardware alternatives:
  - a.) Central Office Trunk (COT) or 2W E&M Trunk and announcement machine.
  - b.) Digital Announcement Trunk (DAT).
2. The following connections are available:
  - a.) multi-connection: several Attendants can connect to one announcement trunk at the same time.
  - b.) single connection: one Attendant can connect to one announcement trunk at a time.
3. This connection can be continuous until the Attendant presses the CANCEL key or can be discontinued after 30 seconds. This function can be selected on a per-announcement trunk, and per-tenant basis.
4. Before connection to the announcement machine is made, the system can be programmed to return ringback tone. This is selected on a per-tenant and per-announcement basis.
5. This service can be provided for a maximum of 127 announcements per-tenant, which includes the announcement trunks for:

ANNOUNCEMENT SERVICE	[A-15]
CALL FORWARDING - ALL CALLS - ANNOUNCEMENT	[C-69]
CALL FORWARDING - INTERCEPT/ANNOUNCEMENT	[C-25]
6. ANNOUNCEMENT SERVICE is provided to FCCS nodes that have no announcement trunk using the trunk in the remote node.

# A-60 Attendant-To-Attendant Calling

## General Description

This feature permits an Attendant, via an ATTENDANT CONSOLE [A-3], to access a non-specific free Attendant by dialing the operator access code, or to call a particular ATTENDANT CONSOLE [A-3] by dialing an individual Attendant Identification Number.

## Operating Procedure

1. Press an idle loop key.
2. Dial the individual Attendant Identification Number or operator call code.

## Service Conditions

1. An Attendant Identification Number must be published for each Attendant.
2. ATTENDANT NIGHT TRANSFER [A-19] cannot be activated for calls via this feature.
3. The operator call code should be a 1-digit number. Normally, 0 is assigned as the operator call code.
4. No operation keys on the called Attendant Console can be used while performing ATTENDANT-TO-ATTENDANT CALLING.
5. Only the CANCEL key on the calling ATTENDANT CONSOLE [A-3] can be used to disconnect ATTENDANT-TO-ATTENDANT CALLING.
6. An Attendant can receive only one ATTENDANT-TO-ATTENDANT CALL at a time. An INCOMING CALL IDENTIFICATION (ICI) [I-2] key can be designated for receipt of TF: INTER-POSITION TRANSFER CALLS and ATTENDANT-TO-ATTENDANT CALLS.
7. An Attendant cannot extend ATTENDANT-TO-ATTENDANT CALL to any other destination.
8. With an Individual Attendant Identification Number, an Attendant Console/Desk Console within an FCCS network can be specified.
9. When the operator call code is dialed, the call is routed to the predetermined Attendant Console designated by the ASPAL command.

## A-69

# Automatic Idle Return

### General Description

This feature enables a  $D^{\text{term}}$  to become idle automatically after the predetermined time when the line is released by the opposite station on-hook, etc., on hands-free or the speaker operation.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. This service may be assigned at each terminal.
2. This service is not available when the station has a call placed on hold.
3. This service is activated when reorder tone is sent to a  $D^{\text{term}}$  individually.
4. Release timer for this service can be set on a system basis.
5. Reorder tone is connected according to System Data 1, Index 401, Bits 0 through 3. When the data is set to 0, no tone is connected. For stations not allowed this service, reorder tone is connected 30 seconds after.

### Interactions

1. OFF-HOOK ALARM [O-6]: AUTOMATIC IDLE RETURN cannot be activated when OFF-HOOK ALARM has already been set. However, when the transferred station assigned by OFF-HOOK ALARM is in the LINE LOCKOUT [L-3] status or make busy status, AUTOMATIC IDLE RETURN is available.
2. When a station places the other party on CALL HOLD [C-6], CALL BACK [C-1] or ATT CAMP-ON WITH TONE INDICATION [A-1], AUTOMATIC IDLE RETURN may not be activated.

# A-78 Automatic Number Identification (ANI)

## General Description

This feature automatically sends the Calling Subscriber's number to the called party after a response is received from the distant office. This feature is used for outgoing CO calls (e.g., Enhanced 911 (E911) calls) or TIE Line calls using DTMF signaling.

## Operating Procedure

No manual operation is required. Automatic Number Identification (ANI) calls are placed using normal call origination procedures.

## Service Conditions

1. The ANI feature for Enhanced 911 (E911) outgoing connections is available to the following connections:
  - a.) call from a station by LCR, DTMF signaling.
  - b.) call from an Attendant Console by LCR, DTMF signaling.
2. ANI sending number by Enhanced 911 (E911)-ANI UNIFIED NUMBER OF DIGITS [E-18] is NXX-XXXX, where:
  - NXX: determined for each system
  - XXXX: telephone number
3. Sending-digit patterns in Enhanced 911 (E911)-ANI UNIFIED NUMBER OF DIGITS [E-18]:
  - a.) Outgoing call from a station:
    - If ANI data is assigned:  
**KP-0-NXX-XXXX-ST**  

	Telephone number
	Information digit
    - If ANI data is not assigned:  
**KP-2-ST**  

	Information digit
--	-------------------
  - b.) Outgoing call from ATTENDANT CONSOLE [A-3]:
    - Individual ATTENDANT CONSOLE [A-3] access available and ANI data is assigned:  
**KP-0-NXX-XXXX-ST**  

	Individual Attendant Console
	Information digit
    - Individual Attendant Console access not available and ANI data is assigned:  
**KP-0-NXX-XXXX-ST**  

	ANI sending number
	Information digit
    - ANND data is not assigned or is invalid:  
**KP-1-ST**  

	Information digit
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4. An independent route is required for an Enhanced 911 (E911)-ANI interface.
5. It takes some time for a speech path to be established after a calling subscriber number has been sent out to the remote office through the Enhanced 911 (E911)-ANI interface.
6. A Direct Distance Dialed (DDD) seizure tone is not sent after the digits have been sent out.

**Service Conditions (cont'd)**

7. Other interactions are the same as for DTMF signal dialing.
8. FCCS link is not available for this feature.

# A-82

# Automated Attendant

## General Description

This feature allows a user outside the NEAX2400 IMX to access the system via a public or private network without the Attendant or user's assistance. After or during an announcement, the outside user may originate calls over any or all of the PBX facilities.

## Operating Procedure

1. The calling party (public or private network) lifts handset; receives dial tone.
2. The calling party dials Automated Attendant number; receives ringback tone through either the public/private network. Announcement asking the caller to dial the desired telephone number is provided.
3. The calling party dials the desired telephone number; receives ringback tone (if not busy or restricted).
4. The called party answers.

## Service Conditions

1. The incoming routes from the CO lines for AUTOMATED ATTENDANT cannot be used for REMOTE ACCESS TO SYSTEM [R-2].
2. When a Ringdown incoming call encounters registers all busy status, call termination is retried approximately one second later. The call will wait until one of the receivers becomes available, but will not be placed in a queue.
3. System Data can select to provide or not provide the first announcement for an incoming call terminated to AUTOMATED ATTENDANT. If first announcement sending is not provided, the calling party hears ringback tone from the NEAX2400 IMX.
4. When a Ringdown incoming call encounters announcement trunk busy/blockout for the first announcement status, the calling party hears ringback tone from the originating office until the call is connected to the announcement trunk. When a TIE Line incoming call encounters announcement trunk busy/blockout for the first announcement status, the system returns dial tone.
5. In the following cases, either redial or forced release after the second announcement may be selected in System Data:
  - a.) When the calling party has dialed a dead number. (When dead number announcement is provided, it takes priority over the second announcement.)
  - b.) When the calling party has abandoned dialing.
  - c.) When the connection is restricted:
    - The called station is restricted from incoming trunk connection.
    - The calling party has dialed an access code for trunk call origination and encounters digit restriction. When a trunk call has encountered an access code restriction, the second announcement is provided (digit reception ready), and the calling party can redial.
    - The calling party has dialed an access code for trunk call origination and encounters an inter-digit pause time-out connection restriction.
    - The calling party originates a trunk call and encounters trunk busy status.
  - d.) When the called station does not answer (the threshold value is 30 seconds), except when CALL FORWARDING - DON'T ANSWER [C-3] is set on the called station.
  - e.) When the called station is busy, except when CALL FORWARDING - BUSY LINE [C-2] is set on the called station.

## Service Conditions (cont'd)

6. During the first or second announcement, the system can receive DTMF signals. However, when a DTMF signal is included in the recorded announcement, the announcement stops (first digit reception). Then, after providing the second announcement, either redial or forced release is selected (inter-digit time-out).
7. After the first or the second announcement, the system does not return any tone until register time-out.
8. For the first or second register time-out, either transfer to Attendant, or forced release can be selected by the System Data. However, forced release is executed, regardless of the above-mentioned system selection, for CO lines for which release cannot be monitored. Call termination to the Night Transfer station and TAS connection is not available.
9. To provide or not provide the second announcement can be selected in System Data. When second announcement sending is not designated, the system sends out a dial tone. The call is single/multiple connected to the second announcement trunk, and ringback tone is not returned before sending the second announcement.
10. When a call encounters announcement trunk busy/blockout status in a single connection to the second announcement, the system returns a dial tone.
11. TANDEM SWITCHING as AUTOMATED ATTENDANT is a service for trunk-to-station connection, tandem connection is not available. When tandem connection or AUTHORIZATION CODE [A-20] service is required, this service is activated by changing the incoming routes to that of REMOTE ACCESS TO SYSTEM [R-2].
12. If the calling party does not dial the desired telephone number after the first announcement, the call can be transferred to the Attendant after a predetermined period of time (prepause time-out), and the calling party receives ringback tone. However, if the Attendant is not available, reorder tone is returned.
13. When an incoming call has terminated to a station, the following services are available:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
CALL PICKUP	[C-7, C-30]
CALL WAITING - TERMINATING	[C-12]
STATION HUNTING	[S-7, S-8, S-9]
14. When an incoming call has terminated to a station, CALL FORWARDING - DON'T ANSWER [C-3] is not available.
15. A PA-4DATA (DAT) card is required for this service.
16. The length of the announcement depends on the key setting of the PA-4DATA circuit card. In case of multiple connection, it is fixed at 30 seconds. In case of single connection, it may be the length of the actual message (including pause) to a maximum of 64 seconds. When the message ends, the announcement trunk is released.
17. The second announcement is not provided to the ISDN trunk.
18. Since the announcement is provided for a maximum of 30 seconds, the message recording should be completed within 30 seconds, unless a single connection is used.
19. This feature is available for stations in the FCCS network only.

# A-98

# Answer Hold - Attendant

## General Description

This feature enables an Attendant to answer an incoming call by pressing the ANSWER key or flashing ICI key. If the Attendant is already engaged in a call, pressing one of these keys places the first call on Hold and automatically connects the second one. Use of ANSWER key or ICI key speeds call handling, while Answer Hold prevents accidental call dropping.

## Operating Procedure

### To answer a call while engaged in a two-party call:

1. While the Attendant is engaged in a station/trunk call, another call terminates at the Attendant Console.
2. The Attendant presses the ANSWER key or ICI key; the original call is placed on Hold (MUSIC ON HOLD [M-7]). The LED of the ATND key goes out and that of HOLD key lights.
3. The Attendant is connected to the second party. (ATND key LED lights.)

**Note:** *When the ANSWER key is pressed, the calls connected to the Attendant will be placed on Hold (if there is an idle loop).*

### To answer a call while engaged in a three-way call:

1. While engaged in a three-way call, another call terminates at the Attendant Console.
2. The Attendant presses the ANSWER key or ICI key; currently lit LEDs of the ATND key and the ANSWER key go out. The TALK key LED goes out and that of the SRC key lights. The parties formerly connected to the Attendant remain connected to each other.
3. The LEDs of ICI key and the ATND key light. The Attendant is connected to the incoming call.

## Service Conditions

1. Activation of this service is determined in individual (two-party call or three-way call) System Data.
2. When the Attendant is engaged in a two-party call:
  - a.) If there is no idle loop when the Attendant presses ANSWER key or ICI key, the party currently connected to the Attendant will be placed on Hold (MUSIC ON HOLD [M-7]), but the Attendant cannot answer the second call.
  - b.) When the number of available Attendants exceeds the number of incoming calls, the status of each Attendant Console will be one of the following:
    - (1) The connected call will be placed on Hold, and the Attendant will be connected to the second call.
    - (2) The connected call will be placed on Hold, and the attendant console will become idle.
    - (3) No change.
  - c.) ATTENDANT LOOP RELEASE [A-6] is not available when the call is placed on Hold.
3. When the Attendant is engaged in a three-way call:
  - a.) If there is no idle loop when the Attendant presses ANSWER key or ICI key, one of the following occurs:
    - (1) When both the calling and the called parties are trunk and when the called party has not answered yet, the call is held on the loop and the Attendant cannot answer the next incoming call.
    - (2) When called party has already answered the call, the Attendant can answer the next incoming call (the previous call is not held on the loop).
  - b.) ATTENDANT LOOP RELEASE [A-6] is available when the call is placed on hold.



**Service Conditions (cont'd)**

- c.) when the number of available Attendants exceeds the number of incoming calls, the status of attendant console will be one of the following:
  - (1) The Attendant will be released from the current call and will be connected to the next incoming call.
  - (2) The Attendant will be released from the current call and attendant consoles will be idle.
  - (3) No change.
- 4. AUTOMATIC RECALL [A-8] is available for a call held by the Attendant.

# A-99 Authorization Code Display Elimination

## General Description

This feature eliminates AUTHORIZATION CODE [A-20] and FORCED ACCOUNT CODE [F-7] from being displayed on the D<sup>term</sup> for security purposes.

## Operating Procedure

### Procedure 1

(Access code for auth code/forced account code) + (SST) + (auth code/forced account code) + (DT) + (OG access code) + (OG code)

Dial: (DT) - 10 + (SST) - 1234 + (DT) - 9 - 753 - 7000

Display on D<sup>term</sup> is: 10XXXX97537000

XXXX = authorization code/forced account code

### Procedure 2

(OG access code) + (OG code) + (SPDT) + (auth code/forced account code)

Dial: (DT) - 9 - 753 - 7000 + (SPDT) - 1234

Display on D<sup>term</sup> is: 97537000XXXX

XXXX = authorization code/forced account code

## Service Conditions

1. When the station dials the AUTHORIZATION CODE/FORCED ACCOUNT CODE, Xs appear on the display.
2. LAST NUMBER CALL [L-6] and SAVE AND REPEAT - D<sup>term</sup> [S-24D] features keep dialed information, but display Xs when these feature keys are pressed.
3. SPEED CALLING SYSTEM - D<sup>term</sup> [S-3D] feature keeps dialed digits, and all digits are displayed at the same time when this feature key is pressed.
4. ACCOUNT CODE [A-18] is displayed on D<sup>term</sup>.
5. This feature applies only to the calling party's D<sup>term</sup>.
6. This feature applies for the following dialing procedures:

Procedure	Before Dialing	After Dialing
OG access without held party	Yes	Yes
OG access with held party	Yes	Yes
Attendant	No	No

7. If the network is connected by a trunk (including a CCIS trunk), and AUTHORIZATION CODE/FORCED ACCOUNT CODE is requested at the other node, this function is not applied.
8. The calling party needs to confirm SPDT/SST if AUTHORIZATION CODE/FORCED ACCOUNT CODE is required. The first digit of AUTHORIZATION CODE/FORCED ACCOUNT CODE may or may not be recognized as AUTHORIZATION CODE/FORCED ACCOUNT CODE, if the inter-digit timing immediately before the AUTHORIZATION CODE/FORCED ACCOUNT CODE is too short.

# A-105

# Attendant Overflow

## General Description

This feature allows incoming trunk calls directed to the ATTENDANT CONSOLE [A-3] to overflow to a predetermined station. The trunk call will ring the Attendant for a pre-programmed time period before overflowing to the destination station.

## Operating Procedure

1. An incoming trunk call arrives at the ATTENDANT CONSOLE [A-3].
2. The Attendant is busy or on another call for longer than the assigned timer (i.e., the incoming caller has waited for 30 seconds or longer).
3. The incoming call is directed to the destination overflow station.

## Service Conditions

1. This feature is provided for all incoming ringdown trunk and Direct Inward Dialing [D-8] (DID) Listed Directory Number [L-24] (LDN) trunk calls directed to the ATTENDANT CONSOLE [A-3].
2. This feature is available only while the system is in Day mode (not available for Night mode).
3. For DIRECT-IN TERMINATION [D-7] (DIT) calls, this feature is available when the receiving station has set CALL FORWARDING-ALL CALLS/BUSY LINE [C-5, 2] to the Attendant.
4. For DID call termination, this feature is available for LDN, intercept, and forwarded calls to the Attendant, using CALL FORWARDING-ALL CALLS/BUSY LINE/DON'T ANSWER [C-5, 2, 3].
5. This feature is available for DID calls routed to the Attendant via CCIS.
6. This feature is not available for calls to be transferred outside using the following features:

CALL FORWARDING-ALL CALLS-OUTSIDE	[C-28]
CALL FORWARDING-BUSY LINE-OUTSIDE	[C-60]
CALL FORWARDING-DON'T ANSWER-OUTSIDE	[C-74]
LDN NIGHT CONNECTION	[L-28]
NIGHT CONNECTION-OUTSIDE	[N-17]
7. This feature is also not available for INDIVIDUAL ATTENDANT ACCESS [I-6], which allows a call to be directed to a particular Attendant Console.
8. This feature is not available concurrently with ATTENDANT NIGHT TRANSFER [A-19].
9. The overflow period, after which the call is transferred, is set in System Data.
10. When the designated station used for ATTENDANT OVERFLOW has set CALL FORWARDING-DON'T ANSWER [C-3] to the Attendant or an outside number, the incoming caller will be directed to TRUNK ANSWER ANY STATION [T-8] (TAS) after the timer expires. If the incoming trunk is restricted from connecting to the TAS circuit, the caller will continue to ring at the designated station.
11. FCCS link is not available for this feature. The overflow station and the Attendant must be in the same node.

## Interactions

1. All routes and trunk numbers must be assigned for ringdown trunks that are to be terminated to the Attendant Console and that require overflow.
2. For DID trunks, the LDN will be terminated to the Attendant Console with overflow capabilities when CSI = 4.

**Interactions (cont'd)**

3. ATTENDANT OVERFLOW and DELAY ANNOUNCEMENT ATTENDANT [D-114] are mutually exclusive features.

# A-121

# Add On Conference - 8 Party

## General Description

This service allows the 8-party conference to be established any time by any conferee by use of the 8-party conference trunk.

## Operating Procedure

### To establish an 8-party conference:

1. Station A calls Station B; Station B answers.
2. Station A (or B) switch hook flashes (or press TRANSFER key) and dials Station C's number; Station C answers.
3. Station A (or B) who had dialed Station C's number presses CONF key; the three-party conference is established.
4. Station A (B, or C) switch hook flashes (or press TRANSFER key) and dials Station D's number; Station D answers.
5. Station A (B, or C) who had dialed Station D's number presses CONF key; the four-party conference is established. In the same way, any user connected to the 8-party conference trunk can establish the 8-party conference by switch hook flash and pressing of the CONF key.
6. When one of the conferees (the user or the outside party) releases, another member can be added to the conference by the same operation.
7. Single phone can add other conferee by switch hook flashes and dials telephone number, then switch hook flashes again.
8. When one D<sup>term</sup> station and multiple outside parties (trunks) are connected to the 8-party conference trunk, when the D<sup>term</sup> user presses RETAIN CONF key and goes on-hook, the conference by the outside parties (trunks) can be continued. In the other cases as when the station is not a D<sup>term</sup>, RETAIN CONF key is not assigned, or there is only one outside party connected, the conference trunk is released automatically. When conference has multiple outside parties (trunks), only D<sup>term</sup>s can keep multiple outside parties still in conference, but it releases by pressing RETAIN CONF key.

## Service Conditions

1. The 8-party conference trunk will be treated as a station, and will have an intra-office route number.
2. The 8-party conference circuit card can be assigned to any slot.
3. A minimum of 1 CFTB-L is needed for this feature. A maximum of 20 8-party conference trunk circuit cards (SPA-CFTB-L) can be installed per system.
4. The 8-party trunk assigned in a different tenant from the general station/trunk, and the connection between the 8-party trunk and the other station/trunk is to be restricted (inter tenant restriction).
5. This service can coexist in the same system with the Three-Way Calling service using the three-way conference trunk built in the line group = 21–23 of the odd numbered unit, and the current 8-party conference service. If a station is assigned SFI 131, that station will use the 8-party conference trunk even for a 3-party conference.
6. Any one of the station, central office line, tie line, CCIS line, or the ISDN network subscriber can be the conference member.
7. The Attendant Console cannot be a member of the conference. Pressing the CONF key will be invalid.
8. The stations connected to the 8-party conference trunk can call the conferees separately any time.

**Service Conditions (cont'd)**

9. When all of the eight ports of the 8-party conference trunk are filled with the conferees, no other conferee can be added to the conference.
10. The station/trunk which is connected to the 8-party conference trunk can release from the conference at any time.
11. An incoming call from the ringdown trunk, where release cannot be detected, cannot be connected to the 8-party conference trunk.
12. Assign non-effective hold trunk check in system data for release of ineffectively held trunks at routine diagnosis to prevent the 8-party conference trunk being held up.
13. When all the trunks and stations connected to the 8-party conference trunk release, the conference trunk becomes free. Until then, the same trunk cannot be used by another group for an 8-party conference.
14. On the LCD display of the D<sup>term</sup> stations, the number of the stations and trunks attending the conference is shown as STA:3, TRK:2 on the upper line. (Name Display service is not available.)
15. The 8-party conference trunk cannot be called from a station, outside party, or the Attendant Console (reorder tone is sent out when attempted).
16. The following services are not available for the stations/trunks connected to the 8-party conference trunk:

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
BROKERAGE HOT LINE	[B-6]
BUSY VERIFICATION	[B-3]
CALL WAITING - TERMINATING	[C-12]
CALL WAITING - ORIGINATING	[C-31]
NAME DISPLAY	[N-28]
PRIVACY RELEASE	[P-18]

17. In the following cases, 8-party conference service via CONF key is not available:
  - a.) when the service is not set in system data
  - b.) when the service is restricted
  - c.) when the 8-party conference trunk is not assigned, not accommodated, or busy.

In the cases above, if Three-Way Calling service is available and the three-way conference trunk is provided, this service is provided by pressing the CONF key. The LCD of the D<sup>term</sup> connected to the conference trunk shows CONF when using Three-Way Calling service.

18. When a station connected to the 8-party conference trunk transfers a call to another station and the operating station goes on-hook whether transferred station answers or not, the 8-party conference trunk recalls to the operating station.
19. The 8-party conference trunk cannot be assigned as the destination of CALL FORWARDING - ALL CALLS [C-5] / - BUSY LINE [C-2] / - DON'T ANSWER [C-3] service.
20. ADD-ON CONFERENCE - 8 PARTY [A-121] cannot be activated by a single line phone.
21. When the conferee presses the RETAIN CONF key, the LCD display shows as follows for five seconds depending on the connection:
  - a.) one station and multiple outside parties RETAIN CONF
  - b.) one station and one outside party REST
  - c.) multiple stations REST

Only in the case "a" above, the conference status is retained.

22. When a D<sup>term</sup> user who has Retain Conference presses the RETAIN CONF key a second time, Retain Conference is cancelled. At that time, the LCD of the D<sup>term</sup> indicates DISCONNECT CONF and the 8-party conference trunk is released after the stations go on-hook.
23. When only two parties (station/station, station/outside party, outside party/outside party) are connected to the 8-party conference trunk, when either one of the parties releases, the conference trunk is released.

**Service Conditions (cont'd)**

24. The station setting Retain Conference can only cancel Retaining Conference or go on-hook. (No other operation is available.) When the station goes on-hook, the RETAIN CONF lamp turns off.
25. In case of trunk call origination, the billing is performed against the station which originated the trunk call until the trunk releases. Therefore, there may be several billing messages sent for the same time for the same station.
26. During the 8-party conference, the CONF lamp remains lit.
27. When this service is activated in an FCCS network, hardware conditions for connection trunks are as shown below:

PA-24DTR	SP-3010 Issue No. 13 or later (SW13-8: OFF)
PA-30DTT	SP-3012 Issue No. 8 or later

# A-125 Analog Caller ID (Class SM)

## General Description

This feature allows the D<sup>term</sup> to display calling party's number and/or name on the LCD when a call from analog C.O. line is terminated. In addition, the calling number can be output as a part of SMDR information.

Caller ID information can be displayed on an analog telephone with a display device or the display of a D<sup>term</sup>.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. This service is available when an incoming call from C.O. line is terminated directly to a station.
2. First ringing pattern for this service is 2-seconds ON and 4-seconds OFF. After that, ringing pattern assigned by system data is applied.
3. The calling numbers received by using this feature or current MF/ISDN feature may be output to the SMDR expanded area.
4. A calling number cannot be received during conversation.
5. The calling numbers which may be added to SMDR output are the dial code only. The calling name is not added.
6. This service is not provided for the Attendant Console.
7. This service is not applied to SAVE AND REPEAT [S-24D] service. The calling number received may not be saved.
8. A maximum of 256 calls per LP are available at the same time.
9. When an incoming call is sent as a test, the LCD does not display both the number and the name.
10. Display conditions are shown below. Also, the ID display of ISDN service has the same conditions.
  - a.) It is assigned by system data in which display of the calling number or name has priority on termination. When the calling name has priority, the LCD displays:

<b>Calling Number XXXXXXXX</b>	* 1
<b>(Time Display)</b>	
<b>Calling Name</b>	* 2

When the calling number has priority, the LCD displays:

<b>Calling Name XXXXXXXX</b>	* 1
<b>(Time Display)</b>	
<b>Calling Number</b>	* 2

\* 1 - In ISDN service, the sub-address is displayed. When the D<sup>term</sup> does not receive the data pertaining to the sub-address, nothing is displayed.

\* 2 - If the prior display is not assigned by system data, the other is displayed.

- b.) The calling number and name may be exchanged by pressing the feature key, according to the following conditions:
  - When my line is prime line, displays may be exchanged during termination or conversation.
  - When my line is not the prime line, displays may be exchanged only during conversation.



**Service Conditions (cont'd)**

- c.) When the received numbers of a calling number and calling name exceed the display field, the decision to put the digits to the right or left may be chosen in system data. An "\*" is indicated on the exceeded digit position.
- d.) The display is flashing during termination. It is lit during conversation.
- e.) The following are examples of displays when the received digits of a calling number and name exceed the display field:

<b>1234567*</b>	Calling Number
<b>(Time Display)</b>	
<b>ABCDEFGHJKLMNOPQRSTUVWXYZ*</b>	Calling Name

OR

<b>*4567890</b>	Calling Number
<b>(Time Display)</b>	
<b>*DEFGHIJKLMNOPQRSTUVWXYZ</b>	Calling Name

OR

<b>ABCDEFG*</b>	Calling Name
<b>(Time Display)</b>	
<b>12345678901234567890123*</b>	Calling Number

OR

<b>*TUVWXYZ</b>	Calling Name
<b>(Time Display)</b>	
<b>*89012345678901234567890</b>	Calling Number

# A-127

# Analog Caller ID - Station

## General Description

This feature allows a called station to receive CALLER ID information (time, calling number and name) from Central Office when a call terminates via the analog COT. The calling number received from the ISDN network, MF-ANI information received from Central Office with the MF feature or the calling telephone number within the PBX can change into CALLER ID information and be sent to the called station.

This feature is also provided for the analog station equipped with the function of receiving the calling number. This function is called Analog Caller ID - Station by Modem Sender.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Message types of CALLER ID information sent to a called station are as follows:
  - When SFI:153=0  
04H: Calling Number Delivery Information (for Calling number)
  - When SFI:153=1  
80H: Call Setup (for Calling number and name, or reason not to inform.)
2. When a call terminates via another station, the number of the intermediate station will be sent. After that station hangs up, the number of the originating party will not be sent: CALLER ID of the first termination is only sent.
3. If a calling number exceeds 10 digits, the first or last exceeded digits will be deleted according to system data.
4. This service is not provided for the OPX Lines.
5. This service is not available in boss-secretary service.
6. The first ringing upon termination is 2-second ring and 4-second silence. A ringer pattern is provided from the second ringing.
7. The following are service conditions for current Analog Caller ID - Station:
  - a.) This service is provided for analog stations.
  - b.) This service is not provided if a call does not terminate directly on a line, such as termination using Call Pickup, or Executive Right-of-Way.
  - c.) This service is not provided when a calling party is the Attendant Console.
  - d.) **(Series 7400 software enhancement)** This service is provided for a station transferred call.
8. The following are service conditions for Analog Caller ID - Station by Modem Sender:
  - a.) This service is provided for analog stations equipped for receiving the calling number.
  - b.) Message types of Caller ID information sent to a called analog station are as follows:
    - Message type - 04H: Calling Number Delivery Information (for calling number)
    - Message type - 80H: Call Setup (for calling number, name, or reason not to inform)
    - Parameter - 02H: Calling line DN parameter
    - 04H: Reason for absence of calling DN Parameter
    - 07H: Name
    - 08H: Reason for absence of name
  - c.) When an incoming call terminates from a station, the telephone number is displayed as the calling number.

## Service Conditions (cont'd)

- d.) When the self-address is assigned to the calling ISDN terminal, the self-address is sent. In this case, the sub-address number is not sent.
- e.) This function is not available even if the analog telephone has the function to restrict sending the calling number on each conversation.
- f.) The function to restrict the calling number notification is available only when a user originates a trunk call. To set this function, the user should dial the number according to the preassigned numbering plan of the PBX.
- g.) This service is not available when the terminating station has set the following features, since an incoming call does not terminate to a line when these features are activated:
- |                            |           |
|----------------------------|-----------|
| CALL PICKUP GROUP          | [C-7, 7D] |
| CALL WAITING - TERMINATING | [C-12]    |
| CALL WAITING - ORIGINATING | [C-31]    |
| DUAL STATION CALL          | [D-156]   |
| EXECUTIVE RIGHT-OF-WAY     | [E-1]     |
- In addition, an analog station equipped with the function of receiving the calling number cannot be used as a boss station for Boss-Secretary service.
- h.) The timer for timeout of the Call Forwarding - Don't Answer service starts when the process of Caller ID Notification is completed.
- i.) The maximum number of calls simultaneously terminating to analog stations per system includes the number of incoming calls terminating by this service.
- j.) Some telephones can only display the station/telephone number that is assigned using the numeral digits 0-9. Thus, the station/telephone number, excluding "\*" or "#", is recommended.
- k.) The following messages are displayed when the reason for restricting Caller ID Notification is received:
- P : Privacy Security
- O : Outside Area where Service is not provided
- l.) This feature is available only for the analog station programmed SFI168 in ASFC.
- m.) When the current Analog Caller ID - Station service is also assigned to a station, it has priority over this service.
- n.) The preassigned additional number or deleted number is not available when the call is equipped with Analog Caller ID.
- o.) When the Name Display data is assigned to the calling party in station-to-station calling, the calling party's name is also sent to the called party. Note that only 1 byte character data can be effective in this case. Since the name data is sent without confirming whether the proper character is used or not, characters that are not proper may cause abnormal status to the system.
- p.) When all the sender trunks are busy, the calling number cannot be notified.
9. To activate the Analog Caller ID - Station by Modem Sender service in the FCCS network, the sender trunk for sending Modem signal (RT=937, ATRK) should be accommodated in the all nodes where the stations providing the service is installed.

## Interactions

1. The current Analog Caller ID - Station service and the Analog Caller ID - Station by Modem Sender can be used in a system. However, both of them cannot be used by one station. One feature must be specified by system data.
2. The following circuit cards are required for this service:
  - PA-8RSTY
  - PA-16LCBY (**Note**)

**Interactions (cont'd)**

**Note:** *16LCBY and 8RSTY must be used together for Caller ID.*

3. Only one route number can be assigned for each sender and register in a PA-8RSTY card.

## B-2 Busy Lamp Field - Flexible

### General Description

This feature provides the Attendant with visual indications of either busy, idle or LINE LOCKOUT [L-3] conditions for a particular group of stations via a designated lamp field on the Attendant Console or the dial pad on the desk console.

### Operating Procedure

1. Press an idle loop key.
2. Key in thousands (where applicable) and hundreds digit(s) of the desired group.  
Example:
  - a.) To monitor the stations 200 to 299, dial “2”.
  - b.) To monitor the stations 2200 to 2299, dial “22”.
3. Lamp status indicates a busy (light steady), idle (no lamp), or LINE LOCKOUT [L-3] (lamp flashing) condition.

Example: If ANPD and ASPA are assigned:

- a.) ANPD 3 = NND 2
- b.) ASPA 30 = STN

To monitor STN 3000 to STN 3099, key in 300.

**Note:** *For the Desk Console, dial all digits, except the last digits of the desired number. The Desk Console indicates only 10 stations status at once with the last digits.*

### Service Conditions

1. For 3-digit telephone numbers, the digital display will show the first digit of the group being monitored (100's, 200's, etc.). Lamps 00-99 will provide visual indication of the status of each station in the selected group.
2. For 4-digit telephone numbers, the digital display will show the first two digits of the group being monitored (1100's, 1200's, etc.). Lamps 00-99 will provide visual indication of the status of each station in the selected group.
3. For an Attendant Console, the Busy Lamp Field (BLF) display is applicable for 2 through 5-digit station numbering plans.
4. For a Desk Console, the Busy Lamp Field (BLF) display is applicable for 3 through 5-digit station numbering plans.
5. Operation of the BLF supersedes the display of the CALL WAITING LAMP [C-13] feature.
6. The lamp indication for LINE LOCKOUT [L-3] is an LED flashing at 60 pulses per minute.
7. LINE LOCKOUT [L-3] lamp indication can be provided by system database programming.
8. The BLF does not indicate busy/idle status for stations located in CCIS satellite offices.
9. For the FCCS network, when assigning a telephone number to a station, the telephone number is displayed for the station.
10. For the FCCS network, the Busy Lamp Field (BLF) display is applicable for 2 through 5-digit Physical Station Number / telephone number.

**Note:** *For a Desk Console, BLF display is applicable for 3 through 5-digit station numbering plans.*

**Interactions**

1. CENTRALIZED ATTENDANT SERVICE (CAS) [C-20]: At the CAS main location, when the ATTENDANT CONSOLE [A-3] is handling a call from a CAS branch over a Release Line Trunk (RLT), the BLF will give no indication of busy/idle status of branch location stations.
2. The BLF indicates the station status after the hundreds digit is keyed in by the Attendant.
3. A 2-digit display indicator is used to display the thousands and hundreds digit of the displayed stations.

# B-3 Busy Verification

## General Description

When an Attendant places a call to a busy station, this feature allows the Attendant to break into the connection. When this feature is initiated from the console, the system sends a Warning Tone to the stations before establishing a three-party conference. Additionally, the Attendant Monitor Function can be activated depending on system data.

## Operating Procedure

### To activate BUSY VERIFICATION:

1. Press an idle loop key and dial the desired telephone number; receive the busy tone.
2. Press the BV key; two burst tones are sent to the connected parties. Attendant may now monitor or join the connection.
3. Press the RELEASE key to disengage.

### To monitor the call in progress before entering the busy connection - from a station:

1. Press an idle loop key and dial the desired telephone number; receive the busy tone.
2. Press the BV key. The Attendant can monitor the connection. (BV lamp lights.)
3. Press the TALK key. A Warning Tone is sent, and a three-way call is established (TALK lamp lights). If the called station is a D<sup>term</sup>, the LCD displays OPE BV for 5 seconds, then CONF.
4. Press the CANCEL key to disengage; Attendant returns to the incoming call. The originally connected parties remain connected.

## Service Conditions

1. This feature may be used during station-to-station and station-to-trunk calls (COT, FX, WATS, CCSA, or TIE LINES).
2. BUSY VERIFICATION cannot be established to a station when the station is:
  - a.) Dialing
  - b.) Listening to a tone
  - c.) Being rung
  - d.) Being connected to an Attendant loop
  - e.) Activating a conflicting feature such as:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1][A-45]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
CALL HOLD	[C-6]
CALL TRANSFER	[C-10] [C-11, 11D] [C-50] [C-54]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, -17D] [C-58]
DATA LINE SECURITY	[D-12] [D-66]
DATA PRIVACY ON DEMAND	[D-17] [D-68]
DIAL ACCESS TO ATTENDANT	[D-2] [D-71]
EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
PRIVACY - D <sup>term</sup>	[P-14D]
PRIVACY RELEASE	[P-18]

### Service Conditions (cont'd)

THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL - D <sup>term</sup>	[V-2D]
f.) Modem pooling connection	
g.) Data Call through Data Adapter	
h.) Data Call through Data Module	
i.) The calling station is connected to an Attendant Loop	

**Note:** *In each of the above instances, the Attendant will receive reorder tone.*

3. Before the Attendant is added to an existing connection, a two-burst tone is applied to alert the parties of the Attendant's presence. Sending this tone burst can be suppressed by System Data.
4. BUSY VERIFICATION and ATTENDANT LOCKOUT [A-5] are mutually exclusive features.
5. This feature can be denied on DICTATION ACCESS [D-3] and PAGING ACCESS [P-1] connections by assigned System Data Assignment.
6. PAGING ACCESS [P-1]: BUSY VERIFICATION will be denied on a station line that is connected to paging equipment. If the initiating paging station goes on-hook and is waiting for a callback call from the paging party, BUSY VERIFICATION will be allowed on that station line.
7. DICTATION ACCESS [D-3]: BUSY VERIFICATION will be denied on a station that is connected to a dictation trunk. Attempts to busy-verify a station on this connection will result in a reorder tone being sent to the Attendant.
8. STATION HUNTING (Circular [S-7], Secretarial [S-8], or Terminal [S-9]): If an Attendant attempts to busy-verify a busy station line in a Hunt Group, the call will hunt. That is, STATION HUNTING will take precedence over BUSY VERIFICATION. If all stations in a Hunt Group are busy, BUSY VERIFICATION takes place on the dialed station.
9. The BUSY VERIFICATION feature is assigned to Attendant Consoles only.
10. ATTENDANT LOCKOUT [A-5]: The Attendant is prevented from busy-verifying a station line that is connected to a loop held on the ATTENDANT CONSOLE [A-3]. Because the LOCKOUT feature applies only to calls held on the Attendant Console loop, BUSY VERIFICATION of those station lines will be denied, and the Attendant will hear the reorder tone.
11. CALL BACK [C-1]: When Station A is busy and Station B has activated this feature toward Station A, and then goes on-hook to wait for Station A to become idle, both stations can be busy-verified. When Station A goes on-hook and the CALL BACK [C-1] process has begun, neither station can be busy-verified until the talking connection between Stations A and B has been established. The Attendant will hear the reorder tone when BUSY VERIFICATION attempts are made during the denied period.
12. CALL FORWARDING (ALL CALLS [C-5], BUSY LINE [C-2]): If an Attendant attempts to busy-verify a (busy or idle) station line that has the CALL FORWARDING (ALL CALLS [C-5], BUSY LINE [C-2]) feature activated to another station line, the call will be forwarded to the other line, and BUSY VERIFICATION will proceed as if the Attendant had attempted to busy-verify the other line. If an Attendant attempts to busy-verify a (busy or idle) station line that has the CALL FORWARDING (ALL CALLS [C-5], BUSY LINE [C-2]) feature activated to the Attendant, BUSY VERIFICATION will be denied.
13. CALL HOLD [C-6]: When two stations have established a talking connection, and one of the stations has a third party on hold, the two talking parties can be verified, but the party on hold cannot be busy-verified.
14. CALL WAITING [C-12, 31]: If an Attendant attempts to busy-verify a station line that already has a waiting call, BUSY VERIFICATION will be denied. Also, if the Attendant attempts to busy-verify a station line that is waiting for another line, the BUSY VERIFICATION attempt will be temporarily denied, because such waiting calls always involve either a connection to the Attendant position or the calling party is listening to the ringback tone.



## Service Conditions (cont'd)

15. UNIFORM CALL DISTRIBUTION (UCD) [U-1]: The Attendant can busy-verify a station line that is part of a UCD group. That is, the BUSY VERIFICATION call will not hunt. If BUSY VERIFICATION is attempted on the group number, UCD hunting will take precedence over BUSY VERIFICATION.
16. It is determined in system data to allow monitoring of the busy connection before establishing a three-way call.
17. The Attendant cannot monitor the call when activating the INDIVIDUAL TRUNK ACCESS [I-4].
18. When the Attendant presses the TALK key and enters a three-party call, the Attendant cannot return to the monitor mode.
19. While monitoring, only the operations via the TALK key or CANCEL key are valid.
20. If one of the originally connected parties disconnects while the Attendant is monitoring the call, the reorder tone is sent to the Attendant and the other party. The third party will remain on hold.
21. While being monitored, the switch hook flashed by the originally connected party is invalid.
22. The billing during the monitor mode is continued from the status before monitoring.
23. The node accommodating the Attendant Console requires CFT function for FCCS service.

## Interactions

1. This feature is allowed whenever the destination telephone set is engaged in any state other than:
  - a.) a three-way connection,
  - b.) a PRIVACY [P-14D, 15D] feature is activated,
  - c.) connected to a route programmed to have Line/Trunk, Privacy, CDN 44:PRV,
  - d.) listening to a tone (dial tone, reorder tone, service set tone, busy tone, ringback tone).
2. With the ATTENDANT OVERRIDE [A-7] feature, the following trunk types may be verified busy or idle status:
  - a.) one-way incoming trunks,
  - b.) one-way outgoing trunks,
  - c.) bothway trunk.
3. Trunks in a station-trunk connection, TRUNK-TO-TRUNK CONNECTION [T-10], and ATTENDANT CONTROLLED CONFERENCE [A-2] can be verified when busy.
4. ATTENDANT LOCKOUT [A-5]: The Attendant is prevented from verifying a busy station line which is connected to a loop held at the Attendant Console. Since the LOCKOUT feature applies only to calls held on an Attendant Console loop, BUSY VERIFICATION of those station lines will be denied and the Attendant will hear the reorder tone.
5. CALL FORWARDING - ALL CALLS [C-5], BUSY [C-2]: If an Attendant attempts to busy-verify a (busy or idle) station line that has the CALL FORWARDING (ALL CALLS [C-5], BUSY [C-2]) feature activated to another station line, the call will be forwarded to the other line, and BUSY VERIFICATION will proceed as if the Attendant had attempted to busy-verify the other line. If an Attendant attempts to busy-verify a (busy or idle) station line that has the CALL FORWARDING (ALL CALLS [C-5], BUSY [C-2]) feature activated to the Attendant, BUSY VERIFICATION will not be denied.
6. CALL HOLD [C-6]: When two stations have established a connection and one of the stations has a third party on hold, the two talking parties can be busy verified, but the party on hold cannot be busy verified.
7. DATA LINE SECURITY [D-12]: An Attendant cannot busy-verify a busy station line that has a DATA LINE SECURITY [D-12] Class of Service. If BUSY VERIFICATION is attempted, the Attendant will hear the reorder tone.

**Interactions (cont'd)**

8. CALL WAITING [C-12, 31]: If an Attendant attempts to busy-verify a station line that already has a Waiting call, BUSY VERIFICATION will be denied. Also, if the Attendant attempts to busy-verify a station line that is waiting for another line, the BUSY VERIFICATION attempt will be temporarily denied because such waiting calls always involve either a connection to the Attendant position or the calling party is listening to a ringback tone.
9. UNIFORM CALL DISTRIBUTING (UCD) [U-1]: The Attendant can busy-verify a station line that is part of a UCD group. That is, the BUSY VERIFICATION call will not hunt. If BUSY VERIFICATION is attempted on the group number, UCD hunting will take precedence over BUSY VERIFICATION.
10. DATA PRIVACY - CCIS [D-67, 68]: To prevent interruption of data transmission, the Attendant cannot busy-verify a station line when this feature is used.
11. DICTATION ACCESS [D-3]: Dictation Access trunks cannot be busy-verified by the Attendant. The Attendant will hear the reorder tone.
12. PAGING ACCESS [P-1]: Paging Access trunks cannot be busy-verified by the Attendant.

# B-5D Boss - Secretary Override - D<sup>term</sup>

## General Description

This feature enables a secretary to voice announce a call to a boss when he is currently on his My-Line.

## Operating Procedure

- Station 200 - Boss
- Station 201 - Secretary

**Boss is currently connected to Trunk A. Call at Trunk B, intended for 200, reroutes to Station 201.**

1. Secretary answers station 201.
2. Secretary asks the caller to hold and presses CALL HOLD [C-6D] feature key or TRANSFER key and CALL HOLD code (CALL WAITING - ORIGINATE [C-31] key); secretary hears dial tone.
3. Secretary presses SPEED CALLING - ONE TOUCH [S-26D] key on which the BOSS-SECRETARY OVERRIDE Tone Code pause (recall key) and the boss' telephone number (200) has been programmed.
4. Secretary hears ringback tone; boss receives 3 bursts of Camp-on Tone (to distinguish it from the single burst for an Attendant Camp-on).

## Boss' Response Options

Case 1:

1. Boss presses the ANSWER key and converses with secretary (Trunk A is placed on hold).
2. Secretary hangs up, boss speaks with Trunk B.

Case 2:

1. Boss presses the ANSWER key and converses with secretary (Trunk A is placed on hold).
2. Boss presses 201 key and converses with Trunk B; secretary hears reorder tone.
3. Boss presses ANSWER to reconnect with Trunk A; Trunk B is placed on hold.

Case 3:

1. If boss does not respond to 3 bursts of waiting tone, secretary presses RECALL key to resume talking to Trunk B.

Case 4:

1. Boss presses the ANSWER key and converses with Secretary (Trunk A is placed on hold). Boss denies the call.
2. Boss presses TRANSFER to return to Trunk A. Secretary can also press TRANSFER key, so that both boss and secretary return to original callers.
3. Secretary is returned to Trunk B.

## Service Conditions

1. Secretary must have a D<sup>term</sup> for this operation. Boss may have a single line telephone, but since no line key or CALL HOLD key is available, the boss's switch hook flashes to alternate between Trunk A and Trunk B. To disconnect from one trunk, the boss hangs up. The remaining trunk recalls to the single-line set. The held party hears ringback tone.
2. If boss and secretary have multi-line operations, they must have each other's My-Line appearing on their D<sup>term</sup>.
3. This service feature is available only when the boss and the secretary are on their own My-Lines.
4. This feature must be allowed in CLASS OF SERVICE - INDIVIDUAL [C-15] via system data programming.
5. BOSS-SECRETARY OVERRIDE is denied if the boss is connected to the ATTENDANT CONSOLE.

**Service Conditions (cont'd)**

6. If provided in the system, the held caller will hear MUSIC ON HOLD [M-7].
7. The call is recorded in SMDR for the secretary's station (e.g., 201).
8. This feature is denied to a UCD [U-1] group.
9. BOSS-SECRETARY OVERRIDE [B-5] overrides DO NOT DISTURB [D-11D] if set for the boss.
10. BOSS-SECRETARY OVERRIDE [B-5] is denied under the following conditions:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BUSY VERIFICATION	[B-3]
CALL BACK	[C-1]
CALL HOLD	[C-6, C-6D]
CALL TRANSFER	[C-10] [C-11, 11D] [C-50] [C-54]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, C-17D] [C-58]
DATA LINE SECURITY	[D-12] [D-66]
DATA PRIVACY ON DEMAND	[D-17] [D-68]
DIAL ACCESS TO ATTENDANT	[D-2] [D-71]
EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
OFF-HOOK QUEUING	[O-7]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY - D <sup>term</sup>	[P-14D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL - D <sup>term</sup>	[V-2D]
11. FCCS link is not available for this feature.

# B-6 Brokerage - Hotline

## General Description

This feature provides a HOT LINE [H-1] function for D<sup>term</sup>.

## Operating Procedure

1. Lift handset or press the SPEAKER key.
2. Press sub-line key associated with the predetermined desired station. The destination station is automatically dialed; Ringback tone is heard, the destination station answers.
3. After completion of conversation, hang up or press the SPEAKER key.

**Note:** *To make another HOT LINE [H-1] call instantaneously, press another sub-line key without going on-hook and off-hook.*

4. If the desired station is busy, while hearing busy tone, press the EXECUTIVE RIGHT-OF-WAY (OVER) key; receive warning tone. The caller can override the call in progress.

## Service Conditions

1. One of the line/feature keys must be assigned as a My Line.
2. A station Hot Line (calling party) cannot belong to a Hunt [S-7, 8, or 9] or UCD [U-1] group.
3. Single line station or virtual lines (SOFTWARE LINE APPEARANCE [S-33]) can be assigned as a BROKERAGE HOT LINE destination.
4. When a Hot Line call is made from a D<sup>term</sup>, the D<sup>term</sup>'s display shows the destination telephone number but doesn't show the SERVICE DISPLAY [S-25] of hot line.
5. This hot line feature is applicable for intra-office connection within the system.
6. My Line of a D<sup>term</sup> cannot be assigned as a Hot Line feature button.
7. Destinations must be stations or an ATTENDANT CONSOLE [A-3] of the system.
8. When a destination is an ATTENDANT CONSOLE [A-3], the Hot Line call terminates as an ATND call.
9. ATTENDANT CAMP-ON [A-1], EXECUTIVE RIGHT-OF-WAY [E-1], CALL WAITING [C-31] and CALL BACK [C-1] can be prohibited to the hot line connection through CLASS OF SERVICE - INDIVIDUAL [C-15].
10. When a destination station is busy, STEP CALL [S-13], CALL BACK [C-1], CALL WAITING [C-31], or MESSAGE REMINDER - D<sup>term</sup> [M-19D] cannot be activated.
11. Station Hunting works if the destination station is in a hunt group.
12. UCD function works if the destination station is a UCD station, but busy tone is given if all the UCD stations within the group are busy (no UCD queuing).
13. CALL FORWARDING [C-2, 3, 5] is allowed if the destination station has set Call Forwarding, but CALL FORWARDING - OUTSIDE [C-28] cannot be provided.
14. Overriding is available only via the OVER key on D<sup>term</sup>. If switch hook flash is attempted, the caller receives reorder tone.
15. In the following cases, overriding by the OVER key is not available, and the caller receives reorder tone.
  - a.) the conference-function trunks are all busy.
  - b.) the destination station is not engaged in a two party call, as when
    - call is terminating to the destination station.
    - the destination station has a call on hold.

**Service Conditions (cont'd)**

- the destination station is off-hook.
  - the destination station is already engaged in a three-party call.
  - c.) the destination is the Attendant or is connected to an outside party.
16. When EXECUTIVE RIGHT-OF-WAY [E-1, E-1D] is used with this feature, it is not activated under any of the following conditions:
    - when utilizing EXECUTIVE RIGHT-OF-WAY [E-1, E-1D] service using switch hook flash and access code.
    - when all three-party conference trunks are busy.
    - when the destination is not in the two-party connection (an incoming call is in the middle of terminating to the destination or the destination places a call on hold or the destination is in off-hook status or the three-party connection including the destination has already been established).
    - when the destination is connected with the Attendant Console or the C.O. trunk.
  17. This feature can be activated via FCCS.
  18. Only the station assigned a telephone number is available for the station assignment when activating this feature via FCCS.
  19. The station, the Attendant Console/Desk Console (operator call), and the trunk can be a destination for Hotline.
  20. When Call Forwarding - All Calls/Busy Line/Don't Answer service has been set to the called station, these features are available for the call to the station.
  21. When a calling party encounters a busy station, the call may bridge into the connection, depending on the data assigned by the ASYD command.

# B-8 Boss - Secretary - Message Waiting Lamp Control

## General Description

This feature allows a secretary, via her station, to control the Call Indicator Lamp (**Note**) or Message Waiting (MW) display on the boss' station.

**Note:** *The Call Indicator Lamp is used as the MW Lamp.*

## Operating Procedure

1. CALL FORWARDING [C-3, 5] is not set on Boss' station.
2. An incoming call for Boss' station is answered on Secretary's D<sup>term</sup>.
3. Secretary sets the Call Indicator Lamp or MW display on Boss' station. See Procedure 1 below.
4. Boss's station Call Indicator Lamp or the MW display is on.
5. Secretary cancels the Call Indicator Lamp or MW display on Boss' station.

### To set Message Waiting at a Boss' station:

Procedure 1 (Secretary's station requires a D<sup>term</sup> with a LED)

1. While remaining connected to the calling party, press the MW SET line/feature key.
2. The LCD display will indicate MW SET (for 5 seconds, in place of time display).
3. MW is set on Boss' station. Call Indicator Lamp or the MW display is on.
4. Secretary will not hear service set tone.

Procedure 2

1. Secretary releases the call after taking the message and presses the RECALL key. Dial tone is heard.
2. Secretary presses the MW SET line/feature key. LCD will indicate MW SET. Secretary will hear service set tone.
3. MW is set to Boss' station. Call Indicator Lamp or the MW display is ON.

### To cancel Message Waiting indication:

Procedure 1

1. While remaining connected, Secretary presses the MW CANCEL line/feature key.
2. The LCD display will indicate MW CANCEL (For 5 seconds, in place of time display).
3. Boss' MW indication is then cancelled. Call Indicator Lamp or the MW display is OFF.

Procedure 2

1. Secretary presses Boss' line appearance. Dial tone is heard.
2. Press the MW CANCEL line/feature key. Service set tone is heard.
3. Secretary's LCD will display MW CANCEL.
4. Boss' MW indication is cancelled.

## Service Conditions

1. Any number of D<sup>term</sup> stations within the system can be assigned to activate this feature.
2. Secretary must have a D<sup>term</sup>.
3. Any attempt to set BOSS-SECRETARY MW LAMP CONTROL to a station that already has an MW indication will receive MW BUSY following Procedure 1 or a busy tone following Procedure 2.
4. Any station provided with the sub-line can set or cancel BOSS-SECRETARY MW LAMP CONTROL indication on that sub-line.
5. This feature is not restricted by CLASS OF SERVICE - INDIVIDUAL [C-15] on either the boss or secretary stations.

**Service Conditions (cont'd)**

6. BOSS-SECRETARY MW LAMP CONTROL indication is cleared by system initialization or a Local Processor initialization.
7. MW control is provided to stations using the D<sup>term</sup> sub-line when:
  - a.) one station is talking with another station.
  - b.) a special purpose button is pushed after a call is established.
  - c.) the station is calling another station in the network.
  - d.) CALL WAITING [C-12, 13] is being set up.
  - e.) the station is using VOICE CALL - D<sup>term</sup> [V-2D].
  - f.) the ATTENDANT CONSOLE [A-3] indication shows an incoming call.
8. MW for one station of the network can be controlled from the ATTENDANT CONSOLE [A-3] and any other station at the same time. The controlled station cannot identify the controlling party.
9. The MW indication on the boss' station appears as follows:

Type of Station Set	Message Waiting Indication
D <sup>term</sup> Series E	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p><b>MW</b> <b>(Time Display)</b></p> </div>

10. The LCD on the secretary's station displays the following messages:

Status of Boss' Station		LCD D <sup>term</sup> Series E	Type of Tone
MESSAGE WAITING (already set)	SETTING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p><b>MW</b> <b>BUSY</b> <b>(Time Display)</b></p> </div>	
	CANCELLING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p><b>MW</b> <b>CANCEL</b> <b>(Time Display)</b></p> </div>	
MESSAGE WAITING (not set)	SETTING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p><b>MW</b> <b>SET</b> <b>(Time Display)</b></p> </div>	Call Indicator is ON

11. MW cannot be activated on a virtual line. The LCD displays MW REST, and the reorder tone is heard when activation from a virtual line is attempted.

**Note:** *The reorder tone is not heard while talking to the calling party.*

12. This feature can control the Call Indicator Lamp or MW display from the sub-line during:
  - a.) conversation with the calling party.
  - b.) special code dialing after replacing the handset or pressing the SPEAKER key.
  - c.) ringback tone for station calling.
  - d.) MUSIC ON HOLD [M-7] when the other party has pressed the HOLD key.
  - e.) dialing of telephone number.



## Service Conditions (cont'd)

- f.) trunk origination or called-number dialing.
  - g.) calls to or talking to Attendant.
  - h.) THREE-WAY CALLING [T-2].
  - i.) CONSULTATION HOLD - ALL CALLS [C-17].
  - j.) calls by VOICE CALL - D<sup>term</sup> [V-2D].
  - k.) Call Waiting ringback tone with Call Waiting set.
  - l.) secretary calls to boss by BOSS-SECRETARY TRANSFER [B-11].
13. MW can be cancelled for a station in the same module group using the MY Line during:
    - a.) conversation with the calling party.
    - b.) ringback tone for station calling.
    - c.) MUSIC ON HOLD [M-7] when the other party has pressed the HOLD key.
    - d.) THREE-WAY CALLING [T-2].
    - e.) CONSULTATION HOLD - ALL CALLS [C-17].
    - f.) calls by VOICE CALL - D<sup>term</sup> [V-2D].
    - g.) Call Waiting ringback tone with Call Waiting set.
  14. CALL WAITING [C-12, 13] set from any other station causes the MW Indication for the party setting the call waiting to go off.
  15. THREE-WAY CALLING [T-2] established by EXECUTIVE RIGHT-OF-WAY - D<sup>term</sup> [E-1D] causes the MW Indication connected to the interrupted party to go off when the interrupting party presses the MW CANCEL button. When using a soft key, press the MW OFF to cancel.
  16. FCCS link is not available for this feature.

## Interactions

1. Use of the following features has no effect on this feature. BOSS-SECRETARY MW LAMP CONTROL can be set/cancelled to a station that has previously activated any of the following features:
  - a.) DO NOT DISTURB - D<sup>term</sup> [D-21D]
  - b.) CALL BACK - D<sup>term</sup> [C-1D] set to boss' station
  - c.) CALL BACK - D<sup>term</sup> [C-1D] set from boss' station
  - d.) CALL FORWARDING ALL CALLS - D<sup>term</sup> [C-5D] will not follow forwarding data
  - e.) CALL FORWARDING DON'T ANSWER - D<sup>term</sup> [C-3D] will not follow forwarding data
  - f.) CALL FORWARDING BUSY - D<sup>term</sup> [C-2D] will not follow forwarding data.
2. When the boss' line is answered by the secretary, the following services may be activated either by the secretary or by another station towards the secretary. These services will not interfere with the secretary's ability to set/cancel MW.
  - a.) PRIVACY - D<sup>term</sup> [P-14D]
  - b.) CONSULTATION HOLD - ALL CALLS [C-17]
  - c.) CALL WAITING - ORIGINATING [C-31] set to boss' station
  - d.) CALL WAITING - ORIGINATING [C-31] set from boss' station
  - e.) ATTENDANT CAMP ON WITH TONE INDICATION [A-1] set to boss' station
  - f.) THREE-WAY CALLING - D<sup>term</sup> [T-2D]
  - g.) NON-EXCLUSIVE HOLD - D<sup>term</sup> [N-7D], EXCLUSIVE HOLD - D<sup>term</sup> [E-4D] or DUAL HOLD [D-32].

# B-11

# Boss - Secretary Transfer

## General Description

This feature allows a secretary to voice-announce a call to a boss when the secretary answers a call to the boss' line.

## Operating Procedure

### To transfer from D<sup>term</sup> to D<sup>term</sup>:

1. Call terminates to Boss' line.
2. Secretary answers the call on the sub-line of Secretary's D<sup>term</sup>.
3. Secretary presses the line key of answered call; Boss and Secretary talk by Voice Call. LCD displays:

Boss/Secretary	
ICM	XXXX
(Time Display)	

4. Boss answers the call. LCD displays:

Secretary	
TRANSFER	XXXX
(Time Display)	

5. Secretary hangs up; calling party talks to Boss. LCD displays:

Calling Party	
(Time Display)	
XXXX	

### To transfer from D<sup>term</sup> to a single line telephone:

1. Call terminates to Boss' line.
2. Secretary answers the call on the sub-line of Secretary's D<sup>term</sup>.
3. Secretary presses the line key of the answered call. Boss' station rings. LCD displays (Secretary):

TRANSFER	XXXX
(Time Display)	

4. Boss answers the call.
5. Secretary hangs up; calling party talks to Boss.

### To cancel:

1. Secretary presses the line key.
2. Secretary talks to the calling party.

## Service Conditions

1. Secretary must have boss' My Line appearing on the D<sup>term</sup> in a multi-line operation.
2. Secretary must have a D<sup>term</sup> for this operation. Boss may have a single line telephone.
3. This service feature is only available when the secretary is talking on the boss' My Line.

**Service Conditions (cont'd)**

4. This feature must be allowed in CLASS OF SERVICE - INDIVIDUAL [C-15] via System Data programming.
5. BOSS-SECRETARY TRANSFER [B-11] is denied if the secretary is connected to the ATTENDANT CONSOLE [A-3].
6. If provided in the system, the held caller will hear MUSIC ON HOLD [M-7].
7. The call is recorded in SMDR [S-10] for the boss' station.
8. This feature will override CALL FORWARDING - BUSY LINE [C-2] set for the boss, unless the boss' line is forwarded to the secretary.
9. THREE-WAY CALLING [T-2] (Boss, Secretary and calling party) is not available.
10. A BOSS-SECRETARY TRANSFER call cannot be picked up by CALL PICKUP [C-7, 30].
11. Name Display service is not available when the secretary is calling the boss or when the secretary is talking to the boss.
12. When the boss is using a D<sup>term</sup>, the boss must always press the line key in order to answer the call transferred from the secretary.
13. FCCS link is not available for this feature.

# B-12 Brokerage Hotline - Outside

## General Description

This feature provides a HOT LINE - OUTSIDE [H-9] function for a D<sup>term</sup>.

## Operating Procedure

**To access a BROKERAGE HOT LINE - OUTSIDE from a D<sup>term</sup>:**

1. Lift the handset or press the SPEAKER key.
2. Press the sub-line key associated with a predetermined desired outside party. The destination station is automatically dialed; ringback tone is heard; the destination station answers.
3. After completion of the conversation, hang up or press the SPEAKER key.

**To immediately make another BROKERAGE HOT LINE - OUTSIDE call:**

1. Press another sub-line button associated with another station without going on/off-hook. The RELEASE key on the Add-On Module can be used as the RELEASE key.
2. A maximum of 39 BROKERAGE HOTLINES-OUTSIDE can be used to access distant destinations.

## Service Conditions

1. One of the line keys of the D<sup>term</sup> must be assigned as the My Line.
2. When a BROKERAGE HOT LINE - OUTSIDE call is made, the D<sup>term</sup> display shows the connected trunk number but does not show a SERVICE DISPLAY [S-25] for the BROKERAGE HOT LINE.
3. The My Line of a D<sup>term</sup> cannot be assigned as a BROKERAGE HOT LINE - OUTSIDE.
4. The virtual line of a single line station can be assigned as the hot line station.
5. BROKERAGE HOT LINE - OUTSIDE uses SPEED CALLING - SYSTEM [S-3] memory. The total number of BROKERAGE HOT LINE - OUTSIDE destinations is limited by the capacity of the SPEED CALLING - SYSTEM [S-3].
6. ATTENDANT CAMP-ON [A-1], CALL BACK [C-1], CALL WAITING [C-31], and EXECUTIVE RIGHT-OF-WAY [E-1] can be prohibited to the BROKERAGE HOT LINE - OUTSIDE connection through CLASS OF SERVICE - INDIVIDUAL [C-15].
7. A hot line station user confronted with all trunks busy or all senders busy at the time of calling hears the reorder tone. No indication is shown on the user's D<sup>term</sup> LCD.
8. Outside connection when a user calls in BROKERAGE HOT LINE - OUTSIDE service is realized when trunk classification (DDD, TIE, CCSA) and the trunk number is indicated on the LCD indication.
9. Outside connection when a user answers in BROKERAGE HOT LINE - OUTSIDE service is realized when time duration, trunk classification (DDD, TIE, CCSA) and the trunk number is indicated on the LCD indication.
10. The Station Message Detail Recording (SMDR) is available for outgoing calls in the BROKERAGE HOT LINE - OUTSIDE service.
11. A D<sup>term</sup> with an Add-On Module attached is used for applications requiring at least 15 but fewer than 39 destinations. In this case, one of the line keys of the D<sup>term</sup> must be assigned as the My Line.
12. An AC Adapter is required for the Add-On Module for the D<sup>term</sup> phones.
13. This feature can be activated via FCCS.
14. Only the station assigned a telephone number is available for the station assignment when activating this feature via FCCS.

**Service Conditions (cont'd)**

15. The station, the Attendant Console / Desk Console (operator call), and the trunk can be a destination for Hotline.
16. When Call Forwarding - All Calls/Busy Line/Don't Answer service has been set to the called station, these features are available for the call to the station.
17. When a calling party encounters a busy station, the call may bridge into the connection, depending on the data assigned by the ASYD command.

# B-17 Blind Transfer To Attendant

## General Description

This feature allows a station to transfer a held call (station or trunk) to the Attendant Console and hang up without having to wait for the Attendant to answer.

## Operating Procedure

1. While connected to another party (station or trunk), the user presses switch hook or TRANSFER key; receives special dial tone.
2. User dials the access code for operator; receives ringback tone while the call terminates to the Attendant at RECALL key. The transferred party hears MUSIC ON HOLD [M-7].
3. User can either:
  - a.) Hang up before the Attendant answers, and call will be connected to the Attendant when the Attendant answers.

**Note:** *The call will terminate at the Attendant's INCOMING CALL IDENTIFICATION (ICI) key depending on the call class (LDN, FX, WATS, CCSA, TIE, ATND) of the party being transferred. Peg count will be incremented by one, according to the call class.) The transferred party hears ringback tone.*

- b.) Wait for the Attendant to answer and then hang up after announcing that a call is being transferred.

**Note:** *When this method is used, the call is identified at the Attendant's INCOMING CALL IDENTIFICATION (ICI) key as RECALL key. Peg count for RECALL will be incremented by one.*

## Service Conditions

1. Reorder tone will be sent to the station if an attempt is made to transfer to an Attendant in night mode.
2. This feature is not available on a tenant basis.
3. If the Attendant does not answer the transferred call within the predetermined time set for Transfer Call Recall, the transferring station will not be recalled.
4. This feature is allowed only when a station is engaged in a two party connection (station or trunk).
5. Reorder tone will be sent to the transfer originating station if that station is restricted from accessing the Attendant.
6. Attendant peg count is incremented by one for the following:
  - a.) RECALL when the Attendant answers before the transferring station releases.
  - b.) LDN, FX, WATS, CCSA, TIE, or ATND when the Attendant answers after the transferring station releases.
7. The NEAX2400 IMX will not set a priority queue for the call being transferred when the station originating the transfer hangs up before the Attendant answers.
8. CALL TRANSFER - ATTENDANT [C-10] is restricted when this feature is activated.
9. This feature is allowed via System Data and service feature data assignment.
10. If a call is blind transferred to a station that has set CALL FORWARDING - DON'T ANSWER [C-3] to the Attendant, the following conditions will occur:
  - a.) if No Recall on Call Transfer is in service, the call will forward in a Don't Answer scenario. B-18 must be in-service.
  - b.) if Recall on Call Transfer is in service, the transferred call will recall to the transferring party.
11. This feature is available for stations in the FCCS network only.

# B-18 Blind Transfer To Station

## General Description

This feature allows two Class Marks to be assigned to stations, enabling services such as Voice Mail, announcement machine, etc. depending on the Class Mark.

1. A Class Mark which allows No Answer timer to be extended when the Blind Transferred-to station does not answer within the predetermined period of time interval.
2. A Class Mark which activates CALL FORWARDING - DON'T ANSWER [C-3] set to the Blind Transferred-to station when CALL FORWARDING - DON'T ANSWER [C-3] is available.

## Operating Procedure

### To transfer a call in progress:

1. While connected to another party (station or trunk), the user presses switch hook or TRANSFER key on D<sup>term</sup>; receives special dial tone.
2. User dials the third station; receives ringback tone. If the user remains on the line, the transferred party hears MUSIC ON HOLD [M-7].
3. At this point, the user can hang up before the third station answers; the transferred party hears ringback tone.

## Service Conditions

1. This feature is allowed only when a station is engaged in a two party connection (station or trunk).
2. Samples of connection patterns available under BLIND TRANSFER service are as follows:
  - a.) Station A blind-transfers incoming trunk/station to Station B.
  - b.) Station A blind-transfers incoming trunk/station call to the Attendant.
  - c.) Station A blind-transfers incoming trunk/station call to Station B, which has set CALL FORWARDING-DON'T ANSWER to Station C (the call is forwarded to Station C).
  - d.) Station A blind-transfers incoming trunk/station call to Station B, which has set CALL FORWARDING-DON'T ANSWER trunk (the call is forwarded to outside station).
3. The Class Mark that extends No Answer timer must be the same as the one used for BLIND TRANSFER TO ATTENDANT [B-17]. This Class Mark is assigned to the transferring station.
4. Depending on System Data assignment, the following conditions occur when CALL FORWARDING - DON'T ANSWER feature is set on the Blind Transferred-to station:
  - a.) the transferring station is recalled.
  - b.) the transferred-to station rings continuously.
  - c.) the call is forwarded when the CALL FORWARDING - DON'T ANSWER timer expires.
5. If the destination station for Blind Transfer has set CALL FORWARDING - DON'T ANSWER [C-3] to a station/trunk, Call Forwarding is activated when a predetermined No Answer timer expires.
6. This feature is available for stations in the FCCS network only.

# C-1

# Call Back

## General Description

This feature provides the ability for a calling station that has dialed a busy station to dial a CALL BACK code. When this has been done, the calling station will be rung as soon as the busy station becomes available, provided the calling station is also idle.

## Operating Procedure

### To set CALL BACK:

1. Dial the desired telephone number; receive busy tone.
2. Press switch hook for special dial tone.
3. Dial CALL BACK code; receive service set tone.
4. Hang up.
5. When desired station becomes idle, calling station will ring. Upon answering, the called station will be rung.

### To cancel CALL BACK:

1. Lift the handset; receive dial tone.
2. Dial CALL BACK cancel code; receive service set tone.

## Service Conditions

1. If CALL BACK is not answered within 30 seconds, ringing will stop and CALL BACK will be automatically cancelled.
2. As with certain other CLASS OF SERVICE - INDIVIDUAL [C-15] features, CALL BACK may be assigned via feature class.
3. CALL BACK to a busy station won't occur if that station is in the LINE LOCKOUT [L-3] mode.
4. There is no time limit for CALL BACK. Once activated, it will remain in status memory until completed or manually cancelled.
5. A station cannot activate CALL BACK to more than one station at a time.
6. A station cannot use CALL BACK and OUTGOING TRUNK QUEUING [O-2] at the same time.
7. When the calling station is called back, STATION HUNTING [S-7, 8, 9] and CALL PICKUP [C-7] programming will be ignored.
8. There is no limit to the number of stations that may access this feature simultaneously.
9. A delay timer can be set in system programming, on a system-wide basis. This allows a station, to which CALL BACK has been set, to initiate another call within a predetermined time period after becoming idle, before the CALL BACK feature is activated. The delay timer can be set in multiples of 2 seconds for up to a maximum of 14 seconds.
10. CALL BACK service cannot be set when FCCS links are all busy.
11. CALL BACK service that has already been set is automatically cancelled when FCCS links are all busy at the moment the target station becomes idle.

## Interactions

1. OUTGOING TRUNK QUEUING [O-2] and CALL BACK cannot be accessed simultaneously.
2. ASYD - System Data 1, Index 139, No Answer Timer is also used for station-to-station call, DID, or TIE Line call for CALL FORWARDING - DON'T ANSWER [C-3], and CALL HOLD [C-6].



**Interactions (cont'd)**

3. CALL WAITING - ORIGINATE [C-31] automatic setting and CALL BACK are mutually exclusive.
4. CALL HOLD [C-6]: Activation of CALL BACK is not allowed if the calling or called station has a party on CALL HOLD [C-6]. CALL BACK can be activated against a D<sup>term</sup> that is holding a call or is being held via EXCLUSIVE HOLD [E-4D] or NON-EXCLUSIVE HOLD [N-7D].
5. Call Back cannot be activated toward the Attendant Console.
6. When CALL FORWARDING - ALL CALLS [C-5] has been set from Station A to Station B, and Station B is busy, the CALL BACK feature will be set against Station B.
7. CALL BACK [C-1] cannot be activated when using CONSULTATION HOLD [C-17].
8. CALL BACK [C-1] cannot be set when all FCCS links are busy.
9. When the FCCS links are all busy at the moment the target station becomes idle, CALL BACK [C-1] that has already been set is automatically cancelled.

# C-1D Call Back - D<sup>term</sup>

## General Description

This feature provides the ability for a D<sup>term</sup>, which has dialed a busy station, to press a CALL BACK key. When this has been done, the calling station will be rung as soon as the busy station becomes available, provided that the calling station is also free.

## Operating Procedure

### To set CALL BACK:

1. Dial desired telephone number; receive busy tone.
2. Press the CALL BACK key; receive service set tone. LCD displays:

Called Station

<b>CB SET</b>	<b>XXXX</b>
<b>(Time Display)</b>	

3. Hang up.
4. When the desired station becomes idle, the calling station will ring. The LCD displays:

Called Station (Flashing)

<b>CB</b>	<b>XXXX</b>
<b>(Time Display)</b>	

5. Upon answering, the called station will be rung.
6. Called D<sup>term</sup>'s LCD displays:

Calling Station

<b>CB</b>	<b>XXXX</b>
<b>(Time Display)</b>	

### To cancel CALL BACK:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the CALL BACK key; receive service set tone. Call Back is cancelled.
3. The LCD displays:

<b>CB CANCEL</b>
<b>(Time Display)</b>

## Service Conditions

1. If CALL BACK is not answered within 30 seconds, ringing will stop and CALL BACK will be automatically cancelled.
2. CALL BACK may be assigned via CLASS OF SERVICE - INDIVIDUAL [C-15].

---

**Service Conditions (cont'd)**

3. CALL BACK to a busy station cannot be established if that station is in the LINE LOCKOUT [L-3] mode.
4. There is no time limit for CALL BACK. Once activated, it will remain in status memory until completed or manually cancelled.
5. CALL BACK cannot be activated to more than one station at a time. (Calling party).
6. CALL BACK cannot be set by more than one station at a time. (Called party).
7. A station cannot use CALL BACK and OUTGOING TRUNK QUEUING [O-2] at the same time.
8. When the calling station is called back, STATION HUNTING [S-7, 8, 9] and CALL PICKUP [C-7] programming will be ignored.
9. There is no limit to the number of stations that may access this feature simultaneously.
10. CALL BACK can only be activated from MY Line of a D<sup>term</sup>.
11. CALL BACK cannot be established to a busy station when the station is engaged in any of the following:

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
CALL HOLD	[C-6, C-6D]
OFF-HOOK QUEUING	[O-7]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
12. A delay timer can be set in system programming, on a system-wide basis. This allows a station to which CALL BACK has been set to initiate another call within a predetermined time period after becoming idle, before the CALL BACK feature is activated. The delay timer can be set in multiples of 2 seconds, up to a maximum of 14 seconds.
13. CALL BACK service cannot be set when FCCS links are all busy.
14. CALL BACK service that has already been set is automatically cancelled when FCCS links are all busy at the moment the target station becomes idle.

## C-2 Call Forwarding - Busy Line

### General Description

This feature permits a call to a busy station to be immediately forwarded to a predesignated station or to the ATTENDANT CONSOLE [A-3].

If a called station is in a STATION HUNTING [S-7, 8, 9] Group and forwards calls to another Hunt Group, it can be determined through System Data that the calling party has been directed either to the called parties Hunt Group or to the terminating parties Hunt Group when all of the forwarded stations are busy.

### Operating Procedure

#### To set CALL FORWARDING - BUSY LINE from an individual station:

1. Lift the handset, receive dial tone.
2. Dial the specific CALL FORWARDING - BUSY LINE access code; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone.

#### To cancel CALL FORWARDING - BUSY LINE from an individual station:

1. Lift the handset, receive dial tone.
2. Dial the specific CALL FORWARDING - BUSY LINE cancel code; receive service set tone.

#### To set CALL FORWARDING - BUSY LINE from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - BUSY LINE access code; receive special dial tone.
3. Dial the TENANT SERVICE [T-12] number (2/3 digits).
4. Dial the originating telephone number.
5. Dial the desired target telephone number; receive service set tone.

#### To cancel CALL FORWARDING - BUSY LINE from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - BUSY LINE cancel code.
3. Dial the TENANT SERVICE [T-12] number (2/3 digits).
4. Dial the originating telephone number; receive service set tone.

### Service Conditions

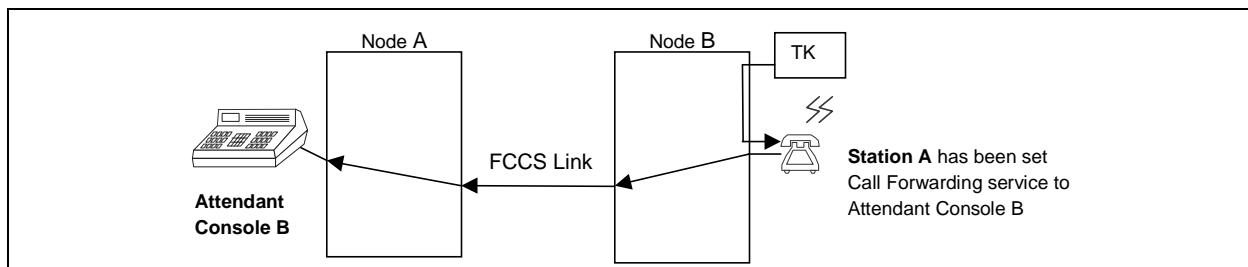
1. This feature may be set and cancelled by either the user or the Attendant.
2. CALL FORWARDING - BUSY LINE data remains in the data memory, even if the system is re-initialized or in the event of a power failure, but it must be saved to HD.
3. Stations are assigned this feature according to CLASS OF SERVICE [C-15] programming in system data.
4. Registration memories for CALL FORWARDING - BUSY LINE and CALL FORWARDING - DON'T ANSWER [C-3] are common. Changing system data will enable separation of the two, permitting separate access codes to be assigned.
5. CALL FORWARDING - BUSY LINE can be provided on a tenant or an individual station basis.
6. Call Forwarding on a tenant basis allows any incoming calls that encounter a busy condition to be forwarded to a predetermined station or the ATTENDANT CONSOLE [A-3].
7. Individual CALL FORWARDING - BUSY LINE supersedes system basis call forwarding.
8. If all the stations in the terminating Hunt Group are busy, the calling party will hear busy tone and will not return to the called parties Hunt Group.

**Service Conditions (cont'd)**

9. When MULTIPLE CALL FORWARDING - BUSY LINE [M-24] service is activated, hunting will be performed at the last destination of the forwarded call, even though the multiple jumped stations are in a Hunt Group.
10. When the pilot station of a STATION HUNTING [S-7, 8, 9] Group activates CALL FORWARDING - BUSY LINE to a station (not a member of a Hunt Group) and system parameters specify that call hunting will be activated at the forwarded station, the NEAX2400 IMX will send busy tone if the forwarded station is busy. If the system parameters specify hunting at the forwarding station, and the forwarded station is busy, the call will hunt in the forwarding stations Hunt Group.
11. When a station CALL FORWARDS - ALL CALLS [C-5] to a pilot in a STATION HUNTING [S-7, 8, 9] Group and the pilot activates CALL FORWARD - BUSY LINE to another station, if system parameters define the call to hunt to the forwarded Hunt Group and all stations are busy, the calling party will hunt at the called stations Hunt Group. If system parameters define the call to hunt to the forwarding Hunt Group and all stations are busy, the calling party will then hunt to the forwarding stations Hunt Group.
12. If the called station is the pilot of a UCD [U-1] group and activates CALL FORWARDING - BUSY LINE, the calling station will queue to the UCD [U-1] group and will not Call Forward.
13. If a calling station, ATTENDANT CONSOLE [A-3], or trunk receives a busy tone after being CALL FORWARDED-BUSY and activates EXECUTIVE RIGHT-OF-WAY [E-1], CALL WAITING-ORIGINATING [C-31], CALL WAITING-TERMINATING [C-12] or BUSY VERIFICATION [B-3], these services will be activated to the calling station.
14. There is no limitation to the number of stations that can set CALL FORWARDING - BUSY LINE simultaneously.
15. The operator answering a Call Forwarded call can identify the called telephone number on the ATTENDANT CONSOLE [A-3] display.
16. When a user places a call to a busy station which has been set CALL FORWARDING-BUSY LINE [C-2], the calling party can override the call forwarding feature, activating service features associated with busy status such as CALL BACK [C-1], EXECUTIVE RIGHT-OF-WAY [E-1], STEP CALLS [S-13], provided that the service feature class (SFC) of the calling party permits this feature. Otherwise, the call is forwarded to a predetermined destination as usual.  
Programming of this feature:  
ASFC - DAY / NIGHT  
TN: Tenant Number  
SFI: 128 (Service selection for a busy station with Call Forwarding - Busy Line service)  
SFC: Service Feature Class  
RES: (Allowed)
17. The OAI monitor number and the ACD pilot number cannot be assigned as the Call Forwarding target telephone number except when called from a station or a tie line trunk.
18. When a call terminates to a busy station setting CALL FORWARDING - BUSY LINE, depending on the calling station service restriction class, it can be selected to make the station busy (not to activate CALL FORWARDING - BUSY LINE) and to activate such services as ATTENDANT CAMP-ON [A-1], BUSY VERIFICATION [B-3], CALL WAITING - TERMINATING [C-12], STEP CALL [S-13], etc.
19. This service is not available when the called party is the attendant console or monitoring station. However, the service is available when these stations are designated as the transfer destination of CALL FORWARDING - BUSY LINE service.
20. This service is available only when the called party is busy and has set CALL FORWARDING - BUSY LINE. In case CALL FORWARDING - BUSY LINE is set as the second hop and after in the Multiple Call Forwarding link, this service is not available.

## Service Conditions (cont'd)

21. This service is available in the following occasions:
  - a.) When the destination of the CALL FORWARDING - BUSY LINE service is the calling station.
  - b.) When the calling party is the attendant console or the night station, and the destination of the CALL FORWARDING - BUSY LINE service is also the attendant console or the night station.
22. SPLIT CALL FORWARDING [S-99] is available only when the calling party is the station or the CCIS line.
23. A telephone number must be set to the call forwarding destination.
24. This feature is not available for stations having a telephone number of seven digits or more.
25. A call can be forwarded to an Attendant Console in the remote node via FCCS link.



26. When a call is forwarded through FCCS link, the numbering plan of the originally called station must be identical with that of the forwarded Attendant Console.

## Interactions

1. If access codes for CALL FORWARDING-BUSY LINE and CALL FORWARDING-DON'T ANSWER [C-3] are the same, only one key needs to be assigned in AKYD.
2. If a call is terminated, using ATTENDANT CAMP-ON [A-1], Station A has CALL FORWARDING-BUSY LINE set to Station B, and Station B is both busy and a member of a STATION HUNTING [S-7, 8, 9] Group, the call will Camp-On at Station A and not hunt; ASYD - System Data 1, Index 69, Bit 5 = 0.
3. If CALL WAITING [C-12, 31], ATTENDANT CAMP-ON [A-1], and/or CALL BACK [C-1] is directed toward Station A, Station A has CALL FORWARDING-BUSY LINE set to Station B, and Station B is busy, and Station A will receive Call Waiting Tone; ASYD - System Data 1, Index 69, Bit 5 = 0.
4. A non-controlling UD station is allowed to activate CALL FORWARDING-BUSY LINE. When this station sets CALL FORWARDING-BUSY LINE, only calls directly dialed to this station are forwarded.
5. If an Attendant attempts BUSY VERIFICATION [B-3] to Station A that has CALL FORWARDING-BUSY LINE set to Station B and Station B is busy, BUSY VERIFICATION [B-3] is allowed at Station A. If Station B has set CALL FORWARDING-BUSY LINE to the Attendant Console, BUSY VERIFICATION [B-3] is allowed at Station A.
6. When using CALL FORWARDING-BUSY LINE, the activating station may be used to originate calls.
7. When a call is Call Forwarded, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].
8. STATION-TO-STATION CALLING [S-11] must be provided.
9. A calling station, Attendant Console, or trunk can successfully activate EXECUTIVE RIGHT-OF-WAY [E-1], CALL WAITING-ORIGINATING [C-31], CALL WAITING-TERMINATING [C-12], or BUSY VERIFICATION [B-3] after having been Call Forwarded and having received busy tone. (A trunk cannot activate EXECUTIVE RIGHT-OF-WAY [E-1] or BUSY VERIFICATION [B-3]); ASYD - System Data 1, Index 69 = 1, Bit 5 = 1.

## C-2D Call Forwarding - Busy Line - D<sup>term</sup>

### General Description

This feature permits a call to a busy station to immediately be forwarded to a predesignated station, or to the Attendant. CALL FORWARDING - BUSY LINE - D<sup>term</sup> may be set or cancelled by the user for all multi-line appearances on the D<sup>term</sup>. Additionally, a single line user may set CALL FORWARDING - BUSY LINE - D<sup>term</sup> for all sub-lines on the D<sup>term</sup>.

### Operating Procedure

#### To set CALL FORWARDING - BUSY LINE - D<sup>term</sup>:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the CALL FORWARDING - BUSY LINE FORWARD-BY key; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone. The LED of the associated feature key lights and the LCD displays:

Target Station

<b>FORWARD SET</b> (Time Display)	<b>XXXX</b>
--------------------------------------	-------------

4. Replace the handset or press the SPEAKER key.
5. If the target station is the Attendant Console, the LCD displays:

<b>FWD SET</b> (Time Display)
----------------------------------

#### To monitor CALL FORWARDING - BUSY LINE - D<sup>term</sup>:

1. Press the CALL FORWARDING - BUSY LINE FORWARD-BY feature key. The LCD displays:

Target Station

<b>FORWARD</b> (Time Display)	<b>XXXX</b>
----------------------------------	-------------

2. If the target station is the Attendant Console:

<b>FWD SET</b> (Time Display)
----------------------------------

#### To cancel CALL FORWARDING - BUSY LINE - D<sup>term</sup>:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the FORWARD-BY key; receive service set tone. The LCD displays:

<b>FORWARD CANCEL</b> (Time Display)
---

3. The associated LED goes out.
4. Replace the handset or press the SPEAKER key.

## Operating Procedure (cont'd)

### To set CALL FORWARDING - BUSY LINE - D<sup>term</sup> to a D<sup>term</sup> multi-line:

1. Press the multi-line key for which CALL FORWARDING - BUSY LINE - D<sup>term</sup> feature is to be set.
2. Lift the handset or press the SPEAKER key; receive special dial tone.
3. Press the CALL FORWARDING - BUSY LINE "FORWARD-BY" feature key; receive special dial tone.
4. Dial the desired target telephone number; receive service set tone. The LCD displays:

Target Station

<b>FORWARD SET</b> (Time Display)	<b>XXXX</b>
--------------------------------------	-------------

5. The LED of the associated feature key lights on the D<sup>term</sup> for which this multi-line is a MY Line.
6. If the target station is the Attendant, the LCD displays:

<b>FWD SET OPR</b> (Time Display)
--------------------------------------

7. Replace the handset or press the SPEAKER key.

### To monitor CALL FORWARDING - BUSY LINE to a D<sup>term</sup> multi-line:

1. Press the multi-line key for which CALL FORWARDING - BUSY LINE - D<sup>term</sup> is to be monitored.
2. Press the FORWARD-BY key. The LCD displays:

Target Station

<b>FORWARD</b> (Time Display)	<b>XXXX</b>
----------------------------------	-------------

If the target station is the Attendant Console:

<b>FWD SET OPR</b> (Time Display)
--------------------------------------

### To cancel CALL FORWARDING - BUSY LINE to a D<sup>term</sup> multi-line:

1. Press the multi-line key for which CALL FORWARDING - BUSY LINE - D<sup>term</sup> feature is to be cancelled.
2. Lift the handset or press the SPEAKER key; receive dial tone.
3. Press the FORWARD-BY key; receive service set tone. The LED of the associated feature key will go out on the D<sup>term</sup> for which this multi-line is a MY Line. The LCD displays:

<b>FORWARD CANCEL</b> (Time Display)
---

4. Replace the handset or press the SPEAKER key.

## Service Conditions

1. This feature may be set and cancelled by the user or the Attendant.
2. CALL FORWARDING - BUSY LINE - D<sup>term</sup> data remains programmed, even if the system is reinitialized or a power failure occurs.



**Service Conditions (cont'd)**

3. This feature is assigned to stations through CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
4. There is no limitation to the number of stations that can set CALL FORWARDING - BUSY LINE [C-2] simultaneously.
5. CALL FORWARDING - BUSY LINE - D<sup>term</sup> may also be accessed via the dial pad or SPEED CALLING - ONE TOUCH [S-22].

**Note:** *If this feature is accessed via the dial pad, it must be cancelled via the dial pad.*

6. If separate access codes are programmed into System Data for CALL FORWARDING - DON'T ANSWER [C-3] and CALL FORWARDING - BUSY LINE [C-2], separate feature keys must be programmed on each D<sup>term</sup> to equip it with both features.
7. CALL FORWARDING - BUSY LINE - D<sup>term</sup> can be provided on a tenant and/or an individual station basis.
8. Call Forwarding on a tenant basis allows any incoming calls, which encounter a busy condition, to be forwarded to a predetermined station or the ATTENDANT CONSOLE [A-3].
9. Individual CALL FORWARDING - BUSY LINE - D<sup>term</sup> supersedes tenant basis CALL FORWARDING.
10. The display of an intermediate station on a D<sup>term</sup>'s LCD panel may be allowed or denied according to system data. This assignment is done on a system basis. The LCD displays:

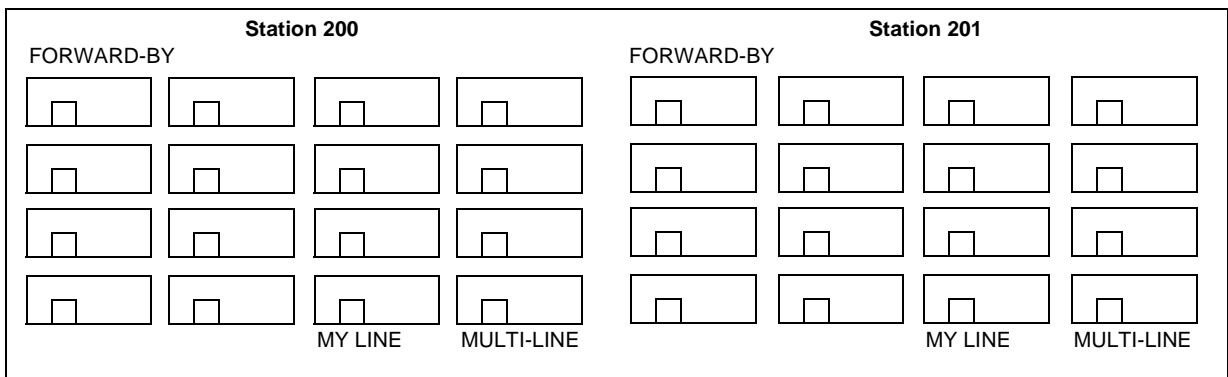
Intermediate Station	Calling/Called Party
<b>CF BUSY XXXX</b>	<b>XXXX</b>
<b>(Time Display)</b>	

**Note:** *When the telephone number of the intermediate or calling/called station exceeds 8 digits, the last 8 digits are displayed. However, a maximum of 16 digits calling/called telephone number can be displayed on the middle line of LCD depending on the System Data.*

11. CALL FORWARDING - BUSY LINE - D<sup>term</sup> supersedes STATION HUNTING [S-7, 8, 9].
12. The operator answering a forwarded call can identify the called number on the ATTENDANT CONSOLE [A-3] display.
13. If the called station is the pilot of a UCD [U-1] group and activates CALL FORWARDING - BUSY LINE - D<sup>term</sup>, the calling station will queue to the UCD [U-1] group and will not CALL FORWARD.
14. If a calling station, ATTENDANT CONSOLE [A-3], or trunk receives busy tone after setting CALL FORWARDING - BUSY LINE [C-2] and activates EXECUTIVE RIGHT-OF-WAY [E-1], CALL WAITING - ORIGINATING [C-31], CALL WAITING - TERMINATING [C-12], or BUSY VERIFICATION [B-3], these services will be activated to the calling station.
15. If all the stations in the terminating Station Hunt Group are busy, the forwarding call will hear busy tone and will not return to the calling party's Hunting Group.
16. When MULTIPLE CALL FORWARDING - BUSY LINE [M-24] service is activated, hunting will be performed at the last destination of the forwarded call, even though the multiple jumped stations are in a Hunt Group.
17. When the pilot station of a Hunt Group activates CALL FORWARDING - BUSY LINE - D<sup>term</sup> to a station (not a member of a Hunt Group) and system parameters specify that Call Hunting will be activated at the forwarded station, the NEAX2400 IMX will send busy tone if the forwarded station is busy. If the system parameters specify hunting at the forwarding station and the forwarded station is busy, the call will hunt in the forwarding station's Hunt Group.

**Service Conditions (cont'd)**

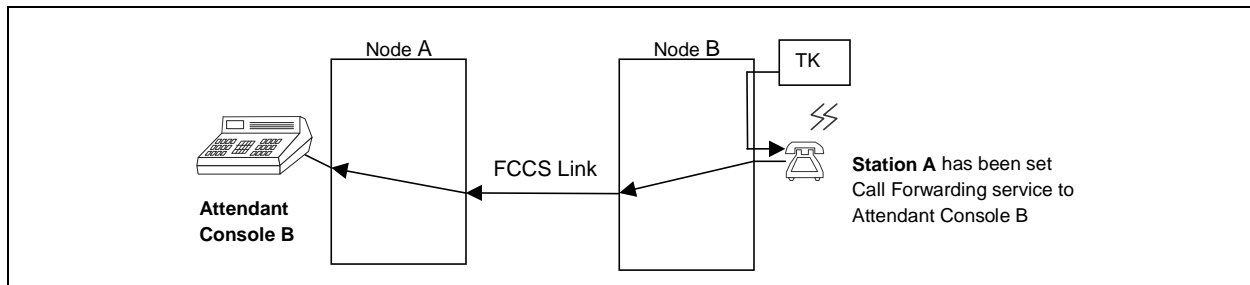
18. When a station sets CALL FORWARDING - ALL CALLS [C-5] to a pilot in a Hunt Group, and the pilot activates CALL FORWARDING - BUSY LINE to another station, if the system parameters define the call to hunt to the forwarded-to Station Hunt Group and all stations are busy, the calling party will hunt at the called station's Hunt Group. If system parameters assign the call to hunt to the forwarding Station Hunt Group and all stations are busy, the calling party will then hunt to the forwarding station's Hunt Group.
19. This service feature can be restricted according to the service restriction class of the D<sup>term</sup> MY Line. Even after the CALL FORWARDING - BUSY LINE [C-2] has been set to a D<sup>term</sup> multi-line, incoming calls to the multi-line cannot be transferred if the service restriction class of the MY Line restricts this service feature.
20. A user may set CALL FORWARDING - BUSY LINE - D<sup>term</sup> for a multi-line appearance based on the CLASS OF SERVICE - INDIVIDUAL [C-15], as assigned to the station setting the service. The figure below is a simplified key sheet assignment for stations 200 & 201. The CLASS OF SERVICE - INDIVIDUAL [C-15] for station 200 is allowed CALL FORWARDING - BUSY LINE - D<sup>term</sup>, but the CLASS OF SERVICE - INDIVIDUAL [C-15] for station 201 is not. Station 200 is able to set CALL FORWARDING - BUSY LINE - D<sup>term</sup> for station 201. The associated feature button LED on station 201 will illuminate.



- Note:** *The FORWARD-BY key is same as the CALL FORWARDING - BUSY LINE feature key.*  
 Even when a sub-line of D<sup>term</sup> is assigned as the destination station, the call is not forwarded if the MY Line of that D<sup>term</sup> is not allowed CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>.
21. This feature is applicable to CALL FORWARDING - OUTSIDE [C-28] and CALL FORWARDING/MULTIPLE CALL FORWARDING - BUSY LINE - CCIS [C-46] [M-41].
  22. When a user places a call to a busy station which has been set CALL FORWARDING-BUSY LINE [C-2], the calling party can override the call forwarding feature, activating service features associated with busy status such as CALL BACK [C-1], EXECUTIVE RIGHT-OF-WAY [E-1], STEP CALLS [S-13], provided that the service feature class (SFC) of the calling party permits this feature. Otherwise, the call is forwarded to a predetermined destination as usual.
  23. This service is not available when the called party is the attendant console or monitoring station. However, the service is available when these stations are designated as the transfer destination of CALL FORWARDING - BUSY LINE service.
  24. This service is available only when the called party is busy and has set CALL FORWARDING - BUSY LINE. In case CALL FORWARDING - BUSY LINE is set as the second hop and after in the Multiple Call Forwarding link, this service is not available.
  25. This service is available in the following occasions:
    - a.) When the destination of the CALL FORWARDING - BUSY LINE service is the calling station.

## Service Conditions (cont'd)

- b.) When the calling party is the attendant console or the night station, and the destination of the CALL FORWARDING - BUSY LINE service is also the attendant console or the night station.
26. SPLIT CALL FORWARDING [S-99] is available only when the calling party is the station or the CCIS line.
  27. The OAI monitor number and the ACD pilot number cannot be assigned as the Call Forwarding target telephone number except when called from a station or Tie Line trunk.
  28. Telephone number must be set to the call forwarding destination.
  29. This feature is not available for stations having a telephone number of seven digits or more.
  30. A call can be forwarded to an Attendant Console in the remote node via FCCS link.



31. When a call is forwarded through FCCS link, the numbering plan of the originally called station must be identical with that of the forwarded Attendant Console.

## Interactions

1. If the same access code is used for CALL FORWARDING - BUSY LINE - D<sup>term</sup> and CALL FORWARDING - DON'T ANSWER [C-3], only one key needs to be assigned in AKYD.
2. An ATTENDANT CAMP-ON [A-1] call is terminated at Station A, and Station A has CALL FORWARDING - BUSY LINE - D<sup>term</sup> set to Station B. If Station B is busy and part of a STATION HUNTING [S-7, 8, 9] Group, the call will Camp-On at Station A and will not Hunt.
3. When CALL WAITING [C-12, 31], ATTENDANT CAMP-ON [A-1], and CALL BACK [C-1] is directed toward Station A, which has call forwarding set to Station B, and Station B is busy, Station A will receive Call Waiting Tone.
4. A non-controlling UCD station is allowed to activate CALL FORWARDING - BUSY LINE - D<sup>term</sup> [C-2]. When this station sets CALL FORWARDING - BUSY LINE - D<sup>term</sup>, only calls that are directly dialed to this station are call forwarded.
5. The Attendant attempts BUSY VERIFICATION [B-3] to Station A. Station A has CALL FORWARDING - BUSY LINE - D<sup>term</sup> set to Station B. Station B is busy. BUSY VERIFICATION is allowed at Station A. If Station A has set CALL FORWARDING - BUSY LINE - D<sup>term</sup> to the Attendant Console, BUSY VERIFICATION [B-3] is allowed at Station A.
6. When CALL FORWARDING - BUSY LINE - D<sup>term</sup> is in effect, the activating station may be used to originate calls.
7. When a call follows call forwarding, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].
8. STATION-TO-STATION CALLING [S-11] must be provided.

## C-3 Call Forwarding - Don't Answer

### General Description

This feature permits a call to an unanswered station to be forwarded to a predesignated station, or to the Attendant, when the called station doesn't answer after a predetermined time interval. If the individual Call Forwarding - Don't Answer timer is not assigned, the default timer assigned by system data programming is used.

### Operating Procedure

#### To set CALL FORWARDING - DON'T ANSWER from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - DON'T ANSWER access code; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone.

#### To cancel CALL FORWARDING - DON'T ANSWER from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - DON'T ANSWER cancel code; receive service set tone.

#### To set CALL FORWARDING - DON'T ANSWER from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - DON'T ANSWER access code; receive special dial tone.
3. Dial the TENANT [T-12] number (2/3 digits).
4. Dial the originating telephone number.
5. Dial the desired target telephone number; receive service set tone.

#### To cancel CALL FORWARDING - DON'T ANSWER from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - DON'T ANSWER cancel code; receive special dial tone.
3. Dial the TENANT [T-12] number (2/3 digits).
4. Dial the originating telephone number; receive service set tone.

#### To assign individual Call Forwarding - Don't Answer timer to each station:

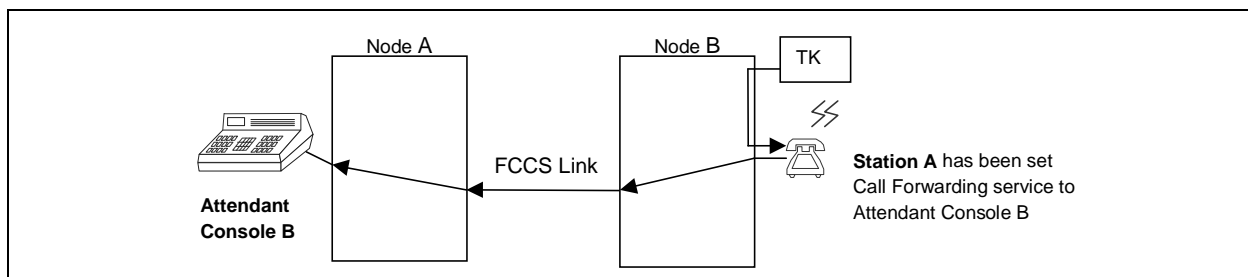
1. Use the ADAI command:
  - a.) Parameter NAT139 overrides SYS-1, Index 139 of ASYD
  - b.) Parameter NAT140 overrides SYS-1, Index 140 of ASYD
  - c.) Parameter NAT141 overrides SYS-1, Index 141 of ASYD
  - d.) Parameter NAT247 overrides SYS-1, Index 247 of ASYD
2. Timer assigned to called party is valid.

### Service Conditions

1. This feature may be set and cancelled by either the user or the Attendant.
2. When the Attendant extends a call to a station that has set CALL FORWARDING - DON'T ANSWER, the called station will ring for 10 seconds. If the call is not answered, AUTOMATIC RECALL [A-8] is activated. This timing can be changed through the VARIABLE TIMING PARAMETERS [V-1] feature.
3. This feature is assigned by CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
4. A station programmed for access to CALL FORWARDING - DON'T ANSWER is automatically allowed CALL FORWARDING - BUSY LINE [C-2, 2D].
5. There is no limitation to the number of stations that can set the CALL FORWARDING - DON'T ANSWER simultaneously.

**Service Conditions (cont'd)**

6. CALL FORWARDING - DON'T ANSWER can be provided on either a tenant or an individual basis.
7. Individual CALL FORWARDING - DON'T ANSWER takes precedence over tenant basis Call Forwarding.
8. Call Forwarding on a tenant basis allows direct incoming trunk calls that encounter a Don't Answer condition to be forwarded to a predetermined station or the ATTENDANT CONSOLE [A-3].
9. The operator answering a Call Forwarding call can identify the called telephone number on the ATTENDANT CONSOLE [A-3] display.
10. CALL FORWARDING - DON'T ANSWER from the Attendant is only activated after pressing the RELEASE key.
11. If the station's own telephone number is set for CALL FORWARDING - DON'T ANSWER, then this feature is changed to CALLING PARTY RECOGNITION SERVICE (CALL FORWARDING - DON'T ANSWER [C-103]).
12. When the called station does not answer for a predetermined time interval, stations are assigned this feature according to the TENANT SERVICE [T-12] class of the calling and destination stations. In the following cases, when the calling station and destination station are restricted by TENANT SERVICE [T-12] class, this feature is not activated, and the called station continues to ring:
  - a.) when the station called is setting CALL FORWARDING - DON'T ANSWER,
  - b.) when a station holding an original call (station or trunk) on CONSULTATION HOLD [C-17] places a call to a station setting CALL FORWARDING - DON'T ANSWER.
13. Call Transfer - Attendant (Trunk): Trunk calls transferred by the Attendant are assigned this feature when the called station does not answer for a predetermined time interval according to Route Restriction Class of the trunk and the destination stations. When restricted by Route Restriction Class, this feature is not activated, and the called station continues to ring.
14. Call Transfer - Attendant (Station): Station calls transferred by the Attendant are assigned this feature when the called station does not answer for a predetermined time interval according to TENANT SERVICE [T-12] class of the originating and destination stations. When restricted by Tenant Service class, this feature is not activated, and the called station continues to ring.
15. Speed Calling List numbers may be programmed as the destination telephone number. This permits the sent digits to exceed the 12-digit maximum.
16. CALL FORWARDING - DON'T ANSWER data remains in the data memory, even if the system or LP is reinitialized.
17. SPLIT CALL FORWARDING [S-99]: When a call is forwarded to the parties predesignated by SPLIT CALL FORWARDING [S-99], service conditions are the same as described in items 12, 13, and 14.
18. When a call is transferred from the Attendant to a station that has set CALL FORWARDING - DON'T ANSWER, this feature may be restricted or activated according to System Data (Sys 2, Index 6, Bit 7).
19. A call can be forwarded to an Attendant Console in the remote node via FCCS link.



**Service Conditions (cont'd)**

20. When a call is forwarded through FCCS link, the numbering plan of the originally called station must be identical with the one of the forwarded Attendant Console.
21. If individual Call Forwarding - Don't Answer timer is not given, the default timer assigned by ASYD command is used.

**Interactions**

1. If access codes for CALL FORWARDING-BUSY LINE and CALL FORWARDING-DON'T ANSWER are the same, only one key needs to be assigned in AKYD.
2. ACFO is applicable to DID, DIT, and TIE Line calls only.
3. A non-controlling UCD station is allowed to activate CALL FORWARDING-DON'T ANSWER. When this station sets call forwarding, calls directed to this station will be call forwarded. The member station is not removed from the UCD group under the conditions of the call forwarding feature used. When it is the station's turn to ring, that call is affected by CALL FORWARDING-DON'T ANSWER.
4. CALL FORWARDING-DON'T ANSWER to an Attendant Console will not operate when the system is in Night mode. If ATTENDANT NIGHT TRANSFER [A-19] is provided, the call is forwarded to the ATTENDANT NIGHT TRANSFER [A-19] station.
5. If the CALL FORWARDING-DON'T ANSWER target station is a D<sup>term</sup> that has activated DO NOT DISTURB [D-21D], call forwarding is not activated.
6. The CALL FORWARDING-DON'T ANSWER feature is set from Station A to Station B if Station A is idle and Station B is busy.
7. When a call is Call Forwarded, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].
8. STATION-TO-STATION CALLING [S-11] must first be provided.

## C-3D Call Forwarding - Don't Answer - D<sup>term</sup>

### General Description

This feature permits a call to an unanswered station to be forwarded to a predesignated station or to the Attendant, if the called station does not answer within a predetermined period of time. CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> may be set or cancelled by the user for all multi-line appearances on the D<sup>term</sup>. Additionally, a single station user may set CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> to all sub-lines on the D<sup>term</sup>.

### Operating Procedure

#### To set CALL FORWARDING - DON'T ANSWER D<sup>term</sup> from MY Line:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the CALL FORWARDING - DON'T ANSWER FORWARD-NA key; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone. The LCD displays:

Target Station

<b>FORWARD SET</b> (Time Display)	<b>XXXX</b>
--------------------------------------	-------------

#### To monitor CALL FORWARDING - DON'T ANSWER from a D<sup>term</sup> from MY Line:

1. Press the CALL FORWARDING - DON'T ANSWER FORWARD-NA key. The LCD displays:

<b>FORWARD</b> (Time Display)	<b>XXXX</b>
----------------------------------	-------------

OR

<b>FWD SET</b> (Time Display)
----------------------------------

#### To set CALL FORWARDING - DON'T ANSWER for a multi-line appearance other than the MY Line:

1. Lift the handset or press the SPEAKER key.
2. Press the multi-line appearance; receive dial tone. Press the CALL FORWARDING - DON'T ANSWER FORWARD-NA key; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone. The LED of the associated feature button does not light at the station setting the service. If the multi-line appearance is another D<sup>term</sup>'s MY Line, that station's feature key LED will light. The setting station's LCD displays:

Target Station:

<b>FORWARD SET</b> (Time Display)	<b>XXXX</b>
--------------------------------------	-------------

4. Replace the handset or press the SPEAKER key.
5. If the target station is the Attendant, the LCD displays:

<b>FWD SET OPR</b> (Time Display)
--------------------------------------

## Operating Procedure (cont'd)

To monitor CALL FORWARDING - DON'T ANSWER for a multi-line appearance other than the MY Line:

1. Press the CALL FORWARDING - DON'T ANSWER FORWARD-NA key. The LCD displays:

Target Station

<b>FORWARD</b> (Time Display)	<b>XXXX</b>
----------------------------------	-------------

To cancel CALL FORWARDING - DON'T ANSWER from MY Line:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the CALL FORWARDING - DON'T ANSWER FORWARD-NA key. The associated LED goes out. Receive service set tone. The LCD displays:

<b>FORWARD CANCEL</b> (Time Display)
---

To cancel CALL FORWARDING - DON'T ANSWER for a multi-line appearance other than the MY Line:

1. Lift the handset or press the SPEAKER key.
2. Press the multi-line appearance; receive dial tone. Press the CALL FORWARDING - DON'T ANSWER FORWARD-NA key; receive service set tone. The LCD displays:

<b>FORWARD CANCEL</b> (Time Display)
---

The associated LED that is lit at another station goes out.

3. Replace the handset or press the SPEAKER key.

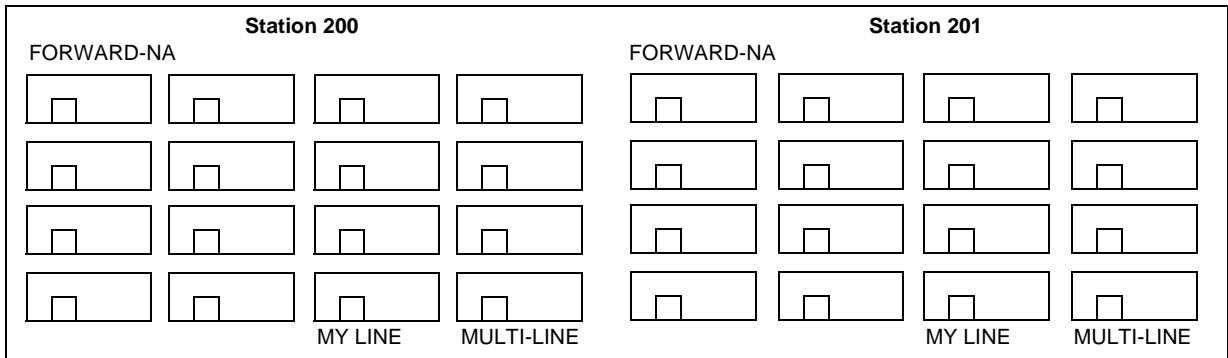
## Service Conditions

1. This feature may be set and cancelled by the D<sup>term</sup> user or the Attendant.
2. AUTOMATIC RECALL [A-8] supersedes the timing for CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>. Therefore, if the programmed timing for AUTOMATIC RECALL [A-8] is shorter than the programmed timing for CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>, CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> is disabled.
3. Stations are assigned this feature according to CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
4. A station programmed for access to CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> is automatically allowed CALL FORWARDING - BUSY LINE [C-2].
5. All stations may simultaneously activate CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>.
6. If separate access codes are programmed into System Data for CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> and CALL FORWARDING - BUSY LINE [C-2], each feature must be programmed on a separate feature button at the D<sup>term</sup>.
7. CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> may also be accessed via the dial pad or SPEED CALLING - ONE TOUCH - D<sup>term</sup> [S-26D]. If this feature is accessed via the dial pad, it must be cancelled via the dial pad.
8. CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> is not applicable to CONSULTATION HOLD - ALL CALLS [C-17], and CALL TRANSFER - ALL CALLS [C-11].



**Service Conditions (cont'd)**

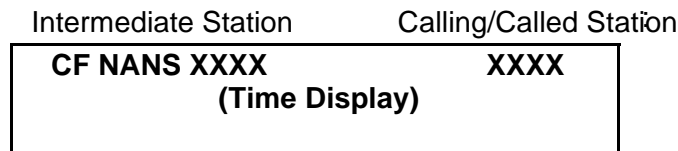
9. A user may set CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> for a multi-line appearance based on the CLASS OF SERVICE - INDIVIDUAL [C-15] as assigned to the station (MY Line) setting the service. The figure below is a simplified key sheet assignment for stations 200 & 201. The CLASS OF SERVICE - INDIVIDUAL [C-15] for station 200 is allowed CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>, but the CLASS OF SERVICE - INDIVIDUAL [C-15] for station 201 is not. Station 200 is able to set CALL FORWARDING - DON'T ANSWER - D<sup>term</sup> for station 201. The associated feature button LED on station 201 will illuminate.



**Note:** FORWARD-NA key is same as the CALL FORWARDING - DON'T ANSWER feature key.

Even when a sub-line of D<sup>term</sup> is assigned as the destination station, the call is not forwarded if the MY Line of that D<sup>term</sup> is not allowed CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>.

10. This feature is applicable to CALL FORWARDING - ALL CALLS - OUTSIDE [C-28], CALL FORWARDING - DON'T ANSWER - CCIS [C-47], and MULTIPLE CALL FORWARDING -DON'T ANSWER - CCIS [M-42].
11. The display of an intermediate station on a D<sup>term</sup>'s LCD panel may be allowed or denied according to System Data. This arrangement is done on a system basis. The LCD displays:

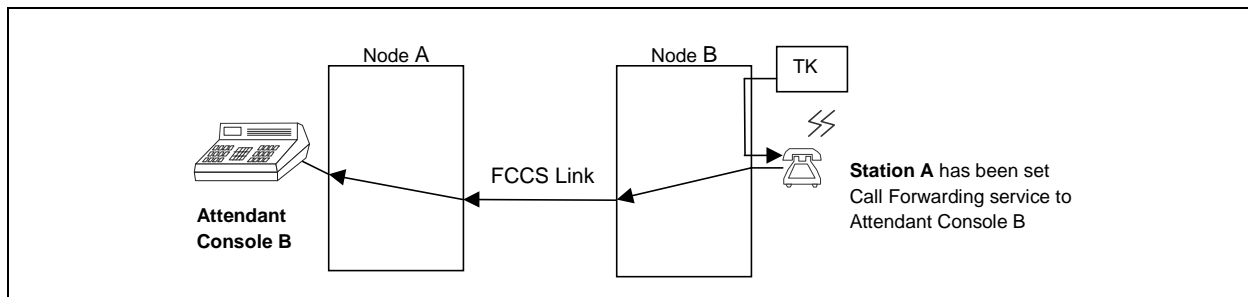


**Note:** When the telephone number of the intermediate or calling/called station exceeds 8 digits, the last 8 digits are displayed. However, a maximum of 16 digits calling/called telephone number can be displayed on the middle line of LCD depending on the System Data.

12. Stations are assigned this feature according to TENANT SERVICE [T-12] of the calling and destination stations, when the called station does not answer for a predetermined time interval. In the following cases, when the calling or destination stations are restricted by TENANT SERVICE [T-12] class, this feature is not activated, and the called station continues to ring:
  - a.) when a station places a call to another station setting CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>,
  - b.) when a station holding an original call (station or trunk) on CONSULTATION HOLD [C-17] places a call to a station setting CALL FORWARDING - DON'T ANSWER - D<sup>term</sup>.
13. Call Transfer - Attendant (Trunk): Trunk calls transferred by the Attendant are assigned this feature according to Route Restriction Class of the trunk and the destination station when the station does not answer for a predetermined time interval. When restricted by Route Restriction Class, this feature is not activated, and the called station continues to ring.

## Service Conditions (cont'd)

14. Call Transfer - Attendant (Station): Station calls transferred by the Attendant are assigned this feature according to TENANT SERVICE [T-12] class of the originating and destination stations when the called station does not answer for a predetermined time interval. When restricted by TENANT SERVICE class, this feature is not activated, and the called station continues to ring.
15. Speed Calling List numbers may be programmed as the destination telephone number. This permits the sent digits to exceed the 12-digit maximum.
16. CALL FORWARDING - DON'T ANSWER data remains in the data memory, even if the system or LP is reinitialized.
17. When a call is transferred from the Attendant to a station that has set CALL FORWARDING - DON'T ANSWER, this feature may be restricted or activated according to System Data (SYS2, INDEX6, BIT7).
18. A call can be forwarded to an Attendant Console in the remote node via FCCS link.



19. When a call is forwarded through FCCS link, the numbering plan of the originally called station must be identical with that of the forwarded Attendant Console.

## Interactions

1. If access code for CALL FORWARDING-BUSY LINE [C-2] and CALL FORWARDING-DON'T ANSWER-D<sup>term</sup> are the same, only one key needs to be assigned in AKYD.
2. ACFO is applicable to DID, DIT, and TIE Line calls only.
3. A non-controlling UCD station is allowed to activate CALL FORWARDING-DON'T ANSWER-D<sup>term</sup>. When this station sets Call Forwarding, calls directed to this station will be call forwarded. The member station is not removed from the UCD group under the conditions of which the Call Forwarding feature is used. When it is the station's turn to ring, that call is affected by CALL FORWARDING-DON'T ANSWER - D<sup>term</sup>.
4. CALL FORWARDING-DON'T ANSWER-D<sup>term</sup> to an Attendant Console will not operate when the system is in Night mode. If ATTENDANT NIGHT TRANSFER [A-19] is provided, the call is forwarded to the ATTENDANT NIGHT TRANSFER [A-19] station.
5. If the CALL FORWARDING-DON'T ANSWER-D<sup>term</sup> target station is a D<sup>term</sup> and DO NOT DISTURB [D-21D] has been set, Call Forwarding is not activated. The station will ring, and the timer setting in System Data 1, Index 145 is ignored.
6. When CALL FORWARDING-DON'T ANSWER-D<sup>term</sup> is set from Station A to Station B, Station A is idle, Station B is busy, and Station A will ring. The timer setting in System Data 1, Index 145 is ignored.
7. When a call is call forwarded, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].
8. STATION-TO-STATION CALLING [S-11] must first be provided.

# C-5 Call Forwarding - All Calls

## General Description

This feature permits all calls destined for a particular station to be routed to another station (or to the Attendant) regardless of the busy or idle status of the called station. Activation and cancellation may be accomplished by either the individual user or the Attendant.

## Operating Procedure

### To activate CALL FORWARDING - ALL CALLS from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - ALL CALLS access code; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone.

### To cancel CALL FORWARDING - ALL CALLS from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - ALL CALLS cancel code; receive service set tone.

### To activate CALL FORWARDING - ALL CALLS from the ATTENDANT CONSOLE [A-3]:

1. Press an idle LOOP key.
2. Dial the CALL FORWARDING - ALL CALLS access code; receive special dial tone.
3. Dial the TENANT [T-12] number (2/3 digits).
4. Dial the originating telephone number.
5. Dial the desired target telephone number; receive service set tone.

### To cancel CALL FORWARDING - ALL CALLS from the ATTENDANT CONSOLE [A-3]:

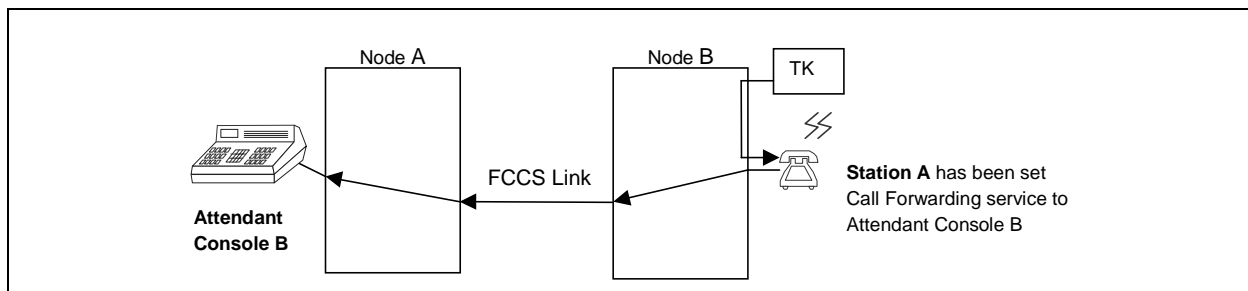
1. Press an idle LOOP key.
2. Dial the specific CALL FORWARDING - ALL CALLS cancellation code; receive special dial tone.
3. Dial the TENANT [T-12] number (3 digits).
4. Dial the originating telephone number; receive service set tone.

## Service Conditions

1. Stations with this feature set may originate any calls and access the CALL FORWARDING - ALL CALLS cancellation code.
2. There is no limit to the number of stations that can set this feature simultaneously.
3. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in system data.
4. When a call is forwarded to another station, one burst of ringing signal will be sent to the station to indicate that it is forwarded.
5. Stations activating this feature may be restricted from placing any calls, except to the Attendant. (This is an optionally programmable feature).
6. When the operator answers a forwarded call, System Data programming can provide a called telephone number display on the ATTENDANT CONSOLE [A-3].
7. CALL FORWARDING - ALL CALLS data remains in the data memory, even if the system is re-initialized or in the event of a power failure.
8. If the station's own telephone number is set for CALL FORWARDING - ALL CALLS, this feature is changed to CALLING PARTY RECOGNITION SERVICE (CALL FORWARDING - ALL CALLS) [C-103].

### Service Conditions (cont'd)

9. When the user setting CALL FORWARDING - ALL CALLS goes off-hook, special dial tone can be provided instead of dial tone. (Activation of this service is determined by system data.)
10. The OAI monitor number and the ACD pilot number cannot be assigned as the Call Forwarding target telephone number except when called from a station or Tie Line trunk.
11. When a destination of CALL FORWARDING-ALL CALLS has already been assigned, even if the feature is restricted by the new office data or changing of Day/Night mode, the assigned data can still be used or cancelled.
12. A telephone number must be set to the call forwarding destination.
13. This feature is not available for stations having a telephone number of seven digits or more.
14. A call can be forwarded to an Attendant Console in the remote node via FCCS link.



15. When a call is forwarded through FCCS link, the numbering plans of the originally called station and the forwarded Attendant Console must be the same.

### Interactions

1. Users are unaccustomed to hearing ringback tone when responding to their own station's ring. Inform users when providing ringback tone with CALL FORWARDING-ALL CALLS in System Data 1, Index 69, Bit 1.
2. Call Forwarding can only be activated from an idle station.
3. When CALL WAITING [C-12, 31], ATTENDANT CAMP-ON [A-1], and CALL BACK [C-1] are directed toward Station A, with CALL FORWARDING set to Station B, Station B will receive Call Waiting Tone.
4. When a station in a STATION HUNTING [S-7, 8, 9] Group initiates CALL FORWARDING-ALL CALLS, calls normally destined for this station will not be received. The Hunt Group operates as if the station were busy.
5. A non-controlling UCD station is allowed to activate CALL FORWARDING-ALL CALLS. With this station call forwarded, only calls that are directly dialed to this station are call forwarded. The member station is removed from the UCD group under the conditions of this call forwarding feature.
6. If an Attendant attempts BUSY VERIFICATION [B-3] to Station A, which has CALL FORWARDING-ALL CALLS set to Station B, BUSY VERIFICATION [B-3] proceeds as if the Attendant had attempted to Verify Station B. If Station A has set CALL FORWARDING-ALL CALLS to the Attendant Console, BUSY VERIFICATION [B-3] is allowed at Station A if Station A were busy.
7. When CALL FORWARDING-ALL CALLS is in effect, the activating station may be used to originate calls. See System Data 2, Index 6, Bit 4.
8. When a station is call forwarded, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].

**Interactions (cont'd)**

9. CALL FORWARDING-ALL CALLS can be overridden, allowing Station B to initiate or transfer calls back to Station A.
10. STATION-TO-STATION CALLING [S-11] must first be provided.

## C-5D Call Forwarding - All Calls - D<sup>term</sup>

### General Description

This feature permits all calls destined for a particular station to be routed to another station, or to the Attendant, regardless of the busy or idle status of the called station. Activation and cancellation may be accomplished by the user or the Attendant. CALL FORWARDING - ALL CALLS - D<sup>term</sup> may be set or cancelled by the user for all multi-line appearances on the D<sup>term</sup>. Additionally, a single user may set CALL FORWARDING - ALL CALLS - D<sup>term</sup> to all sub-lines on the D<sup>term</sup>.

### Operating Procedure

#### To set CALL FORWARDING - ALL CALLS from MY Line:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the CALL FORWARDING - ALL CALLS feature key; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone. The LED will light. The LCD displays:

Target Station

<b>FORWARD SET</b> <b>(Time Display)</b>	<b>XXXX</b>
---	-------------

4. Replace the handset or press the SPEAKER key.

#### To monitor CALL FORWARDING - ALL CALLS from MY Line:

1. Press the CALL FORWARDING - ALL CALLS feature key. The LCD displays:

Target Station

<b>FORWARD</b> <b>(Time Display)</b>	<b>XXXX</b>
---	-------------

OR

Operator

<b>FWD SET</b> <b>(Time Display)</b>
---

#### To cancel CALL FORWARDING - ALL CALLS from MY Line:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the CALL FORWARDING - ALL CALLS feature key; receive service set tone. The LED of the associated feature key will go out. The LCD displays:

<b>FORWARD CANCEL</b> <b>(Time Display)</b>
--

3. Replace the handset or press the SPEAKER key.

#### To set CALL FORWARDING - ALL CALLS for a multi-line appearance other than the MY Line:

1. Lift the handset or press the SPEAKER key.
2. Press the multi-line appearance; receive dial tone. Then press CALL FORWARDING - ALL CALLS feature key; receive special dial tone.

## Operating Procedure (cont'd)

3. Dial the desired target telephone number; receive service set tone. The LED of the associated feature key does not light at the station setting the service. If the multi-line appearance is another D<sup>term</sup>'s MY Line, that station's feature key LED will light. The setting station's LCD displays:

Target Station

<b>FORWARD SET</b> (Time Display) <b>XXXX</b>
--

4. Replace the handset or press the SPEAKER key.
5. If the target station is the operator, the LCD displays:

<b>FWD SET OPR</b> (Time Display)
--------------------------------------

### To monitor CALL FORWARDING - ALL CALLS for a multi-line appearance other than the MY Line:

1. Press the multi-line appearance. Then press the CALL FORWARDING - ALL CALLS feature key. The LCD displays:

Target Station

<b>FORWARD</b> (Time Display) <b>XXXX</b>
--

### To cancel CALL FORWARDING - ALL CALLS for a multi-line appearance other than the MY Line:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the multi-line appearance; receive dial tone. Press the CALL FORWARDING - ALL CALLS feature key; receive service set tone. The LCD displays:

<b>FORWARD CANCEL</b> (Time Display)
---

The associated LED that is lit at another station goes out.

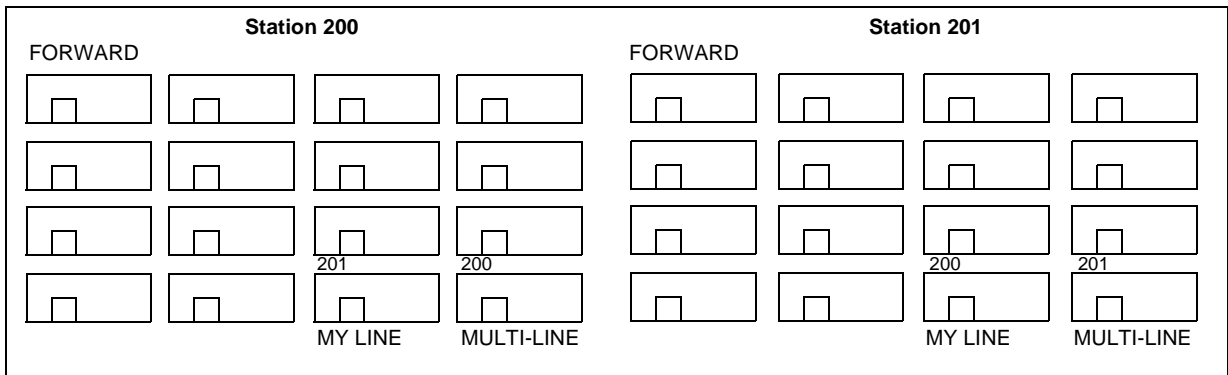
3. Replace the handset or press the SPEAKER key.

## Service Conditions

1. Stations with this feature set may originate any calls and access the CALL FORWARDING - ALL CALLS - D<sup>term</sup> cancellation code.
2. All stations may simultaneously activate CALL FORWARDING - ALL CALLS - D<sup>term</sup>.
3. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
4. If Station A sets Call Forwarding to Station B, and Station B is set for Call Forwarding to Station C, calls to Station A will be forwarded to Station B but will not be routed to Station C, unless MULTIPLE CALL FORWARDING - ALL CALLS [M-44] has been set in System Data.
5. CALL FORWARDING - ALL CALLS - D<sup>term</sup> can only be set from the MY Line or sub-line.
6. CALL FORWARDING - ALL CALLS - D<sup>term</sup> may also be accessed via the dial pad or SPEED CALLING-ONE TOUCH [S-26D]. If this feature is accessed via the dial pad, it must also be cancelled via the dial pad.

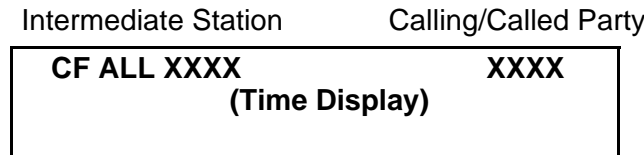
**Service Conditions (cont'd)**

- A user may set CALL FORWARDING - ALL CALLS - D<sup>term</sup> for a multi-line appearance based on the CLASS OF SERVICE - INDIVIDUAL [C-15] assigned to the station setting the service. The figure below is a simplified key sheet assignment for stations 200 & 201. The CLASS OF SERVICE - INDIVIDUAL [C-15] for station 200 is allowed CALL FORWARDING - ALL CALLS - D<sup>term</sup>, but the CLASS OF SERVICE - INDIVIDUAL [C-15] for station 201 is not. Station 200 is able to set CALL FORWARDING - ALL CALLS - D<sup>term</sup> for station 201. The associated feature button LED on station 201 will illuminate.



**Note:** FORWARD key is same as the CALL FORWARDING - ALL CALLS feature key.

- This feature is applicable to CALL FORWARDING - ALL CALLS - OUTSIDE [C-28] and CALL FORWARDING and MULTIPLE CALL FORWARDING - ALL CALLS - CCIS [C-45] [M-40].
- The display of an intermediate station on a D<sup>term</sup>'s LCD panel may be allowed or denied according to System Data. This assignment is done on a system basis. The LCD displays:



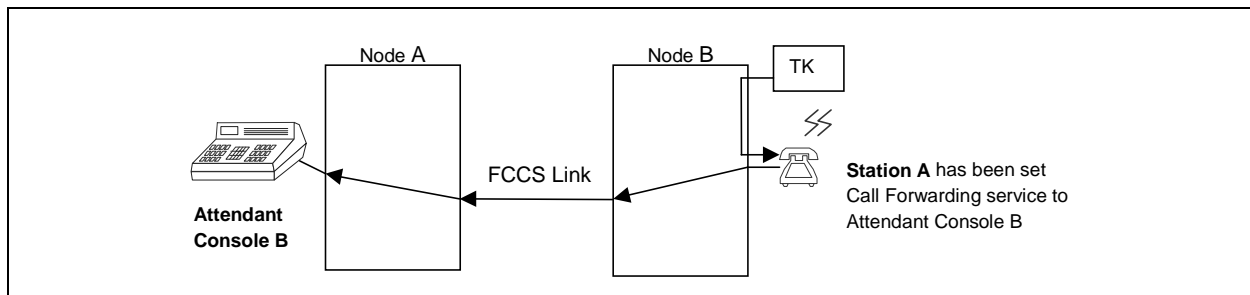
**Note:** When the telephone number of the intermediate or calling/called station exceeds 8 digits, the last 8 digits are displayed. However, a maximum of 16 digits calling/called telephone number can be displayed on the middle line of LCD depending on the System Data.

- When the user setting CALL FORWARDING - ALL CALLS goes off-hook, the special dial tone can be provided instead of dial tone. (Activation of this service is determined in the System Data.)
- The OAI monitor number and the ACD pilot number cannot be assigned as the Call Forwarding target telephone number except when called from a station or Tie Line trunk.
- When a destination of CALL FORWARDING - ALL CALLS - D<sup>term</sup> has already been assigned, even if the feature is restricted by the new office data or by changing of the DAY/NIGHT mode, the assigned data can still be used or cancelled.
- A telephone number must be set to the call forwarding destination.
- This feature is not available for stations having a telephone number of seven digits or more.



## Service Conditions (cont'd)

15. A call can be forwarded to an Attendant Console in the remote node via FCCS link.



16. When a call is forwarded through FCCS link, the numbering plans of the originally called station and the forwarded Attendant Console must be the same.

## Interactions

1. Users are unaccustomed to hearing ringback tone when responding to their own station's ring. Inform users when providing ringback tone with CALL FORWARDING-ALL CALLS in System Data 1, Index 69, Bit 1.
2. Call Forwarding can only be activated from an idle station.
3. When CALL WAITING [C-12, 31], ATTENDANT CAMP-ON [A-1], and CALL BACK [C-1] are directed toward Station A, with CALL FORWARDING set to Station B, Station B will receive Call Waiting Tone.
4. When a station in a STATION HUNTING [S-7, 8, 9] Group initiates CALL FORWARDING-ALL CALLS, calls normally destined for this station will not be received. The Hunt Group operates as if the station were busy.
5. A non-controlling UCD station is allowed to activate CALL FORWARDING [C-5]. With this station call forwarded, only calls that are directly dialed to this station are call forwarded. The member station is removed from the UCD group under the conditions of this call forwarding feature.
6. If an Attendant attempts BUSY VERIFICATION [B-3] to Station A, which has CALL FORWARDING-ALL CALLS set to Station B, BUSY VERIFICATION [B-3] proceeds as if the Attendant had attempted to Verify Station B. If Station A has set CALL FORWARDING-ALL CALLS to the Attendant Console, BUSY VERIFICATION [B-3] is allowed at Station A if Station A is busy.
7. When CALL FORWARDING-ALL CALLS is in effect, the call forwarded station may be used to originate calls. See System Data 2, Index 6 Bit 4.
8. When a station is call forwarded, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].
9. CALL FORWARDING-ALL CALLS can be overridden, allowing Station B to initiate or transfer calls back to Station A.
10. STATION-TO-STATION CALLING [S-11] must first be provided.

## C-6

## Call Hold

### General Description

This feature permits any user to hold a call in progress by performing a switch hook flash and dialing a preprogrammed CALL HOLD code, thus allowing that line to be used for originating another call or returning to a previously held call.

### Operating Procedure

#### To hold a call in progress:

1. Press the switch hook; receive special dial tone.
2. Dial CALL HOLD code; receive normal dial tone.
3. The call in progress is held; the user may initiate a new call.

#### To release a new call and return to the held call:

1. Replace the handset, releasing the new call.
2. The original call rings back to station.
3. Lift the handset and continue with the original call.

#### To hold a new call and return to original call:

1. Press the switch hook; receive special dial tone.
2. Dial the CALL HOLD code; the new call is now held.
3. The original call is automatically returned.

**Note:** *By repeating the above steps, users can converse alternately with two parties.*

### Service Conditions

1. Lines freed through use of this feature may also be used for answering incoming calls via the CALL PICKUP - GROUP [C-7] or TRUNK ANSWER FROM ANY STATION [T-8] features.
2. If the controlling user does not dial any further digits after the CALL HOLD code, removal of dial tone will occur after 12 seconds; reorder tone is then applied for 30 seconds followed by muting of the station set.
3. Calls will remain on hold until the controlling user either replaces the handset, causing the held call to ring back, or flashes the switch hook and redials the Hold code to return to the original call.
4. Only one call at a time may be held per station line, and the held call cannot be added to another call as in THREE-WAY CALLING [T-2].
5. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
6. There is no limitation to the number of stations that may simultaneously access this feature.
7. CALL WAITING [C-12, 31] cannot be activated if the target station has a call on HOLD.
8. CALL BACK [C-1]:
  - a.) A user cannot activate CALL HOLD when CALL BACK [C-1] has already been activated.
  - b.) A user cannot use the CALL HOLD feature while CALL BACK [C-1] is in effect toward it.
  - c.) A user with a call on HOLD cannot activate the CALL BACK [C-1] feature.
9. CALL PICKUP [C-7, 30]: A user is denied use of the CALL PICKUP [C-7, 30] feature when holding one call and in a talking state with another call.

## Service Conditions (cont'd)

10. THREE-WAY CALLING [T-2]: This feature used in conjunction with the CALL HOLD feature, allows the calling user to transfer a second call while holding the first call. After transferring the second call, the calling user is rung back by the party on hold.
11. EXECUTIVE RIGHT-OF-WAY [E-1]: Executive Override of a station that has a call on HOLD and is connected to another call is allowed. However, Executive Override of a station on HOLD is denied (reorder tone is heard).
12. CALL FORWARDING [C-2, 3, 5]: This feature interacts with CALL HOLD as follows: CALL HOLD ringbacks are not forwarded; instead, the calling station is rung back with the held call after going on-hook.
13. BUSY VERIFICATION [B-2]: Busy Verification of a station on HOLD is denied. Busy Verification of a station that has a call on HOLD is allowed if the station is in a talking state with another party.
14. OUTGOING TRUNK QUEUING [O-2, 2D]: A user cannot be placed in a ringback queue while holding another call in hold.
15. Attendant calls cannot be held.
16. Call Hold cannot be activated when ATTENDANT CAMP-ON has already been set.

## Interactions

1. CONSULTATION HOLD [C-17] must be allowed for all features that will operate by using the switch hook to make a connection. This includes CALL TRANSFER [C-11], CALL PICKUP [C-7], THREE-WAY CALLING [T-2], etc.
2. A station can CALL HOLD only one call at a time.
3. CALL WAITING [C-12, 31]: When a station has a call on CALL HOLD, CALL WAITING [C-12, 31] features are denied to both the holding and the held station.
4. CALL BACK [C-1]:
  - a.) A user cannot activate CALL HOLD when CALL BACK [C-1] has already been activated.
  - b.) A user cannot use the CALL HOLD feature while CALL BACK [C-1] is in effect toward it.
  - c.) A user with a call on HOLD cannot activate the CALL BACK [C-1] feature.
5. NON-EXCLUSIVE and EXCLUSIVE HOLD [N-7D, E-4D] are not affected by CALLBACK [C-1].
6. CALL PICKUP [C-7, 30]: A user is allowed use of the CALL PICKUP [C-7, 30] feature when holding Station B to pick up Station C.
7. EXECUTIVE RIGHT-OF-WAY [E-1]: Executive Override of a station that has a call on HOLD and is connected to another call is allowed; however, Executive Override of a station on HOLD is denied (reorder tone is heard).
8. AUTOMATIC RECALL [A-8] of a held call will not be affected by CALL FORWARDING [C-2, 3, 5].
9. BUSY VERIFICATION [B-2]: Busy Verification of a station on HOLD is denied. Busy Verification of a station that has a call on HOLD is allowed if the station is in a talking state with another party.
10. OUTGOING TRUNK QUEUING [O-2]: A user cannot queue a trunk while using CALL HOLD.
11. Calls that include the Attendant Console cannot have access to CALL HOLD.
12. ATTENDANT CAMP-ON WITH TONE INDICATION [A-1]: This feature is denied if a station has a call on HOLD.
13. CALL HOLD cannot be activated if a call has been previously camped-on. A switch hook flash will seize the camped-on call.
14. Calls remain on CALL HOLD until the controlling station replaces the handset, causing the held call to ringback. If the controlling station does not answer the recall within the preset time-out interval (System Data 1, Index 139), the connection is released.

## C-6D

## Call Hold - D<sup>term</sup>

### General Description

This feature permits a D<sup>term</sup> user to HOLD a call in progress by using CALL HOLD - D<sup>term</sup>.

### Operating Procedure

#### To hold a call in progress without using the HOLD key:

1. Press TRANSFER key; receive special dial tone. The LCD displays:

**TRANSFER**  
(Time Display)

2. Dial the CALL HOLD [C-6] code; receive normal dial tone.
3. The call in progress is held; the user may initiate a new call.

#### To release a new call and return to the original call:

1. Go on-hook, releasing the new call; or press the RECALL key.
2. The original call will ring back to the D<sup>term</sup>.

#### To hold a new call and return to the original call:

1. Press TRANSFER key; receive special dial tone.
2. Dial CALL HOLD [C-6] code; the new call is placed on HOLD, the original call is automatically returned.

**Note:** *By repeating the above steps, user can converse alternately with two parties.*

#### A feature/line key may be programmed as a HOLD key:

1. While a call is in progress, press the HOLD key.
2. The call is placed on HOLD, dial tone is restored.
3. A new call may be dialed.
4. To return to the original call, press the RECALL key.

#### On a D<sup>term</sup>, a SPEED CALLING - ONE TOUCH [S-26] may be used to place a call on HOLD:

1. Press feature key, plus a SPEED CALLING - ONE TOUCH [S-26] key. The LCD will display any previously stored data.
2. Press the RECALL key. The LCD displays:

(Time Display) !

This acts as a switch hook flash. See FLASH ENTRY - D<sup>term</sup> [\[F-4D\]](#).

3. Dial CALL HOLD [C-6] access code.
4. Press SPEED CALLING - ONE TOUCH [S-26] key. The LCD displays:

**SPEED SET**  
(Time Display)

5. This key may now be used to access the CALL HOLD - D<sup>term</sup> feature.
6. When engaged in a conversation, press the SPEED CALLING - ONE TOUCH [S-26] key with the stored CALL HOLD - D<sup>term</sup> access code.
7. Dial tone is restored to the phone, and user is free to make another call.

## Operating Procedure (cont'd)

To operate a D<sup>term</sup> via the FLASH BUTTON [F-3D]:

1. When engaged in a conversation, press the programmable feature/line key programmed as a FLASH BUTTON [F-3D]. The LCD will display:

**TRANSFER**  
(Time Display)

2. Dial the CALL HOLD [C-6] access code; the LCD goes blank and dial tone is restored to the user.

## Service Conditions

1. Lines freed through use of this feature may also be used for answering incoming calls via the CALL PICKUP - GROUP [C-7] or TRUNK ANSWER FROM ANY STATION [T-8] features.
2. Calls will remain on HOLD until the controlling user either replaces the handset, causing the held call to ring back, or pressing the TRANSFER key or flash button and redial the HOLD code to return to the original call.
3. Only one call per station may be held at a time, and a held call cannot be added to another party as in THREE-WAY CALLING [T-2].
4. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in system data.
5. There is no limit to the number of stations that may access this feature simultaneously.
6. Kind of service indication on the LCD display is allowed or denied via system data programming.
7. The station having a camped-on call cannot activate the CALL HOLD feature.

## Interactions

1. CALL WAITING [C-12, 31] cannot be activated if the target station has a call on hold.
2. CALL BACK [C-1]:
  - a.) A user cannot activate CALL HOLD - D<sup>term</sup> when CALL BACK has already been activated.
  - b.) A user cannot use the CALL HOLD - D<sup>term</sup> feature while CALL BACK is in effect toward it.
  - c.) A station with a call on HOLD cannot activate the CALL BACK feature.
3. CALL PICKUP [C-7, 30]: A user is denied use of the CALL PICKUP feature when holding one call and in a talking state with another call.
4. THREE-WAY CALLING [T-2]: This feature, used in conjunction with the CALL HOLD - D<sup>term</sup> feature, allows the calling user to transfer a second call while holding the first call. After transferring the second call, the calling user is rung back by the party on HOLD.
5. EXECUTIVE RIGHT-OF-WAY [E-1]: Executive Override of a station that has a call on HOLD and is connected to another call is allowed. However, Executive Override of a station on HOLD is denied (reorder tone is heard).
6. CALL FORWARDING [C-2, 3, 5]: This feature interacts with CALL HOLD - D<sup>term</sup> as follows: CALL HOLD ringbacks are not forwarded. The calling station is rung back with the held call after going on-hook.
7. BUSY VERIFICATION [B-3]: BUSY VERIFICATION of a station on HOLD is denied. BUSY VERIFICATION of a station that has a call on HOLD is allowed if the station is talking with another party.
8. OUTGOING TRUNK QUEUING [O-2]: A user cannot be placed in a Ringback queue while holding another call on HOLD.
9. Attendant calls cannot be held.
10. CALL HOLD - D<sup>term</sup> cannot be activated when ATTENDANT CAMP-ON has already been set.

# C-7 Call Pickup - Group

## General Description

This feature permits a user to answer any calls directed to other lines in the user's preset CALL PICKUP - GROUP by dialing a Pickup code.

A user can be assigned to an additional CALL PICKUP GROUP, referred to as EXPANDED CALL PICKUP GROUP.

## Operating Procedure

### To pick up an incoming call:

1. A station within the CALL PICKUP GROUP rings.
2. Lift the handset; receive dial tone.
3. Dial the CALL PICKUP code; the call is connected to the station.

### To pick up an incoming call (Consultation Hold):

1. A station within the CALL PICKUP GROUP rings.
2. The station flashes the switch hook; receives special dial tone.
3. Dial the CALL PICKUP code; the call is connected to the station.
4. The first party is put on CALL HOLD [C-6] status.

### To pick up an incoming call within the EXPANDED CALL PICKUP GROUP:

1. A station within the EXPANDED CALL PICKUP GROUP rings.
2. Lift the handset; receive dial tone.
3. Dial the access code for EXPANDED CALL PICKUP; the call is connected to the station.

## Service Conditions

1. This feature may be provided on a per-line basis via system data.
2. Any station assigned a fully restricted CLASS OF SERVICE-INDIVIDUAL [C-15] will be unable to answer incoming Central Office calls using this feature.
3. A CALL PICKUP GROUP is defined as those stations having the ability to pick up each other's calls using the CALL PICKUP feature.
4. A maximum of 100 stations can be assigned to each group. There is no limit to the number of groups per system.
5. If the CALL PICKUP GROUP code is dialed while two or more stations within the group are ringing, the switching system will connect the calls in the order of priority assigned to the call pick up chain.
6. CALL PICKUP GROUP cannot be used to answer OUTGOING TRUNK QUEUING [O-2] or CALL BACK [C-1] from another station.
7. A busy station can accomplish Call Pickup by flashing the switch hook and then dialing the CALL PICKUP GROUP code. The call in progress will automatically be placed on hold.
8. CALL TRANSFER - ALL CALLS [C-11]: The ability to pick up the recall of CALL TRANSFER - ALL CALLS when CALL PICKUP - GROUP is activated is not available.
9. A maximum of 100 stations can be assigned to each EXPANDED CALL PICKUP GROUP. There is no limit to the number of groups per system.
10. A user cannot pick up a call in the EXPANDED CALL PICKUP GROUP when engaged in another call.
11. This feature is available via FCCS.

## Service Conditions (cont'd)

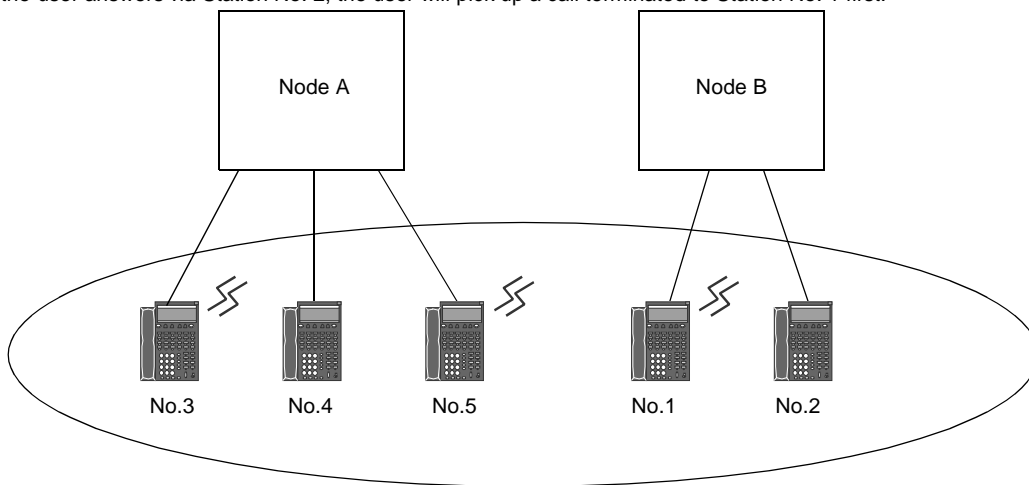
12. The allowable station number type for a member of CALL PICKUP GROUP or CALL PICKUP EXPAND GROUP is the telephone number only.
13. When using the FCH card with:
  - a.) Stations in up to a maximum of four different nodes can be assigned to a CALL PICKUP GROUP or a CALL PICKUP EXPAND GROUP.
  - b.) When a CALL PICKUP GROUP/CALL PICKUP EXPAND GROUP has stations that belong to different nodes, and the multiple Call Pickup/Call Pickup Expand stations are ringing simultaneously, if ringing stations belong to the same node, the user will pick up the call in assigned order. However, if ringing stations belong to different nodes, the user cannot pick up the call in assigned order or terminated order. The user will first pick up the call terminated to the station belonging to the same node of the user's station. See the figures below.

### CALL PICKUP GROUP

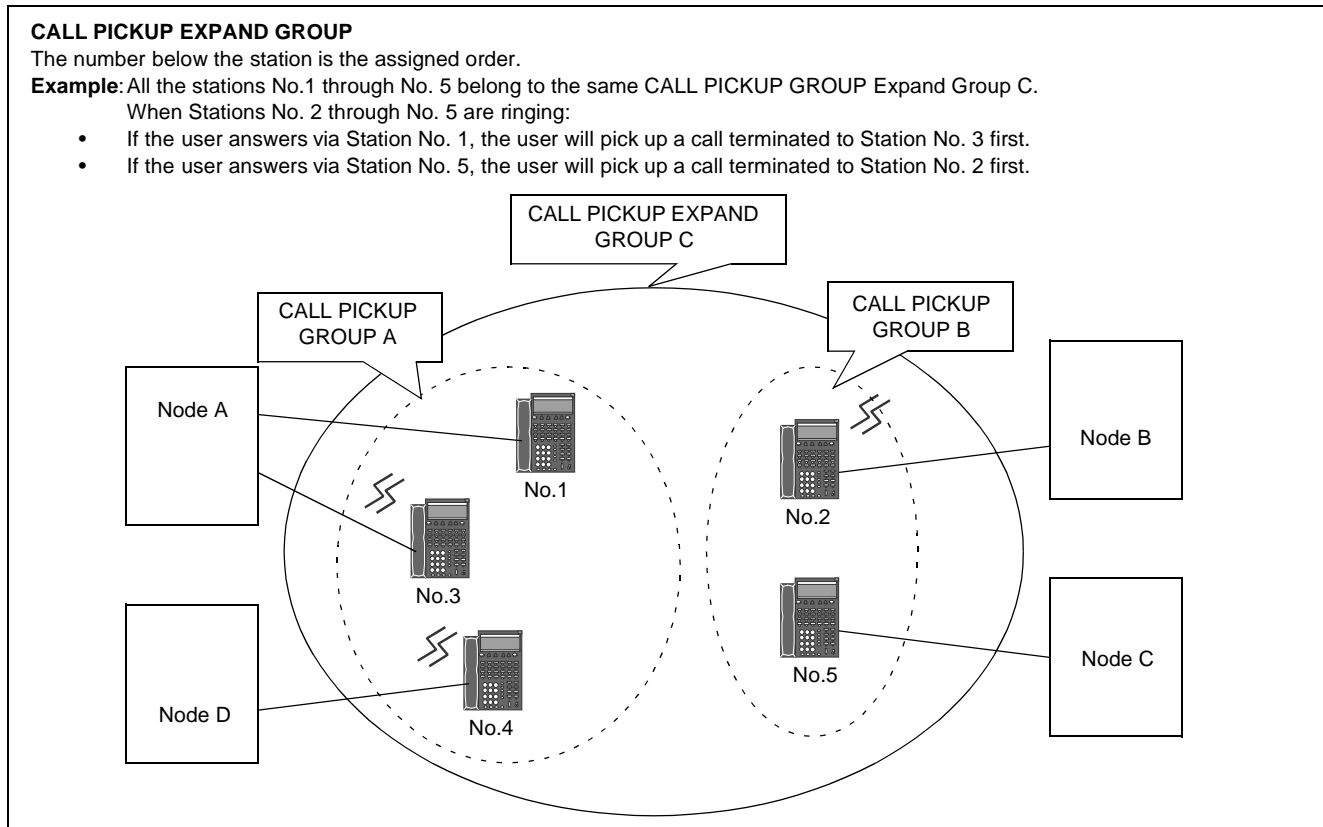
The number below the station is the assigned order.

**Example:** All the Stations No. 1 through No. 5 belong to the same CALL PICKUP GROUP. When Stations No.1, No. 3 and No. 5 are ringing:

- If the user answers via Station No. 4, the user will pick up a call terminated to Station No. 5 first (this feature allows the user to pick up from the next station in assigned order). The user will then pick up Station No. 3, if Station No. 3 is still ringing.
- If the user answers via Station No. 2, the user will pick up a call terminated to Station No. 1 first.



## Service Conditions (cont'd)



14. The number of CALL PICKUP GROUPs or CALL PICKUP EXPAND GROUPs is not limited.
15. A user cannot answer an incoming call to the station in another CALL PICKUP GROUP or CALL PICKUP EXPAND GROUP.
16. Even if a station has been assigned to the existing CALL PICKUP GROUP or CALL PICKUP EXPAND GROUP by Physical Station Number, the station can also be assigned to the same CALL PICKUP GROUP or a CALL PICKUP EXPAND GROUP via FCCS service.
17. When the station holds a call (switch hook flash or Call Hold) which terminated through FCCS link, the station cannot pick up a call via CALL PICKUP/CALL PICKUP EXPAND.
18. When both stations, a calling station and a station that will picks up a call, place another call on hold, this service is activated on the condition that all the stations (the calling station, the station that picks up the call, the ringing station, and the held stations) belong to the same node. If any of the stations belong(s) to a different node, this service is not activated.
19. The CALL PICKUP - GROUP/CALL PICKUP EXPAND GROUP can be set on a node basis, even in the use of telephone numbers. In other words, the features are available via the data written on the Local Data Memory (LDM), not only on the Data Memory (DM) or the Network Data Memory (NDM). The following are conditions in this case:
  - a.) The features are to be programmed by using the telephone number (TELN) of each station.
  - b.) A maximum of 100 stations can be assigned per CALL PICKUP GROUP.
  - c.) A maximum of 100 stations can be assigned per CALL PICKUP EXPAND GROUP.
  - d.) A station can belong to one CALL PICKUP GROUP only.



## Service Conditions (cont'd)

- e.) A station can belong to one CALL PICKUP EXPAND GROUP only.
  - f.) No limitation is attached to the number of CALL PICKUP GROUPS/CALL PICKUP EXPAND GROUPS per node.
  - g.) When multiple stations are ringing in a CALL PICKUP GROUP/CALL PICKUP EXPAND GROUP, the calls won't be picked up in the terminating order or in the assigned order of stations.
  - h.) A station cannot pick up a call to a member of other CALL PICKUP GROUPS/CALL PICKUP EXPAND GROUPS.
  - i.) A call to be picked up can be that from a station, a trunk or an Attendant Console.
  - j.) When there is a restriction on the connection between an incoming call and the answering station, the restriction is applied. As a result of this, the station cannot pick up the call.
  - k.) The features, though using the telephone numbers, cannot be used together with the same features via FCCS.
  - l.) Stations denied access to a route via Route Restriction Class may not be able to pick up an incoming trunk call.
  - m.) A specific attendant number cannot be assigned for these features.
  - n.) CALL PICKUP GROUPS via DM and groups via LDM cannot coexist in a system.
20. When using the FCCS network, calling back for CALL BACK [C-1] or OUTGOING TRUNK QUEUING [O-2] to the station cannot be picked up.
  21. When using the FCCS network, the specific attendant number cannot be assigned to a CALL PICKUP GROUP or a CALL PICKUP EXPAND GROUP, which is activated with NDM data.
  22. When programmed on LDM, a call in recall state by CALL BACK [C-1], OUTGOING TRUNK QUEUING [O-2] or CALL HOLD [C-6], cannot be picked up.
  23. When programmed on LDM, a call by Automatic Wake-up [A-27] or Timed Reminder [T-62] cannot be picked up.

## Interactions

1. CALL HOLD [C-6]: To pick up a call while engaged in a two-party connection, the station can switch hook flash to place the other party on CALL HOLD [C-6] and dial the Call Pickup code. The first party is put on CALL HOLD [C-6].
2. CALL BACK [C-1]: The call back station originator being called back cannot be picked up by a station with the CALL PICKUP - GROUP feature. If the callback is directed to the terminating station, then Call Pickup may be used to answer the call. Any other station attempting to pick up the call will result in the user receiving reorder tone.
3. OUTGOING TRUNK QUEUING [O-2]: The OUTGOING TRUNK QUEUING station being rung back cannot be picked up by a station with the CALL PICKUP - GROUP feature. An attempt to pick up the call will result in the station receiving reorder tone.
4. RESTRICTION: A station assigned as fully restricted or with inward restrictions cannot use the CALL PICKUP feature if assigned to a CALL PICKUP GROUP.
5. THREE-WAY CALLING [T-2]: CALL PICKUP can be used only after a THREE-WAY CONFERENCE has been reduced to a two-party connection or the station has returned to an idle state.
6. STATION MESSAGE DETAIL RECORDING SYSTEM [S-10]: When a call is answered using the CALL PICKUP - GROUP feature, the station dialing the Call Pickup code is recorded.
7. CONSULTATION HOLD-ALL CALLS [C-17] must be provided.
8. Station A will not be able to pick up Station B, if Station A is engaged in any state other than idle or a simple two-party connection.

**Interactions (cont'd)**

9. Stations denied access to a route via Route Restriction Class may not use CALL PICKUP GROUP to answer restricted incoming trunk calls.
10. CALL PICKUP GROUP is not available for AUTOMATIC/MANUAL INTERCOM [A-30] or DIAL INTERCOM [D-87] calls.
11. If more than one station line in a CALL PICKUP GROUP is ringing, the individual call answered is selected by the system. The system priority is based on a circular chain arrangement with first priority given to the station following the station dialing the pick up code.
12. A call ring in a recall state cannot be picked up with this feature.

# C-7D Call Pickup - Group - D<sup>term</sup>

## General Description

This feature permits a user to answer any call directed to another line in his preset CALL PICKUP - GROUP by using a programmable line/feature key.

CALL PICKUP - GROUP - D<sup>term</sup> may be used by seizing dial tone from any multi-line appearance on the D<sup>term</sup>. A user can be assigned to an additional CALL PICKUP GROUP, referred to as EXPANDED CALL PICKUP GROUP.

## Operating Procedure

### To answer an incoming call:

1. A station within the CALL PICKUP GROUP rings.
2. Lift the handset; receive dial tone.
3. Press the CALL PICKUP - GROUP feature key; the call is connected to the station. The LCD displays:

Called Station	Calling Station Trunk
PICKUP XXXX	XXXX
(Time Display)	

**Note:** When the telephone number of the called/calling station exceeds 8 digits, the last 8 digits are displayed. However, a maximum of 16-digit calling telephone number can be displayed on the middle line of the LCD, depending on the System Data.

### To answer an incoming call CALL HOLD [C-6]:

1. A station within the CALL PICKUP GROUP rings.
2. Press the TRANSFER/HOLD feature key; receive special dial tone.
3. Press the CALL PICKUP GROUP feature key; the call is connected to the station.
4. The first party is put on CALL HOLD [C-6] status.

### To pick up an incoming call within the EXPANDED CALL PICKUP GROUP:

1. A station within the EXPANDED CALL PICKUP GROUP rings.
2. Lift the handset; receive dial tone.
3. Dial the access code or press the feature key for EXPANDED CALL PICKUP; the call is connected to the station.

## Service Conditions

1. A station assigned a fully restricted CLASS OF SERVICE-INDIVIDUAL [C-15] will be unable to answer incoming Central Office calls using this feature.
2. A CALL PICKUP GROUP - D<sup>term</sup> is defined as those stations having the ability to pick up other station's calls using the CALL PICKUP feature.
3. A maximum of 100 stations can be assigned to each group. There is no limit to the amount of groups per system.
4. If CALL PICKUP GROUP - D<sup>term</sup> is activated while two or more stations within the group are ringing, the system will connect the calls in the order of priority assigned to the call pick up chain.
5. CALL PICKUP GROUP - D<sup>term</sup> cannot be used to answer OUTGOING TRUNK QUEUING [O-2], Recall or CALLBACK [C-1] from another station.

## Service Conditions (cont'd)

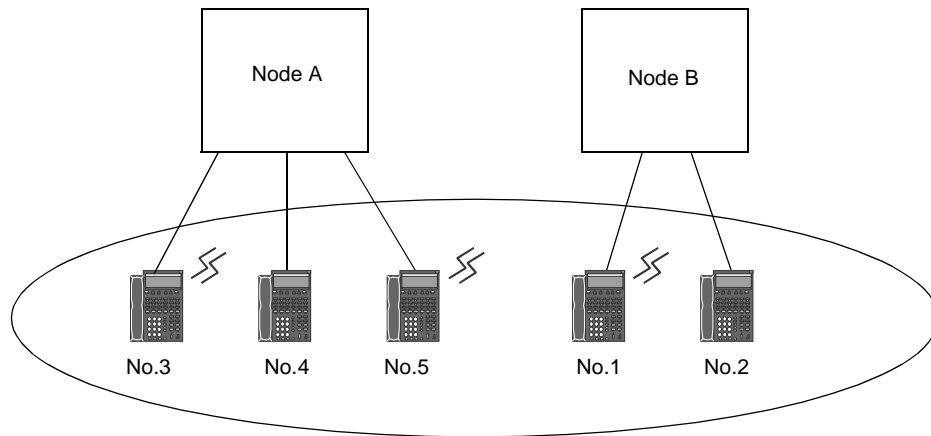
6. CALL TRANSFER - ALL CALLS: The capability to pick up the recall of CALL TRANSFER - ALL CALLS when CALL PICKUP - GROUP is activated, is not available.
7. There is no limit to the number of groups per system.
8. A user cannot pick up a call in the EXPANDED CALL PICKUP GROUP when engaged in another call.
9. The allowable station number type for a member of CALL PICKUP GROUP or CALL PICKUP EXPAND GROUP is the telephone number only.
10. The maximum number of stations per CALL PICKUP GROUP is 100.
11. The maximum number of stations per CALL PICKUP EXPAND GROUP is 100.
12. When both stations, a calling station and a station that picks up a call, place an another call on hold, this service is activated on condition that all stations (the calling station, the station that picks up a call, a ringing station and the held stations) belong to the same node. If any of stations belong(s) to the different node, this feature is not activated.
13. When using the FCH card:
  - a.) Stations in four different nodes can be assigned to a CALL PICKUP GROUP or a CALL PICKUP EXPAND GROUP.
  - b.) When a CALL PICKUP GROUP/CALL PICKUP EXPAND GROUP has stations that belong to different nodes, and the multiple Call Pickup/Call Pickup Expand stations are ringing simultaneously, if ringing stations belong to the same node, the user will pick up the call in assigned order. However, if ringing stations belong to different nodes, the user cannot pick up the call in assigned order or terminated order. The user will first pick up the call terminated to the station belonging to the node of the user's station.

### CALL PICKUP GROUP

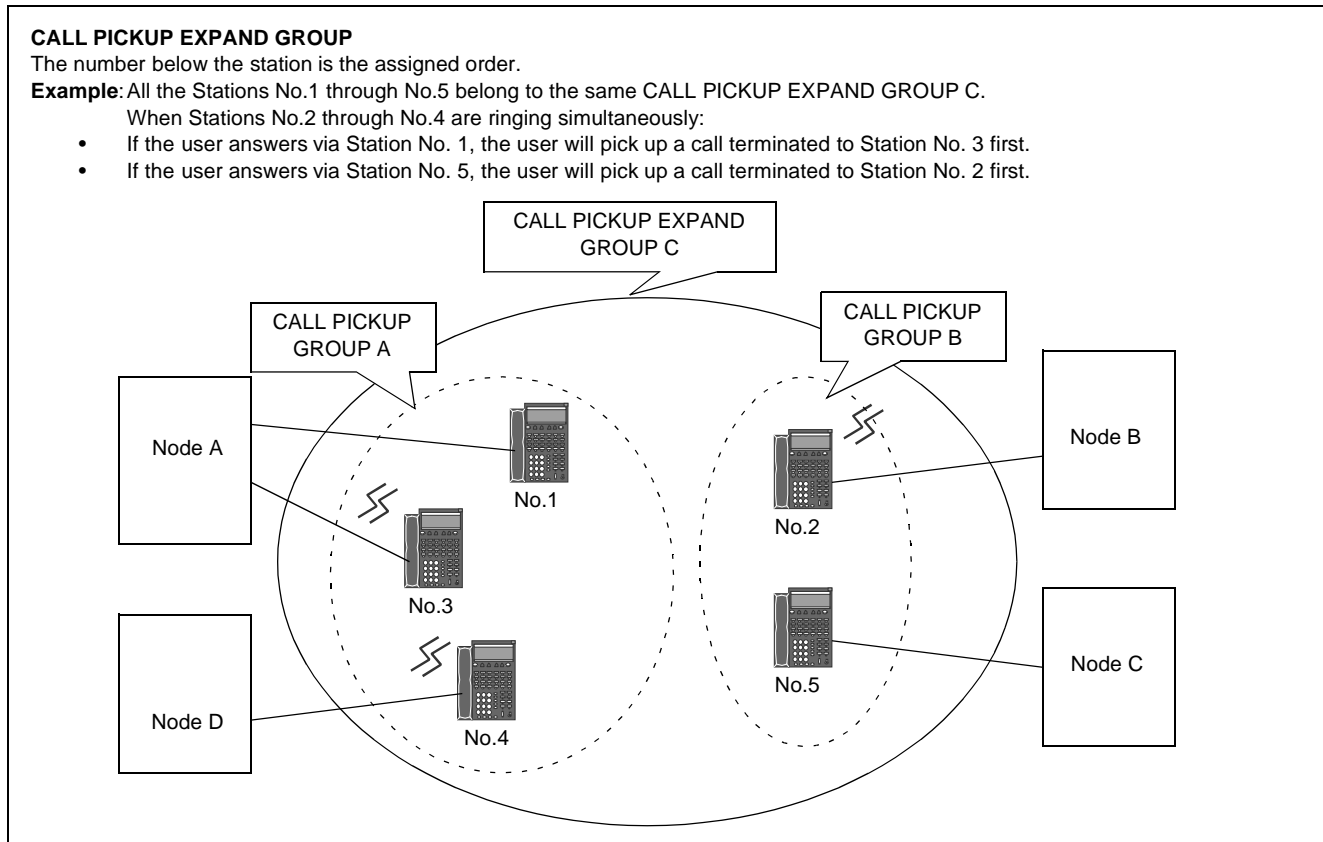
The number below the station is the assigned order.

**Example:** All the Stations No.1 through No. 5 belong to the same CALL PICKUP GROUP. When Stations No. 1, No. 3 and No. 5 are ringing:

- If the user answers via Station No.4, the user will pick up a call terminated to Station No.5 first (this feature allows the user to pick up from the next station in assigned order). The user will then pick up Station No. 3, if Station No. 3 is still ringing.
- If the user answers via Station No. 2, the user will pick up a call terminated to Station No. 1 first.



## Service Conditions (cont'd)



14. The number of the CALL PICKUP GROUP or CALL PICKUP EXPAND GROUP is not limited.
15. A user cannot answer an incoming call to the station in another CALL PICKUP GROUP or CALL PICKUP EXPAND GROUP.
16. Even if a station has been assigned to the existing CALL PICKUP GROUP or CALL PICKUP EXPAND GROUP by Physical Station Number, the station can also be assigned to the same CALL PICKUP GROUP or a CALL PICKUP EXPAND GROUP via FCCS.
17. When the station holds a call (Switch Hook Flash or Call Hold) which terminated through FCCS link, the station cannot pick up a call via CALL PICKUP/CALL PICKUP EXPAND.
18. When both the calling station and the station that will pick up a call hold the call, if one of the held calls is terminated through FCCS link, the call can not be picked up via CALL PICKUP/CALL PICKUP EXPAND.
19. The CALL PICKUP - GROUP/CALL PICKUP EXPAND GROUP can be set on a node basis, even in the use of telephone numbers. In other words, the features are available via the data written on the Local Data Memory (LDM), not only on the Data Memory (DM) or the Network Data Memory (NDM). If this is the case, the conditions are as follows:
  - a.) The features are to be programmed by using the telephone number (TELN) of each station.
  - b.) A maximum of 100 stations can be assigned per CALL PICKUP GROUP.
  - c.) A maximum of 100 stations can be assigned per CALL PICKUP EXPAND GROUP.
  - d.) A station can belong to one CALL PICKUP GROUP only.
  - e.) A station can belong to one CALL PICKUP EXPAND GROUP only.

## Service Conditions (cont'd)

- f.) No limitation is attached to the number of CALL PICKUP GROUP/CALL PICKUP EXPAND GROUP per node.
  - g.) When multiple stations are ringing in a CALL PICKUP GROUP/CALL PICKUP EXPAND GROUP, the calls won't be picked up in the terminated order or in the assigned order of stations on the command ACPGL.
  - h.) A station cannot pick up a call to a member of other CALL PICKUP GROUP/CALL PICKUP EXPAND GROUP.
  - i.) A call to be picked up can be that from a station, a trunk or an Attendant Console.
  - j.) When there is a restriction as to the connection between an incoming call and the answering station, the restriction is applied as-is; the station, as a result of this, cannot pick up the call.
  - k.) The features, though using the telephone numbers, cannot be used together with the same features via FCCS.
  - l.) Stations denied access to a route via Route Restriction Class may not be able to pick up an incoming trunk call.
  - m.) A specific attendant number cannot be assigned for these features.
  - n.) CALL PICKUP GROUPs via DM and groups via LDM cannot coexist in a system.
20. When using the FCCS network, calling back for CALL BACK [C-1] or OUTGOING TRUNK QUEUING [O-2] to the station cannot be picked up.
  21. When using the FCCS network, the specific attendant number cannot be assigned to a CALL PICKUP GROUP or a CALL PICKUP EXPAND GROUP, which is activated with NDM data.
  22. When programmed on LDM, a call in recall state by CALL BACK [C-1], OUTGOING TRUNK QUEUING [O-2] or CALL HOLD [C-6], cannot be picked up.
  23. When programmed on LDM, a call by Automatic Wake-up [A-27] or Timed Reminder [T-62] cannot be picked up.

## Interactions

1. CALL HOLD [C-6]: To pick up a call while engaged in a two-party connection, the station can switch hook flash to place the other party on CALL HOLD [C-6] and dial the Call Pickup code. The first party is put on CALL HOLD [C-6].
2. CALL BACK [C-1]: The call back station originator being called back cannot be picked up by a station with the CALL PICKUP - GROUP feature. If the callback is directed to the terminating station, then Call Pickup may be used to answer the call. Any other station attempting to pick up the call will result in the user receiving reorder tone.
3. OUTGOING TRUNK QUEUING [O-2]: The OUTGOING TRUNK QUEUING station being rung back cannot be picked up by a station with the CALL PICKUP - GROUP feature. An attempt to pick up the call will result in the station receiving reorder tone.
4. RESTRICTION: A station assigned as fully restricted or with inward restrictions cannot use the CALL PICKUP feature if assigned to a CALL PICKUP GROUP.
5. THREE-WAY CALLING [T-2]: CALL PICKUP can be used only after a THREE-WAY CONFERENCE has been reduced to a two-party connection or the station has returned to an idle state.
6. STATION MESSAGE DETAIL RECORDING SYSTEM [S-10]: When a call is answered using the CALL PICKUP - GROUP feature, the station dialing the Call Pickup code is recorded.
7. If more than one station line in a CALL PICKUP GROUP is ringing, the individual call answered is selected by the system. System priority is based on a circular chain arrangement, with first priority given to the station following the station dialing the call pick up code.

# C-8 Call Processing Indication

## General Description

This feature provides visual indications at the ATTENDANT CONSOLE [A-3] of all calls being handled by the Attendant.

## Operating Procedure

None.

## Service Conditions

Each ATTENDANT CONSOLE [A-3] is provided with 6 dedicated switched loop keys. Each loop key is associated with 5 lamp indicators (BUSY, RING, ATND, ANSWER, or HOLD) to display the status of the call on that loop. The indicators may be ON, OFF or flashing (400 ms ON and 400 ms OFF).

## Interactions

1. When the ATTENDANT LOOP RELEASE [A-6] feature is activated, the status of the call is removed from the ATTENDANT CONSOLE [A-3] until alerted by the AUTOMATIC RECALL [A-8] feature.
2. See DIGITAL DISPLAY-STATION [D-5], DIGITAL DISPLAY-TRUNK [D-6], and ATTENDANT LOOP RELEASE [A-6].

# C-9 Call Queueing

## General Description

This feature enables an Attendant to handle a series of exchange network calls in the order of their arrival, eliminating unnecessary delays.

## Operating Procedure

Press ATTENDANT CONSOLE [A-3] ANSWER key to receive calls in order of queue.

## Service Conditions

1. Incoming calls arriving at the Attendant Console will light the CALL WAITING LAMP [C-13].
2. When an incoming call lights an INCOMING CALL IDENTIFICATION [I-2] (LDN, RECALL, etc.) lamp, the Attendant may answer it out of the queueing sequence by pressing the indicated key.
3. Automatic Call Distribution is not used in multi-console operation. All incoming call indications appear at each Attendant Console, so that the call can be answered by any console. See MULTIPLE CONSOLE OPERATION [M-4] and INCOMING CALL IDENTIFICATION [I-2].
4. If an incoming call has been answered simultaneously by multiple Attendants, only the Attendant that operated the ANSWER key first will be connected to the call. The other Attendant's ANSWER key is non-effective when pressed.

## Interactions

1. ASYD - System Data 1, Index 64, Bits 1 & 2. Display of Call Waiting Indication; 00 - PA lamp is on 10-Always.  
System Data 2, Index 8 & 9. What kinds of calls are counted as Calls Waiting?  
System Data 2, Index 14, Bits 0 - 3. When CALL WAITING value exceeds a threshold value, the Call Waiting lamp will flash.  
System Data 2, Index 14, Bit 4. Will CALL WAITING - INDICATION flash for all calls? 0/1: All calls/Pegged calls.
2. NIGHT CONNECTION FIXED/FLEXIBLE [N-1, 2], TRUNK ANSWER ANY STATION [T-8]: If the system is changed from day to night mode, calls waiting in queue will be removed and disconnected.
3. Incoming call indications are common to all the Attendant Consoles.
4. If the NIGHT CONNECTION-FIXED [N-1] station is a pilot number in a STATION HUNTING-TERMINAL [S-9] hunt group, incoming calls will hunt to an idle station in the group. If all stations in the group are busy, the call queues on the pilot number of the hunt group. When any station becomes idle, the call is removed from queue and completed.
5. If the system is changed from night to day mode, incoming calls will be routed to the Attendant Console. A call physically ringing at the night station is not rerouted and is handled by the NIGHT CONNECTION-FIXED [N-1] station.
6. If a power failure occurs, only the calls in queue that have POWER FAILURE TRANSFER [P-3] associated with their trunk will be connected to power failure stations.



# C-10 Call Transfer - Attendant

## General Description

This feature permits a user, while connected to an exchange network call, to signal the Attendant and have the Attendant transfer the call to another station within the system.

## Operating Procedure

### Calling the Attendant:

1. While engaged in a Central Office trunk call, press the switch hook; receive special dial tone.
2. Dial the operator access code.
  - a.) ATTENDANT CONSOLE [A-3] RECALL lamp flashes and buzzer sounds.
  - b.) The station receives ringback tone.

### Answering by the Attendant:

1. Refer to the NEAX2400 IMX Office Data Specification.

### If the station wishes to return to the Central Office trunk call while the Attendant is being called:

1. Press the switch hook; the RECALL lamp goes out; the buzzer stops.
2. Ringback tone ceases; the station returns to Central Office trunk call.

**Note:** For all  $D^{term}$ s, use the TRANSFER key instead of the switch hook.

## Service Conditions

1. This feature is available for incoming and outgoing Central Office trunk calls and station-to-station calls.
2. When the ATTENDANT CONSOLE [A-3] is in the NIGHT CONNECTION [N-1,2] mode, the transferring station will receive reorder tone if ATTENDANT NIGHT TRANSFER [A-19] is not provided.
3. The CALL TRANSFER - ATTENDANT feature allows a user, while participating in a two-party connection (a two-party connection can be comprised of two stations or a station and a trunk), to call the Attendant so that the Attendant may transfer the call or provide other assistance as required.
4. If all registers are busy and the user switch hook flashes, the flash is ignored by the system and the parties remain connected.

## Interactions

1. When the HOT LINE [H-1] set is equipped with a dial, the user switch hook flashes to get special dial tone and dials "0". Ringback tone is provided and the Attendant is notified of the call.
2. CALL TRANSFER - ATTENDANT: This feature can be used by a fully restricted station. The Attendant can transfer a fully restricted station to another station only.
3. This feature is not operable when NIGHT CONNECTION - FIXED [N-1] or FLEXIBLE [N-2] is activated. To process a transfer, use CALL TRANSFER - ALL CALLS [C-11] feature. Reorder tone is returned when CALL TRANSFER - ATTENDANT is attempted.
4. If the SPLITTING [S-4] and ATTENDANT LOCKOUT [A-5] features are activated, this feature can be activated.
5. Refer to BLIND TRANSFER TO ATTENDANT [B-17] for blind transfer from station to Attendant Console.
6. A HOTLINE [H-1] station may transfer a call to the Attendant Console.

**Interactions (cont'd)**

7. A CALL TRANSFER to a station with CALL FORWARDING [C-2, 3, 5] set will forward according to the conditions of the feature set, unless the station is set to CALL FORWARD - ALL CALLS [C-5] to the Attendant Console. CALL FORWARDING-OVERRIDE [C-26] supersedes CALL FORWARDING-ALL CALLS [C-5].
8. A CALL TRANSFER to a station in a STATION HUNTING [S-7, 8, 9] group will hunt according to the conditions of the STATION HUNTING [S-7, 8, 9] group.
9. A CALL TRANSFER to a D<sup>term</sup> that has DO NOT DISTURB [D-21D] set will receive reorder tone.

# C-11

# Call Transfer - All Calls

## General Description

This feature permits a user to transfer incoming or outgoing Central Office and intra-office calls to another station within the system without Attendant assistance.

**(Series 7400 software enhancement)** The user can set Camp-on function to the busy destination while transferring an incoming call (Camp-on by Station). With this feature, the trunk party is called back directly, as the destination becomes idle.

## Operating Procedure

### To transfer a call in progress:

1. While connected with the first party, press the switch hook; receive special dial tone.
2. Dial the third party; receive ringback tone.
3. At this point, the user can either:
  - a.) Hang up before the third party answers. The first and third parties will be connected when third party answers.
  - b.) Wait for third party to answer and announce the transfer while keeping the first party in CONSULTATION HOLD - ALL CALLS [C-17] condition. When the user hangs up, the first and third parties will be automatically connected.

### **(Series 7400 software enhancement) To set the Camp-on by Station function to the busy station:**

#### • Manual Operation

1. While connected with the first party, press the switch hook; receive special dial tone. At this time, the calling trunk party hears music on hold.
2. Dial the third party, and the third party is busy; receive busy tone.
3. Press the switch hook; receive special dial tone, and then dial the access code of CALL BACK; receive service set tone.
4. Replace the handset. The station to be set Camp-on by Station (destination) hears Warning Tone. At this time, the calling trunk party hears ringback tone.
5. The target station starts to ring when the target station lifts the handset.
6. The target station (called party) can call back to the trunk party directly by answering.

#### • Automatic Operation

1. While connected with the first party, press the switch hook; receive special dial tone. At this time, the calling trunk party hears music on hold.
2. Dial the third party, and the third party is busy; receive busy tone.
3. Replace the handset. The station to be set Camp-on by Station hears Warning Tone. At this time, the trunk party hears ringback tone.
4. When the target station becomes available, the target station starts to ring.
5. The target station can call back to the trunk party directly as the station answers.

### **(Series 7400 software enhancement) To answer the Camp-on by Station call from the busy station:**

1. After receiving Warning Tone, the third party in the condition that the communication is in progress can answer the call by pressing the ANSWER key. At this moment, the call connected by the third station is placed on hold.

## Service Conditions

1. The station performing the CALL TRANSFER - ALL CALLS can drop off the connection before the called party answers. If the called station does not answer within the predetermined time, ringing signal is returned to the transferring station. See VARIABLE TIMING PARAMETERS [V-1] for other selectable timing choices.
2. In the case of outgoing calls (no answer supervision), this feature may be activated only after 18 seconds have elapsed since the last digit dialed.
3. Outgoing calls with answer supervision may be transferred immediately after call is answered (no time delay).
4. If all registers are busy and the user switch hook flashes, the flash is ignored by the system, and the parties remain connected.
5. When TRUNK-TO-TRUNK CONNECTION [T-10] is provided with the system, an incoming or outgoing network or TIE Line call may be transferred to an outgoing network trunk, if release signal is provided from distant end. The user who transfers the call gives line control to the two remaining parties upon hanging up. If the release signal is not provided, Call Transfer from trunk-to-trunk will not function.
6. The THREE-WAY CALLING [T-2] feature can comprise not more than three parties on one connection. The three parties connected can be as follows:
  - a.) three stations
  - b.) two stations and one trunk
  - c.) one station and two trunks.
7. The maximum number of simultaneous THREE-WAY CALLING [T-2] connections per system is dependent on the quantity of CFT-function circuits equipped (traffic engineered).
8. When transferring a call from a station or trunk (second party) to another station (third party) the control station can transfer the call during ringing. When the control station goes on-hook, the station or trunk on hold is connected to the third party and hears ringback tone. A variable timer is set when the controlling station goes on-hook. If the timer times out before the third party answers, the control station is rung back. When transferring a call from a loop start DIT trunk, the trunk is disconnected if the timer times out before the third party answers.
9. Reorder tone is returned to the user when the following actions occur:
  - a.) the user's line is restricted by outward or miscellaneous trunk restrictions by the class of service,
  - b.) the user dials the number of an unequipped line or termination is restricted (route restrictions),
  - c.) the user dials an invalid first digit.
10. When transferring a call from a station or trunk (second party) to another station (third party), the control station can hang-up during ringing. If the third party's line is busy, the control station will be rung back right away and if the third party does not answer the phone in time (30 seconds), the control station will be rung back after the time expires. In the case of transferring the call from a loop start DIT trunk, if the third party does not answer before the time goes up, the trunk will be disconnected.
11. **(Series 7400 software enhancement)** The Camp-on by Station cannot be set to the station via CCIS.
12. **(Series 7400 software enhancement)** The Camp-on by Station is available when the destination station is in the two-party connection except the following cases:
  - a.) When the transferred station is connected with the Attendant Console.
  - b.) When the transferred station answers another Camp-on call with the ANSWER key.
  - c.) When the transferred station is in Consultation Hold.
  - d.) When the station is the D<sup>term</sup> in Exclusive Hold.
  - e.) When the transferred station is set Fixed Connection - Nailed Down Connection.
13. **(Series 7400 software enhancement)** The Camp-on by Station can be set to one station only once.

**Service Conditions (cont'd)**

14. **(Series 7400 software enhancement)** The Camp-on by Station is restricted when the target station is in the three-party connection.
15. **(Series 7400 software enhancement)** The Camp-on by Station is not available for the target station in LINE LOCKOUT [L-3] condition.
16. **(Series 7400 software enhancement)** The Camp-on by Station is not available in the following cases:
  - a.) When the transferred station is dialing the number.
  - b.) When a call is terminating to the transferred station (the station is ringing).
  - c.) When the transferred station hears busy tone or reorder tone.
  - d.) When the transferred station hears special dial tone.
17. **(Series 7400 software enhancement)** The station allowed to set the Camp-on by Station (operating station) is only the D<sup>term</sup> and the analog station.
18. **(Series 7400 software enhancement)** The station to be set the Camp-on by Station (transferred station) is the analog station, the D<sup>term</sup> and the ISDN terminal.
19. **(Series 7400 software enhancement)** When the Camp-on by Station is set to the D<sup>term</sup>:
  - a.) The ANSWER key of the D<sup>term</sup> lights when Warning Tone is received.
  - b.) At the station to be set the Camp-on by Station, the LCD displays the service set indication (CAMP) and the trunk kind or the calling number if the Caller ID notification is received.
20. **(Series 7400 software enhancement)** The following conditions should be considered when this service is set by manual operation (see Operating Procedure) because the service becomes effective when the operating station is released from the connection:
  - a.) When the operating station is not released within the predetermined time period after receiving service set tone, the service which has been set will be ineffective. And the operating user hears busy tone.
  - b.) When the transferred destination station becomes available before the transferring station is released from the connection after the service was set (after the operating user hears service set tone), the trunk incoming call is connected with the destination station after the operating station (mediate party) replaces the handset.
  - c.) When the transferred destination station becomes LINE LOCKOUT condition or the destination becomes make busy before the transferring station is released from the connection after the service was set (after the operating user hears service set tone), the called station (mediate party) is recalled even though the station is disconnected.
21. **(Series 7400 software enhancement)** The following are the conditions when the destination station does not answer within the time period of No Answer timer:
  - a.) When the timer timeout occurs due to that the destination station has not answered within the predetermined time period after the operating station is disconnected, the operating station is called back.
  - b.) When the No Answer timer expires and the destination station has not answered within the predetermined time period, the call management is decided by the system data (recall to the operating station or CALL FORWARDING - DON'T ANSWER activation).
22. **(Series 7400 software enhancement)** The Service Conditions for Warning Tone are as follows:
  - a.) The destination station receives Call Waiting tone when Camp-on by Station has been set.
  - b.) The amount of time between tones is decided on a system basis.
23. A call can be transferred to a station in the remote node via FCCS link.
24. **(Series 7400 software enhancement)** The Camp-on by Station can be set to the station in the self-office or the self-node in the FCCS network.

## Interactions

1. This feature is denied whenever the transferring station is engaged in any state other than a simple two-party connection.
2. See TRUNK-TO-TRUNK CONNECTION [T-10] for additional programming if the call is to be transferred off network.
3. If a station is in an established THREE-WAY CALLING [T-2] connection, that station cannot activate any features. If a station switch hook flashes to activate a feature, the flash is ignored and the three-way connection remains established.
4. Features that cannot be activated if a party is involved in a CONSULTATION HOLD [C-17, 17D] or in an established THREE-WAY CONFERENCE [T-2] connection are:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
CALL BACK	[C-1]
CALL FORWARDING (Activate or Cancel)	[C-2, 3, 5]
CALL PICKUP-DIRECT	[C-30]
CALL WAITING - TERMINATING	[C-12]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]
MESSAGE REMINDER	[M-19D]
OUTGOING TRUNK QUEUING Cancel	[O-2]
SPEED CALLING-STATION Entry	[S-21]
TRUNK ANSWER FROM ANY STATION (TAS)	[T-8]
5. Upon establishing a CONSULTATION HOLD [C-17, 17D] connection and dialing a third party, if the user receives busy or reorder tone instead of ringback tone, the user flashes once to disconnect the tone and reconnect the second party.
6. Upon establishing a CONSULTATION HOLD [C-17, 17D] connection and dialing a MISCELLANEOUS TRUNK ACCESS [M-2] code, if no dial tone is heard (after the trunk is seized), if a mistake is made in dialing, or if an intercept announcement or a permanent tone is heard, the user must go on-hook and wait for ringback tone.
7. The user, who establishes CONSULTATION HOLD [C-17, 17D], will be reconnected to the party in soft hold when the third party disconnects.
8. A call transfer to a station with CALL FORWARDING [C-2, 3, 5] set will forward according to the conditions of the feature set.
9. A call transfer to a station in a STATION HUNTING [S-7, 8, 9] group will hunt according to the conditions of the STATION HUNTING [S-7, 8, 9] group.
10. A call transfer to a D<sup>term</sup> that has DO NOT DISTURB [D-21D] set will receive reorder tone.
11. A call transfer call may be answered by CALL PICKUP-GROUP/DIRECT [C-7, 30].
12. **(Series 7400 software enhancement)** The Camp-on by Station is not available when the DO NOT DISTURB - D<sup>term</sup> [D-11D] has been set to the target station. **(Note)**

**Interactions (cont'd)**

13. **(Series 7400 software enhancement)** The Camp-on by Station is not available when the target station uses PRIVACY RELEASE [P-18]. **(Note)**

**Note:** *The operating station hears busy tone when the destination is in the above condition.*

14. **(Series 7400 software enhancement)** When the Camp-on by Station is set by automatic operation and the destination station is the UCD group member, BLIND TRANSFER TO BUSY UCD takes priority over the Camp-on by Station feature if it is available.

# C-11D Call Transfer - All Calls - D<sup>term</sup>

## General Description

This feature permits a D<sup>term</sup> user to transfer incoming or outgoing calls without Attendant assistance.

**(Series 7400 software enhancement)** The D<sup>term</sup> user can set Camp-on function to the busy destination while transferring an incoming call (Camp-on by Station). With this feature, the trunk party is called back directly as the destination becomes idle.

## Operating Procedure

### To transfer a call in progress:

1. While connected with the first party, press the TRANSFER key; receive special dial tone.
2. Dial the third party; receive ringback tone.
3. At this point, the user can either wait and announce the call or hang up before the transfer is completed. The LCD display for an announced transfer will be:

Transferred Party

<b>TRANSFER</b> (Time Display)	<b>XXXX</b>
-----------------------------------	-------------

The LCD for an unannounced transfer will be:

Transferring Party	Transferred Party
<b>TRANSFER XXXX</b> (Time Display)	<b>XXXX</b>

**Note:** When the telephone number of the transferring/transferred station exceeds 8 digits, the last 8 digits are displayed. However, a maximum of 16 digit transferred telephone numbers can be displayed on the middle line of the LCD, depending on system data.

### (Series 7400 software enhancement) To set the Camp-on by Station function to the busy station:

- Manual Operation

1. While connected with the first party, press the TRANSFER key; receive special dial tone. The calling trunk party hears music on hold. The D<sup>term</sup> LCD of the mediate party (operating station) displays:

<b>TRANSFER</b> (Time Display)
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2. Dial the third party, and the third party is busy; receive busy tone. The LCD of the operating station displays:

The extension number of the third party

<b>BUSY</b> (Time Display)	<b>XXXX</b>
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**Operating Procedure (cont'd)**

3. Method of operation:

a.) When the access code is used, press the FLASH key; receive special dial tone and no indication on the LCD display, then dial the access code of CALL BACK; receive service set tone.

**CAMP SET**  
(Time Display)

b.) When the feature key/soft key is used, press the CALL BACK key; receive service set tone. The LCD of the operating station displays as mentioned above in the way of using the access code.

4. Replace the handset. The station to be set Camp-on by Station (destination) hears Warning Tone. The LCD of the operating station displays:

(Time Display)

The calling trunk party hears ringback tone. The LCD of the target party displays:

**CAMP** (Time Display) **(TRK)**

(TRK): Trunk kind or the calling number

5. The target station starts to ring when the target station lifts the handset. The LCD of the target party displays:

**CAMP** (Time Display) **(TRK)**

(TRK): Trunk kind or the calling number

6. The target station (called party) can call back to the trunk party directly by answering the ringing. The LCD of the target party displays:

ELAPSED TIME for the communication

**XX:XX (TRK)**  
(Time Display)

(TRK): Trunk kind or the calling number

- Automatic Operation

1. While connected with the first party, press the switch hook; receive special dial tone. The calling trunk party hears music on hold. The LCD of the operating station displays:

**TRANSFER**  
(Time Display)

**Operating Procedure (cont'd)**

2. Dial the third party, and the third party is busy; receive busy tone. The LCD of the operating station displays:

The extension number of the third party

<b>BUSY</b>	<b>(Time Display)</b>	<b>XXXX</b>
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3. Replace the handset. The station to be set Camp-on by Station hears Warning Tone. The LCD of the operating party displays:

<b>CAMP SET</b>	<b>(Time Display)</b>
-----------------	-----------------------

The LCD display is changed after the trunk receives ringback tone:

<b>(Time Display)</b>
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The LCD display of the target party:

<b>CAMP</b>	<b>(Time Display)</b>	<b>(TRK)</b>
-------------	-----------------------	--------------

(TRK): Trunk kind or the calling number

The trunk party hears ringback tone.

4. When the target station becomes available, the target station starts to ring. The LCD of the target party displays:

<b>CAMP</b>	<b>(Time Display)</b>	<b>(TRK)</b>
-------------	-----------------------	--------------

(TRK): Trunk kind or the calling number

5. The target station can call back to the trunk party directly as the station answers the ringing. The LCD of the target party displays:

ELAPSED TIME for the communication

<b>XX:XX (TRK)</b>	<b>(Time Display)</b>	
--------------------	-----------------------	--

(TRK): Trunk kind or the calling number

**(Series 7400 software enhancement) To answer the Camp-on by Station call from the busy station:**

1. After receiving Warning Tone, the third party can answer the call by pressing the ANSWER key. The original call connected by the third station is placed on hold.

## Service Conditions

1. The station performing the CALL TRANSFER - ALL CALLS can disconnect before the called party answers. If the called station does not answer within the predetermined time, ringing signal is returned to the transferring station. See VARIABLE TIMING PARAMETERS [V-1] for other selectable timing choices.
2. In the case of outgoing calls (no answer supervision), this feature may be activated only after 18 seconds have elapsed since the last digit dialed.
3. Outgoing calls with answer supervision may be transferred immediately after call is answered (no time delay).
4. The THREE-WAY CALLING [T-2] feature can comprise not more than three parties on one connection. The three parties connected can be as follows:
  - a.) three stations
  - b.) two stations and one trunk
  - c.) one station and two trunks.
5. The maximum number of simultaneous THREE-WAY CALLING [T-2] connections per system is dependent on the quantity of CFT-function circuits equipped (traffic engineered). CFT function is included in the INT and TSW-INT card.
6. When transferring a call from a station (second party) to another station or trunk (third party), the control station can transfer the call during ringing. When the control station goes on-hook, the station on hold is connected to the third party's connection and hears ringback tone. A variable timer is set when the controlling station goes on-hook. If the timer times out before the third party answers, the control station is rung back.
7. When transferring a call from a trunk (second party) to a station (third party), the control station can transfer the call during ringing. If the control station goes on-hook, during the ringing state, the trunk (second party) is connected to the third party's line and hears ringback tone. A variable timer is set when the controlling station goes on-hook. If the timer times out before the third party answers, the control station is rung back.
8. Reorder tone is returned to the user when the following actions occur:
  - a.) The user's line is restricted by outward or miscellaneous trunk restrictions by the Class Of Service.
  - b.) The user dials the number of an unequipped line or termination is restricted (route restrictions).
  - c.) The user dials an invalid first digit.
9. When transferring a call from a station or trunk (second party) to another station (third party), the control station can hang-up during ringing. If the third party's line is busy, the control station will be rung back right away and if the third party does not answer the phone in time (30 seconds), the control station will be rung back after the time expires. In the case of transferring the call from a loop start DIT trunk, if the third party does not answer before the time goes up, the trunk will be disconnected.
10. **(Series 7400 software enhancement)** The Camp-on by Station cannot be set to the station via CCIS.
11. **(Series 7400 software enhancement)** The Camp-on by Station is available when the destination station is in the two-party connection except in the following cases:
  - a.) When the transferred station is connected with the Attendant Console.
  - b.) When the transferred station answers another Camp-on call with the ANSWER key.
  - c.) When the transferred station is in Consultation Hold.
  - d.) When the station is the D<sup>term</sup> in Exclusive Hold.
  - e.) When the transferred station is set Fixed connection - Nailed Down Connection.
12. **(Series 7400 software enhancement)** Only one Camp-on per station is allowed.

**Service Conditions (cont'd)**

13. **(Series 7400 software enhancement)** The Camp-on by Station is restricted when the target station is in the three-party connection.
14. **(Series 7400 software enhancement)** The Camp-on by Station is not available for the target station in LINE LOCKOUT [L-3] condition.
15. **(Series 7400 software enhancement)** The Camp-on by Station is not available in the following cases:
  - a.) When the transferred station is dialing the number.
  - b.) When a call is terminating to the transferred station (the station is ringing).
  - c.) When the transferred station hears busy tone or reorder tone.
  - d.) When the transferred station hears special dial tone.
16. **(Series 7400 software enhancement)** The stations allowed to set the Camp-on by Station (operating station) are D<sup>term</sup>s and analog stations.
17. **(Series 7400 software enhancement)** The station to be set the Camp-on by Station (transferred station) is analog, D<sup>term</sup> station and ISDN terminal.
18. **(Series 7400 software enhancement)** When the Camp-on by Station is set to the D<sup>term</sup>:
  - a.) The ANSWER key of the D<sup>term</sup> lights when Warning Tone is received.
  - b.) At the station to be set the Camp-on by Station, the LCD displays the service set indication (CAMP) and the trunk kind or the calling number if the Caller ID notification is received.
19. **(Series 7400 software enhancement)** This service is set by manual operation (see Operating Procedure) because the service becomes effective when the operating station is released from the connection:
  - a.) When the operating station is not released within the predetermined time period after receiving service set tone, the service which has been set will be ineffective. And the operating user hears busy tone.
  - b.) When the transferred destination station becomes available before the transferring station is released from the connection after the service was set (after the operating user hears service set tone), the trunk incoming call is connected with the destination station after the operating station (mediate party) replaces the handset.
  - c.) When the transferred destination station becomes LINE LOCKOUT condition or the destination becomes make busy before the transferring station is released from the connection after the service was set (after the operating user hears service set tone), the called station (mediate party) is recalled even though the station is disconnected.
20. **(Series 7400 software enhancement)** The following are the conditions when the destination station does not answer within the time period of No Answer timer:
  - a.) When the No Answer timer expires, the operating station is called back.
  - b.) When the No Answer timer expires, call management is decided by the system data (recall to the operating station or CALL FORWARDING - DON'T ANSWER activation).
21. **(Series 7400 software enhancement)** The service conditions for Warning Tone are as follows:
  - a.) The destination station receives the tone used in CALL WAITING service when Camp-on by Station has been set.
  - b.) The number of times that the tone is sent is decided on a system basis.
22. A call can be transferred to a station in the remote node via FCCS link.
23. **(Series 7400 software enhancement)** The Camp-on by Station can be set to the station in the self-office or the self-node in the FCCS network.

## Interactions

1. This feature is denied whenever the transferring station is engaged in any state other than a simple two-party connection.
2. See TRUNK-TO-TRUNK CONNECTION [T-10] for additional programming if the call is to be transferred off network.
3. If a station is in an established THREE-WAY CALLING [T-2] connection, that station cannot activate any features. If a station switch hook flashes to activate a feature, the flash is ignored and the three-way connection remains established.
4. Features that cannot be activated if a party is involved in a CONSULTATION HOLD [C-17, 17D] or in an established THREE-WAY CONFERENCE [T-2] connection are:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
CALL BACK	[C-1]
CALL FORWARDING (Activate or Cancel)	[C-2, 3, 5]
CALL PICKUP-DIRECT	[C-30]
CALL WAITING - TERMINATING	[C-12]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]
MESSAGE REMINDER	[M-19D]
OUTGOING TRUNK QUEUING (Cancel)	[O-2]
SPEED CALLING-STATION (Entry)	[S-21]
TRUNK ANSWER FROM ANY STATION (TAS)	[T-8]
5. Upon establishing a CONSULTATION HOLD [C-17, 17D] connection and dialing a third party, if the user receives busy or reorder tone instead of ringback tone, the user flashes once to disconnect the tone and reconnect the second party.
6. Upon establishing a CONSULTATION HOLD [C-17, 17D] connection and dialing a MISCELLANEOUS TRUNK ACCESS [M-2] code, if no dial tone is heard (after the trunk is seized), if a mistake is made in dialing, or if an intercept announcement or a permanent tone is heard, the user must go on-hook and wait for ringback tone.
7. The user, who establishes CONSULTATION HOLD [C-17, 17D], will be reconnected to the party in soft hold when the third party disconnects.
8. A call transfer to a station with CALL FORWARDING [C-2, 3, 5] set will forward according to the conditions of the feature set.
9. A call transfer to a station in a STATION HUNTING [S-7, 8, 9] group will hunt according to the conditions of the STATION HUNTING [S-7, 8, 9] group.
10. A call transfer to a D<sup>term</sup> that has DO NOT DISTURB [D-21D] set will receive reorder tone.
11. A call transfer call may be answered by CALL PICKUP-GROUP/DIRECT [C-7, 30].
12. The TRANSFER key is used in place of the switch hook.
13. **(Series 7400 software enhancement)** The Camp-on by Station is not available when the DO NOT DISTURB - D<sup>term</sup> [D-11D] has been set to the target station. **(Note)**
14. **(Series 7400 software enhancement)** The Camp-on by Station is not available when the target station uses the PRIVACY RELEASE [P-18]. **(Note)**

**Note:** *The operating station hears busy tone when the destination is in the above condition.*

15. **(Series 7400 software enhancement)** When the Camp-on by Station is set by automatic operation and the destination station is the UCD group member, BLIND TRANSFER TO BUSY UCD takes priority over the Camp-on by Station feature if it is available.

# C-12 Call Waiting - Terminating

## General Description

This feature enables a busy station to receive a second incoming call. A Camp-On Indication Tone is sent to the busy station, the user can use a switch hook flash to answer the second call. A switch hook flash may be used to alternate between the two calls.

## Operating Procedure

### To activate CALL WAITING - TERMINATING from a station:

1. Dial the desired telephone number.
2. If the called station is busy, CALL WAITING - TERMINATING is automatically set; the calling station receives Call Waiting ringback tone. Call Waiting Tone (1 beep) is sent to the busy station.

### To activate CALL WAITING - TERMINATING on a Direct-In trunk call:

1. The NEAX2400 IMX receives the called telephone number.
2. If the called station is busy, CALL WAITING - TERMINATING is automatically set; the calling party receives Call Waiting ringback tone. Call Waiting Tone (2 beeps) is sent to the busy station.

### To answer a CALL WAITING - TERMINATING call:

1. Call Waiting Tone is heard during the call in progress.
2. A switch hook flash or pressing the ANSWER key on the D<sup>term</sup> will hold the existing call.
3. CALL WAITING - TERMINATING call is automatically connected.
4. Another switch hook flash or pressing the ANSWER key on the D<sup>term</sup> will return to the original call and hold the second call.

### OR

5. Call Waiting Tone is heard during the call in progress.
6. The called station hangs up; priority ringing is sent.  
Priority ringing =           0.4 sec. ON   0.2 sec. OFF   0.8 sec. ON  
0.2 sec. OFF               0.4 sec. ON   0.4 sec. OFF  
Lift the handset to answer.

## Service Conditions

1. Call Waiting Tone is one beep for a station call and two beeps for a trunk call. A beep is 200 milliseconds ON/OFF.
2. Periodic Call Waiting Tone can be eliminated by System Data programming on a per-tenant basis.
3. CALL WAITING - TERMINATING must be allowed in the call originator's CLASS OF SERVICE - INDIVIDUAL [C-15] programming to be activated.
4. There is no limit to the number of stations that can receive this feature simultaneously.
5. CALL WAITING - TERMINATING is denied when the called station is connected to the ATTENDANT CONSOLE [A-3].
6. CALL WAITING - TERMINATING can be set only when the called station is busy on a two-party call with another station or trunk.
7. Call Waiting ringback tone changes to normal ringback tone for the calling party when the called station goes on-hook.
8. CALL WAITING - TERMINATING cannot be activated while in the CONSULTATION HOLD [C-17] mode.

**Service Conditions (cont'd)**

9. CALL WAITING - TERMINATING cannot be used in conjunction with DIAL ACCESS TO ATTENDANT [D-2].
10. CALL WAITING - TERMINATING cannot be activated if the target station has accessed, entered, or is engaged in any of the following features or modes:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS - SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
CALL BACK	[C-1]
CALL HOLD	[C-6, C-6D]
CALL TRANSFER	[C-10, C-11, C-11D]
CALL WAITING - ORIGINATING	[C-31]
CONSULTATION HOLD - ALL CALLS	[C-17, C-17D]
DATA LINE SECURITY	[D-12]
DATA PRIVACY ON DEMAND	[D-17]
DIAL ACCESS TO ATTENDANT	[D-2]
EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
EXECUTIVE RIGHT-OF-WAY	[E-1]
LINE LOCKOUT	[L-3]
NON - EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY - D <sup>term</sup>	[P-14D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL - D <sup>term</sup>	[V-2D]
11. The following service features take precedence over CALL WAITING - TERMINATING:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-3]
STATION HUNTING - CIRCULAR	[S-7]
STATION HUNTING - SECRETARIAL	[S-8]
STATION HUNTING - TERMINAL	[S-9]

**Interactions**

1. This feature is allowed whenever the destination telephone set is in any state other than:
  - a.) Engaged in three-way connection,
  - b.) A PRIVACY feature is activated,
  - c.) Connected to a route programmed to have Line/Trunk, Privacy, CDN 44:PRV,
  - d.) Listening to a tone (dial tone, reorder tone, service set tone, busy tone, ringback tone).
  - e.) Connected to the Attendant Console.
2. To answer a CALL WAITING-TERMINATING call, System Data 2, Index 1, Bits 0 & 1, CONSULTATION HOLD [C-17]; assign data "11" to allow CONSULTATION HOLD.
3. To answer a CALL WAITING - TERMINATING call from a D<sup>term</sup>, press the ANSWER key. The answering party can alternate between the calls by pressing the ANSWER key.
4. Enabling ATTENDANT LOOP RELEASE [A-6] (System Data 2, Index 6, Bit 7), a call Camped-On to a station via the Attendant Console will wait at that station for the time set in Index 145. When the preset time has elapsed, the call will return to the Attendant Console.

**Interactions (cont'd)**

5. If ATTENDANT LOOP RELEASE [A-6] is not provided and CALL FORWARDING - DON'T ANSWER [C-3] via the Attendant Console is provided, a call extended to a station via the Attendant Console will wait at the station for the time set in Index 141 and will then be forwarded to the destination station for the time set in Index 145. Index 145 is the total time before recall. When that time expires, the call will return to the Attendant Console.
6. When CALL FORWARDING [C-2, 3, 5] is in effect, the forwarding operation occurs before CALL WAITING-TERMINATING is allowed, unless the CALL FORWARDING - OVERRIDE [C-26] feature is applicable. If CALL FORWARDING-OVERRIDE [C-26] is used, the call will wait. After a call has been forwarded, the call may wait at the new station if CALL WAITING-TERMINATING is allowed.
7. BUSY VERIFICATION [B-3]: This feature is denied to a station that is in a CALL WAITING-TERMINATING state.
8. EXECUTIVE RIGHT-OF-WAY [E-1]: This feature is denied to a two-party connection that is in a CALL WAITING-TERMINATING state.
9. STATION HUNTING [S-7, 8, 9]: This feature takes precedence over CALL WAITING-TERMINATING.
10. LINE LOCKOUT [L-3]: CALL WAITING-TERMINATING is not allowed to a station in LINE LOCKOUT [L-3]
11. OUTGOING TRUNK QUEUING [O-2]: CALL WAITING-TERMINATING is not allowed on any station involved in THREE-WAY CALLING [T-2].



# C-13

# Call Waiting Lamp

## General Description

This feature provides a visual indication to the Attendant when one or more calls are waiting to be answered.

## Operating Procedure

Refer to the NEAX2400 IMX Office Data Specification.

## Service Conditions

1. All incoming calls to the ATTENDANT CONSOLE [A-3] that have to be answered will signal the Attendant via the CALL WAITING LAMP.
2. The CALL WAITING LAMP can be set to flash at 60IPM only after “X” number of calls are waiting. “X” can be anywhere from 1 to 15 calls waiting per TENANT [T-12].
3. In the case of MULTIPLE CONSOLE OPERATION [M-4], the CALL WAITING LAMP will light on all consoles until one of the positions has processed the call(s).
4. Where TENANT SERVICE [T-12] is provided, the CALL WAITING LAMP will light only on the console(s) of the called tenant.
5. In addition to the CALL WAITING LAMP indication, each console is provided with a two-digit display that shows the number of calls waiting.

## Interactions

1. The CALL WAITING LAMP lights if any of the following incoming calls are waiting to be answered at the ATTENDANT CONSOLE [A-3]:
 

LDN	Listed Directory Number
ATND	Attendant Dial “0” Calls, CALL FORWARDING - ALL CALLS [C-5]
RECALL	Attendant Recall Calls
FX	Foreign Exchange
WATS	Wide Area Telephone Service
TIE	TIE Line Calls
BUSY	Call Forwarding - Busy Line to Attendant
NANS	Call Forwarding - Don’t Answer to Attendant
TF	Inter Position Transfer
ICPT	Call Forwarding - Intercept
CCSA	Common Channel Switching Arrangement
2. In addition to the CALL WAITING LAMP, an audible buzzer is sounded whenever a call is waiting and the Attendant is available to answer calls. The buzzer volume can be adjusted and silenced by operation of a Volume Control key. If the Attendant is on a loop, a buzzer can be activated.
3. An indication of the type of calls waiting is given by the INCOMING CALL IDENTIFICATION [I-2] feature.
4. When TENANT SERVICE [T-12] is used, the CALL WAITING LAMP will flash only on the console(s) assigned to the called Tenant. The Tenant console is assigned in ATRK. The Route of the Tenants of the individual trunks are assigned in ATRK as well.

# C-14

# CCSA Access

## General Description

This feature enables connection to a CCSA network. CCSA networks provide customers with the use of a completely private inter-facility dial system. They use individual facilities for dedicated access lines and trunks that terminate in common control switching equipment and in various types of telephone equipment at customer locations.

## Operating Procedure

### To place an outgoing CCSA call:

1. Lift the handset; receive dial tone.
2. Dial the CCSA ACCESS code; receive second dial tone.
3. Dial the desired number.
4. Wait for the call to be processed.

### To answer an incoming CCSA call:

1. The Attendant presses either the CCSA or ANSWER key.
2. The call is extended to the desired station in normal fashion.

## Service Conditions

1. CCSA trunks are physically the same as those used for tie trunks. The CCSA trunks may be push-button or rotary in either direction.
2. Careful consideration should be given to system numbering plans before assigning CCSA ACCESS codes to avoid numbering conflicts.
3. CCSA ACCESS codes can be either one or two digits.
4. Pad control can be used on a CCSA call. Refer to TIE LINE CONNECTION WITH PAD CONTROL [T-5].
5. LEAST COST ROUTING - 3/6-DIGIT [L-5] may access a CCSA trunk group for off-net calling only.
6. Tandeming through on a CCSA network requires an Attendant and TRUNK-TO-TRUNK CONNECTION [T-10].

# C-15 Class Of Service - Individual

## General Description

This feature permits all NEAX2400 IMX stations to be assigned a Class of Service in accordance with the degree of system use desired. Each station is assigned one class from each of three groups.

## Operating Procedure

CLASS OF SERVICE - INDIVIDUAL is assigned via system data entry. Thereafter, each station is automatically provided with the desired degree of service.

## Service Conditions

1. The CLASS OF SERVICE - INDIVIDUAL feature in the NEAX2400 IMX contains three categories: Telephone Equipment Class (TEC), Service Feature Class (SFC), and Route Service Class (RSC).
2. TEC determines the type of terminal and the signalling arrangement necessary.
3. Trunk Route Restriction Class provides 15 groups. Separate restriction patterns for each group are programmed in System Data. Group RSC0 is reserved for ATTENDANT CONSOLE use only.
4. Fifteen types of Service Feature Classes are available for access to the following special service features. These classes are assigned to each station in order to determine which features a particular station will be permitted to use.

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
CALL BACK	[C-1]
CALL FORWARDING	[C-2, C-3, C-5]
CALL HOLD	[C-6]
DATA LINE SECURITY	[D-12]
EXECUTIVE RIGHT-OF-WAY	[E-1]
OUTGOING TRUNK QUEUING	[O-2]
SMDR	[S-10]
SPEED CALLING - SYSTEM	[S-3]
TRUNK ANSWER FROM ANY STATION (TAS)	[T-8]

For details, refer to the NEAX2400 IMX Office Data Specification.

5. Stations may be programmed to change SFC and RSC when the Attendant has set NIGHT CONNECTION [N-1, 2]. This is accomplished via system data entry. For further information, refer to DAY/NIGHT CLASS OF SERVICE [D-15].
6. TEC, RSC, and SFC are independent, with no interaction between them.
7. RSC and SFC can be assigned independently on a TENANT [T-12] basis.
8. The system software is capable of eliminating 5dB loss on station-to-station calls on a per-station basis.
9. The system software is capable of eliminating DISTINCTIVE RINGING [D-10] on a per-station basis (for OPX stations).
10. RSC can be overridden by a new RSC, using the AUTHORIZATION CODE [A-20] feature.

## Interactions

### The following features interact with the fully restricted station:

1. CALL TRANSFER - ALL CALLS [C-11]: A fully restricted station can be transferred to a station or the Attendant by another party using the CALL TRANSFER - ALL CALLS [C-11] feature. The fully restricted station may transfer a station-to-station call to a station or the Attendant.

**Interactions (cont'd)**

2. CALL FORWARDING [C-2, 3, 5]: Station-to-station calls can be forwarded to a fully restricted station. An attempt to forward an incoming trunk call to a fully restricted station will result in reorder tone.
3. STATION HUNTING [S-7, 8, 9]: Any call directed to a busy, fully restricted station will hunt to an alternate station. Careful consideration is required when assigning a fully restricted station to a hunt group, since incoming trunk calls directed to a fully restricted station will result in returning reorder tone.
4. TRUNK ANSWER FROM ANY STATION (TAS) [T-8]: An attempt by a fully restricted station to answer a call via the TAS feature will result in reorder tone.

**The following features interact with inward route restricted stations:**

1. THREE-WAY CALLING [T-2]: When a user is restricted from receiving direct calls from a trunk group, the user cannot be added to an established connection that includes the restricted trunk group.
2. CALL FORWARDING [C-2, 3, 5]: Incoming trunk calls cannot be forwarded to an inward route restricted station.
3. CALL PICKUP [C-7, 30]: Incoming trunk calls cannot be answered by an inward route restricted station.
4. ATTENDANT CAMP-ON [A-1]: This feature is denied on calls extended to an inward route restricted station. Attempts will be routed to reorder tone.
5. STATION HUNTING [S-7, 8, 9]: Hunting of an incoming trunk call to an inward route restricted station is not allowed.
6. TRUNK ANSWER FROM ANY STATION [T-8]: A user restricted from receiving direct incoming calls via a given trunk group cannot use the TAS feature to answer calls received via that trunk group.
7. NIGHT SERVICE [N-1, 2]: Restrictions can be changed for a given station when the system is switched to the night mode of operation; therefore, the assignment of an inward route restricted station as a night station can be allowed (see DAY/NIGHT CLASS OF SERVICE [\[D-15\]](#).)
8. CODE CALLING ACCESS [C-21]/MEET ME PAGING [M-1]: Connection of an inward route restricted line to an answer-back channel is not denied when the call is an incoming exchange call.

# C-17 Consultation Hold - All Calls

## General Description

This feature permits a user to hold any incoming or outgoing public network or TIE Line call, or any intra-office call, while originating a call to another station within the system.

## Operating Procedure

### Holding the original call and placing the second call:

1. Press the switch hook; receive special dial tone.
2. The original call is held.
3. Dial the second telephone number; receive ringback tone.
4. The second station answers; the CONSULTATION HOLD state has been entered.

### To return to the original call:

1. In any of the following cases, the calling station can return to the original call by pressing the switch hook:
  - a.) The second station called for CONSULTATION HOLD is busy.
  - b.) The calling station cannot gain access to second station because of restriction or any other reason.
  - c.) The second station does not answer.
2. If the second station hangs up, the calling station will be returned to the original call.  
If the originating station flashes the switch hook, a THREE-WAY CALL [T-2] will be initiated.

## Service Conditions

1. When TRUNK-TO-TRUNK CONNECTION [T-10] is provided with the system, an outgoing public network or TIE Line call can be made by the user.
2. For outgoing calls, this feature may be activated only after 18 seconds have elapsed since the last digit dialed.
3. CALL PICKUP - GROUP [C-7] is available on CONSULTATION HOLD.
4. A call can be forwarded to a station in the remote node via FCCS link.

## Interactions

1. This feature is denied whenever the destination telephone set is engaged in any state other than a simple 2-party connection.
2. CONSULTATION HOLD-ALL CALLS must always be made available when service features require switch hook flashing.
3. Indexes 156 and 157 also are used for SMDR, establishing an arbitrary connection timing.
4. If a party is involved in a CONSULTATION HOLD-ALL CALLS state or in an established THREE-WAY CALLING [T-2] connection, attempts to override the connection are denied. These features are:

EXECUTIVE RIGHT-OF-WAY	[E-1]
CALL WAITING - TERMINATE	[C-12]
BUSY VERIFICATION	[B-3]
ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]

## Interactions (cont'd)

5. Features that cannot be activated while a user has a party in CONSULTATION HOLD-ALL CALLS are:
 

EXECUTIVE RIGHT-OF-WAY	[E-1]
TRUNK ANSWER FROM ANY STATION	[T-8]
CALL BACK, Activate or Cancel	[C-1]
CALL PICKUP-DIRECT	[C-30]
CALL FORWARDING, Activate or Cancel	[C-2, 3, 5]
OUTGOING TRUNK QUEUING, Cancel	[O-2]
SPEED CALLING-INDIVIDUAL, Entry	[S-21]
MESSAGE REMINDER	[M-19D]
6. All other features may be activated as long as the user's line CLASS OF SERVICE-INDIVIDUAL [C-15] allows that feature.
7. Upon establishing a CONSULTATION HOLD-ALL CALLS connection and dialing a third party, if the user receives busy or reorder tone instead of ringback tone, the user flashes once to disconnect the tone and reconnect the second party.
8. Upon establishing a CONSULTATION HOLD-ALL CALLS connection and dialing a MISCELLANEOUS TRUNK ACCESS [M-2] code, if no dial tone is given (after the trunk is seized), or if a mistake is made in dialing, or if intercept announcement or a permanent tone is given, the user must go on-hook and wait for ringback tone.
9. A user, who established CONSULTATION HOLD-ALL CALLS, is reconnected to the party in soft hold when the third party disconnects.
10. When using CALL TRANSFER-ALL CALLS [C-11] from a station (second party) to another station or trunk (third party), the control station can transfer the call during ringing (blind transfer). When the control station goes on-hook, the station in soft hold is connected to the third party's connection and hears ringback tone. A 30-second timer is set when the controlling station goes on-hook. If the timer times out before the third party answers, the control station will receive ringback tone.
11. Reorder tone is returned to the station using CONSULTATION HOLD-ALL CALLS when the following actions occur:
  - The user attempts to place an off-net call using MISCELLANEOUS TRUNK ACCESS [M-2] on a restricted route.
  - The user dials the number of an unassigned station or station residing in an inaccessible tenant via Tenant Service.
  - The user dials vacant or invalid first digit (no assignment in the ANPD command either for level or connection status).
  - The TRANSFER key or FLASH BUTTON-D<sup>term</sup> [F-3D] is used instead of momentarily pressing the switch hook. A FLASH BUTTON-D<sup>term</sup> [F-3D] is required for a Connection Index of B, Busy.

# C-17D Consultation Hold - All Calls - D<sup>term</sup>

## General Description

This feature permits a D<sup>term</sup> user to hold any incoming or outgoing public network or TIE Line, or any Intra-office calls, while originating a call to another station within the system.

## Operating Procedure

### To hold original call and place second call from a D<sup>term</sup>:

1. Press the TRANSFER key; receive special dial tone.
2. The original call is held.
3. Dial the second telephone number; receive ringback tone.
4. The second station answers; the CONSULTATION HOLD state has been entered.

### To return to the original call from a D<sup>term</sup>:

1. In any of the following cases, the calling station can return to the original call by pressing the TRANSFER key:
  - a.) Second station called for consultation is busy.
  - b.) Calling station cannot gain access to the second station because of a restriction or some other reason.
2. If the second station hangs up, the calling station will be returned to the original call.
3. If the second station stays on, pressing the TRANSFER key returns the original call to the D<sup>term</sup> while the second call is being held.

By pressing the CONF key, a THREE-WAY CALL [T-2] will be initiated.

## Service Conditions

1. When TRUNK-TO-TRUNK CONNECTION [T-10] is provided with the system, an outgoing public network or TIE Line call may be made by the user.
2. With outgoing calls, this feature may be activated only after 18 seconds have elapsed since the last digit was dialed.
3. CALL PICKUP-GROUP [C-7] is available on CONSULTATION HOLD.
4. A call can be forwarded to a station in the remote node via FCCS link.

## Interactions

1. This feature is denied whenever the destination telephone set is engaged in any state other than a simple 2-party connection.
2. CONSULTATION HOLD-ALL CALLS must always be made available when service features require switch hook flashing.
3. Indexes 156 and 157 also are used for SMDR, establishing an arbitrary connection timing.
4. If a party is involved in a CONSULTATION HOLD-ALL CALLS state or in an established THREE-WAY CALLING [T-2] connection, attempts to override the connection are denied. These features are:
 

EXECUTIVE RIGHT-OF-WAY	[E-1]
CALL WAITING - TERMINATE	[C-12]
BUSY VERIFICATION	[B-3]
ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]

## Interactions (cont'd)

5. Features that cannot be activated while a user has a party in CONSULTATION HOLD-ALL CALLS are:
 

EXECUTIVE RIGHT-OF-WAY	[E-1]
TRUNK ANSWER FROM ANY STATION	[T-8]
CALL BACK, Activate or Cancel	[C-1]
CALL PICKUP-DIRECT	[C-30]
CALL FORWARDING, Activate or Cancel	[C-2, 3, 5]
OUTGOING TRUNK QUEUING, Cancel	[O-2]
SPEED CALLING-INDIVIDUAL, Entry	[S-21]
MESSAGE REMINDER	[M-19D]
6. All other features may be activated as long as the user's line CLASS OF SERVICE-INDIVIDUAL [C-15] allows that feature.
7. Upon establishing a CONSULTATION HOLD-ALL CALLS connection and dialing a third party, if the user receives busy or reorder tone instead of ringback tone, the user flashes once to disconnect the tone and reconnect the second party.
8. Upon establishing a CONSULTATION HOLD-ALL CALLS connection and dialing a MISCELLANEOUS TRUNK ACCESS [M-2] code, if no dial tone is given (after the trunk is seized), or if a mistake is made in dialing, or if intercept announcement or a permanent tone is given, the user must go on-hook and wait for ringback tone.
9. A user, who established CONSULTATION HOLD-ALL CALLS, is reconnected to the party in soft hold when the third party disconnects.
10. When using CALL TRANSFER-ALL CALLS [C-11] from a station (second party) to another station or trunk (third party), the control station can transfer the call during ringing (blind transfer). When the control station goes on-hook, the station in soft hold is connected to the third party's connection and hears ringback tone. A variable timer is set when the controlling station goes on-hook. If the timer times out before the third party answers, the control station will receive ringback tone.
11. Reorder tone is returned to the station using CONSULTATION HOLD-ALL CALLS when the following actions occur:
  - The user attempts to place an off-net call using MISCELLANEOUS TRUNK ACCESS [M-2] on a restricted route.
  - The user dials the number of an unassigned station or station residing in an inaccessible tenant via Tenant Service.
  - The user dials vacant or invalid first digit (no assignment in the ANPD command either for level or connection status).
  - The TRANSFER key or FLASH BUTTON-D<sup>term</sup> [F-3D] is used instead of momentarily pressing the switch hook. A FLASH BUTTON-D<sup>term</sup> [F-3D] is required for a Connection Index of B, Busy.



## C-20 Centralized Attendant Service (CAS)

### General Description

For applications requiring multiple sites, but having common interests or operation, the NEAX2400 IMX can operate in a Main (attended) or Satellite (unattended) configuration. Typically, incoming calls to the satellite are routed to the main location for processing by the Central Attendant(s) within the CAS network. This service feature can be used to improve overall communication efficiency.

### Operating Procedure

#### Listed Directory Number (LDN) Call:

1. Upon arrival of an LDN call at a satellite system, the LDN call is automatically directed to the main system via a release link trunk.
2. Upon receiving the incoming CAS call, the ATTENDANT CONSOLE(s) [A-3] will display the incoming CAS call by flashing the CAS lamp.
3. The Attendant answers the incoming CAS call by pressing the CAS or ANSWER key; hears the Incoming Call Tone (480 Hz - 440 Hz - 480 Hz) for 300 msec.
4. The Attendant presses the SHF key causing a switch hook flash; hears special dial tone from the satellite system.
5. The Attendant dials the required telephone number in the satellite system.
6. Upon hearing ringback tone, the Attendant presses the RELEASE key to make the release link trunk available to serve another call.

#### Recall on Don't Answer Call:

1. A satellite system is arranged to re-establish a connection from a calling party via a release link trunk to an Attendant in the main system, if the called station does not answer within a prefixed time.
2. Upon receiving the recall on a No Answer Call, the ATTENDANT CONSOLE(s) [A-3] will display the incoming CAS call by flashing the CAS lamp.
3. The Attendant answers the incoming CAS call by pressing the CAS or ANSWER key; hears continuous ringback tone (440Hz - 480 Hz) for 300 msec.
4. After hearing the burst of continuous ringback tone, the Attendant and the calling party converse over ringback tone because of ringing the called station continuously during recall connection.
5. If the calling party desires to hold the connection, the Attendant presses the RELEASE key to make the release link trunk available to serve another call.

#### Camp-on:

1. If the Attendant directs the satellite system to connect a call to a busy station, the satellite system transmits a Camp-On confirmation tone (100 msec burst of 440 Hz) to the Attendant, also a Camp-On Indication Tone (200 msec burst of 480 Hz) to the called station, and reconnects the calling party to the Attendant.
2. If the calling party desires to wait, the Attendant presses the RELEASE key to make the release link trunk available to serve another call.
3. If the Camped-On station remains busy for longer than the prefixed time, the satellite system reconnects the calling party via a release link trunk.
4. Upon receiving the recall on a Camped-On call, the ATTENDANT CONSOLE(s) [A-3] will display the incoming CAS call by flashing the CAS lamp.
5. The Attendant answers the incoming CAS call by pressing the CAS or ANSWER key; hears the Camp-On Identification Tone (100 msec burst of 440 Hz).
6. When the Camped-On station becomes idle, the satellite system rings the camped-on station.

## Operating Procedure (cont'd)

### Remote Hold:

1. The Attendant converses with a central office party.
2. The Attendant operates the SHF key; hears special dial tone.
3. The Attendant dials the Remote Hold access code (one or two digits); the central office party is placed in the hold state at the satellite system, and the Attendant hears the hold confirmation tone (five, 50 msec. bursts of 440 Hz).
4. The Attendant presses the RELEASE key to make the release link trunk available to serve another call.
5. If the central office party remains in the hold state for longer than the prefixed time, the satellite system reconnects the central office party via the release link trunk.
6. Upon receiving the recall on the hold call, the ATTENDANT CONSOLE(S) [A-3] will display the incoming CAS call by flashing the CAS lamp.
7. The Attendant answers the incoming CAS call by pressing the CAS or ANSWER key; hears the hold recall identification tone (five, bursts of 440 Hz).
8. The Attendant is now able to complete the call.

### Operator Call:

1. When an operator call code (one or two digits) is received from a station or TIE Line trunk in the satellite system, an operator call is directed to the main system via release link trunks.
2. Upon receiving the incoming CAS call, the ATTENDANT CONSOLE(S) [A-3] will display the incoming CAS call by flashing the CAS lamp.
3. The Attendant answers the incoming CAS call by pressing the CAS or ANSWER key; hears the operator call identification tone (two, 100 msec. bursts of 440 Hz).
4. At the expiration of this tone, the Attendant converses with the calling party.
5. The Attendant's procedure for serving this call is similar to that for an LDN call.

### Call Transfer - Attendant:

1. After any call is completed to a satellite station, the called party station can call the Attendant in the main system to transfer the calling party to another station in the satellite system. The operation of this feature is similar to that of an operator call.
2. The Attendant answers the incoming CAS call by pressing the CAS or ANSWER key; hears the operator call identification tone (two, 100 msec. bursts of 440 Hz).
3. After answering the call, the Attendant presses the SHF key, causing the satellite system to disconnect the station that dialed the operator call code and connects to the calling party.

### Night Service for the Incoming CAS Call in the Main System:

1. In night mode, the incoming CAS call is directed to a night station to be answered.
2. When the night station answers that call, the night station hears the identification tone depending on the call.
3. The night station momentarily switch hook flashes; hears the special dial tone from the main system.
4. Dials the Flash Signal Sending access code (one or two digits); hears special dial tone.
5. After this, the operation of the night station is similar to that of the Attendant.
6. The night station must be provided with DTMF signaling.

## Service Conditions

### The following applies to a NEAX2400 IMX used at the main CAS location (Attendant location):

1. The number of Release Link Trunks (RLT's) is determined by overall satellite to main location traffic requirements.

## Service Conditions (cont'd)

2. RLT's can be seized in one direction only; from the satellite PBX to the main PBX.
3. The Attendant cannot originate or INTER-POSITION TRANSFER [I-5] a call on an RLT.
4. The Attendant cannot extend an incoming CAS call to a station, trunk, or another Attendant in the main system.
5. CALL PROCESSING INDICATION [C-8] is not provided to the Attendant serving the incoming CAS call.
6. The Attendant at the main PBX cannot connect RLT calls to main PBX station users.
7. The main PBX Attendant cannot busy verify a station in the satellite system.

### The following applies to a NEAX2400 IMX used as a satellite location:

1. The number of station ports used will equal the number of RLTs required.
2. A call extended by an Attendant in the main system can be recorded on SMDR [S-10].
3. An optional ATTENDANT CONSOLE [A-3] may be provided at a satellite PBX to allow a local Attendant to control access to WATS or FX trunks.
4. CAMP-ON [A-1] and Remote Hold are not provided for an operator call.
5. The NIGHT CONNECTION - FIXED [N-1] / FLEXIBLE [N-2] and TAS feature can be provided at the branch location.
6. A NEAX2400 IMX can be equipped with 100 RLTs per hunt group.
7. FCCS link is not available for this service.

## Interactions

1. Release Link Trunks are not used for voice calls between PBXs. Release Link Trunks cannot be transferred to a station in the main system. TIE Lines must be installed for regular voice connection between systems.
2. CAS systems have no effect on tandem connection, LCR(6)/LCRS(7), or any other trunking application.
3. The following applies to a system used at the main CAS location (attendant location): The Attendant Console cannot originate or INTERPOSITION TRANSFER [I-5] a call on an RLT. The Attendant Console at the main PBX cannot connect RLT calls to main PBX station users.
4. A NEAX2400 IMX can be equipped with 100 RLTs per STATION HUNTING [S-7, 8, 9] group. This is a constraint of STATION HUNTING [S-7, 8, 9] and UNIFORM CALL DISTRIBUTION [U-1], not CAS.
5. Listed Directory Numbers (LDN) may be provided for the various satellite systems. Because these LDNs will ring in only at the CAS key of the Attendant Console, indications to distinguish among the multiple LDNs are not specifically available. However, the route number is displayed and can be used to distinguish satellite systems.
6. During the Day mode of operation, if all RLTs are busy, incoming COT calls will wait and ringback tone is sent to the calling party.
7. If the Attendant Console at the main system should switch hook flash to get dial tone from the satellite and all ports are busy, reorder tone is sent to the Attendant Console. The Attendant can switch hook flash COT party.
8. The CAS feature allows Attendant Console to be located at both the main and satellite locations. When the satellite location goes to the Night mode, translations are available to connect incoming C.O. calls to the RLT circuits. This is accomplished by the ACSI command and the NIGHT CONNECTION FIXED/FLEXIBLE [N-1, 2] feature.

**Interactions (cont'd)**

9. When the Night stations are located at the satellite PBX and no Attendant Console is provided, a Night key must be installed at the satellite location to activate night service. When the key is operated, the CAS operations are suspended, and incoming calls are terminated at the NIGHT CONNECTION FIXED/FLEXIBLE station(s) [F-1, 2] or via TRUNK ANSWER FROM ANY STATION [T-8]. When answered, the Night station can transfer the call to the main location via the TIE trunks but not the RLT circuits. A PA-D07 (Attendant Console) circuit card must be supplied to the satellite system.
10. PAGING ACCESS [P-1]: This feature allows the CAS Attendant to access paging equipment located at the branch location upon answering an RLT call. See PAGING ACCESS [P-1] and MEET-ME PAGING [M-1].
11. CODE CALLING ACCESS [C-21]: This feature allows the CAS Attendant Console to access CODE CALLING equipment located at the satellite location upon answering an RLT call.
12. STATION MESSAGE DETAIL RECORDINGS [S-10]: SMDR is provided for calls extended by a CAS Attendant Console.

# C-21 Code Calling Access

## General Description

This feature provides the ATTENDANT CONSOLE [A-3] and users dial access to Code Calling equipment.

## Operating Procedure

1. Go off hook; receive dial tone.
2. Dial the CODE CALLING ACCESS code.
3. Dial the code number for the unit desired.

## Service Conditions

1. Amplifiers, speakers, and Code Calling units must be provided by the customer.
2. Loop Start Central Office trunks are used for interfacing Code Calling equipment. One Central Office trunk circuit is required per paging port and per answer back port.
3. Fully Restricted Stations: A fully restricted station may make only dial "0" and station-to-station calls; therefore, the CODE CALL ACCESS is denied.
4. HOTLINE [H-1]: A hotline station user can be programmed to connect to a Code Call Unit when the station goes off-hook.
5. ROUTE RESTRICTION: A station that is Code Calling route restricted is denied dial access to the Code Call unit. Restricted calls are routed to reorder tone. If allowed by the user's Class of Service, Attendant assistance can be used to complete a code call for a route-restricted station.
6. Attendants, users and TIE trunk users can dial an access code and a 2 or 3-digit called party code to activate a coded signal.
7. The D<sup>term</sup> display will indicate the elapsed call time and trunk number.

## Interactions

PAGING TRANSFER [P-10] may be used along with CODE CALLING ACCESS. Refer to PAGING TRANSFER [P-10] for additional programming.

## C-22D Called Station Status Display - D<sup>term</sup>

### General Description

This feature provides for the status of a called station to appear on the LCD display of a calling D<sup>term</sup>.

### Operating Procedure

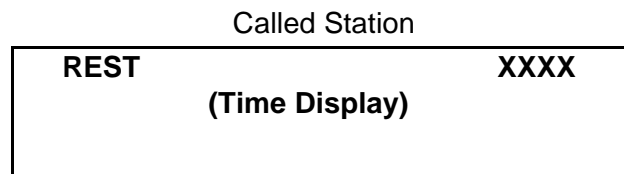
Lift handset or press SPEAKER key; dial desired station. The LCD display indicates the status of the called station.

### Service Conditions

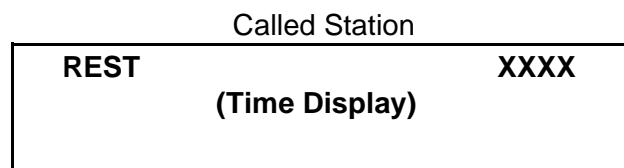
1. If the called station is idle, the display flashes its number until the call is answered. If the called station is busy, the LCD displays:



2. If the called station is in DO NOT DISTURB - D<sup>term</sup> [D-11D], the LCD displays:



3. If the calling station encounters a restricted station, the LCD displays:



4. CALLED STATION STATUS DISPLAY - D<sup>term</sup> can be restricted on a system-wide basis. The LCD displays:



# C-24D                      Calling Number Display - D<sup>term</sup>

## General Description

This feature provides for the station and trunk number of an incoming call to appear on the D<sup>term</sup>'s LCD display. This display will flash while the call is ringing, then appear steady when the call is answered.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. When a call terminates on a line other than the PRIME LINE [P-13D], the LCD displays the incoming station determined by LINE PRE-SELECTION - D<sup>term</sup> [L-9D].
2. LINE PRE-SELECTION - D<sup>term</sup> [L-9D] is governed by a timer.

## C-25 Call Forwarding-Intercept / Announcement

### General Description

This feature provides for interception of STATION-TO-STATION [S-11], DIRECT INWARD DIALING [D-8], Attendant-to-Station and CCSA [C-14] calls that cannot be completed (unassigned station, level, etc.). These calls are automatically routed to a recorded announcement informing the caller that an inoperative number was reached and giving the Listed Directory Number for information.

This feature permits a station-originated call, upon encountering a restricted outgoing number, to automatically be routed to a recorded announcement informing the caller that the dialed number is restricted for this station.

This feature permits a station-originated call, upon encountering a trunk busy condition, to automatically be routed to a recorded announcement informing the caller that all the outgoing trunks are busy.

### Operating Procedure

No manual operation is required, once this feature has been programmed in system data.

### Service Conditions

1. CALL FORWARDING-INTERCEPT / ANNOUNCEMENT requires one of the following hardware alternatives:
  - a.) Central Office Trunk (COT) or 2W E&M trunk and an announcement machine, or
  - b.) Digital Announcement Trunk (DAT).
2. If the outside party or Attendant forgets to hang up, the system will automatically disconnect in 30 seconds (provided this is programmed in system data). If no disconnect timing is programmed, the outside party will control disconnect.
3. This feature is provided on a per-tenant basis.
4. The following call conditions, which cannot be completed, can be routed to intercept:
  - a.) vacant level,
  - b.) unassigned telephone number.
5. Only one common message can be provided for the different intercept conditions.
6. There is no method by which to exempt individual DID, CCSA, and TIE Trunks from intercept.
7. A station dials the LEAST COST ROUTING [L-5] access code and then an outside number. If that outside number is not listed in LEAST COST ROUTING [L-5] tables (Outgoing Routing Patterns, OPR), the call will be routed to an intercept announcement.
8. If a different message is required for each of the three intercept conditions, three trunks or three announcement machines must be provided.

#### When encountering a Restricted Route:

9. This service feature is valid when station to outgoing trunk connection is restricted.
10. This feature is applied equally to all trunk routes in the system. It cannot be denied to some routes and available to other routes.
11. This service is valid when a call is redirected to an OG trunk via CALL FORWARDING-OUTSIDE [C-28]. The announcement will be heard when the calling station is also a restricted station.
12. This service is not valid for TRUNK-TO-TRUNK CONNECTION [T-10] when the called station has set CALL FORWARDING - OUTSIDE [C-28] via DID or TIE Trunk.
13. This service is not valid for outgoing calls that do not go out when all trunks or senders are busy.

#### When encountering all trunks busy:

14. This service feature is valid for outgoing station-to-trunk or tandem trunk-to-trunk connections.



**Service Conditions (cont'd)**

15. Automatic OUTGOING TRUNK QUEUING [O-2], OFF-HOOK QUEUING [O-7] and ROUTE ADVANCE [R-6] are mutually exclusive with this feature. These features take priority over OUTGOING TRUNK BUSY - ANNOUNCEMENT [O-21].
16. ANNOUNCEMENT SERVICE is provided to FCCS nodes that have no announcement trunk using the trunk in the remote node.
17. When CALL FORWARDING - INTERCEPT/ANNOUNCEMENT [C-25] or CALL FORWARDING - INTERCEPT / ANNOUNCEMENT - ATTENDANT [C-75] is used in an FCCS network, the additional data shown below is required.
  - a.) the logical route number should be applied to the physical route that is provided the service.
  - b.) the restriction of route-to-route connection between FCCS nodes should be released.
18. When using the FCCS network, CALL FORWARDING-INTERCEPT / ANNOUNCEMENT [C-25] or CALL FORWARDING - INTERCEPT / ANNOUNCEMENT-ATTENDANT [C-75] is not provided for the incoming call using AUTOMATED ATTENDANT [A-82], DIRECT-IN TERMINATION [D-7], or REMOTE ACCESS TO SYSTEM [R-2].
19. When using the FCCS network, the call forwarding for an incoming call routed to a dead level or an unused number has priority over the announcement service for the incoming call.

**Interactions**

1. Each route connected to an announcement machine is also an EQP. The same route can be assigned as different EQP's. However, it is best to separate EQP functions by route.
2. 8TLT, 16 COT, or 4DAT card may be used.

# C-26 Call Forwarding - Override

## General Description

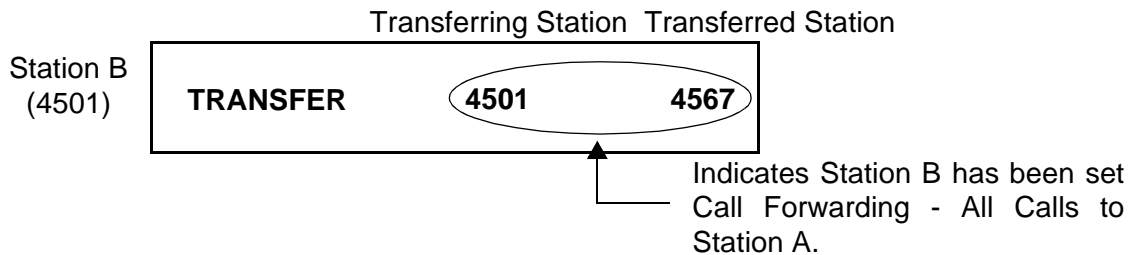
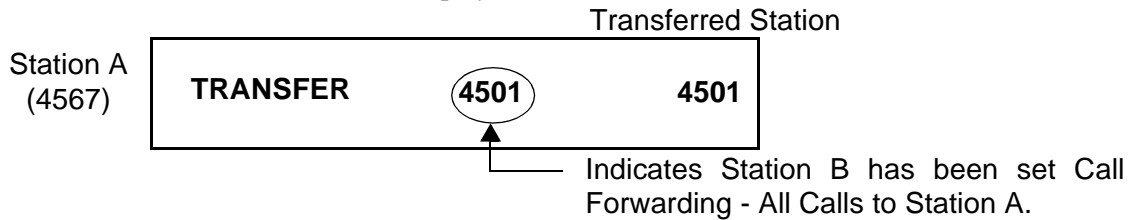
This feature allows a target user (Station A) to call the station (Station B) which has set CALL FORWARDING - ALL CALLS [C-5] to it. If the called station (Station B) has set the CALL FORWARDING - BUSY LINE [C-2] to the calling station (Station A), the calling station (Station A) hears busy tone and can activate CALL BACK [C-1], EXECUTIVE RIGHT-OF-WAY [E-1], or CALL WAITING - ORIGINATING [C-31].

## Operating Procedure

Station A presses EXECUTIVE RIGHT-OF-WAY [E-1] or CALL WAITING [C-31] after hearing busy tone.

## Service Conditions

1. This service feature is allowed to all stations in the NEAX2400 IMX, except the ATTENDANT CONSOLE [A-3].
2. Any station that has set CALL FORWARDING - ALL CALLS [C-5] can activate any feature, if the station is allowed the feature via CLASS OF SERVICE [C-15].
3. When Station A ( $D^{term}$ ) calls Station B ( $D^{term}$ ), or if Station A places an incoming call into hold condition and calls Station B, each  $D^{term}$  LCD displays as shown below:



# C-27D Call Waiting - Answer - D<sup>term</sup>

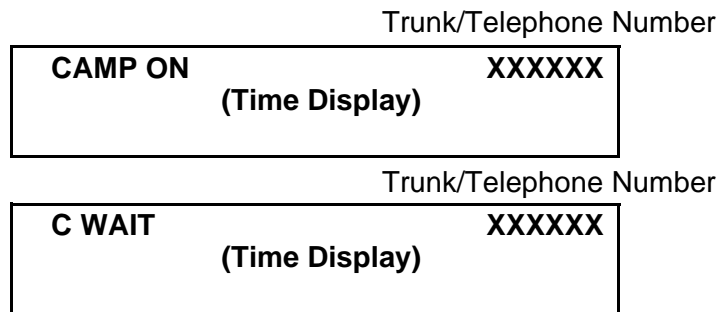
## General Description

This service feature allows a D<sup>term</sup> user to answer a CAMPED-ON [A-1] or CALL WAITING [C-12, 31] call while putting an existing call on HOLD [C-6], by pressing the ANSWER key.

## Operating Procedure

**CAMP-ON [A-1] or CALL WAITING [C-12, 31] to a busy D<sup>term</sup> is activated:**

1. The user hears Camp-On Indication Tone or Call Waiting Tone during a call in progress; the LCD of the D<sup>term</sup> displays:



2. The user presses ANSWER key and is connected to the waiting call.
3. To return to the original call, the D<sup>term</sup> user re-presses ANSWER key.

## Service Conditions

1. Service conditions are essentially the same as those of CALL WAITING - TERMINATING [C-12] for ordinary telephone sets.
2. Pressing RECALL will disconnect the party presently engaged in conversation.

## Interactions

1. This feature is allowed whenever the destination telephone is engaged in any state other than:
  - a.) engaged in a 3-way connection,
  - b.) a Privacy feature is activated,
  - c.) connected to a route programmed to have Line/Trunk, Privacy, CDN 44:PRV,
  - d.) listening to a tone (dial tone, reorder tone, service set tone, busy tone, ringback tone).
2. CALL WAITING-ANSWER-D<sup>term</sup> is operated by pressing the ANSWER key located on the D<sup>term</sup> instrument. This feature is used for ATTENDANT CAMP-ON [A-1] and CALL WAITING-ORIGINATING [C-31].
3. Periodic Call Waiting Tones will not operate for ATTENDANT CAMP-ON WITH TONE INDICATION [A-1].

## C-28 Call Forwarding - All Calls - Outside

### General Description

This feature allows a call, which originates from a station or trunk and is destined for a station, to be routed to another station outside the NEAX2400 IMX via the appropriate trunk line. This feature can also be activated from a D<sup>term</sup> multi-line.

### Operating Procedure

#### To set CALL FORWARDING - ALL CALLS - OUTSIDE:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - ALL CALLS - OUTSIDE access code (same as CALL FORWARDING - ALL CALLS [C-5]); receive special dial tone.
3. Dial the desired target telephone number (or Speed Calling access code and abbreviated code). If the ATTENDANT CONSOLE [A-3] is setting this feature, dial the access code, tenant number, originating telephone number, and then the desired outside number; receive service set tone.

#### To cancel CALL FORWARDING - ALL CALLS - OUTSIDE:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - ALL CALLS - OUTSIDE cancel code, (same as CALL FORWARDING - ALL CALLS [C-5] cancel code); receive service set tone.

#### To set CALL FORWARDING - ALL CALLS - OUTSIDE from a multi-line D<sup>term</sup>:

1. Press the multi-line feature key to be used for CALL FORWARDING - ALL CALLS - OUTSIDE.
2. Lift the handset or press the SPEAKER key; receive dial tone.
3. Press CALL FORWARDING - ALL CALLS - OUTSIDE feature key; receive special dial tone.
4. Dial the desired target telephone number (or Speed Calling access code and abbreviated code); receive service set tone. The LED will light. The LCD displays:

<b>FORWARD SET</b> <b>(Time Display)</b>
---

5. Replace the handset or press the SPEAKER key.

#### To monitor CALL FORWARDING - ALL CALLS - OUTSIDE from a multi-line D<sup>term</sup>:

1. Press the multi-line appearance, then press the CALL FORWARDING - ALL CALLS FORWARD feature key. The LCD displays:

<b>FORWARD</b> <b>(Time Display)</b>	Outside Number* XXXXXXXX
---	-----------------------------

**Note:** \*A dialed abbreviated number is transferred into the forwarding number, and the first eight digits are displayed, even if a maximum of 24 digits can be stored.

## Operating Procedure (cont'd)

To cancel CALL FORWARDING - ALL CALLS - OUTSIDE from a multi-line D<sup>term</sup>:

1. Lift the handset or press the SPEAKER key; receive dial tone. Press the CALL FORWARDING - ALL CALLS FORWARD feature key; receive service set tone. The LED of the associated feature key will go out. The LCD displays:

**FORWARD CANCEL**  
**(Time Display)**

2. Replace the handset or press the SPEAKER key.

## Service Conditions

1. CALL FORWARDING - ALL CALLS - OUTSIDE may be set or cancelled by either a user or the Attendant.
2. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in system data.
3. For CALL FORWARDING - ALL CALLS - OUTSIDE, Speed Call List numbers may be programmed as the destination telephone number. This permits the sent digits to exceed the 12-digit maximum.
4. When using this feature, either the calling station or the forwarding station is recorded by SMDR [S-10] as the originating station of calls forwarded. The selection between the above stations is decided by system data.
5. The calling D<sup>term</sup> display for CALL FORWARDING - ALL CALLS and BUSY LINE - OUTSIDE appear as regular outgoing CO calls. The calling D<sup>term</sup> display for CALL FORWARDING - DON'T ANSWER - OUTSIDE appears as a STATION-TO-STATION CALLING - CCIS [S-57] call.
6. CALL FORWARDING - ALL CALLS - OUTSIDE can be restricted by the Trunk Route Restriction Class (RSC) of the originating station.
7. There is no limit to the number of stations that may activate this feature simultaneously.
8. Restrictions for outgoing connection by CALL FORWARDING - ALL CALLS - OUTSIDE are as follows:
  - a.) When originating a call from a station: RSC is verified when this service is in effect.
  - b.) When originating a call from a trunk: Restriction for tandem connections between the incoming trunk and the outgoing trunk is selected for the call where CALL FORWARDING - ALL CALLS service occurs.
9. When a caller places a call via Outgoing Call Alternative (OGCA) and when the first outgoing route and the calling party are restricted, this service cannot be set. In this case, the service can be set via the following procedure:
  - a.) assign a dummy route,
  - b.) clear the restriction between the dummy route and all the stations,
  - c.) assign the dummy route as the first route of OGCA.
10. When a destination of CALL FORWARDING - ALL CALLS - OUTSIDE has already been assigned, even if the feature is restricted by the new office data or changing of Day/Night mode, the assigned data can still be used or cancelled.
11. A maximum of 24 digits, including trunk access code, can be stored.
12. This feature allows a call to terminate to a trunk outside of the FCCS network. Accordingly, the access code + office code or the access code including office code is required before dialing the telephone number to recognize the terminating node.

**Service Conditions (cont'd)**

13. When the incoming call is forwarding to the public network, be sure to add the outgoing access code + destination area code or the outgoing access code including destination area code number before dialing subscriber number.
14. A call can be forwarded to a trunk in the remote node via FCCS link.

**Interactions**

1. A 24-digit limitation exists in memory for CALL FORWARDING-OUTSIDE.
2. CALL FORWARDING-OUTSIDE is an enhancement of the CALL FORWARDING-ALL CALLS [C-5] feature.
3. This feature may be set from the Attendant Console.
4. A call may be CALL FORWARDED-OUTSIDE to a SPEED CALLING-SYSTEM [S-3] or SPEED CALLING-STATION/GROUP [S-21, 23] number. This will allow a long-distance number that exceeds 12 digits.
5. A user can verify that CALL FORWARDING-OUTSIDE has been properly activated and can inform the designated outside party of the activation by dialing the forwarded station from any station in the system.
6. If a station is restricted from outside calling, CALL FORWARDING-OUTSIDE will be denied. TOLL RESTRICTION-3/6 DIGIT [T-7] will be applied to CALL FORWARDING-OUTSIDE via SPEED CALLING-SYSTEM, STATION, GROUP [S-3, 21, 23], if tenant data assigned in System Data 2 applies Toll Restriction to speed calling.
7. Upon activation of this feature, STATION MESSAGE DETAIL RECORDING [S-10] will record the outside exchange number whenever a call is forwarded.
8. A station can use the OUTGOING TRUNK QUEUING [O-2] feature to queue an outgoing trunk and a call that is being forwarded via the CALL FORWARDING-OUTSIDE feature. The call will be outpulsed when a trunk becomes available.
9. A station assigned to a STATION HUNTING [S-7, 8, 9] Group will be temporarily removed from the Hunt Group if it initiates CALL FORWARDING-OUTSIDE.
10. If a call using the CALL BACK [C-1] feature is placed from a station that has activated CALL FORWARDING-OUTSIDE, the Call Back will ring at the forwarding station, not the outside station.
11. When OUTGOING TRUNK QUEUING [O-2] (on-hook) is initiated by the forwarding station, the ringback will be to the forwarding station and not to the outside station.
12. A DIRECT-IN TERMINATION [D-7] call may be sent through CALL FORWARDING-OUTSIDE.
13. The number of digits (maximum 12) that will be accepted before forwarding is set is determined by AMND.
14. This feature allows a call to terminate to a trunk outside of the FCCS network. Accordingly, “the access code + office code” or “the access code including office code” is required before dialing a telephone number to recognize the terminating node.
15. When forwarding the incoming call to the public network, be sure to add “the outgoing access code + destination area code” or “the outgoing access code including destination area code number” before dialing a subscriber number.

## C-29

## Call Park

### General Description

This feature enables the Attendant(s) or users to “Park” calls against their own extension numbers. Calls can easily be retrieved from any station within the system.

### Operating Procedure

#### To park a call from the ATTENDANT CONSOLE [A-3]:

1. The Attendant presses the CALL PARK key; the CALL PARK number (individual Attendant number) is automatically selected and displayed at the ATTENDANT CONSOLE [A-3].
2. The Attendant receives service set tone.
3. The Attendant presses either the RELEASE or CANCEL key.

#### To retrieve a parked call from any station within the system:

1. Dial the CALL PARK remote retrieval code and the individual Attendant number that has parked a call; the parked call is reconnected.

**Note:** *An Attendant cannot retrieve a parked call.*

#### To park a call from a station:

1. Momentarily press the switch hook; receive special dial tone.
2. Dial the CALL PARK access code; receive service set tone.
3. Replace the handset.

#### To retrieve a parked call from the originating station:

1. Dial the CALL PARK local retrieval code; the parked call is reconnected.

#### To retrieve a parked call from a different station:

1. Dial the CALL PARK remote retrieval code and the number of the station that parked the call; the parked call is reconnected.

### Service Conditions

1. Calls parked by a station are automatically parked on that station's extension number. The My-line number is used for a D<sup>term</sup>.
2. CALL PARK may be activated only during calls involving two parties.
3. The system provides one Attendant CALL PARK number for each Attendant. The individual Attendant number is the CALL PARK number. See INDIVIDUAL ATTENDANT ACCESS [I-6].
4. A station or Attendant can only park one call at a time. If a station or Attendant attempts to park a second call, reorder tone will be heard.
5. This feature may be assigned to stations via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
6. The dedicated key (for parking calls) on the Attendant Console is located between the HOLD and Busy Verification (BV) keys. An Attendant cannot use a CALL PARK access code.
7. A user can park a call only by dialing a CALL PARK access code.
8. Stations can originate and receive calls while having a call parked.
9. The following features cannot be activated to a station that has set CALL PARK:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BUSY VERIFICATION	[B-3]

## Service Conditions (cont'd)

- |     |  |                     |
|-----|--|---------------------|
|     | CALL WAITING - ORIGINATING   | [C-31]              |
|     | CALL WAITING - TERMINATING   | [C-12]              |
|     | EXECUTIVE RIGHT-OF-WAY   | [E-1, E-1D]         |
| 10. | A station in an ATTENDANT-CONTROLLED CONFERENCE [A-2] cannot be parked.  |                     |
| 11. | There is no limit to the number of calls that can be parked simultaneously within a system.  |                     |
| 12. | A parked call will recall to the station that has set the CALL PARK. The recall timer is preprogrammed into System Data. A call parked by the Attendant will not recall. |                     |
| 13. | CALL PARK is denied for the following station status:  |                     |
|     | ATTENDANT OVERRIDE   | [A-7]               |
|     | BOSS-SECRETARY OVERRIDE - D <sup>term</sup>  | [B-5D]              |
|     | BUSY VERIFICATION  | [B-3, B-9]          |
|     | CALL TRANSFER  | [C-10, C-11, C-11D] |
|     | CALL WAITING - ORIGINATING   | [C-31]              |
|     | CALL WAITING - TERMINATING   | [C-12]              |
|     | CONSULTATION HOLD - ALL CALLS  | [C-17, C-58]        |
|     | DATA LINE SECURITY   | [D-12, D-66]        |
|     | DIAL ACCESS TO ATTENDANT   | [D-2, D-71]         |
|     | EXCLUSIVE HOLD - D <sup>term</sup>   | [E-4D]              |
|     | EXECUTIVE RIGHT-OF-WAY   | [E-1, E-8]          |
|     | NON-EXCLUSIVE HOLD - D <sup>term</sup>   | [N-7D]              |
|     | PRIVACY RELEASE  | [P-18]              |
|     | THREE-WAY CALLING  | [T-2]               |
|     | VOICE CALL   | [V-2, V-7]          |
| 14. | CALL PARK is denied for the following Attendant Console status:  |                     |
|     | ATTENDANT OVERRIDE   | [A-7]               |
|     | BUSY VERIFICATION  | [B-3]               |
|     | CALL TRANSFER - ATTENDANT  | [C-10]              |
|     | Call on Hold   |                     |
|     | THREE-WAY CALLING  | [T-2]               |
| 15. | An Attendant Console cannot be parked.   |                     |
| 16. | A CALL PARK connection remains parked until retrieved or until the party disconnects.  |                     |
| 17. | It is not possible to park a call that is on the "DEST" side of the Attendant connection. It must be on the "SRC" side of the Attendant Console.                         |                     |

## Interactions

Only calls directly terminated to the Attendant Console can be parked. This includes calls transferred to the Attendant from another station or Attendant Console.



## C-30

# Call Pickup - Direct

### General Description

This feature allows a user to pick up a call to any other station in the system by dialing a specific CALL PICKUP-DIRECT code.

### Operating Procedure

#### To pick up an incoming call:

1. Lift the handset; receive dial tone.
2. Dial the CALL PICKUP - DIRECT code; receive special dial tone.
3. Dial the specific telephone number to be picked up; incoming call is connected to user station.

### Service Conditions

1. This feature is provided on a per-line basis, based on the station CLASS OF SERVICE - INDIVIDUAL [C-15].
2. A station in a fully restricted class cannot answer a central office incoming call using CALL PICKUP - DIRECT.
3. If the ringing call is a result of CALL BACK [C-1], CALL HOLD [C-6] recall, or OUTGOING TRUNK QUEUING [O-2] recall, it cannot be picked up by any station.
4. This feature cannot be accessed from the ATTENDANT CONSOLE [A-3].
5. The stations in this procedure can belong to the different TENANT [T-12] groups. A TN2 can pick up a TN1 call.
6. A busy station can accomplish CALL PICKUP - DIRECT by placing an existing call on CALL HOLD [C-6].
7. CALL PICKUP - DIRECT cannot be accessed while in the CONSULTATION HOLD-ALL CALLS [C-17] mode.
8. When a station holds a call (CALL HOLD) terminated through FCCS link, the station cannot pick up a call.
9. When both the calling station and the station that will pick up a call hold the call, if one of the held calls is terminated through FCCS link, the station cannot pick up the call.
10. The call terminated through FCCS link cannot be picked up from the other station in the system by dialing the Physical Station Number.

### Interactions

1. After answering via CALL PICKUP-DIRECT, the CALL TRANSFER-ALL CALLS [C-11] feature can be used.
2. A STATION MESSAGE DETAIL RECORDING [S-10] CALL PICKUP-DIRECT record is created showing the station dialing the CALL PICKUP-DIRECT code and the call picked up.

# C-31 Call Waiting - Originating

## General Description

This feature provides selected stations with Camp-On capability to a busy internal station.

## Operating Procedure

### To activate CALL WAITING - ORIGINATING:

1. Dial the desired telephone number; receive busy tone.
2. Switch hook flash, receive special dial tone, dial the CALL WAITING - ORIGINATING code; or press the CW key on the D<sup>term</sup>.
3. Receive Call Waiting ringback tone. Call Waiting Tone (3 beeps) is sent to the busy station.

### OR

1. Dial the CALL WAITING - ORIGINATING access code; receive dial tone.
2. Dial the desired telephone number.
3. If the called station is busy, CALL WAITING - ORIGINATING is automatically set; receive Call Waiting ringback tone. Call Waiting Tone (3 beeps) will be sent to the busy station.

**Note:** *Soft key can be used for the D<sup>term</sup> Series E.*

### To answer a CALL WAITING - ORIGINATING call:

1. Call Waiting Tone is heard during a call in progress.
2. Switch hook flash, or press the ANSWER key on the D<sup>term</sup> to hold the existing call.
3. The CALL WAITING - ORIGINATING call is automatically connected.
4. Another switch hook flash or pressing the ANSWER key can be used to return to the original call, and the second call will be held.

### OR

1. Call Waiting Tone is heard during the call in progress.
2. The called station hangs up; priority ringing is sent.
3. Lift the handset to answer.

## Service Conditions

1. Once CALL WAITING - ORIGINATING is activated to a given station, other stations attempting CALL WAITING - ORIGINATING to this station will receive reorder tone.
2. Call Waiting Tone is 3 bursts, 200 ms ON and 200 ms system data. The repetition rate can be programmed in system data.
3. Periodic Call Waiting tone can be eliminated by system data programming on a per-tenant basis.
4. The ability to activate this feature must be assigned in the call originators CLASS OF SERVICE - INDIVIDUAL [C-15] programming.
5. CLASS OF SERVICE - INDIVIDUAL [C-15] for the called station must be programmed for CALL WAITING - TERMINATING [C-12].
6. There is no limit to the number of stations that may access this feature simultaneously.
7. CALL WAITING - ORIGINATING is denied when the called station is connected to the ATTENDANT CONSOLE [A-3].
8. CALL WAITING - ORIGINATING can be set only if the called station is busy on a two-party call with another station or trunk.

**Service Conditions (cont'd)**

9. When the called station goes on-hook, the Call Waiting ringback tone changes to normal ringback tone to the calling station.
10. CALL WAITING-ORIGINATING cannot be activated while in CONSULTATION HOLD [C-17] mode.
11. CALL WAITING-ORIGINATING cannot be used in conjunction with DIAL ACCESS TO ATTENDANT [D-2].
12. CALL BACK [C-1] activation is denied if a call is waiting at the calling or called station line.
13. If a station has set CALL FORWARDING [C-2, 3, 5], a call will wait at the target station if CALL WAITING - TERMINATING is provided via CLASS OF SERVICE [C-15].
14. CALL WAITING - TERMINATING [C-12] at the called station can be restricted by CLASS OF SERVICE [C-15]. In this case, the calling station receives busy tone and can set CALL BACK [C-1].
15. ATTENDANT CAMP-ON [A-1] Tone is 1-burst tone and Call Waiting Tone from the incoming trunk call is 2-burst tones to the busy station.
16. EXECUTIVE RIGHT-OF-WAY [E-1] is denied a two-party connection that has a call waiting.
17. STATION HUNTING [S-7, 8, 9] takes precedence over Call Waiting.
18. Priority ringing is:
 

0.4 sec. ON	0.2 sec. OFF	0.8 sec. ON
0.2 sec. OF	0.4 sec. ON	0.4 sec. OFF
19. These features are denied if a call is waiting at the calling or called station:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
CALL BACK	[C-1]
CALL TRANSFER	[C-10, C-11, C-11D]
CALL WAITING - TERMINATING	[C-12]
DIAL ACCESS TO ATTENDANT	[D-2]
EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-8]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2]
20. CALL WAITING - ORIGINATING cannot be activated if the target station has accessed, entered, or is engaged in any of the following features or modes:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3, B-9]
CALL BACK	[C-1]
CALL HOLD	[C-6, C-6D]
CALL TRANSFER	[C-10, C-11, C-11D]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, C-17D]
DATA LINE SECURITY	[D-12]
DATA PRIVACY ON DEMAND	[D-17]
DIAL ACCESS TO ATTENDANT	[D-2, D-71]
DICTATION ACCESS	[D-3]

**Service Conditions (cont'd)**

EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-8]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
OFF-HOOK QUEUING	[O-7]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY - D <sup>term</sup>	[P-14D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL - D <sup>term</sup>	[V-2D]
21. The following service features take precedence over CALL WAITING - ORIGINATING:	
CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-3]
STATION HUNTING - CIRCULAR	[S-7]
STATION HUNTING - SECRETARIAL	[S-8]
STATION HUNTING - TERMINAL	[S-9]

**Interactions**

1. When Station A directs the second CALL WAITING-ORIGINATING to a given station, Station A will receive reorder tone.
2. A CALL WAITING-ORIGINATING call is answered by flashing the switch hook of a single-line set or pressing the ANSWER or TRANSFER keys of a D<sup>term</sup>. CALL TRANSFER-ALL CALLS [C-11] is not allowed. If the TRANSFER key on a D<sup>term</sup> or the switch hook is flashed on a single-line set, the SPLITTING-D<sup>term</sup> [S-4D] feature is being used.
3. CALL WAITING-ORIGINATING is denied toward a TIE Line.

# C-33 Consecutive Dialing - Attendant

## General Description

This feature gives the ATTENDANT CONSOLE [A-3] the ability to generate DTMF signals while engaged in a station/trunk connection. These DTMF signals are generated via the dial key pad of the ATTENDANT CONSOLE [A-3].

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The ATTENDANT CONSOLE [A-3] can transmit DTMF signals under the following conditions:
  - a.) When the ATTENDANT CONSOLE [A-3] originates a trunk call while an internal station is holding, DTMF signals can be transmitted to the trunk or station but not to both in a three-way connection.
  - b.) When the ATTENDANT CONSOLE [A-3] originates a trunk call while another trunk call is on hold, DTMF signals can be transmitted to either trunk but not to both in a three-way connection.
  - c.) When the ATTENDANT CONSOLE [A-3] originates an internal station call while holding a station or trunk, DTMF signals can be transmitted to either station or trunk but not to both in a three-way connection.
  - d.) When the ATTENDANT CONSOLE [A-3] originates/answers an internal station or trunk call and remains engaged in the connection. If the START key is pressed, DTMF signals cannot be transmitted from the ATTENDANT CONSOLE [A-3] (even when DTMF signal sending is selected in the System Data).
2. All digits (DTMF signals) generated by the ATTENDANT CONSOLE [A-3] will not appear on the ATTENDANT CONSOLE [A-3] display.
3. Additional digits can be dialed after the trunk soft-hold timer has timed out or after the trunk answer signal has been received.
4. If the ATTENDANT CONSOLE [A-3] overrides a connection between a station/trunk and a station/trunk, the ATTENDANT CONSOLE [A-3] may generate DTMF signals.
5. After answering any of the following calls: the Attendant can send DTMF signal to the calling party by pressing key pad while connected with the call; or the Attendant can hold the answered call and transfer it to a specific destination. Either function can be selected through the System Data.
 

Ring-down	Operator call
Individual Attendant Call	Listed Directory Number
Recall	CALL FORWARDING [C-2, 3, 5] to Attendant
OFF-HOOK ALARM [O-6]	CALL FORWARDING - INTERCEPT [C-25] to Attendant
PRIORITY CALL [P-9]	CCIS Incoming Call
HOUSE PHONE [H-2] (Hot Line)	
6. If the Attendant answers an incoming call transferred from one ATTENDANT CONSOLE to another, by INTER-POSITION TRANSFER [I-5], DTMF signals cannot be generated from the ATTENDANT CONSOLE on which the transferred call has been answered.

## C-59 Called Number Display - Attendant

### General Description

If a call is transferred to the ATTENDANT CONSOLE [A-3] as a result of:

DO NOT DISTURB	[D-11]
CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
CALL FORWARDING - DON'T ANSWER	[C-3]
CALL FORWARDING - INTERCEPT/ ANNOUNCEMENT	[C-25]

Information pertaining to the called station is displayed on the Attendant Console.

### Operating Procedure

1. The Attendant answers an incoming call.
  - a.) The DEST lamp lights.
  - b.) The Called telephone number is displayed.
2. The Attendant presses the SRC button.
  - a.) The DEST lamp goes off, and the SRC lamp lights.
  - b.) Either the calling party's tenant number is displayed, or RSC number and telephone number are displayed.

### Service Conditions

1. This service is effective when a station-to-station call or a DID call has been routed to an Attendant Console as a result of:
 

DO NOT DISTURB	[D-11],
CALL FORWARDING - ALL CALLS	[C-5],
CALL FORWARDING - BUSY LINE	[C-2],
CALL FORWARDING - DON'T ANSWER	[C-3], or
CALL FORWARDING - INTERCEPT/ANNOUNCEMENT	[C-25], and is answered by the Attendant.
2. If the Attendant presses the SRC button while the called telephone number is displayed, the display changes to the number of the calling party. The called telephone number cannot be displayed again.
3. While the called telephone number is displayed, the Attendant can transfer the call to a desired station by keying the destination number on the keypad. In this case, the called telephone number of that call cannot be displayed again.
4. While the called telephone number is displayed, the Attendant can place the call on hold by pressing the HOLD key. The called telephone number is displayed again when the Attendant picks up the call again.
5. While the called telephone number is displayed, the Attendant can set CALL PARK [C-29] service. The called telephone number cannot be displayed again.

# C-60 Call Forwarding - Busy Line - Outside

## General Description

This feature allows a call that originates from a station or trunk, and is destined for a station to be routed to another station outside the NEAX2400 IMX via the appropriate trunk line. This service feature can also be activated from a D<sup>term</sup> multi-line.

## Operating Procedure

### To set CALL FORWARDING - BUSY LINE - OUTSIDE:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - BUSY LINE - OUTSIDE access code (same as CALL FORWARDING - BUSY LINE [C-2]); receive special dial tone.
3. Dial the desired target telephone number (or Speed Calling access code and abbreviated code). If the ATTENDANT CONSOLE [A-3] is setting this feature, dial the access code, tenant number, originating telephone number, and then the desired outside number; receive service set tone.

### To cancel CALL FORWARDING - BUSY LINE - OUTSIDE:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - BUSY LINE - OUTSIDE cancel code, (same as CALL FORWARDING - BUSY LINE [C-2] cancel code); receive service set tone.

### To set CALL FORWARDING - BUSY LINE - OUTSIDE from a multi-line D<sup>term</sup>:

1. Press the multi-line feature key to be used for CALL FORWARDING - BUSY LINE - OUTSIDE.
2. Lift the handset or press the SPEAKER key; receive dial tone.
3. Press CALL FORWARDING - BUSY LINE - OUTSIDE feature key; receive special dial tone.
4. Dial the desired target number (or Speed Calling access code and abbreviated code); receive service set tone. The LED will light. The LCD displays:

<b>FORWARD SET</b> <b>(Time Display)</b>
---

5. Replace the handset or press the SPEAKER key.
6. The LED of the associated feature key lights on the D<sup>term</sup> for which this multi-line is the MY Line.

### To monitor CALL FORWARDING - BUSY LINE - OUTSIDE from a D<sup>term</sup> MY Line:

1. Press the multi-line key of the station CALL FORWARDING - BUSY LINE - OUTSIDE is to monitor.
2. Press CALL FORWARDING - BUSY LINE - OUTSIDE feature key.
3. The LCD displays:

Target Number* <b>FORWARD                      XXXXXXXX</b> <b>(Time Display)</b>
---

**Note:** \*An entered abbreviated number is translated into the forwarding number and the first eight digits are displayed even if a maximum of 24 digits can be stored.

### To cancel CALL FORWARDING - BUSY LINE - OUTSIDE from a multi-line D<sup>term</sup>:

1. Press the multi-line key of the station to which CALL FORWARDING - BUSY LINE-OUTSIDE is to be cancelled.

**Operating Procedure (cont'd)**

2. Lift the handset or press the SPEAKER key; receive dial tone.
3. Press the CALL FORWARDING - BUSY LINE - OUTSIDE feature key; receive service set tone. The LED of the associated feature key will go out. The LCD displays:

**FORWARD CANCEL**  
**(Time Display)**

4. Replace the handset or press the SPEAKER key.

**Service Conditions**

1. CALL FORWARDING - BUSY LINE - OUTSIDE may be set or cancelled by either a user or the ATTENDANT CONSOLE [A-3].
2. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
3. CALL FORWARDING - BUSY LINE - OUTSIDE data remains in the data memory, even if the system is reinitialized or in the event of a power failure.
4. A maximum of 24 digits, including trunk access code, can be stored.
5. For CALL FORWARDING - BUSY LINE - OUTSIDE, Speed Call List numbers may be programmed as the destination telephone number. This permits the sent digits to exceed the 24-digit maximum.
6. When using this feature, either the calling station or the forwarding station is recorded by SMDR [S-10] as the originating station of calls forwarded. The selection between the above stations is determined through System Data.
7. CALL FORWARDING - BUSY LINE - OUTSIDE can be restricted by the RSC of the originating station.
8. ROUTE PEG COUNT [P-7] is used for CALL FORWARDING - BUSY LINE - OUTSIDE.
9. This feature can be restricted according to the D<sup>term</sup> MY Line service restriction class. Incoming CALL FORWARDING - BUSY LINE - OUTSIDE calls to the D<sup>term</sup> multi-line cannot be transferred if the service restriction class of the D<sup>term</sup> MY Line restricts this feature.

D <sup>term</sup> My Line Service Restriction Class	D <sup>term</sup> Multi-Line Service Restriction Class	Activation from D <sup>term</sup> Multi-Line	Remarks
Non-Restricted	Non-Restricted	Possible	
Restricted	Restricted	Not Possible	
	Non-Restricted		
	Restricted		

10. There is no limit to the number of stations which may activate this feature simultaneously.
11. Restriction for outgoing connection by CALL FORWARDING - BUSY LINE - OUTSIDE are as follows:
  - a.) When originating a call from a station, Route Restriction data assignment is verified when this service is in effect.
  - b.) When originating a call from a trunk Restriction for Tandem connections between the incoming trunk and the outgoing trunk selected for the call where CALL FORWARDING - BUSY LINE service occurs.



**Service Conditions (cont'd)**

12. When a caller places a call via OGCA (Outgoing Call Alternative) and when the first outgoing route and the calling party are restricted, this service cannot be set. In this case, the service can be set via the following procedure:
  - a.) assign a dummy route,
  - b.) clear the restriction between the dummy route and all the stations, and
  - c.) assign the dummy route as the first route of OGCA.
13. When a destination of CALL FORWARDING - ALL CALLS - OUTSIDE has already been assigned, even if the feature is restricted by the new office data or changing of Day/Night mode, the assigned data can still be used or cancelled.
14. This feature allows a call to terminate to a trunk outside of the FCCS network. Accordingly, the access code + office code or the access code including office code is required before dialing the telephone number to recognize the terminating node.
15. When the incoming call is forwarding to the public network, be sure to add the outgoing access code + destination area code or the outgoing access code including destination area code number before dialing subscriber number.
16. A call can be forwarded to a trunk in the remote node via FCCS link.

## C-62 Consecutive Speed Calling - System

### General Description

This feature allows a user to call frequently dialed DID numbers using fewer digits (abbreviated call codes) than would normally be required. The stored digits would include route access code, area code and office code. The caller would then manually enter the called telephone number.

### Operating Procedure

1. Dial the Speed Calling access code (1 to 3 digits).
2. Dial the abbreviated call code (maximum of 4 digits).
3. Dial the 4 digit telephone number. The call is completed.

### Service Conditions

1. SPEED CALLING codes programmed in System Data are accessible to all stations with a CLASS OF SERVICE - INDIVIDUAL [C-15] that allows CONSECUTIVE SPEED CALLING-SYSTEM.
2. Each abbreviated call code can consist of a maximum of 24 digits, including access codes.
3. The maximum number of CONSECUTIVE SPEED CALLING - SYSTEM codes that can be stored in the system is 1,000.

**Note:** *The capacity depends on the system configuration due to memory requirements.*

4. Speed Calling numbers are programmed via System Data entry on the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
5. Stations may be denied access to Speed Calling via CLASS OF SERVICE - INDIVIDUAL assignment in System Data. Speed Calling may also be allowed or denied on a system or tenant basis.
6. TOLL DENIAL/TOLL DIVERSION [T-6] and TOLL RESTRICTION - 3/6-DIGIT [T-7] may be applied to Speed Calling, if desired.
7. LEAST COST ROUTING - 3/6-DIGIT [L-5] may be provided for Speed Calling access.
8. This feature cannot be used for an outgoing call that uses OUTGOING TRUNK QUEUING [O-2].
9. CONSECUTIVE SPEED CALLING-SYSTEM may not be accessed via CONSULTATION HOLD.
10. Digits dialed after the abbreviated call codes are not recorded on SMDR.

## C-69 Call Forwarding - All Calls - Announcement

### General Description

This feature permits all calls destined for a particular station to be routed to a recorded announcement. Activation and cancellation may be accomplished by either the individual user or the ATTENDANT CONSOLE [A-3].

### Operating Procedure

#### To activate CALL FORWARDING - ALL CALLS - ANNOUNCEMENT from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - ALL CALLS - ANNOUNCEMENT access code (same as CALL FORWARDING - ALL CALLS [C-5]); receive special dial tone
3. Dial the desired announcement trunk access code (same as ANNOUNCEMENT SERVICE [A-15]); receive service set tone.

#### To cancel CALL FORWARDING - ALL CALLS - ANNOUNCEMENT from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - ALL CALLS - ANNOUNCEMENT cancel code (same as CALL FORWARDING - ALL CALLS [C-5]); receive service set tone.

### Service Conditions

1. This service feature requires one of the following hardware alternatives:
  - a.) Central Office Trunk (COT) or TIE Line Trunk (TLT) and an announcement machine.
  - b.) Digital Announcement Trunk (DAT).
2. Stations with this feature set may originate calls and access the CALL FORWARDING - ALL CALLS - ANNOUNCEMENT cancellation code.
3. Stations activating CALL FORWARDING - ALL CALLS - ANNOUNCEMENT can be restricted from placing any calls, except to the Attendant, depending upon System Data.
4. There is no limitation to the number of stations which can simultaneously set CALL FORWARDING - ALL CALLS - ANNOUNCEMENT.
5. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
6. For CALL FORWARDING - ALL CALLS - ANNOUNCEMENT, announcement trunk access numbers may be programmed as the destination number.
7. When a call is directed to a forwarded station, one burst of ringing signal will be sent to the station to indicate that it is call forwarded.
8. Call forwarding data remains programmed, even if the system is reinitialized or a power failure occurs.
9. CALL FORWARDING - ALL CALLS - ANNOUNCEMENT can be provided for a maximum of 127 trunks, which include the announcement trunks for:
 

ANNOUNCEMENT SERVICE	[A-15]
ANNOUNCEMENT SERVICE - ATTENDANT	[A-59]
CALL FORWARDING - INTERCEPT /ANNOUNCEMENT	[C-25]
10. This service feature is available with the following connections:
 

DIRECT INWARD DIALING (DID)	[D-8]
DIRECT-IN TERMINATION (DIT)	[D-7]
STATION-TO-STATION CALLING	[S-11]
Station calls from a TIE Line Trunk	

**Service Conditions (cont'd)**

11. When a designation of CALL FORWARDING - ALL CALLS - ANNOUNCEMENT has already been assigned, even if the feature is restricted by the new office data or changing of Day/Night mode, the assigned data can still be used or cancelled.

## C-73

# Call Back - Delayed

### General Description

This feature allows a station to which CALL BACK [C-1] has been set to initiate another call, within a predetermined time period after becoming idle and before the CALL BACK [C-1] feature is activated.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. This feature is assigned in system programming, on a system-wide basis.
2. The CALL BACK-DELAYED timer can be set in multiples of 2 seconds, to a maximum of 14 seconds.

# C-74 Call Forwarding - Don't Answer - Outside

## General Description

This feature allows a call which originates from a station or trunk, and is destined for a station, to be routed to another station outside the NEAX2400 IMX via the appropriate trunk line. This service feature can also be activated from a D<sup>term</sup> multi-line.

## Operating Procedure

### To set CALL FORWARDING - DON'T ANSWER - OUTSIDE:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - DON'T ANSWER - OUTSIDE access code (same as CALL FORWARDING - DON'T ANSWER [C-3] access code); receive special dial tone.
3. Dial the desired target telephone number (or speed calling access code and abbreviated code). If the ATTENDANT CONSOLE [A-3] is setting this feature, dial the access code, Tenant number, originating telephone number, and then the desired outside number; receive service set tone.

**FORWARD SET**  
**(Time Display)**

### To cancel CALL FORWARDING - DON'T ANSWER - OUTSIDE:

1. Lift the handset; receive dial tone.
2. Dial the CALL FORWARDING - DON'T ANSWER - OUTSIDE cancel code, (same as CALL FORWARDING - DON'T ANSWER [C-3] cancel code); receive service set tone.

### To set CALL FORWARDING - DON'T ANSWER - OUTSIDE from a multi-line D<sup>term</sup>:

1. Press the multi-line feature key to be used for CALL FORWARDING - DON'T ANSWER - OUTSIDE.
2. Lift the handset or press the SPEAKER key; receive dial tone.
3. Press CALL FORWARDING - DON'T ANSWER - OUTSIDE feature key; receive special dial tone.
4. Dial the desired target number (or speed calling access code and abbreviated code); receive service set tone. The LED will light. The LCD displays:

**FORWARD SET**  
**(Time Display)**

5. Replace the handset or press the SPEAKER key.
6. The LED of the associated key lights on the D<sup>term</sup> to which the call is forwarded.

### To monitor CALL FORWARDING - DON'T ANSWER - OUTSIDE from a D<sup>term</sup> MY Line:

1. Press the multi-line key for the station CALL FORWARDING - DON'T ANSWER - OUTSIDE is to monitor.

Press CALL FORWARDING - DON'T ANSWER - OUTSIDE feature key. The LCD displays:

Target Number\*

**FORWARD**                      **XXXXXXXX**  
**(Time Display)**

**Note:** \*A dialed abbreviated number is translated into the forwarding number and the first eight digits are displayed even if 24 digits can be stored.

**Operating Procedure (cont'd)**

To cancel CALL FORWARDING - DON'T ANSWER - OUTSIDE from a multi-line D<sup>term</sup>:

1. Press the multi-line key for the station CALL FORWARDING - DON'T ANSWER-OUTSIDE is to be cancelled.
2. Lift the handset or press the SPEAKER key; receive dial tone.
3. Press the CALL FORWARDING - DON'T ANSWER - OUTSIDE feature key; receive service set tone. The LED of the associated feature key will go out. The LCD displays:



4. Replace the handset or press the SPEAKER key.

**Service Conditions**

1. CALL FORWARDING - DON'T ANSWER - OUTSIDE may be set or cancelled by either a user or the Attendant.
2. Stations may be assigned this feature via CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
3. CALL FORWARDING - DON'T ANSWER - OUTSIDE data remains in the data memory even if the system or LP is reinitialized or in the event of a power failure.
4. For CALL FORWARDING - DON'T ANSWER - OUTSIDE, Speed Call List numbers may be programmed as the destination telephone number. This permits the sent digits to exceed the 24-digit maximum.
5. When using this feature, the forwarding station is recorded by SMDR [S-10] as the originating station of calls forwarded. (See ASYD System Data 1, Index 20, Bit 7).
6. CALL FORWARDING - DON'T ANSWER - OUTSIDE can be restricted by the RSC of the originating station.
7. Route PEG COUNT [P-7] is used for CALL FORWARDING - DON'T ANSWER - OUTSIDE. Every time CALL FORWARDING - DON'T ANSWER is set or cancelled, it is counted in the service PEG count.
8. This feature can be restricted according to the D<sup>term</sup> MY Line service restriction class. Incoming CALL FORWARDING - DON'T ANSWER - OUTSIDE calls to the D<sup>term</sup> multi-line cannot be transferred if the service restriction class of the D<sup>term</sup> MY Line restricts this feature.

D <sup>term</sup> MY Line Service Restriction Class	D <sup>term</sup> Multi-Line Service Restriction Class	Activation from D <sup>term</sup> Multi-Line	Remarks
Non-Restricted	Non-Restricted	Possible	
	Restricted		
Restricted	Non-Restricted	Not Possible	
	Restricted		

9. Restriction for outgoing connection by CALL FORWARDING - DON'T ANSWER - OUTSIDE are as follows:
  - a.) When originating a call from a station: Route Restriction data assignment is verified when CALL FORWARDING - DON'T ANSWER service is in effect.

**Service Conditions (cont'd)**

- b.) When originating a call from a trunk: Restriction for tandem connections between the incoming trunk and the outgoing trunk selected for the call where CALL FORWARDING - DON'T ANSWER service occurs.
10. There is no limit to the number of stations that may activate this feature simultaneously.
  11. When the called station does not answer for a predetermined time interval, this feature is applied according to the Route Restriction Class of the originating station and the trunk used in Call Forwarding. When restricted by Route Restriction Class, CALL FORWARDING - DON'T ANSWER - OUTSIDE is not activated, and the called station continues to ring.
  12. Call Transfer - Attendant: When the called station does not answer for a predetermined time interval, calls which have been transferred by the Attendant are assigned to this feature according to their Route Restriction Class. When calls are restricted by Route Restriction Class, this feature is not activated, and the called station continues to ring.
  13. When Attendant transfers a call to a station that has set CALL FORWARDING - DON'T ANSWER - OUTSIDE, TOLL DENIAL/TOLL DIVERSION [T-6] is not activated.
  14. When a caller places a call via OGCA (Outgoing Call Alternative) and when the first outgoing route and the calling party are restricted, this service cannot be set. In this case, the service can be set via the following procedure:
    - a.) assign a dummy route,
    - b.) clear the restriction between the dummy route and all the stations,
    - c.) assign the dummy route as the first route of OGCA.
  15. CALL FORWARDING - DON'T ANSWER - OUTSIDE is not available for the trunk calls by the MF signals. In this case, the call is not forwarded to the designated station.
  16. CALL FORWARDING - DON'T ANSWER - OUTSIDE is not available for the trunk calls by MF signals. In this case, the call is not forwarded to the designated station.
  17. A call can be forwarded to a trunk in the remote node via FCCS link.
  18. A maximum of 24 digits, including trunk access code, can be stored.



# C-75 Call Forwarding - Intercept / Announcement - Attendant

## General Description

This feature provides for interception of Attendant-originated calls that cannot be completed (unassigned station, level, etc.). These calls are automatically routed to a recorded announcement informing the caller that an inoperative number was reached.

## Operating Procedure

No manual operation is required once this feature has been programmed in system data.

## Service Conditions

1. This feature requires one of the following hardware alternatives:
  - a.) Central Office Trunk (COT) or 2W E&M trunk and an announcement machine.
  - b.) Digital Announcement Trunk (DAT).
2. The following connections are available:
  - a.) Multi-connection: several Attendants can be connected to the announcement trunk at the same time.
  - b.) Single connection: at any given time, only one Attendant can be connected to the announcement trunk.
3. If the Attendant forgets to cancel a call, the system will automatically disconnect in 30 seconds (provided this is programmed in system data). If no disconnection timing is programmed, the Attendant will control disconnection.
4. This feature is provided on a per-tenant basis.
5. This feature is only available on Attendant-originated calls.
6. Only one message can be provided for different intercept conditions.
7. Before connection to the announcement machine is made, the system can be programmed to return ringback tone.
8. ANNOUNCEMENT SERVICE is provided to FCCS nodes that have no announcement trunk in the remote node.
9. When CALL FORWARDING-INTERCEPT/ANNOUNCEMENT [C-25] or CALL FORWARDING-INTERCEPT/ANNOUNCEMENT - ATTENDANT [C-75] is used in an FCCS network, the additional data shown below is required:
  - a.) The logical route number should be applied to the physical route that is provided the service.
  - b.) The restriction of route-to-route connection between FCCS nodes should be released.
10. CALL FORWARDING - INTERCEPT/ANNOUNCEMENT [C-25] or CALL FORWARDING - INTERCEPT/ANNOUNCEMENT - ATTENDANT [C-75] is not provided for an incoming call using AUTOMATED ATTENDANT [A-82], DIRECT-IN TERMINATION [D-7], or REMOTE ACCESS TO SYSTEM [R-2].
11. Call forwarding for an incoming call routed to a dead level or an unused number has priority over the ANNOUNCEMENT service for incoming calls.

# C-76 Call Waiting Lamp - UCD

## General Description

This feature uses an LED indication, which is one of the programmable keys on the D<sup>term</sup>, to indicate when a call is waiting to be answered in the UCD queue.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The UCD Call Waiting Lamp displays the status of the UCD group as follows:
 

Lamp On:	One or more calls waiting in the UCD queue.
Lamp Flashing:	More than the pre-assigned number of calls are waiting in the UCD queue.
Lamp Off:	No calls are waiting in the UCD queue.
2. The number of calls waiting in the UCD queue that causes the UCD Call Waiting Lamp to light or flash can be assigned on a per-UCD group basis through the Maintenance Administration Terminal (MAT).
3. The UCD Call Waiting Lamp indicates the status of the UCD group that the D<sup>term</sup> is assigned to, not the status of other UCD groups.
4. The UCD Call Waiting Lamp indication lasts as long as calls are in a queue.
5. The lamp must be assigned to a D<sup>term</sup> line/feature key LED through the MAT. A call cannot be answered by this key. Only the UCD line number key (prime, sub, etc.) can be used to connect a call.
6. The number of UCD groups per system is 63.
7. When an additional D<sup>term</sup> is allowed this service, or when a D<sup>term</sup> data using this service is deleted, the circuit card that accommodates the port of the D<sup>term</sup> must be initialized.
8. When using the FCCS network, this feature is available for UCD stations belonging to the node that accommodates the UCD controlling station.
9. When using the FCCS network, if the number of UCD calls in the queue is over the threshold value, the lamps of stations in the same node that the UCD controlling station belongs to, start to flash.

## Interactions

1. The lamp will toggle between solid and flashing as the number of calls in the queue increases and decreases, crossing the threshold value set in AUCD.
2. If the pilot telephone number of a UCD group is set to CALL FORWARDING-ALL CALLS [C-5] to another UCD group, UCD hunting takes place in the second group. If all stations in the second group are busy, queuing takes place in the second group and its Call Waiting Lamp will light.
3. ATTENDANT CAMP-ON [A-1] call directed to the UCD pilot station will activate the UCD Call Waiting Lamp if all stations in the group are busy.
4. CALL WAITING LAMP-UCD is not affected by CALL WAITING-TERMINATING [C-12].
5. CALL WAITING LAMP-UCD is only effective for the MY Line station of a D<sup>term</sup>. Even if another UCD group appears as sublines on that D<sup>term</sup>, CALL WAITING LAMP-UCD will only function for the UCD group of the MY Line telephone number.
6. If OVERFLOW-UCD [O-13] is programmed, overflow to the second group will take place if all stations in the first group are either busy or in the busy-out state. There will be no CALL WAITING LAMP-UCD indication to the first group.

**Interactions (cont'd)**

7. If the overflow group is all busy, queuing takes place to the first group and the CALL WAITING LAMP-UCD will light to indicate a queuing condition at the first group.
8. When a UCD station is assigned as the destination station of LDN Night Connection, this service cannot be activated.
9. For the FCCS network, this feature is available only for UCD stations in the same node as the UCD controlling station. For more information, see UNIFORM CALL DISTRIBUTION [\[U-1\]](#).

# C-81 Call Forwarding - I'm Here

## General Description

This service feature permits the CALL FORWARDING - ALL CALLS feature to be set/cancelled from the target station.

## Operating Procedure

### To set CALL FORWARDING - I'M HERE from the target station:

1. Go off-hook; receive dial tone.
2. Dial the CALL FORWARDING - I'M HERE access code (from the target station); receive special dial tone.
3. Dial the forwarding telephone number; receive service set tone.

### To cancel CALL FORWARDING - I'M HERE from the target station:

1. Go off-hook; receive dial tone.
2. Dial the CALL FORWARDING - I'M HERE cancel code (from the target station), receive special dial tone.
3. Dial the forwarding telephone number; receive service set tone.

### To cancel CALL FORWARDING - I'M HERE from the called party/forwarding party:

1. Go off-hook; receive dial tone.
2. Dial the CALL FORWARDING - ALL CALLS cancel code (from the called station), receive special dial tone.

## Service Conditions

1. The following stations cannot set CALL FORWARDING - I'M HERE:
  - a.) a station where CALL FORWARDING - I'M HERE is being set,
  - b.) a station setting CALL FORWARDING - ALL CALLS [C-5].
2. CALL FORWARDING - I'M HERE can be set to the following stations:
  - a.) a station setting CALL FORWARDING - I'M HERE,
  - b.) a station where CALL FORWARDING - ALL CALLS [C-5] is being set.
3. A call can be forwarded multiple times following CALL FORWARDING - I'M HERE setting, if assigned in system data.
4. CALL FORWARDING - I'M HERE can be set or cancelled from a subline of a D<sup>term</sup>. However, the transferred call terminates to the MY Line of the D<sup>term</sup> that has set the service.
5. CALL FORWARDING - I'M HERE can be set or cancelled when the target station is idle.
6. CALL FORWARDING - I'M HERE can be cancelled from the forwarding station, following the CALL FORWARDING - ALL CALLS [C-5] cancellation procedure.
7. If Call Back is set to/by the station setting CALL FORWARDING - I'M HERE, Call Back takes precedence.
8. Other service conditions are the same as for CALL FORWARDING - ALL CALLS [C-5].
9. The target station in the remote node can set CALL FORWARDING - I'M HERE through FCCS link.
10. When using the FCCS network, there is no limit to the number of stations that may access this feature simultaneously.
11. When using the FCCS network, a Service Feature Restriction Class (SFC) is necessary for the forwarded destination and the forwarding party.

**Service Conditions (cont'd)**

12. When using the FCCS network, if the destination (target station) is a D<sup>term</sup>, CALL FORWARDING - I'M HERE can be set or cancelled from a sub line of a D<sup>term</sup>. At that time, the transferred call terminates to the My Line of the D<sup>term</sup> that sets the service.
13. When using the FCCS network, the service can be set or cancelled when the forwarding station is idle.
14. When using the FCCS network, the Service Conditions are the same between CALL FORWARDING - DON'T ANSWER services to be set from the forwarding station and the target station (CALL FORWARDING - I'M HERE).
15. When using the FCCS network, CALL FORWARDING - I'M HERE cannot be set from the ISDN terminal (ISDN terminal cannot be the destination).
16. When using the FCCS network, CALL FORWARDING - I'M HERE can be set from the target station (not ISDN terminal) toward the ISDN terminal (ISDN terminal can be a forwarding station).
17. When using the FCCS network, CALL FORWARDING - I'M HERE cannot be a set to the station that has already set this service (forwarding station). However, setting this service to the station that operates the service (destination) is available.
18. When using the FCCS network, this service cannot be used with SPLIT CALL FORWARDING [S-99].
19. When using the FCCS network, CALL BACK [C-1, 1D] that is set to or from the forwarding station has priority over CALL FORWARDING - I'M HERE (recall or answer call for CALL BACK is not the object of CALL FORWARDING - I'M HERE).
20. When using the FCCS network, if this feature is set from the target station in the remote node within an FCCS network, dial the telephone number for the forwarding station number.
21. When using the FCCS network, the telephone number must be assigned to the destination station also.
22. When using the FCCS network, the service restriction is decided by the ASFC data programmed to the station that sets the service (destination station).

# C-109

# Centrex Compatibility

## General Description

This feature allows a DTMF type telephone user engaged in a trunk call to send a hooking signal to the called office, enabling the call to be transferred to another station in that office.

## Operating Procedure

**Station A is connected to Station B, accommodated in another office.**

1. Station A presses switch hook; receives special dial tone of the called office. Dial the switch hook outside access code, or press the CAS switch hook feature. Station B is placed on hold.
2. Station A dials the desired telephone number. When Station A releases from the call, Station B will be connected to the dialed station.

OR

3. Station A dials the Attendant access code. When Station A releases from the call, Station B will be connected to the Attendant.

## Service Conditions

1. This feature is available for DTMF telephones TEC=23/12 only.
2. The trunk that passes the hooking signal is determined by Route Class Data.
3. A COT is required for this application.
4. A D<sup>term</sup> instrument may have a CAS switch hook key assigned as one of its feature/line appearance buttons, or it can use an access code.
5. A D<sup>term</sup> may use its dedicated TRANSFER key to transfer calls internally.
6. CALL TRANSFER - ALL CALLS [C-11] to an inter-office station is not available when this feature is activated.

# C-133 Call Forwarding - Don't Answer To UCD Queue

## General Description

This feature allows calls to a station that has set CALL FORWARDING-DON'T ANSWER to a UNIFORM CALL DISTRIBUTION group to be added to a UCD queue if all stations in the UCD group are busy. (Originally, calls forwarded to a UCD group would receive reorder tone if all stations in the group were busy.)

## Operating Procedure

The operating procedure is the same as for normal CALL FORWARDING-DON'T ANSWER [\[C-3\]](#) operation.

## Service Conditions

1. This feature is available in the U. S. A. and Canada and only works in the following cases:
  - a.) Station call to a station that has set CALL FORWARDING-DON'T ANSWER to a UCD group.
  - b.) Trunk call to a station that has set CALL FORWARDING-DON'T ANSWER to a UCD group.
  - c.) Attendant transfers a station or trunk call to a station that has set CALL FORWARDING-DON'T ANSWER to a UCD group.
2. This feature is not applicable with calls on CONSULTATION HOLD [\[C-17\]](#) or CALL TRANSFER [\[C-10, C-11\]](#).

# C-146

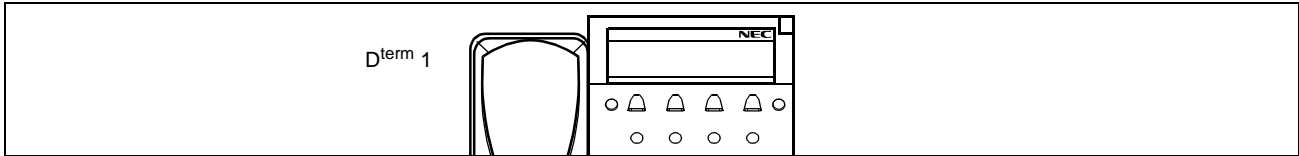
# Call Hold - Conference

## General Description

This feature allows a user to establish a conference connection by adding a third party who is held on a multiline of a D<sup>term</sup> to the existing two-party connection. The held call which is to be added may be a station or trunk call.

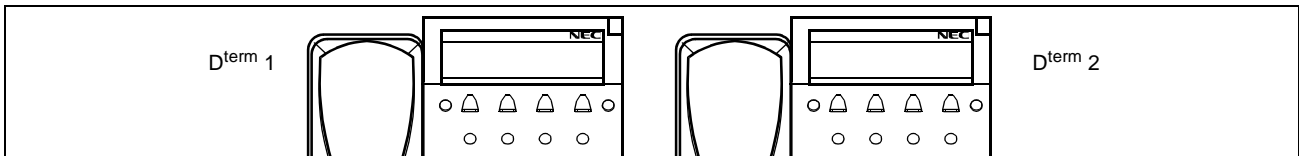
## Operating Procedure

**To operate from a D<sup>term</sup>:**



1. Make a trunk/station call using line A on the D<sup>term</sup>.
2. Place the in-progress call on hold.
3. Place or answer a call using line B on the D<sup>term</sup>.
4. Press the TRANSFER key.
5. Enter an access code for Call Hold - Conference and line number of line A.
6. Three-party conference is established.

**To operate from other D<sup>term</sup>:**



1. Make a trunk/station call using line A on D<sup>term</sup> 1.
2. Place the in-progress call on hold.
3. Place or answer a call using line B on D<sup>term</sup> 2.
4. Press the TRANSFER key on D<sup>term</sup> 2.
5. Enter an access code for Call Hold - Conference and line number of line A.
6. Three-party conference is established.

**To operate from an analog station:**

1. Make a trunk/station call using line A on the D<sup>term</sup>.
2. Place the in-progress call on hold.
3. Place or answer a call using an analog station.
4. Press momentarily the SHF key of the analog station.
5. Enter an access code for Call Hold - Conference and line number of line A.
6. Three-party conference is established.

## Service Conditions

1. This service is available for the general user and the D<sup>term</sup> user. (not available for the ATT and ISDN terminal user.)



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**Service Conditions (cont'd)**

2. This service is available when the call is held by the D<sup>term</sup> HOLD key.
3. When the originally connected party (B) is placed on Exclusive Hold, this service is available only when the D<sup>term</sup> user (A) engages in the call with the third party (C).
4. When the D<sup>term</sup> user (A) places the station or trunk (B) on hold, including Exclusive Hold, DUAL HOLD [D-32D] cannot be activated.
5. This service is not available when line (A) or (B) is an intercom line, hot line or CAS line. In these cases, the service is restricted.
6. This service is available when the parties (A), (C), the lines (A) and (B) are the following:
  - a.) interoffice trunk (including ISDN line)
  - b.) C.O. line/tie line
  - c.) station, including virtual stations.

In case the ISDN terminal, intercom line, hot line, or CAS line is used, the service is restricted.
7. Data communications are not considered in this service.
8. A D<sup>term</sup> user dials the CALL HOLD CONFERENCE code and then dials the telephone number. (After the CALL HOLD CONFERENCE code is dialed, no tone is returned and the LCD shows transferring.)
9. When the three-way call cannot be established due to all conference trunks busy, service restriction, etc., reorder tone is returned.
10. When the held party is the trunk, billing is performed according to the system data (SYS1, INDEX33, b6, b5, b4, b3). In case the held party is the station, the billing stops at the time the station is placed on hold.

# C-150

# Call Block

## General Description

This feature is a part of Caller ID service. This feature restricts termination of incoming calls from the preassigned calling numbers. This feature is available by designating the calling number by the MAT.

Call Block is used to restrict an incoming call that has a Restriction Number (Physical Station Number, telephone number or the Caller ID number, which are preset by each station). The Restriction Number can be set or cancelled at each station by using the access code or the feature key. The called station can send busy tone to the caller.

## Operating Procedure

**When using software prior to Release 5, no manual operation is required.**

**Using Access Code:**

**To assign the Restriction Number (the latest incoming call is to be registered as the Restriction Number):**

1. Lift the handset.
2. Dial the Access Code (ACC for registration of Restriction Number by the last incoming call).
3. Receive service set tone (SST). **(Note 1)**
4. The latest incoming call number is registered as the Restriction Number.

**To assign the Restriction Number by dialing an optional number:**

1. Lift the handset.
2. Dial the Access Code (ACC for registration of Restriction Number by dialing an optional number).
3. Receive special dial tone (SPDT).
4. Dial the number to be restricted.
5. Receive service set tone after the preassigned inter-digit timer (default is 6 seconds). **(Note 1)**
6. The dialed number is registered as the Restriction Number.

**To cancel the registered Restriction Number:**

1. Lift the handset.
2. Dial the Access Code (ACC for cancelling the Restriction Number).
3. Receive service set tone (SST).

**Using Feature Key: (Note 3)**

**When Release 5 software is used to set the Restriction Number (the latest calling number is to be registered as the Restriction Number):**

1. Press the CALL BLOCK key when the station is idle, a call is terminating to the station, or when the station is in a two-party connection.
2. The CALL BLOCK key lights red.
3. The latest incoming call number is registered as the Restriction Number.

**When Release 7 software is used to set the Restriction Number:**

1. Press the CALL BLOCK key when the station is idle, a call is terminating to the station, or when the station is in a two-party connection.
2. The latest calling number is displayed for 5 seconds on the LCD.
3. Press the CALL BLOCK set key (“\*” or “#” key, depending on system data) while the number is displayed.
4. The CALL BLOCK LED lights red.
5. The latest incoming call number (the physical station number or the received calling number) is registered as the Restriction Number.

## Operating Procedure (cont'd)

### To set the Restriction Number by dialing an optional number:

1. Lift the handset.
2. Press the CALL BLOCK key.
3. Receive special dial tone.
4. Dial number to be restricted.
5. Receive service set tone after the preassigned inter-digit timer (default is 6 seconds). **(Note 1)**
6. The CALL BLOCK key lights red.
7. The dialed number is registered as the Restriction Number.

### When Release 5 software is used to confirm the registered Restriction Number:

1. Press the CALL BLOCK key when the station is idle.
2. The registered Restriction Number is displayed for 5 seconds.

### When Release 7 software is used to confirm the registered Restriction Number:

1. Press the CALL BLOCK key when the station is idle (when the latest received calling number has been registered, the number is displayed on the LCD).
2. Continue pressing the CALL BLOCK key in the same manner to confirm the other Restriction Numbers. The other Restriction Numbers are displayed in consecutive order.
3. The registered Restriction Number is displayed for 5 seconds.

### When using the MAT command to confirm the registered Restriction Number: (Note 2)

1. Start the DCBD command.
2. Enter the telephone number or LENS.
3. Select to display the registered Restriction Number.
4. The Restriction Number, which is registered to the line corresponding to the specified telephone number or LENS, is displayed.

### When Release 5 software is used to cancel the registered Restriction Number:

1. Lift the handset.
2. Press the CALL BLOCK key.
3. Receive service set tone.
4. The LED of CALL BLOCK feature key (or soft key) goes off.

### When Release 7 or later software is used to cancel the registered Restriction Number:

1. Confirm that the Restriction Number to be cancelled is displayed on the LCD (See the above-mentioned procedure "When Release 7 software is used to confirm the registered Restriction Number").
2. Press the "\*" or "#" key for the Restriction Number to be cleared (depends on the system data), while the corresponding number is displayed.
3. When all the Restriction Numbers are deleted, the LED of CALL BLOCK feature key (or soft key) goes off.

**Note 1:** When the Restriction Number has already registered up to the maximum number (1 for Release 5 software, 5 for Release 7 software or later), reorder tone is heard. First cancel the former registered Restriction Number, then set the new Restriction Number again from the beginning.

**Note 2:** This operation is available with Release 7 software or later.

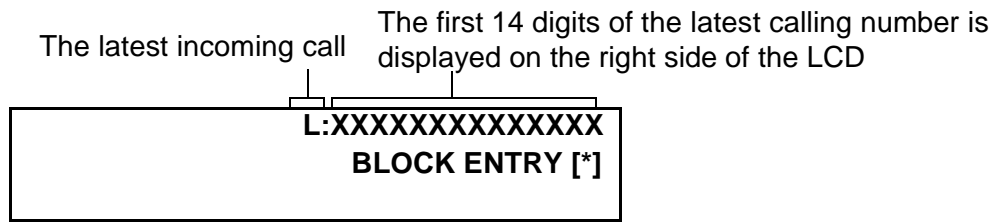
**Note 3:** When a D<sup>term</sup> Series E is used at the station, the LCD displays are as shown on the next page.

LCD displays for Service Set, Confirmation, and Cancel are shown on the following page. Set/Cancel can be selected as the "\*" or "#" key, depending on system data. Assignment of one of these keys as Cancel key, will assign the other as the Set key.

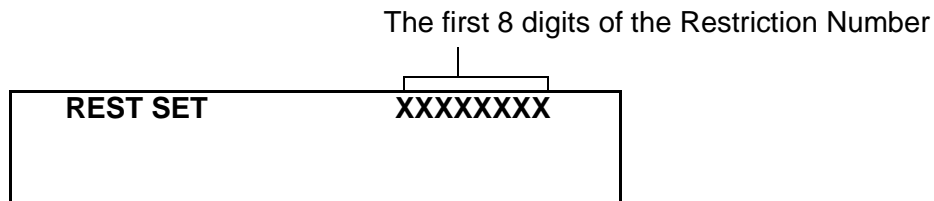
**Operating Procedure (cont'd)**

**24 digit display of D<sup>term</sup> Series E**

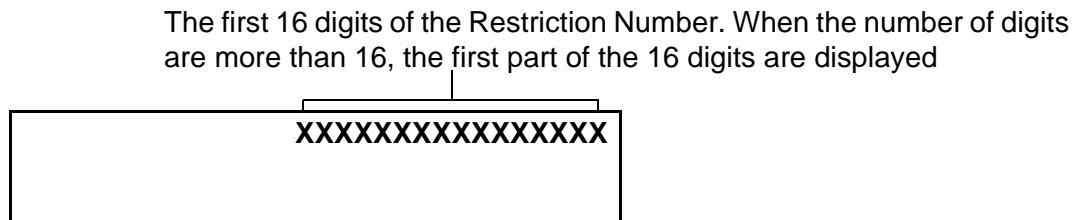
- When the last incoming call is displayed (Release 7 software or later):



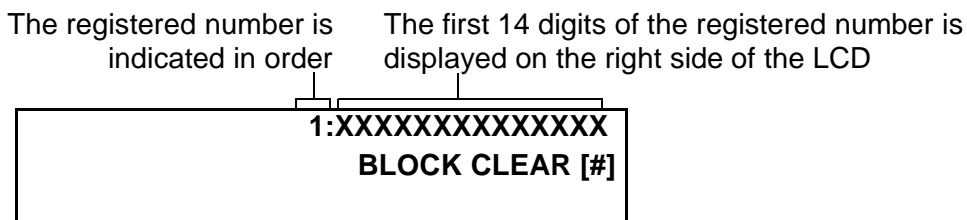
- When Restriction Number is set (Release 5 software):



- When confirming the Restriction Number (Release 5 software):



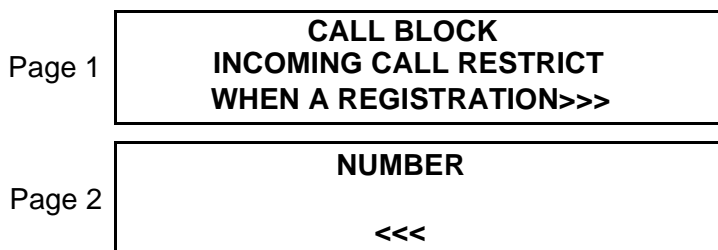
- When confirming the Restriction Number (Release 7 software or later):



- When Restriction Number is cancelled (Release 5 software):



- When HELP Key for CALL BLOCK of Soft key is pressed:



**Service Conditions**

**When the Restriction Number is registered by the MAT:**

1. When the calling number is not received, this service is not activated.
2. The calling number for this service is assigned to the parameter CID of ACID command. When only the first part of the calling number is assigned to the CID, this service is applied to any calling number that begins with the assigned number. For example, when “0471” is assigned to the CID, this service is applied to any calling number that begins with “0471” such as 0471-12-3456 and 0471-234-5678.
3. The following numbers cannot be assigned to the parameter CID of ACID command:
  - a.) The first part of the already assigned number,
  - b.) The number whose first part is the same as the already assigned number.  
For example, when “123” is already assigned to the CID, such numbers as “1”, “12”, “1234” cannot be assigned.
4. When the calling number is received via CCIS line, this feature is available for the first 16 digits (provided that “1” is assigned to CDN:98 (CI) of ARTD command).
5. This service is available only for stations (single line telephone and D<sup>term</sup>).
6. This service is available for the following cases:
  - a.) When an incoming call is directly terminated to a station,
  - b.) When an incoming call is transferred to a station using Call Forwarding - All Calls/Busy Line/Don't Answer
7. Call Forwarding - All Calls takes precedence over this feature.
8. A maximum of 12 calling numbers can be assigned for a single station.
9. The following circuit card is required for Analog Caller ID:

Circuit Card Name	Remarks
PA-8COTBJ	

**Using Release 5 software or later:**

1. This service is available only for the stations service restrictions are released (SFI 165 = 1).
2. This service is not available for PCS terminal or ISDN terminal.
3. Only one Restriction Number (a maximum of 32 digits) can be registered per station. When using Release 7 software or later, the maximum of 32 digit Restriction Number can be assigned up to five numbers per D<sup>term</sup> and one number per analog station. A maximum of 511 stations can be registered per 1 IMG.
4. The Restriction Number cannot be confirmed from single line telephones after registration.
5. To assign the Restriction Number, it is available to register the latest incoming call number if the call is received in the following cases:
  - a.) Station-to-Station Calling,
  - b.) A call is terminated via the trunk which received the calling number  
If the station cannot receive the number of the last incoming call, the latest call that meets the conditions above is registered as the Restriction Number. Thus, it can't be available to assign the latest calling number as the Restriction Number immediately after system initialization.
6. When assigning the latest incoming call as the Restriction Number using feature key from an idle station or a ringing station, the latest calling number to the MY LINE is registered as the Restriction Number (then the feature key on the controlling terminal lights red). Thus, on a D<sup>term</sup> whose PRIME LINE is not MY LINE, the displayed number is not registered when a call is terminated at PRIME LINE. The latest calling number terminating at MY LINE is registered in place of the displayed number.
7. When a call is transferred, the telephone number of the intermediate station is to be registered as the latest incoming call number even if that station releases the connection. Only the first terminating number is to be the Restriction Number.

### Service Conditions (cont'd)

8. This service is activated corresponding to each line. In case a D<sup>term</sup> containing some lines, the Restriction Number is effective only for the line to be registered the number.
9. When confirming the registered Restriction Number, the number registered on MY LINE is displayed for 5 seconds on the LCD.
10. This service is available only when the predetermined Restriction Number and the receiving Physical Station Number/telephone number or the calling number are exactly the same.
11. In this service, a telephone number is used to recognize the station incoming call, however, a Physical Station Number is used for the station which is not assigned the telephone number.
12. When an incoming call via No. 7 CCIS is terminated, a maximum 16-digit calling number (Route Data: CI=1) can be received. If the telephone number is more than 17 digits, the incoming call is not restricted.
13. There is no need to register ACC for a C.O. trunk call (ex. "9") when assigning Restriction Number by dialing operation.
14. In case Restriction Numbers are registered up to the maximum number, a previous Restriction Number must be cancelled before setting the new Restriction Number on a station. (It is impossible to overwrite the Restriction Number.)
15. Sending Tone, which is used when originating a call from a station on which Call Block is set, can be selected on the system base (ASYD SYS 1, Index 322, Bit 5).
16. When initialization of the Circuit Card is activated, the Restriction Number already registered is not cleared.
17. When system initialization is activated, the Restriction Number already registered is not cleared. However, when initialization of system data loading is activated, the loaded number (former Restriction Number), not the latest Restriction Number, is to be registered as new Restriction Number.

### Using Release 7 software or later:

1. The Assigned Restriction can be confirmed by the DCBD command.
2. This service is activated against each line. When a D<sup>term</sup> is used, Restriction Numbers can be registered at multiple lines. However, to clear the Restriction Number using the "\*" or "#" key is effective for only the number registered to MY LINE.
3. When confirming the registered Restriction Number, the oldest number registered on MY LINE is displayed for 5 seconds on the LCD. When the multiple Restriction Number is assigned, press CALL BLOCK key to change the display to the later registered number, the displayed number is changed in order as the key is pressed.
4. When deleting the Restriction Number with the access code from a D<sup>term</sup>, the oldest Restriction Number is deleted.
5. When five Restriction Numbers are registered at a line, the assignment of the already registered number is available.
6. System data decides the "\*" key or the "#" key as the Restriction Number Delete key. When Delete key is decided, the other one is used as Set key.

**Note:** *The Set/Delete key is available for only 5 seconds (while the number is displayed).*

7. When the proper ELC card is not used, the indication for the operation is not displayed at the middle line of the LCD. In this case, Restriction Number is set or deleted by Set/Delete key ("\*" or "#").
8. When all calling numbers are deleted, the CALL BLOCK key goes off.
9. ACID applies only to inbound trunk calls with ANI.
10. ACID will not light a feature key if the telephone is equipped with one.
11. ACID will operate via the FCCS network for tandem trunk calls.

**Service Conditions (cont'd)**

12. Feature keys and SIDAs will operate for physical and logical stations, as well as inbound trunk calls with ANI. It will also light the feature keys for both.
13. The COT card for receiving the Caller ID information is shown below:

CIRCUIT CARD NAME	PROGRAM	ISSUE
PA-8COTBJ	SW-317 8COTBJ PROG-A —SP-1122 CALL-ID PROG-A —SP-3190 8COTBJ PROG-A	

14. The LC card for notifying the Caller ID information is shown below.

CIRCUIT CARD NAME	PROGRAM	ISSUE
PA-16LCBY	SP-3396 16-LCBX PROG-A	

15. The ELC cards to display the indication for the operation procedure on the LCD when confirming the latest calling number or the registered Restriction Number is shown below.

CIRCUIT CARD NAME	PROGRAM	ISSUE
PA-16ELCH	SP-3124 16ELCH PROG-D	ISSUE 5 or later
	SP-3125 16ELCH PROG-TD	ISSUE 5 or later
PA-16ELCJ	SP-3270 16ELCJ PROG-A	ISSUE 7 or later
	SP-3295 16ELCJ PROG-B	ISSUE 6 or later
PA-DAIA	SW-293 2WDLI PROGRAM-D —SP-3126 2WDLI PROG-D	ISSUE 1F or later ISSUE 6 or later
PA-DAIB		
PA-DAIC		
PA-DAIG	SW-362 2WDAI PROGRAM-F —SP-3343 2WDAI PROG-G	ISSUE 1A or later ISSUE 1 or later
PA-DAIH		
PA-DAIJ		
PA-DAIG-A	SW-368 2WDAI PROGRAM-H —SP-3345 2WDAI PROG-H	ISSUE 1A or later ISSUE 1 or later
PA-DAIH-A		
PA-DAIJ-A		

**Interactions**

1. Call Forwarding - All Calls [C-5] takes precedence over this feature.
2. If this service is set at both the station and MAT, the station has priority.
3. When the data on a station is changed by FOLLOW PHONE [F-31] service, the registered Restriction Number on the station is carried over to the next user.
4. When a station is deleted, the registered Restriction Number on the station is also deleted.
5. When activating with DUAL STATION CALL [D-156], CALL BLOCK is available only for the Main Station.

# C-151

# Call Return

## General Description

This feature allows the D<sup>term</sup> or an analog station to save the received calling number and the received number of the station. The following two types of saving features are available:

- **Automatic Saving:** The received calling number/number of the station is automatically saved when the station rings. The stored number can be dialed by pressing the feature key or dialing the access code.
- **Manual Saving:** The received calling number is manually saved by the D<sup>term</sup> user while in conversation. The stored number can be dialed by pressing the feature key.

## Operating Procedure

### Automatic Saving

1. Saving Calling Number
  - a.) A call is terminated to an analog station or My Line of the D<sup>term</sup>.
  - b.) The received calling number is automatically saved. When the station is the D<sup>term</sup> with the Call Return key, the received calling number is displayed on the LCD and the Call Return key lights red.

**Note:** The maximum number of calling numbers stored for the D<sup>term</sup>/analog station is as follows:

D<sup>term</sup>: 3

Analog station: 1

2. Displaying Stored Calling Number (for the D<sup>term</sup> with the Call Return key)
  - a.) While in idle state, press the Call Return key.
  - b.) The saved calling number is displayed for 5 seconds. When multiple numbers are stored, the display changes each time the Call Return key is pressed. The number is displayed from the latest to the oldest. When the indication reaches the oldest number, the latest number appears again by pressing the Call Return key.
3. Call Origination
  - When using the Call Return key on the D<sup>term</sup>
    - a.) Display the desired number by pressing the Call Return key. (Refer to (2).)
    - b.) Lift the handset and receive dial tone.
    - c.) Press the Call Return key. The displayed number is dialed.

**Note:** The dialed number is automatically deleted. When all the stored numbers are deleted, the Call Return key goes off.

- When using Access Code
  - a.) Lift the handset and receive dial tone.
  - b.) Dial the access code for Call Return. The last number saved is dialed.

**Note:** The dialed number is not deleted.

4. Deleting Stored Number (for the D<sup>term</sup> with the Call Return key)
  - a.) Display the desired number by pressing the Call Return key. (Refer to (2).)
  - b.) Press the “\*” or “#” key. The displayed number is deleted and CANCEL is displayed on the D<sup>term</sup> LCD.

**Note 1:** When all the stored numbers are deleted, the Call Return key goes off.

**Note 2:** Note that the delete key (“\*” or “#”) is effective while the calling number is displayed for 5 seconds.



## Operating Procedure (cont'd)

### Manual Saving (equal to SAVE AND REPEAT - D<sup>term</sup> [S-24D])

1. Saving Calling Number
  - a.) Press the S&R key while in conversation using My Line or Sub Line.
  - b.) The received calling number is saved and the S&R key lights red.

**Note:** *One calling number can be saved. When a calling number has already saved using SAVE AND REPEAT - D<sup>term</sup>, the calling number is deleted.*

2. Displaying Stored Calling Number (for the D<sup>term</sup> with the S&R key)
  - a.) While in idle status, press the S&R key.
  - b.) The saved calling number is displayed for 5 seconds.
3. Call Origination
  - a.) Lift the handset and receive dial tone.
  - b.) Press the S&R key. The stored number is dialed.

**Note:** *The dialed number is automatically deleted and the S&R key goes off.*

## Service Conditions

1. Service Conditions for Automatic/Manual Saving:
  - a.) The following circuit cards are required for Analog Caller ID:

Circuit Card Name	Remarks
PA-8COTBJ	

- b.) Automatic/Manual Saving is available for the D<sup>term</sup>s assigned to the following ELC/DAI circuit card.

Circuit Card Name	Remarks
PA-16ELCJ	
PA-DAIJ (1.5M-AMI)	

- c.) This service is not available when the calling number is not received.
      - d.) A maximum of 32 digits can be saved. However, when the calling number is received via CCIS line, this feature is available for the first 16 digits (provided that "1" is assigned to 98: CI of ARTD command).
      - e.) When a trunk access code (ex. "9") is required for call origination to the saved number, the access code must be added on a route basis by ACNP and ACND commands. Note that the assigned access code is not displayed on the D<sup>term</sup> LCD. However, the assigned code is saved.
      - f.) When the area code is not to be sent to within the same area, the area code must be deleted by AFRS, AOPR and AADC commands.
      - g.) When station data is changed by FOLLOW PHONE etc., stored number data is not exchanged.
      - h.) When the system is initialized, stored number data is deleted.
      - i.) When this service is used in an FCCS network, the system data should be set to all nodes. However, when the calling number received from the remote FCCS node is not assigned telephone number, the number of the calling station is not saved.
2. Service Conditions for Automatic Saving with the feature key / access code:
  - a.) Automatic Saving is available for analog stations allowed this service and the D<sup>term</sup> with Call Return key.

**Service Conditions (cont'd)**

- b.) This service is available in the following cases:
  - When the trunk incoming call that receives the calling number (Analog COT/ISDN/CCIS trunk) is directly terminated at the station.
  - When the station-to-station call is terminated directly.
- c.) When the station answers the call held on Multi Line, the calling number/calling station number cannot be saved (Held Line is not My Line). When the call is terminated at the trunk, the calling number is saved in the ELC card only.
3. Service Conditions when using Release 5 software or earlier:
  - a.) When the call is terminated from the station that has assigned telephone number, the calling station number is saved in the Data Memory. As to the calling station number, which is not telephone number, is not saved.
4. Service Conditions when using Release 7 software or later are as follows. The calling station number is not saved in the following cases:
  - a.) When answering the station incoming call is held by CALL PARK [C-29].
  - b.) When answering the station incoming call using CALL PICKUP service.
5. Service Conditions for Automatic Saving with the feature key:
  - a.) The Call Return key must not be assigned to the D<sup>term</sup> which has no LCD because stored number data cannot be checked.
  - b.) A maximum of three received calling numbers are saved with the ELC card. If the received calling number is the same number as the last call, the calling number is not saved.
  - c.) When the ELC circuit card is initialized, stored number data is deleted.
  - d.) The calling number is displayed on the D<sup>term</sup> LCD when a call is terminated to Prime Line. Accordingly, when My Line of the D<sup>term</sup> is not Prime Line, the displayed calling number is not saved.
  - e.) When a call is terminated to My Line, even if the D<sup>term</sup> user is in conversation using Sub Line, the calling number is saved.
  - f.) When the stored number is displayed, the calling number is displayed on the upper LCD. The maximum number of digits that indicates the calling number is different, depending on the D<sup>term</sup> type. When using a D<sup>term</sup> with a 16 digit LCD, the last 16 digits are displayed. When using a D<sup>term</sup> with a 24 digit display, the last 24 digits are displayed.
  - g.) When a call is terminated while one of the stored numbers is displayed, the lower LCD indicates the calling number and the upper LCD displays the stored number for 5 seconds.
  - h.) When three calling numbers are already stored, if a call is terminated while the oldest number is displayed, the oldest number is deleted and the received number is saved. Consequently, call origination cannot be made to the displayed number.
  - i.) Call origination can be made to the stored number while dial tone is heard. After seizing a trunk, this feature is not available.
  - j.) When originating a call using this service, the last 24 digits are displayed on the D<sup>term</sup> LCD.
6. Service Conditions for Automatic Saving with the access code:
  - a.) This service is not available when a call is terminated to an ISDN terminal or a PCS terminal.
  - b.) When the D<sup>term</sup> user place a call to the stored number by dialing the access code, the dialed number is displayed in place of the stored number.
  - c.) When Analog Caller ID - Station is effective, if a call is terminated from a station, the number of the station is saved.
  - d.) Even if the LC card is initialized, the saved calling number is not deleted.

**Service Conditions (cont'd)**

- e.) The latest calling number is saved in the data memory when the service feature class data (SFI:155) is "0". Since the latest calling number remains when SFI:155 is changed from "0" to "1", the call origination can be operated with the latest calling number saved before the data is changed.
7. Service Conditions for Manual Saving:
- a.) Manual Saving is available for the D<sup>term</sup> with the Save and Repeat key.
  - b.) This service is available when a D<sup>term</sup> is in communication with the terminating trunk.
  - c.) When the calling number is saved, "S&R" and the first 12 digits are displayed on the D<sup>term</sup> LCD.
  - d.) When the circuit card listed in item 1-b is not used, the first 6 digits of the received number are saved.
  - e.) Call origination can be made to the stored number while dial tone is heard. After seizing a trunk, this feature is not available.
  - f.) For more information, refer to SAVE AND REPEAT - D<sup>term</sup> [\[S-24D\]](#).

# C-154

# Call Hold Pick Up

## General Description

This feature allows a user to pick up a trunk or station call that is put on hold by a second user. The user can accomplish this by dialing an access code followed by the telephone number that is holding the call.

## Operating Procedure

1. Make a trunk or station call to Station A.
2. Station A places the call in progress on hold.
3. From Station B, dial the access code and Station A's telephone number.
4. Station B is connected to the station or trunk call that is on hold at Station A.

## Service Conditions

1. Only stations in the same tenant can use this feature.
2. This feature remains in effect even after hold timeout and the station is in the re-ring state.
3. This feature also overrides the Exclusive Hold feature (a call that is put in Exclusive Hold can be picked up by using this feature).

---

# C-157

## Calling Party Number - Name Assignment and Display

### General Description

This feature allows a user to assign the desired name for the calling number, which is provided by Central Office, CCIS or ISDN feature, using the MAT command. The assigned name is displayed on the LCD of the D<sup>term</sup> and the Desk Console.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. When the calling number is not received, the assigned name cannot be displayed.
2. The calling number for this feature is assigned to the parameter CID of ACID command. When only the first part of the calling number is assigned to the CID, the corresponding name is applied to any calling number that begins with the assigned number. For example, when "1471" is assigned to the CID, the calling name assigned for the number is applied to any calling number that begins with 1471, such as 1471-12-3456 or 1-471-234-5678.
3. The following numbers cannot be assigned to the parameter CID of ACID command:
  - a.) The first part of the already assigned number,
  - b.) The number whose first part is the same as the already assigned number  
For example, when "123" is already assigned to the CID, such as number as "1", "12", and "1234" cannot be assigned.
4. When a calling number is sent via CCIS line, this feature is available for the first 16 digits only.
5. The name display is available only when a call directly terminates to a D<sup>term</sup> from the trunk received the calling number. For example, the assigned name is not displayed for the transferred call. However, in this case, the assigned name appears after the transferring party (an Attendant Console or a station) is disconnected.
6. If forwarding a call via CALL FORWARDING - BUSY LINE [C-2]/DON'T ANSWER [C-3]/ALL CALLS [C-5], the assigned name can be displayed only when the destination station is a D<sup>term</sup>.
7. The assigned name cannot be displayed on the Attendant Console. Displaying the assigned name on Desk Console is available.
8. The assigned name cannot be output to the SMDR expanded area.
9. A maximum of 10,000 names for calling numbers can be assigned in a system. However, this amount varies depending on the data capacity of CALL BLOCK [C-150] or the data memory capacity of the system.
10. This feature has priority over the current Caller ID service.
11. The display for OAI service has priority over the display for this service.

**Service Conditions (cont'd)**

12. The Display patterns are shown below:

Display Pattern 1 (System Data 1, Index 390, b0=0, b1=0)

	8-digit Calling Number
24-digit Assigned name	

Display Pattern 2 (System Data 1, Index 390, b0=0, b1=1)

	Type of Call, Sub-address
24-digit Assigned name	

Display Pattern 3 (System Data 1, Index 390, b0=1, b1=0)

	8-digit Assigned Name
24-digit Calling Number	

Display Pattern 4 (System Data 1, Index 390, b0=1, b1=1)

	Type of Call, Sub-address
24-digit Calling Number	

- 13. Characters of 8-bit ASCII can be displayed for this feature.
- 14. When the feature key which assigned FKY = 113 via AKYD is pressed, the display pattern on the LCD (assigned by the ASYD command) changes according to the following conditions:
  - When My Line is Prime Line, Call ID Change Display Key is effective while terminating or in conversation.
  - When My Line is not Prime Line, Call ID Change Display Key is effective while in conversation.
 However, display pattern returns to the original setting when answering, holding, or transferring the call.
- 15. When the received numbers of a calling number and characters of the assigned name exceed the display field, whether to put them close to the right or left may be chosen by system data. At this time an asterisk (\*) is indicated on the exceeded digit position.
- 16. The displayed number and characters flash when a call terminates and lights steadily during conversation.
- 17. To display the Caller ID information on the D<sup>term</sup> to which the called line is assigned as a sub line, the following hardware is required.

Circuit Card Name	Remarks
16ELCH	
16ELCJ	
PA-DAIA	

**Service Conditions (cont'd)**

18. The trunk mentioned below is available as for analog COT:

Circuit Card Name	Remarks
PA-8COTBJ	

19. When this feature is activated via FCCS, the same data should be set to all nodes.

# C-160

# Call Trace

## General Description

This feature enables the output of System Message [26-R], that gives information on a malicious call (kind of call, number of calling terminal, etc.) originated from a station/trunk. The feature is made available when an access code is dialed or the “Call Trace” key is pressed by the called user.

**Note:** For details on the System Message [26-R], see the NEAX2400 IMX System Operations and Maintenance Manual.

## Operating Procedure

### Dialing Access Code

- To output the System Message for an abandoned call:
  1. After call termination, the calling party abandons the call.
  2. The called party lifts the handset.
  3. The called party dials the access code.
  4. Information on the abandoned call is output as System Message [26-R].
- To output the System Message after the release of a call:
  1. After call termination, the called party answers the call.
  2. After speech, the called party releases the call.
  3. The called party lifts the handset.
  4. The called party dials the access code.
  5. Information on the malicious call is output as System Message [26-R].

### Using Soft/Feature Key

- To output the System Message for an abandoned call:
  1. After call termination, the calling party abandons the call.
  2. The called party lifts the handset.
  3. The called party presses the “Call Trace” key.
  4. Information on the abandoned call is output as System Message [26-R].
- To output the System Message after the release of a call:
  1. After call termination, the called party answers the call.
  2. After speech, the called party releases the call.
  3. The called party lifts the handset.
  4. The called party presses the “Call Trace” key.
  5. Information on the malicious call is output as System Message [26-R].
- To output the system message while in speech:
  1. After call termination, the called party answers the call.
  2. While in speech, the called party presses the “Call Trace” key.
  3. Information on the malicious call is output as System Message [26-R].

**Note:** Details on LCD display (for the D<sup>term</sup> Series E only) are as follows:

### 24 digits display of a D<sup>term</sup> Series E:

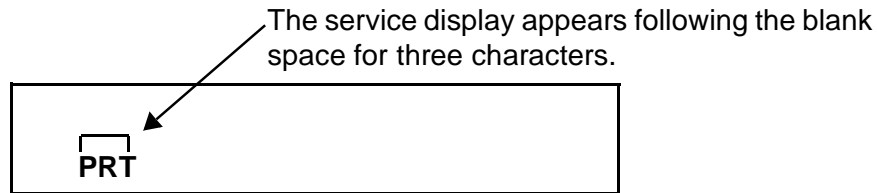
- When the CALL TRACE is set:

**CALL REPORT**

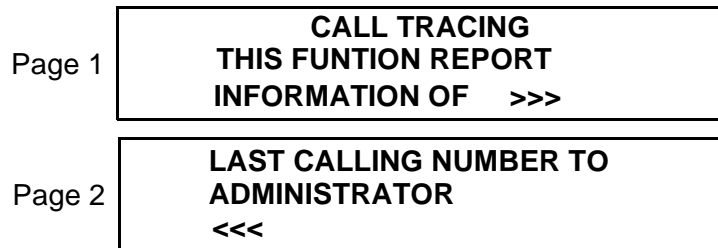


## Operating Procedure (cont'd)

- When the CALL TRACE is assigned to the soft key:



- When HELP key (Soft Key) is pressed:



## Service Conditions

- This feature is made available via the stations, to which the following data is assigned via the ASFC command [SFI = 170 (Call Trace), RES = 1 (Service: Allowed)].
- This feature can be activated by analog or D<sup>term</sup> stations. Other terminals such as Wireless stations (PS), ISDN Terminals, and Attendant/Desk Consoles cannot provide this feature.
- This feature is designed to get information on a terminated call (the last call terminated to a station line). CALL TRACE is not available for originating calls.
- Because a D<sup>term</sup> can contain multiple lines, the message output is executed on a line basis. Therefore, when activating this feature via an access code, use the line that actually handled the target call.
- When a call is terminated via a transfer (i.e. the call is transferred from other station), the System Message [26-R] shows the information only related to the immediate station (the party who transferred the call). Information about the first originated call cannot be obtained.
- The following are the conditions for System Message [26-R].
  - Each data is output in hexadecimal, giving details from the first digit.
  - When the message data contains "A", "B", "C" or "0", the actual meaning is as follows:
    - A = 0
    - B = \*
    - C = #
    - 0 = blank
  - Date/Time data is based on the actual date and time when the access code is dialed.

## Service Conditions (cont'd)

d.) The maximum digits for each data are as follows:

Data	Maximum Digits
FPC	3
Tenant Number	3
Station Number	6
UGN	3
Telephone Number	16
Trunk Call Number	32

e.) When the called station does not have the telephone number, the FPC/Telephone Number/UGN data is output as "0".

f.) When the calling party is the station which does not have the telephone number, the Tenant Number/FPC/Telephone Number/UGN data is output as "0". The kind of call is output as "10".

g.) If the number of the trunk call (Caller ID) cannot be identified, the Trunk Call Number data is output as "0". The kind of call is displayed as "20".

7. When the call is terminated via the No. 7 CCIS, the obtainable calling party numbers are:

- Maximum 8 digits (when CI (route data) = 0)
- Maximum 16 digits (when CI (route data) = 1)

System message is output at the node that the called station (informer) belongs to.

8. Unless the message output is set on a network basis, System Message [26-R] is created at the node which contains the called station (informer).

9. The default message output grade is shown below:

	MJ	MN	SUP	GR
26-R	—	—	—	2

10. To obtain the Caller ID via an analog trunk, be sure to use PA-8COTBJ. Other analog trunk cards cannot provide this feature.

11. This service is available with the Analog Caller ID Service.

## Interactions

1. When the service DUAL STATION CALL [D-156] is used, a call can be terminated to a Main Station and a Sub Station simultaneously. At this time, the calling party information can be obtained only by the key operation from the Main Station side. Information to be obtained from the Sub Station is about the last call directly terminated to the Sub Station.

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## D-2 Dial Access To Attendant

### General Description

This feature allows a user to access the ATTENDANT CONSOLE [A-3] by dialing the operator call code.

### Operating Procedure

#### To access the Attendant:

1. The user dials the operator call code; receives ringback tone.
2. The ATND lamp for the INCOMING CALL IDENTIFICATION [I-2] flashes; Attendant answers the call.

### Service Conditions

1. The operator call code will be a maximum of 6 digits. Normally “0” should be assigned as the operator call code.
2. All stations, including fully restricted stations, can originate a call to the Attendant.
3. If TENANT SERVICE [T-12] is provided, each tenant group may access their own ATTENDANT CONSOLE [A-3] via the same code.
4. This feature allows any user or dial repeating TIE Line trunk to reach the ATTENDANT CONSOLE [A-3] by dialing an operator call code, usually but not necessarily a “0”. The ATTENDANT CONSOLE [A-3] may complete these calls to trunk facilities if allowed by the station's CLASS OF SERVICE [C-15]. There is no restriction on the ATTENDANT CONSOLE [A-3] extending a station call to another station.
5. The Fusion Point Code (FPC) of the node which accommodates the called Attendant Console must be assigned after system data assignment.

### Interactions

1. Stations will terminate to the Attendant Console located in the same tenant when the station dials “0”.
2. Stations in Tenant A will terminate to the Attendant Console of Tenant B if Tenant A is not equipped with an Attendant Console. Tenant B's Attendant Console must be programmed to accept calls from Tenant A.
3. Stations may dial the ASAT number to terminate at a specific Attendant Console. See INDIVIDUAL ATTENDANT ACCESS [I-6].
4. When the system is in the night mode, a station dialing “0” can be answered by the assigned ATTENDANT NIGHT TRANSFER [A-19] station, if provided. However, when the ASAT number is dialed in the Night mode, reorder tone is returned. No connection to the ATTENDANT NIGHT TRANSFER [A-19] is allowed.

## D-3 Dictation Access

### General Description

This feature permits users dial access to customer provided dictation equipment, and in some instances allows them to maintain telephone dial control of normal dictation system features.

### Operating Procedure

1. Dial the DICTATION ACCESS code.
2. Proceed according to the dictation instructions provided by your organization.

### Service Conditions

1. One trunk circuit is required for each DICTATION ACCESS.
2. Dictation equipment must be equipped to receive DTMF tone signals if dial control is desired.
3. Dictation equipment must be customer provided.
4. Dictation trunks can be used with rotary dial signals.
5. The dictation trunk can be accessed from a station, Attendant, tie line, or REMOTE ACCESS [R-2] trunk.
6. OUTGOING TRUNK QUEUING [O-2]: If OUTGOING TRUNK QUEUING is provided and the user dials a busy dictation trunk group, the station is placed in queue and is called back when the group becomes available.
7. THREE-WAY CALLING [T-2]: An attempt to access the DICTATION ACCESS trunk from a two-party connection is allowed.
8. Fully Restricted Station: With this feature assigned, only station-to-station and ATTENDANT CONSOLE [A-3] dial "0" calls are permitted. Any attempt to access the DICTATION ACCESS trunk is routed to reorder tone.
9. MISCELLANEOUS TRUNK RESTRICTIONS [M-3]: This feature prevents certain stations from using miscellaneous service trunks. Any attempt to access the DICTATION ACCESS trunk from a station with this feature assigned is routed to reorder tone.

### Interactions

1. OUTGOING TRUNK QUEUING [O-2]: If OUTGOING TRUNK QUEUING [O-2] is provided and the user dials a busy trunk route, the station is placed in queue and is called back when a trunk in the route becomes available. If the trunk route is part of a ROUTE ADVANCE [R-6] group, all trunks in the ROUTE ADVANCE [R-6] group must be busy before queuing takes place. OUTGOING TRUNK QUEUING [O-2] is available on DICTATION ACCESS.
2. THREE-WAY CALLING [T-2]: An attempt to conference the DICTATION-ACCESS trunk from a two-party connection may be allowed. This depends on assignments in the ARSC command.
3. MISCELLANEOUS TRUNK RESTRICTION [M-3]: This feature prevents certain stations via Route CLASS OF SERVICE-INDIVIDUAL [C-15] from using various routes in the system. If a station is restricted, any attempt by a station to access the DICTATION ACCESS results in reorder tone.

**Note:** *This feature may be installed on the station side of the switch, using a PA-16LC circuit card. When installed on the station side, route restrictions are not available to the programmer. All stations within the system (tenant restrictions excluded), as well as stations in other PBXs connected via TIE Line, will have access to the dictation equipment.*

4. If the station side is used to connect DICTATION ACCESS, STATION HUNTING [S-7, 8, 9] will provide capabilities to connect multiple dictation machines to the system.

## D-5 Digital Display - Station

### General Description

This feature provides the Attendant with a visual display (via the ATTENDANT CONSOLE [A-3]) of the telephone number, its Trunk Route Restriction, CLASS OF SERVICE - INDIVIDUAL [C-15] and TENANT [T-12] number during Attendant-to-station connection.

### Operating Procedure

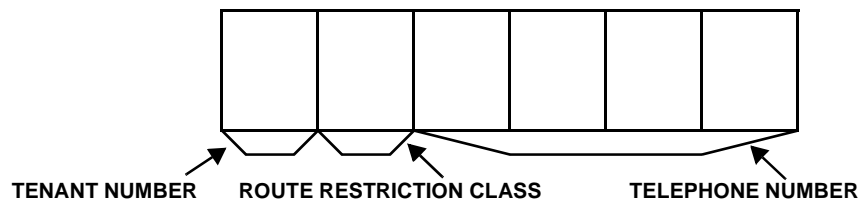
The DIGITAL DISPLAY STATION is automatically activated whenever the Attendant answers an incoming call from a station, or originates a call to a station.

### Service Conditions

1. The telephone number is displayed on the right side of the ATTENDANT CONSOLE [A-3] digital display. Trunk Route Restriction CLASS OF SERVICE - INDIVIDUAL [C-15] and TENANT [T-12] number are simultaneously displayed on the left. See Example 1 below.

#### Example 1:

Single-digit Trunk Route Restriction CLASS OF SERVICE - INDIVIDUAL [C-15] and TENANT [T-12] number; 4-digit telephone number.

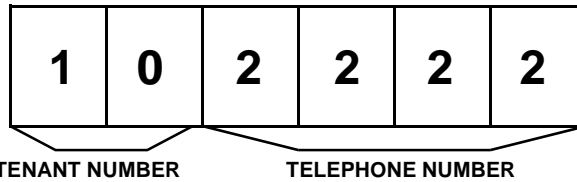


2. If the Trunk Route Restriction Class and/or TENANT [T-12] number are two digits, only the telephone number may be displayed. Refer to Example 2.
3. If a station dialed by the Attendant is busy or in the LINE LOCKOUT [L-3] mode, only the telephone number will be displayed.
4. The ATTENDANT CONSOLE [A-3] digital display is limited to a 6-digit numeric display. Since the Class of Service and trunk routing display is in numeric form, a list must be provided to the Attendant explaining the restrictions of each Class of Service number and trunk identification number.
5. CALL FORWARDING [C-2, 3, 5]: When this feature is activated by (or for) the called station, the terminating telephone number is indicated on the digital display rather than the called telephone number when the Attendant extends a call.
6. STATION HUNTING [S-7, 8, 9]: When this feature is applied because of the called station being busy and the station belonging to a hunt group, the terminating telephone number is indicated on the digital display rather than the called telephone number when the Attendant extends a call.
7. In the case of a 3 or 4-digit station-to-station numbering plan:
  - a.) 1 digit is used to identify the tenant (in the case where 2 digits are required for Class of Service, the tenant number is not identified).
  - b.) 1 or 2 digits are used to identify the station Class of Service.
  - c.) 4 digits are used to display the telephone number.
8. The DIGITAL DISPLAY - STATION feature will occur whenever the Attendant:
  - a.) extends an incoming call to a user.
  - b.) originates a call to a user.

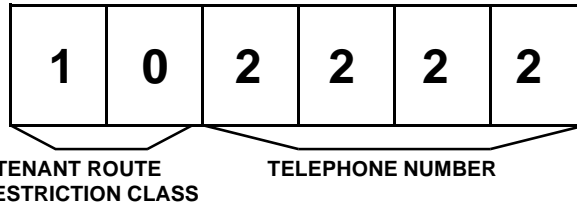
**Service Conditions (cont'd)**

c.) answers a Recall or Call Forwarded call.

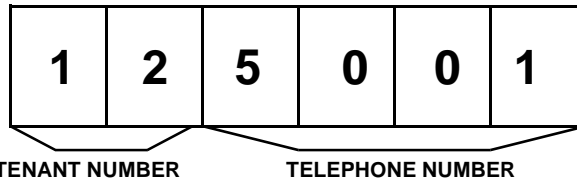
**Example 2:** 2-digit TENANT [T-12] number, 4-digit telephone number.



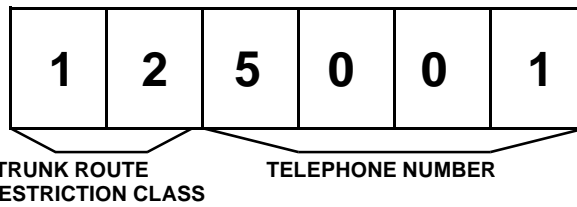
**Example 3:** 2-digit Trunk Route Restriction Class, 4-digit telephone number.



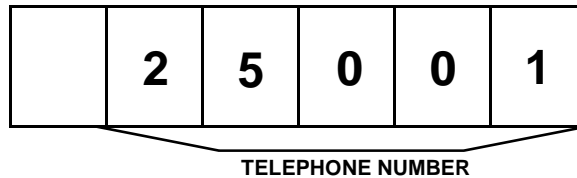
**Example 4:** Single digit TENANT [T-12] number, 5-digit telephone number.



**Example 5:** Single digit Trunk Route Restriction Class, 5-digit telephone number.



**Example 6:** When 5-digit station numbering is used within the system, only the telephone number is displayed.



9. For the FCCS network, when a telephone number has been assigned for a station, it is displayed on the Attendant Console. However, if a telephone number is 7 digits or more, Physical Station Number is displayed.

## D-6 Digital Display - Trunk

### General Description

This feature provides the Attendant with a visual indication of incoming and outgoing trunk calls on the ATTENDANT CONSOLE [A-3]. Trunk identification number, trunk route number, and TENANT [T-12] number, or Central Office trunk code, are displayed in a numerical readout.

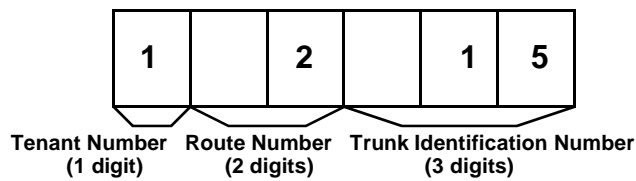
### Operating Procedure

The DIGITAL DISPLAY TRUNK is automatically activated whenever the Attendant answers an incoming trunk call or originates a trunk call.

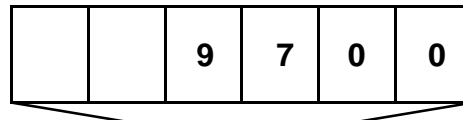
### Service Conditions

1. By pressing the loop key of a call that is in the ATTENDANT CAMP-ON [A-1] mode and using the DEST key, the Attendant can determine both trunk and telephone number onto which the call is camped.
2. The trunk identification number is displayed on the right side of the ATTENDANT CONSOLE [A-3] display while TENANT [T-12] and trunk route numbers are simultaneously displayed on the left.

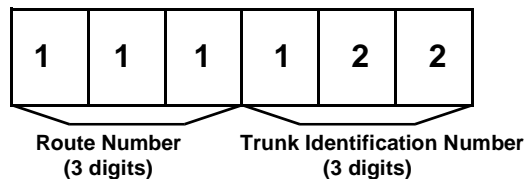
#### Example 1:



#### Example 2:



#### Example 3:



3. If the Trunk Route Number is three digits, the Trunk Identification Number and Trunk Route Number are displayed.
4. The ATTENDANT CONSOLE [A-3] digital display is limited to a 6-digit numeric display. Since the Class of Service and trunk routing display is in numeric form, a list must be provided to the Attendant explaining the restrictions of each Class of Service number and trunk identification number.
5. The DIGITAL DISPLAY - TRUNK feature displays trunk routing information or a 4-digit C.O. line number. The method used can be optionally selected on a per-trunk group basis.
6. The DIGITAL DISPLAY - TRUNK feature will occur whenever the Attendant answers/originates:
  - a.) an incoming C.O. (DID, Bothway, Oneway, FX, WATS) type call.
  - b.) an incoming TIE Line call.
  - c.) an intercept call.
  - d.) an outgoing C.O. (DOD, WATS, FX) type call.

**Service Conditions (cont'd)**

- e.) an outgoing TIE Line call or re-enters a held trunk call.
7. An Attendant Console also indicates the C.O. code assigned by System Data at each node in the FCCS network.



## D-7 Direct-In Termination (DIT)

### General Description

This feature automatically routes incoming public network calls directly to a pre-selected station without Attendant assistance. The call can then be processed by the called party. THREE-WAY CALLING [T-2], CALL TRANSFER [C-10], etc., are handled in the same manner as any normal trunk call.

### Operating Procedure

The calling party, outside the system, dials the desired number as usual. However, the call is answered directly at a predetermined station, bypassing the ATTENDANT CONSOLE [A-3].

### Service Conditions

1. Any group(s) of trunks can be used, up to the maximum capacity of the NEAX2400 IMX.
2. Bothway trunks can be used for DIRECT-IN TERMINATION, but incoming only trunks are recommended.
3. It is not necessary to have special DID trunk connections to the public network as is required with DIRECT INWARD DIALING [D-8]. However, care should be exercised in the application of Central Office trunk hunting.
4. If the DIT station is busy, the incoming call is kept ringing until the DIT station becomes idle, or forwarded to the ATTENDANT CONSOLE [A-3].
5. If there is no answer at a station, the calling party will continuously receive ringback tone. There is no AUTOMATIC RECALL [A-8] to the Attendant in this case.
6. If the station is assigned to a STATION HUNTING [S-7, 8, 9] group, the incoming call will follow the hunt group station assignment. If the station is in a CALL FORWARDING [C-2, 3, 5] mode, the incoming call is connected to the CALL FORWARD target station.
7. This feature is normally used where direct-in service is required on a limited basis. The number of stations serviced is effectively limited to the number of trunks available for DIRECT-IN TERMINATION.
8. DIRECT-IN TERMINATION is mutually exclusive with NIGHT CONNECTION - FIXED [N-1].
9. DIT trunks can be programmed to terminate elsewhere in the Night mode.
10. When the system is in the Night mode of operation and the DIRECT-IN TERMINATION (DIT) station is busy, the call will divert to TAS if provided, otherwise, the call will wait on the busy station until it becomes idle.
11. More than one trunk can be arranged for DIRECT-IN TERMINATION to a particular station line.
12. The DIT call can terminate to a DO NOT DISTURB [D-11D] station.
13. When a DIT call terminates to a restricted station or a station setting CALL FORWARDING - ALL CALLS [C-5]/BUSY LINE [C-2], or MULTIPLE CALL FORWARDING - ALL CALLS [M-44] / BUSY LINE [M-24] to a restricted station, the call is routed to the Attendant and terminates at the "ICPT" key on the ATTENDANT CONSOLE [A-3].

**Note:** *This service can be activated in system data.*

14. After a call is answered, it can be processed by the called station like any normal trunk call.
15. Only the telephone number is available for the destination station assignment when activating this feature via FCCS.
16. When activating this feature via the FCCS network, this feature is activated by data in the LDM of the node accommodating the terminated COT.

**Service Conditions (cont'd)**

17. When activating this feature via the FCCS network, when the telephone number of the destination station is deleted:
  - a.) When the Attendant Console is used, the DIT call terminates to the Attendant Console.
  - b.) When the Attendant Console is not used, or if the Attendant Console is in night mode, the caller hears ringback tone.
18. When activating this feature via the FCCS network, a DIT call cannot be queued while all the FCCS links are busy. Calling party receives ringback tone at that time and after the FCCS link is restored to idle.
19. When activating this feature via the FCCS network, the different destination for C.O. incoming call (ring down) cannot be set at each tenant group.

**Interactions**

1. Night DIT service is NIGHT CONNECTION - FIXED [N-1]. The NIGHT CONNECTION - FIXED/FLEXIBLE [N-1, 2] feature can be used to simulate a DIT application.
2. When using NIGHT CONNECTION - FIXED/FLEXIBLE [N-1, 2], if the station is busy, the call will divert to TRUNK ANSWER ANY STATION [T-8], if provided. If not provided, the call will queue at the busy station until it becomes idle.
3. The DIRECT-IN TERMINATION trunk is limited to the following types:
  - a.) DDD
  - b.) FX
  - c.) WATS
  - d.) CCSA
4. All CALL FORWARDING [C-2, 3, 5] features may be used in conjunction with DIRECT-IN TERMINATION. In the case of CALL FORWARDING - DON'T ANSWER [C-3], the call must physically be ringing the DIT station. Call Forwarding is only available from a ground start DIT trunk.
5. STATION HUNTING [S-7, 8, 9] and UNIFORM CALL DISTRIBUTION (UCD) [U-1] may be used with DIRECT-IN TERMINATION.

## D-8 Direct Inward Dialing (DID)

### General Description

This feature provides for all incoming calls from the public network (except FX or WATS) to reach any system station without Attendant assistance.

### Operating Procedure

The calling party, outside the system, dials the telephone number as usual. However, the call is answered directly at a predetermined station, bypassing the Attendant.

### Service Conditions

1. This feature requires that special DID trunks and telephone numbers be obtained through the local telephone company.

**Note:** *Not all telephone company Central Offices are capable of providing this service.*

2. If the Central Office numbering plan differs from the user's station numbering plan, addition or deletion of digits can be implemented to coincide with the existing numbering plan.
3. This feature is normally used when DIRECT-IN service is desired on an extensive or system-wide basis.
4. DID is also frequently referred to as CENTREX service.
5. If the called station is non-existent, the DID call is automatically routed to the Attendant or another predesignated station. Calls to invalid numbers can be routed to an Attendant or to a recorded announcement. See [CALL FORWARDING - INTERCEPT/ANNOUNCEMENT \[C-25\]](#).
6. Wink-start or delay-start signaling is recommended for use in conjunction with this feature.
7. The DID trunk contains a switchable 2db transmission pad that is switched in or out via software control.
8. If DID trunk is immediate start, dial pulse is required.

### Interactions

1. Incoming calls have priority over outgoing calls. When a register is assigned as an Outgoing Register Trunk (ORT), it will also act as an Incoming Register Trunk (IRT) if no IRTs are available. Therefore, ORTs can act as IRTs, but if IRTs are programmed, they will not act as ORTs.
2. If immediate Start DID trunks are required, Incoming Register Trunks must be programmed in the same local processor as the DID trunks.
3. [CALL FORWARDING \[C-2, 3, 5\]](#): When a station has activated a Call Forwarding feature ([CALL FORWARDING - ALL CALLS \[C-5\]](#), [CALL FORWARDING - BUSY LINE \[C-2\]](#), [CALL FORWARDING - DON'T ANSWER \[C-3\]](#)), the DID call is forwarded to a designated station rather than to the specific station dialed.
4. [STATION HUNTING \[S-7, 8, 9\]](#): If the called station is arranged for this feature and is busy, the call follows any prescribed hunting pattern.
5. [CALL WAITING - TERMINATING \[C-12\]](#): If the called station has the Call Waiting - Terminating feature, Call Waiting ringback tone to the calling party is provided when the called station is busy. The called station hears a 2-burst Call Waiting Tone. Call Waiting is allowed in CDN 46:CW, of ARDT command.
6. On an incoming call to a busy station, the Call Forwarding feature takes precedence over the Station Hunting feature, and the Station Hunting feature takes precedence over the Call Waiting feature.
7. The PA-8TLT circuit card provides interface capabilities for eight DID circuits.

## D-9 Direct Outward Dialing (DOD)

### General Description

This feature permits any user to gain access to the public network without the assistance of the Attendant, by dialing an access code and receiving a second dial tone. The user may then proceed to dial the desired public network number.

### Operating Procedure

#### To place an outside call:

1. Go off-hook; receive dial tone,
2. Dial the trunk access code (usually “9”),
3. Receive second dial tone from Central Office,
4. Dial the desired telephone number,
5. If the call is denied for any reason, reorder tone is heard.

### Service Conditions

1. Outgoing connection restriction can be assigned on an individual station basis. Refer to CLASS OF SERVICE - INDIVIDUAL [C-15].
2. TOLL RESTRICTION - 3/6-DIGIT [T-7] may be applied to DIRECT OUTWARD DIALING.
3. Various types of trunks (FX, WATS, tie, CO, etc.) can be directly accessed using this feature.
4. The trunk group access code is limited to a maximum of three digits (only when the SPEED CALLING [S-3, 3D, 21, 23] service is required).
5. Use of the DOD feature can be denied on a per-trunk group basis when the following restrictions are active on the originating station line.
  - Fully Restricted Stations: Direct Outward Dialing attempts are routed to reorder tone when the station is fully restricted.
  - Restriction from Outgoing Calls: A station assigned this feature is denied the ability to dial-access preselected trunk groups.
  - HOT LINE [H-1]: Exchange network call completion using this feature is not permitted. The originating station can only be routed to the ATTENDANT CONSOLE [A-3] or another station when going off-hook.
  - MISCELLANEOUS TRUNK RESTRICTION [M-3]: Preselected station lines are denied access to preselected miscellaneous trunk groups, the station is routed to reorder tone when the station attempts to originate a call on the trunk group.
  - TOLL RESTRICTION: Level of this feature restricts unauthorized station lines' ability to complete outgoing Central Office or Foreign Exchange calls to specified areas or office codes within an area.
  - TOLL DENIAL: A station with Toll Denial is routed to reorder tone when a 0 or 1 is dialed as the first digit after the trunk access code has been dialed.
6. The outgoing call using a trunk in the remote node via FCCS link is available. For more detailed information, see the NEAX2400 IMX Fusion Network System Manual.

### Interactions

The COT circuit card is used for all ringdown trunks. This circuit card is equipped to interface with Central Office circuits and may be used for either loop start or ground start trunks.

# D-10

# Distinctive Ringing

## General Description

This feature provides distinctive station ringing patterns so that the user can distinguish between internal and external incoming calls.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. This feature provides the following ringing patterns:
  - a.) Ringing for Incoming Internal Call
    - When a Service Feature Class that allows Personal Ringer (ASFC command, SFI148) is assigned to a station:
 

**(RINGER PATTERN 1)**  
Ringing for Incoming Internal Call to Pilot Number:  
2-second ring  
4-second silence

**(RINGER PATTERN 5)**  
Ringing for Incoming Internal Call to Personal Number (ex. My Line): **(Note)**  
2-second ring (3 bursts)  
1-second silence

**Note:** *Personal Number means the telephone number allowed Personal Ringer function.*

- When a Service Feature Class that restricts Personal Ringer (ASFC command, SFI148) is assigned to a station:
 

**(RINGER PATTERN 1)**  
2-second ring  
4-second silence
- b.) Ringing for Incoming External Call:
 

**(RINGER PATTERN 0)**  
1-second ring  
2-second silence
- c.) Recall Ringing for CALL BACK [C-1], CALL WAITING - ORIGINATING [C-31], or OUTGOING TRUNK QUEUING [O-2]:
 

**(RINGER PATTERN 1)**  
2-second ring  
4-second silence

Or

**(RINGER PATTERN 5)**  
2-second ring (3 bursts)  
1-second silence

**Note:** *These timing parameters can be changed via the end users requirements (1-15 seconds).*

2. This feature may be assigned per-trunk route via System Data programming.
3. If an Off-Premises Station (OPX) or denied station is assigned to a station line, an option is available for that Class of Service to eliminate burst ringing signals.

### Service Conditions (cont'd)

4. The DISTINCTIVE RINGING interruption rates can be optionally selected on a per-system basis. In this case, system initialization may be required.
5. An option is available on a per-trunk group basis to provide one-burst ringing on terminating calls.
6. When calling a third station (THREE-WAY CALLING [T-2], CONSULTATION HOLD [C-17], etc.), the ringing signal to the called station depends on the type of facility (station or trunk) on hold.

### Interactions

1. CALL HOLD [C-6]: Recall ringing for CALL HOLD [C-6] can be distinguished between a held station call (2-burst ringing) from a held trunk call (1-burst ringing).
2. CONSULTATION HOLD [C-17]: Station A places Party B on CONSULTATION HOLD [C-17] and calls Station C. If Party B is a trunk, Station C hears DISTINCTIVE RINGING for a trunk call. If Party B is a station, Station C hears distinctive ringing for a station call.
3. When Personal Ringer function is set to a station, if an incoming internal call is terminated to the personal number and the call is transferred by CALL FORWARDING - DON'T ANSWER [C-3], Ringer Pattern of the transferred station varies depending upon the type of the telephone as shown below:

Type Of Transferred Station	Ringer Pattern
Analog Telephone	1
D <sup>term</sup>	5

# D-11D

# Do Not Disturb - D<sup>term</sup>

## General Description

This feature allows a user to establish DO NOT DISTURB status. Incoming calls will be denied access to MY Line, while DO NOT DISTURB status is in effect.

## Operating Procedure

### To set DO NOT DISTURB:

1. Press the DO NOT DISTURB (DND) key. The associated LED will light. The LCD displays:

**DND SET**  
(Time Display)

### To cancel DO NOT DISTURB:

2. Press the DO NOT DISTURB (DND) key. The LED will go out. The LCD displays:

**DND CANCEL**  
(Time Display)

## Service Conditions

1. This service can only be set or cancelled while the D<sup>term</sup> is idle.
2. Lines programmed to ring will not do so while this service is set.
3. While DO NOT DISTURB is set, outgoing calls may be made. The user may answer other lines, excluding MY Line.
4. DND is not displayed on the calling station's D<sup>term</sup> when the called station is in the DO NOT DISTURB condition. Restriction (REST) appears on the display in place of DND; reorder tone is heard, and no indication will appear in the DO NOT DISTURB condition when the calling station is a HOTLINE [H-1].

**REST** **XXXXX**  
(Time Display)

5. A DND station in a HUNT GROUP [D-7, 8, 9] is skipped.
6. CALL FORWARDING - BUSY LINE [C-2] can be activated for an idle station that has set DND.
7. The following service features are denied to the DND station:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]
VOICE CALL - D <sup>term</sup>	[V-2D]
8. When the user sets DO NOT DISTURB while engaged in a call, privacy is set. In this case, the following services will be restricted:
 

CALL WAITING TERMINATING	[C-12]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]

**Interactions**

1. DO NOT DISTURB may be listed in some literature as available by a programmable Line/Feature key. A D<sup>term</sup> ACD station is not equipped with a DND key. If DO NOT DISTURB is to be made available to this station, it must be programmed to a Line/Feature key.
2. DATA INTERFACE-AUTOMATIC ANSWER may be activated if the D<sup>term</sup> station is in the DO NOT DISTURB mode.



## D-13D

## Dial Monitor - D<sup>term</sup>

### General Description

This feature provides for dialed digits to appear on the D<sup>term</sup> LCD display.

### Operating Procedure

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Dial the desired number; the digits will appear in sequence on the LCD display.

### Service Conditions

1. Digits appear from the right and move to the left as additional digits are dialed. A maximum of 16 digits can be displayed. If more than 16 digits are dialed, the first dialed digits will be dropped and the last dialed digit appears. This process continues until all digits have been dialed.
2. Digits also appear on the display when implementing SPEED CALLING - ONE TOUCH - D<sup>term</sup> [S-26D], LAST NUMBER CALLED - D<sup>term</sup> [L-6D] and SAVE AND REPEAT - D<sup>term</sup> [S-24D].

## D-15 Day/Night Class of Service

### General Description

This feature permits any station to be assigned one CLASS OF SERVICE - INDIVIDUAL [C-15], for day and another for night. System Data can be programmed so that once the ATTENDANT CONSOLE [A-3] has entered the NIGHT CONNECTION [N-1,2] mode, a station's CLASS OF SERVICE - INDIVIDUAL [C-15] will be automatically changed when required. Class may be upgraded or downgraded, and trunk groups normally controlled by the Attendant in the daytime may be opened to station control in the night mode.

### Operating Procedure

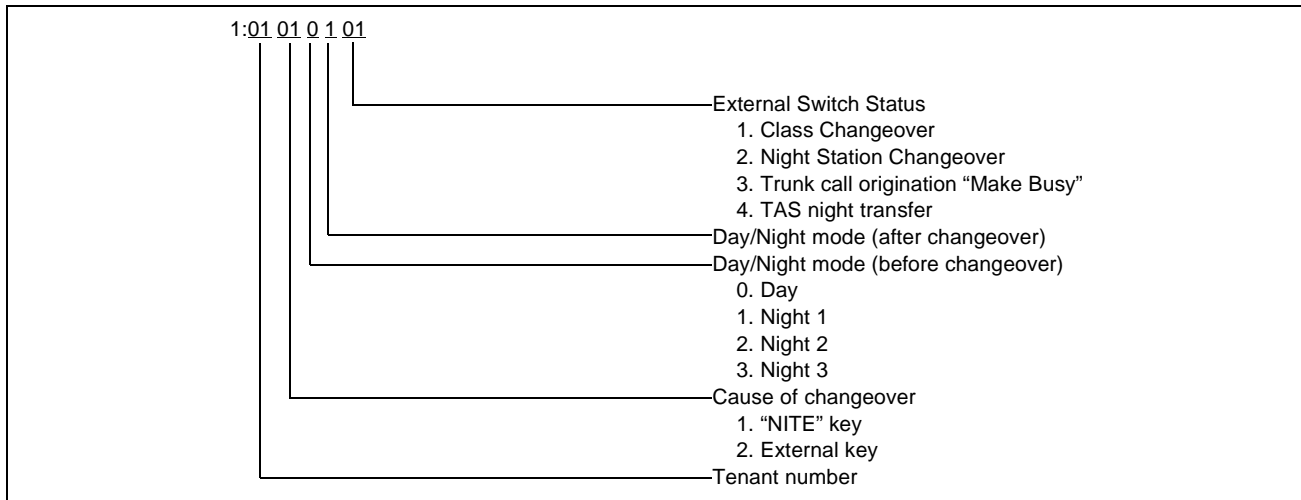
This feature is controlled entirely via the ATTENDANT CONSOLE [A-3]. Pressing the NITE key or removing the handset changes the service class. Releasing the NITE key or replacing the handset restores normal CLASS OF SERVICE - INDIVIDUAL [C-15].

### Service Conditions

1. DAY/NIGHT CLASS OF SERVICE may be assigned on a per tenant and per station basis.
2. DAY/NIGHT CLASS OF SERVICE may be assigned to different trunk restriction and service restriction classes.
3. Refer to CLASS OF SERVICE - INDIVIDUAL [C-15] for further details.
4. Night mode restriction classes can be set at any time by entering the related command on the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
5. When TENANT SERVICE [T-12] is provided with MULTIPLE CONSOLE OPERATION [M-4], the system can be programmed for either all ATTENDANT CONSOLES [A-3] or primary ATTENDANT CONSOLE [A-3] to control activation of DAY/NIGHT CLASS OF SERVICE.
6. When DAY/NIGHT mode changeover occurs, tenant number, day/night mode of the tenant, status of the external switch, and cause of changeover are printed out on the alarm printer and MAT printer. (This service is determined by System Data.)
7. Day/night information of the unused tenant is not printed out.
8. A maximum of 14 tenants' information can be printed per message.
9. An example of printout format is shown below:

SYSTEM MESSAGE 17-H [ ] DAY/NIGHT CHANGE INFORMATION											
NEC ABIKO PLANT FEB 11 23:45											
1:0101	0101	0201	0101	2:0301	0101	0401	0101	3:0A02	0201	0B02	0201
4:0C02	0201	1001	0002	5:1101	0002	1201	0002	6:C001	0000	C101	0000
7:D001	0101	FF02	0101	8:0000	0000	0000	0000	9:0000	0000	0000	0000

## Service Conditions (cont'd)



10. When the Attendant's NITE key or external switch is turned ON and OFF repeatedly, the messages printed out and the operation may not coincide, but the system message will represent the final day/night mode.
11. In the following cases, day/night mode is not changed when the external switch is turned ON, and only the system message is printed out:
  - a.) When neither the ATTENDANT NIGHT TRANSFER [A-19] or TAS [T-8] is available, SYS2 INDEX 13 b1=1 (no check by Attendant at the time of day/night mode changeover), and the NITE key of Attendant indicates Day.
  - b.) When neither ATTENDANT NIGHT TRANSFER [A-19] or TAS [T-8] is available, SYS2 INDEX 13 b1=0 (check by Attendant at the time of day/night mode changeover), and the NITE key of Attendant indicates Night.
12. When day/night mode changeover is activated by jack at the time System Data is SYS1, INDEX 77 b0=1 (day/night mode changeover by jack available), the cause of changeover is indicated as NITE key (=1).
13. This feature is to be controlled by the Attendant Console accommodated in the terminating node for the FCCS network.
14. Day/Night mode is changed by the destination node of the operator call assigned System Data for the FCCS network. **(Note)**
15. The node which does not accommodate the Attendant Console controls DAY/NIGHT mode of the self-node using the external key for the FCCS network.
16. The user can assign only one destination node from a node, even when the system is organized by more than one tenant.

**Note:** *The following Attendant Console Day/Night Mode Change methods are determined by System Data: By the Primary Attendant Console / By all Attendant Consoles*

## Interactions

1. When assigning station data, assign the restriction classes desired to cause the station to upgrade, downgrade, or remain unchanged status of restriction class when going from Day to Night. If DAY/NIGHT CLASS OF SERVICE is not required, assign the commands normally.
2. The DAY/NIGHT CLASS OF SERVICE arrangements are based on the day/night operating status of the tenant.

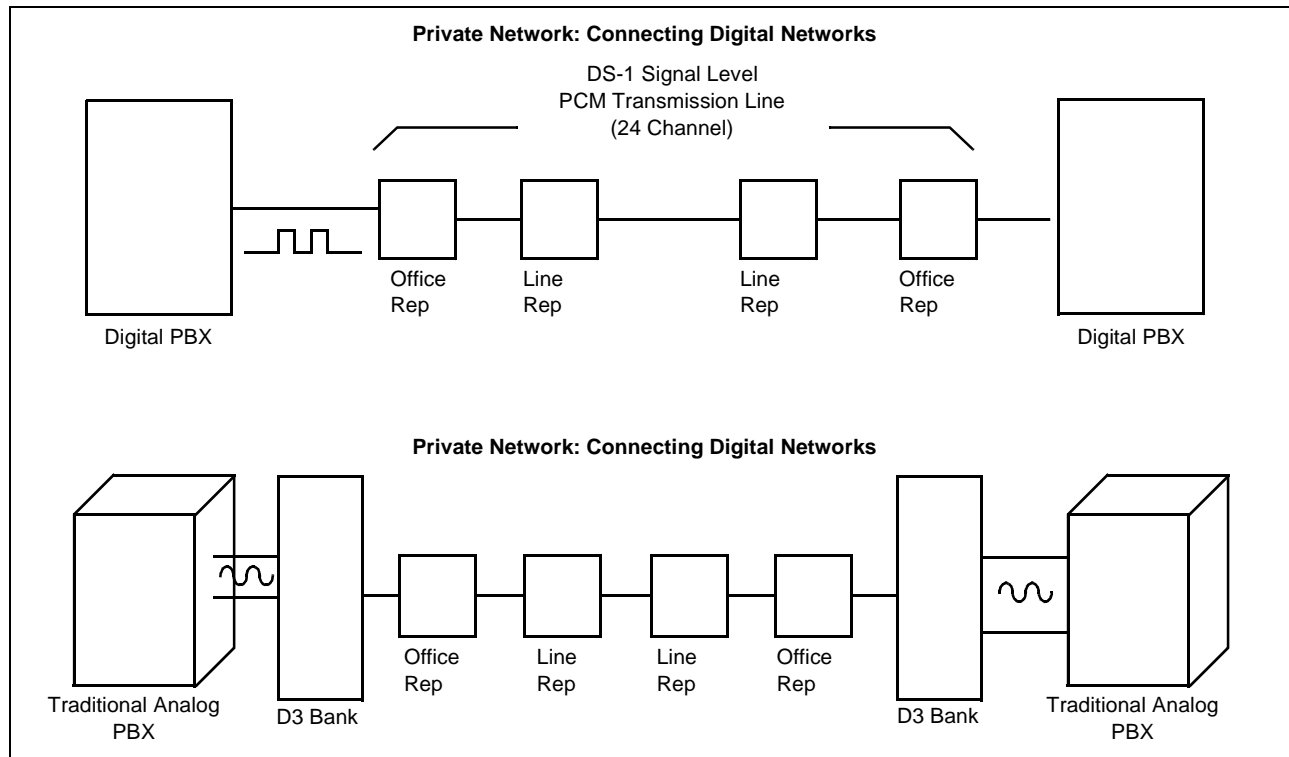
**Interactions (cont'd)**

3. DAY/NIGHT CLASS OF SERVICE affects the following restrictions:
  - a.) Route Restriction Class (ARSC)
  - b.) Service Feature Class (ASFC)
  - c.) Toll Restrictions (ATDP)
  - d.) Tenant Restrictions (ATNR)
4. When TRUNK ANSWER FROM ANY STATION (TAS) [T-8] is installed, a station's Night RSC must allow access to the IC trunks. Also, the Night SFC must allow TAS, SFI 13.

# D-16 Direct Digital Interface

## General Description

This service feature provides the capability to connect trunks from the NEAX2400 IMX directly to “T1” carrier links via either private or public network.



## Operating Procedure

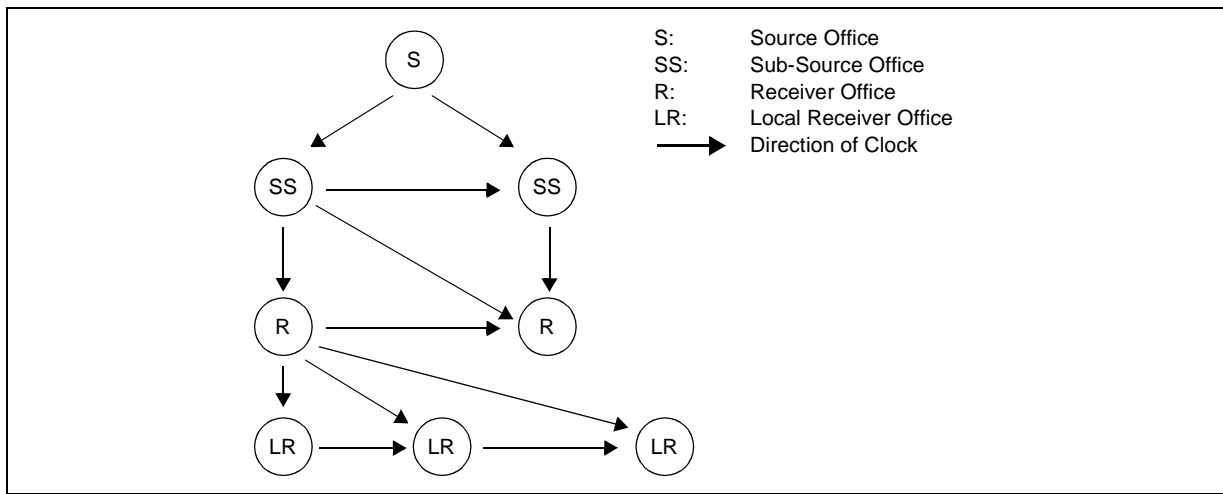
No manual operation is required.

## Service Conditions

1. The DTI provides signalling interface, bipolar/unipolar conversion, frame synchronization, insertion/extraction and alarm detection.
2. The Digital Interface Module can be provided with circuit cards to interface with “T1” carrier and/or CCITT standard networks.
3. The Digital Interface Module (DTI) is mounted in a Port Interface Module (PIM).
4. The following two methods may be used for network synchronization:
  - a.) Source-Receiver System (Source)
  - b.) Source-Receiver System (Receiver)
5. Each office hierarchy is defined as follows:
  - a.) Source Office: One center will operate as the Source Office. This location has two highly stabilized source oscillators, and distributes the Source Clock to all the systems through the digital interface lines.

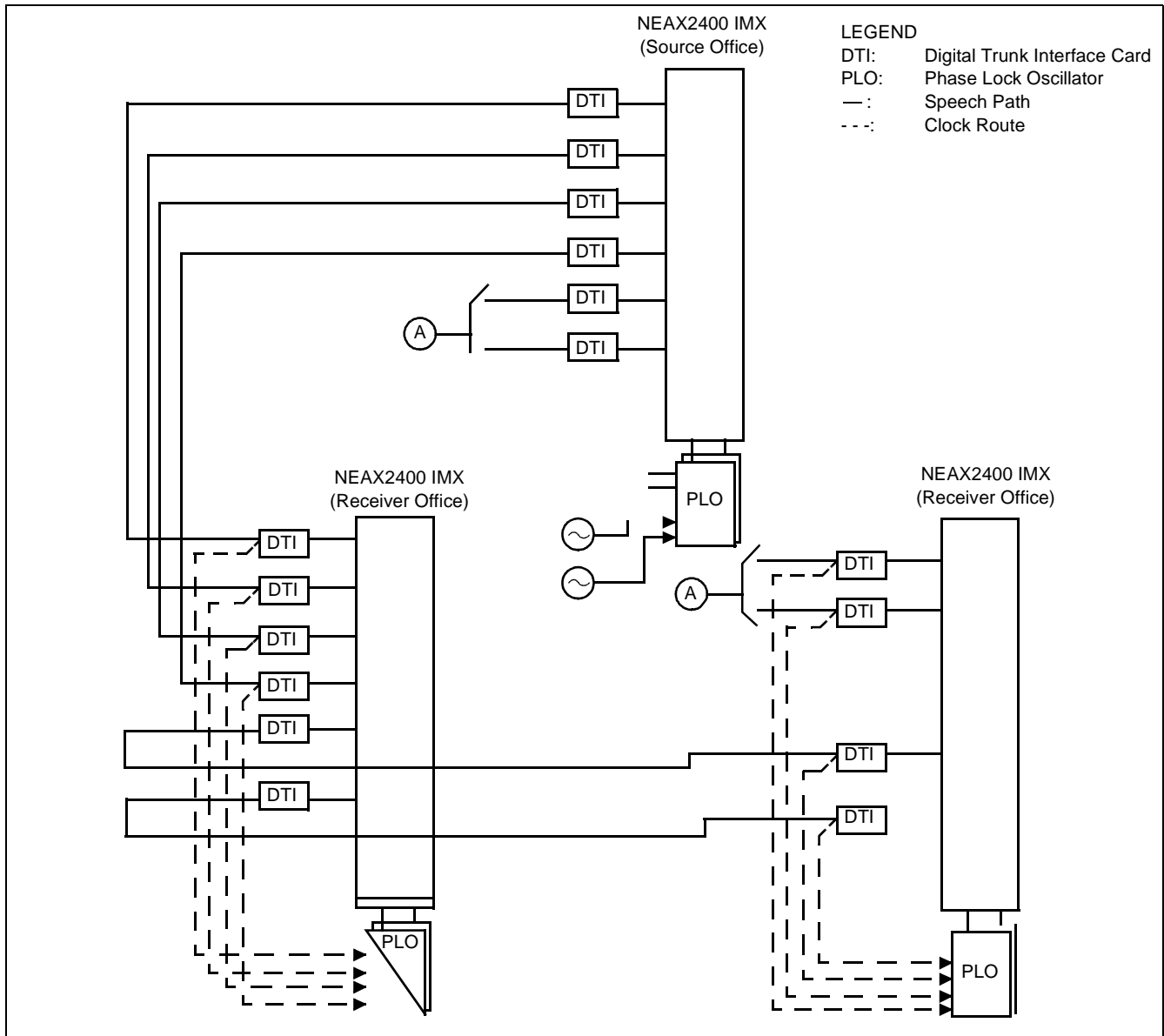
**Service Conditions (cont'd)**

- b.) Sub-Source Office: This office operates using a Phase Lock Oscillator (PLO) to synchronize with the clock at the Source Office. If the Source Clock has some failure, office can operate using its own backup oscillator.
  - c.) Receiver Office: This office is arranged so it will have at least two clock routes, one for Receiver and the other for standby. Synchronization Clock is derived from incoming PCM bit stream from higher hierarchy offices.
  - d.) Local Receiver Office: This is the end office in a digital network arrangement. This office will not be provided with a backup route for the PLO, because this office is the only one influenced in an event of trouble occurrence.
6. Each NEAX2400 IMX can be equipped with a duplicate Phase Lock Oscillator used for network synchronization. Each PLO has 4 inputs to which clocks from the Source Oscillator or Digital Interface Module should be connected.



**Network Clocking Hierarchy**

Service Conditions (cont'd)



Network Clock Synchronization

# D-31 Delay Announcement - UCD

## General Description

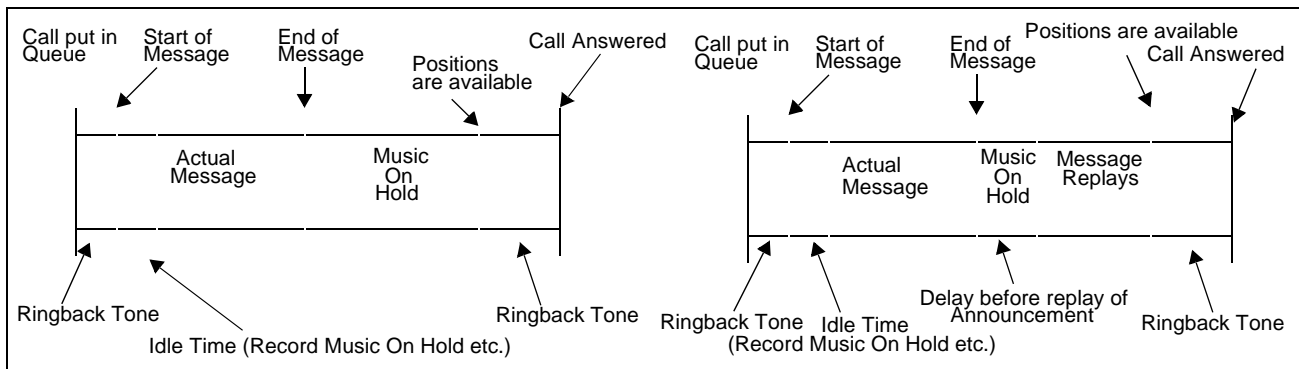
This feature provides recorded announcement service for an incoming call directed to a busy UNIFORM CALL DISTRIBUTION (UCD) [U-1] group and placed in a waiting queue. The recorded announcement occurs after a predetermined time in the queue.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Up to eight announcement machines can be assigned per UCD [U-1] group.
2. The DELAY ANNOUNCEMENT-UCD time consists of three time periods. Each idle time period requires a duration of 6 seconds:
  - a.) before the announcement (idle time)
  - b.) the announcement
  - c.) after the announcement (idle time).
3. After the announcement is played, MUSIC ON HOLD [M-7] is activated.
4. Ringback tone is sent to the queued UCD [U-1] call before the first DELAY ANNOUNCEMENT begins.
5. If programmed, the DELAY ANNOUNCEMENT can be repeated while the incoming call is waiting in the queue. Between each announcement, MUSIC ON HOLD [M-7] will be heard.
6. When a UCD [U-1] station becomes idle, the incoming call is connected immediately to the idle station, even if the incoming call is connected to the DELAY ANNOUNCEMENT-UCD.
7. If the incoming call comes from a ring down trunk, billing begins with the start of the Delayed Announcement.
8. If an incoming call encounters all stations busy in a UCD [U-1] group and overflows to another UCD [U-1] group, and if all stations are busy in the OVERFLOW - UCD [O-13] group, the calling party will be placed in the queue for the originally called UCD [U-1] group, and DELAY ANNOUNCEMENT - UCD will be invoked, if programmed.
9. The figures below show Delayed Announcement Time Charts for a single programmed announcement, and for a repeated programmed announcement.



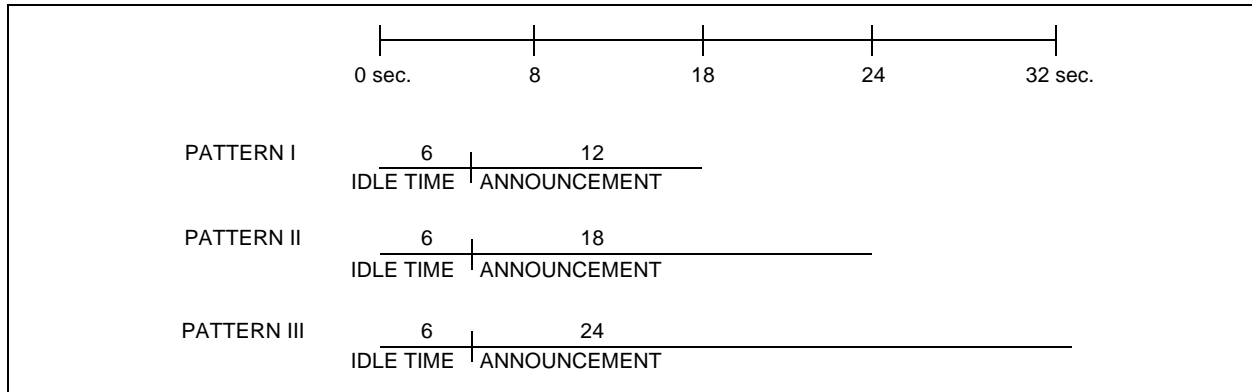
**Time Chart for Single and Repeated Announcement**



**Service Conditions (cont'd)**

Announcement Recording

The figure below illustrates the three possible Delayed Announcement recording patterns.



**Delayed Announcement Recording Patterns**

10. Delay Announcement Trunk (DAT) in the node accommodating the UCD controlling station must be used for this feature for the FCCS network.

**Interactions**

1. UNIFORM CALL DISTRIBUTION [U-3] must first be provided.
2. When a UCD station is assigned as the destination of LDN Night Connection, this service cannot be activated.

# D-32D

# Dual Hold - D<sup>term</sup>

## General Description

This feature allows two D<sup>term</sup>s to simultaneously be placed on hold. This allows the held parties to answer or originate a call from a subline appearance or the idle prime line.

## Operating Procedure

### To place a call in a DUAL HOLD-D<sup>term</sup> condition:

1. When two D<sup>term</sup>s are connected, either D<sup>term</sup> user can press the pre-assigned HOLD key and place the other D<sup>term</sup> on hold.
2. If the held D<sup>term</sup> user wishes to originate or answer another call from a sub-line appearance, the held D<sup>term</sup> user presses the pre-assigned HOLD key and places the connection in a DUAL HOLD-D<sup>term</sup> condition.

### To place back to the original connection:

1. The D<sup>term</sup> user goes off-hook and presses the held line.
2. The held D<sup>term</sup> hears MUSIC ON HOLD [M-7] if originally connected D<sup>term</sup> is still holding the call.
3. The held D<sup>term</sup> comes back to the original call if originally connected D<sup>term</sup> has already returned to the original call.

## Service Conditions

1. The DUAL HOLD - D<sup>term</sup> feature can be activated by pressing the HOLD key during a call between any two D<sup>term</sup>s.
2. While a call is being held, Automatic Recall is initiated after a preprogrammed time on the D<sup>term</sup> that placed the call on Hold.
3. For STATION MESSAGE DETAIL RECORDING SYSTEM [S-10] information between extensions, a call is regarded as completed when the HOLD key is pressed to hold the call. When both stations answer the held call, it is processed as a new call.
4. Even in the case of a call between two D<sup>term</sup>s, DUAL HOLD - D<sup>term</sup> cannot be initiated between Boss and Secretary after the Boss/Secretary service, or between overriding and overridden parties after the PRIVACY RELEASE [P-18] service.
5. This feature is not restricted by the Class of Service for the stations in the network.
6. The following services are available to either the holding line or the line placed on hold when a call is held by pressing the HOLD key in a DUAL HOLD - D<sup>term</sup> situation:
 

CALL BACK	[C-1]
MESSAGE REMINDER	[M-19D]
7. The following services are not available to the holding line or the held line in a DUAL HOLD - D<sup>term</sup> situation:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
BUSY VERIFICATION	[B-3]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
EXECUTIVE RIGHT-OF-WAY	[E-1D]
PRIVACY RELEASE	[P-18]
8. DUAL HOLD-D<sup>term</sup> cannot be activated for calls established by:
 

BOSS-SECRETARY Service	[B-5D, 8, 11]
PRIVACY RELEASE	[P-18]

**Service Conditions (cont'd)**

BUSY VERIFICATION	[B-3]
ATTENDANT CAMP-ON	[A-1]
EXECUTIVE RIGHT-OF-WAY	[E-1]
CALL WAITING-ORIGINATING	[C-31]
CALL WAITING-TERMINATING	[C-12]

# D-87

# Dial Intercom

## General Description

This feature gives multiple D<sup>term</sup> users the ability to simultaneously call any other member of the intercom group, regardless of their idle or busy status. An intercom group member can override another intercom station in a two-party intercom connection. This service is referred to as an Intercom Bridge.

## Operating Procedure

### To originate a DIAL INTERCOM call:

1. The intercom station presses the DICM key and goes off-hook within five seconds.
2. Dial the desired INTERCOM telephone number; receive ringback tone. The calling D<sup>term</sup> displays:

Dialed Intercom Number

<b>ICM</b>	<b>XX</b>
<b>(Time Display)</b>	

3. The desired INTERCOM station answers the call and is connected to the calling station.

### To answer a DIAL INTERCOM call:

1. The DICM key will flash, indicating an incoming DIAL INTERCOM call. The called station may also hear distinctive three-burst ringing. The called D<sup>term</sup> displays:

Calling Intercom Number

<b>ICM</b>	<b>XX</b>
<b>(Time Display)</b>	

2. If the called station is already engaged in a conversation with a non-intercom call, the station may press the HOLD key and answer the DIAL INTERCOM call by pressing the DICM key. Ringing will stop.

### To bridge into a DIAL INTERCOM call:

1. When two stations are engaged in a DIAL INTERCOM call, a third station, belonging to the same DIAL INTERCOM group, presses the DICM key and goes off-hook. The called and calling D<sup>term</sup>s display:

Intercom Number

<b>OVERRIDE</b>	<b>XX</b>
<b>(Time Display)</b>	

2. A three-party conference is established. The called stations may hear a Warning Tone. The option for hearing the tone is preassigned in System Data. The called and calling D<sup>term</sup>s display:

<b>CONF</b>
<b>(Time Display)</b>

3. If Intercom Bridge service is denied, the D<sup>term</sup> displays:

<b>CONF REST</b>
<b>(Time Display)</b>

## Operating Procedure (cont'd)

### PRIME LINE PICK UP-D<sup>term</sup> [P-13D]:

The D<sup>term</sup> may be programmed to seize the incoming call on the AUTOMATIC, MANUAL, or DIAL INTERCOM lines before the Prime Line. If two incoming calls terminate simultaneously to both the Prime Line and the DIAL INTERCOM line, when the user goes off-hook, PRIME LINE PICKUP-D<sup>term</sup> [P-13D] will seize the DIAL INTERCOM line before the Prime Line. If only the Prime Line is ringing when the user goes off-hook, then PRIME LINE PICKUP D<sup>term</sup> [P-13D] will seize the Prime Line. The programmable options and ringing priority are illustrated in the following table:

Ringing Priority	Programmable Options				
	PRI0	PRI1	PRI2	PRI3	PRI4
1	Prime Line	Dial Intercom	Automatic Intercom	Manual Intercom	Automatic Intercom
2	--	Prime Line	Prime Line	Prime Line	Manual Intercom
3	--	--	--	--	Prime Line

## Service Conditions

1. Only D<sup>term</sup>s can be assigned as a member of a DIAL INTERCOM group.
2. All members of the same DIAL INTERCOM group must be assigned in the same Module Group.
3. Up to 32 stations may be assigned to one DIAL INTERCOM group. Each station in the DIAL INTERCOM group can be assigned as an Automatic, a Manual and a DIAL INTERCOM member of three different groups.
4. No more than one connection can be established at the same time in one DIAL INTERCOM group.
5. A three-party conference can be established in a DIAL INTERCOM group if Intercom Bridge service is available. If a fourth party tries to activate Intercom Bridge service, the connection is denied.
6. The maximum number of DIAL INTERCOM groups in the PBX is 50 per Module Group.
7. It is possible to simultaneously assign one group of stations as an Automatic/Manual Intercom group, as well as a DIAL INTERCOM group.
8. The distinctive ringing (three-burst ringing) sent from an incoming DIAL INTERCOM station takes priority over the ringing of multi-line appearances.
9. Features normally available to multi-line appearances are not available to DIAL INTERCOM lines.
10. DIAL INTERCOM lines cannot be held by pressing the HOLD key.
11. When a station is moved from one DIAL INTERCOM group to another via system commands, the DICM key on the associated D<sup>term</sup> must be deleted before the change is made.
12. Port traffic and station PEG COUNTS [P-7] reports will record the use of the DIAL INTERCOM feature under "other."
13. Dedicated D<sup>term</sup> feature keys cannot be used during a DIAL INTERCOM call. Only the SPEAKER key for hands-free operation can be used.
14. If there are simultaneous incoming calls to the Prime Line, Automatic Intercom Line, the Manual Intercom Line, and/or the DIAL INTERCOM line, the Prime Line will normally be selected when the station goes off-hook. The selection order can be changed for each D<sup>term</sup> via office data assignment.

**Service Conditions (cont'd)**

15. DIAL INTERCOM group numbers are either one or two digits and can be set for each DIAL INTERCOM group:

- 1 digit: 0-9
- 2 digits: 00-63

16. The display on the D<sup>term</sup> is as follows:

a.) Calling

Dial Intercom Number of the Calling Station

\* Display appears for 10 seconds when the DICM line is preselected

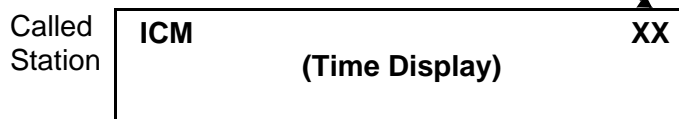


Dial Intercom Number of the Calling Station



b.) Called Station Answers

Dial Intercom Number of the Calling Station



Dial Intercom Number of the Answering Station



## Service Conditions (cont'd)

### c.) Intercom Bridge

Dial Intercom Number of the Additional Station

Original Station	<b> OVERRIDE </b>	<b> XX </b>
	<b> (Time Display) </b>	

Dial Intercom Number of the Calling Station (1 or 2 digits)

Addt. Station	<b> OVERRIDE </b>	<b> XX </b>
	<b> (Time Display) </b>	

After 5 seconds

Three Station	<b> CONF </b>	<b> (Time Display) </b>
------------------	---------------	-------------------------

\* CONF lamp goes on

### d.) Intercom Bridge Restriction

<b> CONF REST </b>	<b> (Time Display) </b>
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\* When the DICM key is pressed for the bridge, after originating a call, the above is displayed for 5 seconds.

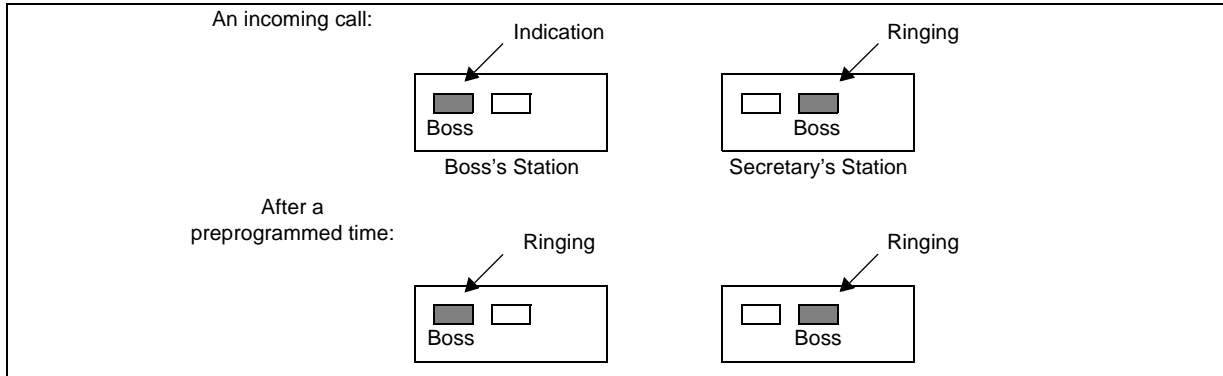
17. To answer a call terminated to the INTERCOM line while the Prime Line is busy, press an INTERCOM line key.
18. The DIAL INTERCOM ringing by an incoming call is interrupted while the MANUAL SIGNALING [M-47] signal is being sent out.
19. While a call is in progress on a multi-line, the AUTOMATIC INTERCOM line, or MANUAL INTERCOM line, pressing the DICM key can disconnect the call to allow a DIAL INTERCOM call origination or answer.
20. FCCS link is not available for this feature.

# D-90D Delayed Ringing - D<sup>term</sup>

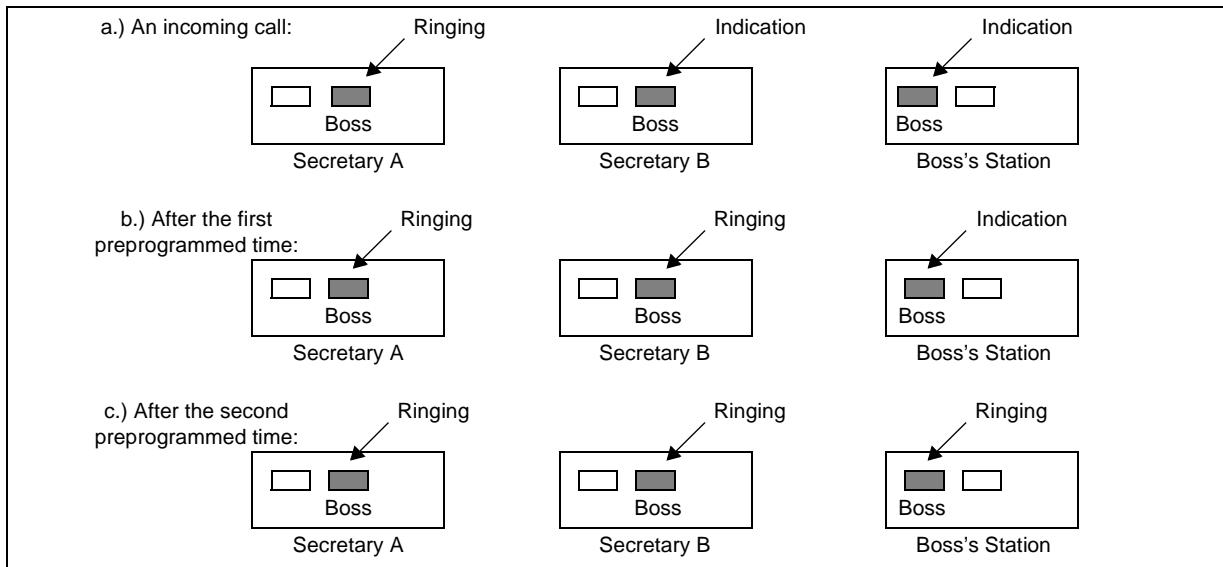
## General Description

This feature allows a D<sup>term</sup> to receive an incoming ringing signal after a predetermined time.

1. In Boss/Secretary service, a call terminating on the boss's line first rings at the secretary's station. If the secretary does not answer within a preprogrammed time, the boss' station will also ring. This service is convenient when many lines terminate on a secretary's phone, and the secretary is engaged in a call, or is temporarily away from the phone, and cannot answer the call terminated to the boss's station.



2. Calls terminated to the boss's station may be routed to multiple secretaries by assigning timing delays for ringing to each secretary's station.

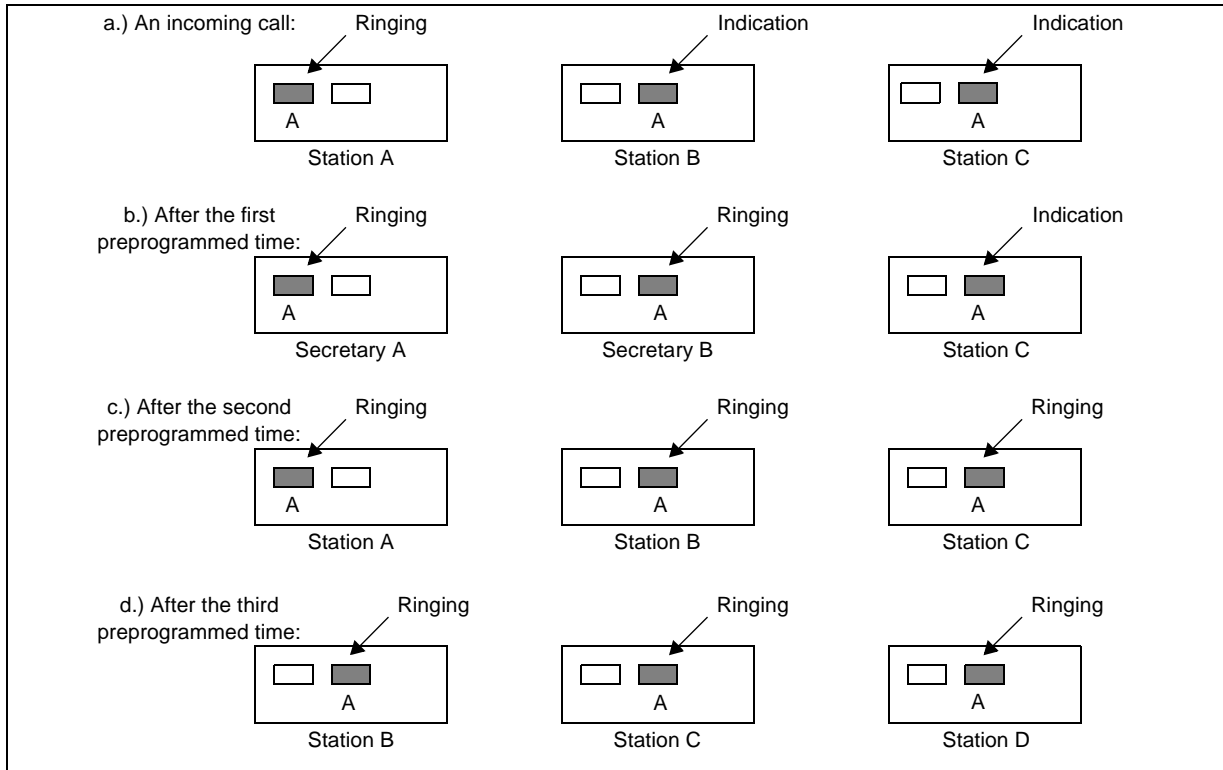


3. When a call to the boss' station is received, it rings on Secretary A's station. If it is not answered in a preprogrammed time, it will also ring on Secretary B's station. If Secretary B does not answer within the second preprogrammed time, the call will also ring on Boss's station.



**General Description (cont'd)**

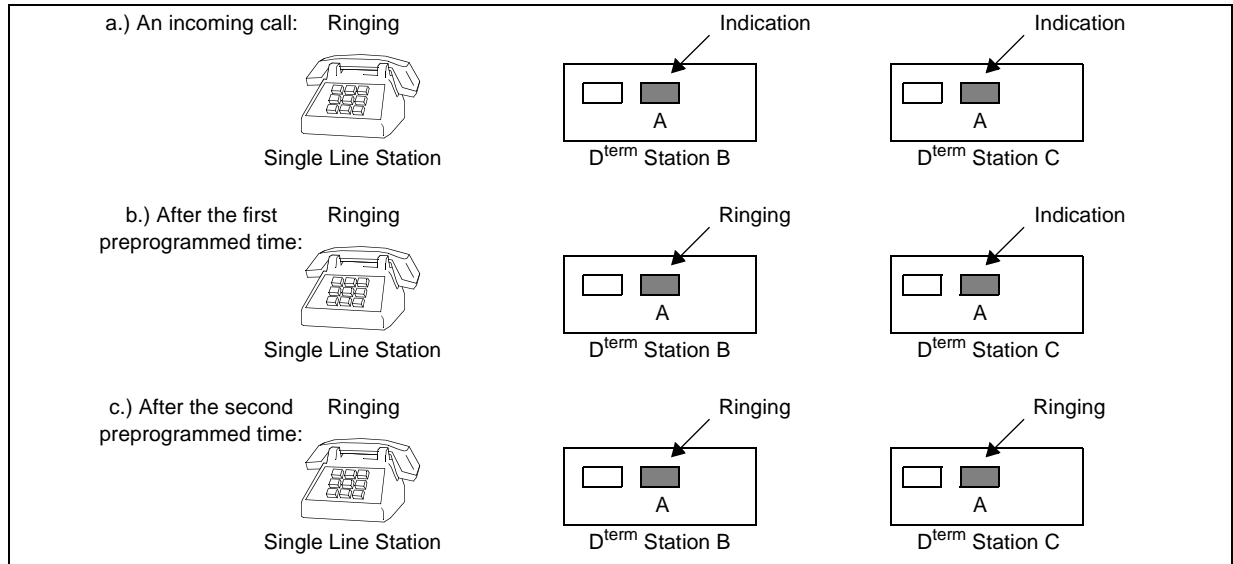
4. This feature may also be used in a similar way to CALL FORWARDING - DON'T ANSWER [C-3] or STATION HUNTING [S-7, 8, 9].



5. A call rings on Station A. If Station A does not answer within a preprogrammed time, the call also rings on Station B. If the call is not answered within the second preprogrammed time, the call also rings on Station C. If the call is not answered within the third preprogrammed time, the call also rings on Station D.

## General Description (cont'd)

6. DELAYED RINGING may also be used for calls terminated to single-line telephone appearances on a D<sup>term</sup>. Calls to single line appearances that are not answered within a preprogrammed time will ring on the next station in sequence.



7. A call rings on Single Line Station A. If Station A does not answer within a preprogrammed time, the call also rings on D<sup>term</sup> Station B. If the call is not answered within the second preprogrammed time, the call also rings on D<sup>term</sup> Station C.

## Operating Procedure

No manual operation of the feature is required after it has been programmed in system data.

## Service Conditions

1. This feature is available for multi-lines on D<sup>term</sup>s.
2. Delay timing for each line on the D<sup>term</sup> may be programmed through the MAT.
3. Delay timing may be 10, 20, or 30 seconds.

## Interactions

1. Off-hook ringing on a D<sup>term</sup> will follow the assigned DELAYED RINGING-D<sup>term</sup> [D-90D] timer the same as on-hook ringing.
2. Stations that have multi-line appearances with DELAYED RINGING-D<sup>term</sup> assigned must be aware of the interaction with CALL FORWARDING-DON'T ANSWER [C-2]. Example: Station A appears on D<sup>term</sup> B with a delayed ringing of 30 seconds (RG = 4); and also on D<sup>term</sup> C with a delayed ringing time of 20 seconds (RG = 5). If Station A sets CALL FORWARDING-DON'T ANSWER [C-2] and the CALL FORWARDING-DON'T ANSWER [C-2] timer is set at 24 seconds, when an incoming call comes into Station A, it will begin to ring; at 20 seconds D<sup>term</sup> C will begin to ring also; at 24 seconds the call will forward to Station A's target destination and Station A and D<sup>term</sup> C will stop ringing. D<sup>term</sup> B never rings.
3. After a call has been answered by a secretary, the activation of the boss/secretary feature by the secretary to a single-line boss station will not reactivate the DELAYED RINGING-D<sup>term</sup> cycle.

# D-114 Delay Announcement - Attendant

## General Description

This feature provides a recorded announcement to the incoming trunk caller waiting to be answered by the Attendant. This feature is divided into the following two types, depending on the time when the call is connected with the announcement trunk.

1. The call is connected to announcement trunk immediately after terminating to the Attendant Console. The announcement continues until the Attendant answers, or the trunk side abandons the call.
2. The call is connected to the announcement trunk after the ringback tone connection.

## Operating Procedure

### When the announcement service is provided immediately after the call terminates:

1. When an incoming call terminates to an Attendant Console, which is handling calls, the calling party receives an announcement from the Digital Announcement Trunk (DAT).
2. When the Attendant completes call handling, ringing starts at the Attendant Console.
3. The Attendant presses the ANSWER key. The calling party and the Attendant talk with each other.

### When the announcement service is provided after a fixed time:

1. When an incoming call terminates to an Attendant Console, the LDN key lamp starts to flash and ringing starts at the Attendant Console, and the calling party receives the ringback tone.
2. When the Attendant has not answered for the designated time (SYS1, INDEX 242), the call is connected to the announcement trunk automatically (the lamp keeps flashing and the ringing continues at the Attendant Console).
3. If the Attendant does not answer the call when the first announcement completes, the trunk call disconnects from the announcement automatically and the caller hears the music on hold.
4. The Attendant presses the ANSWER or LDN key. The calling party and the Attendant talk with each other.

## Service Conditions

### When the Delay Announcement service is provided immediately after the call terminates:

1. This service requires a PA-4DATA/4DATB (DAT) circuit card or an external announcement machine.
2. This feature is available for the following incoming trunk types:
  - a.) Ring down
  - b.) LDN (DID, TIE)
  - c.) Call Forwarding - All Calls/Busy Line/Don't Answer (DID, TIE)
  - d.) Call Forwarding - Intercept - Attendant (DID, TIE)
  - e.) CO line, TIE Line incoming call via CCIS network.

**Note:** *The incoming call transferred to the Direct-in Termination trunk by Call Forwarding - Busy Line/Don't Answer service is not available.*

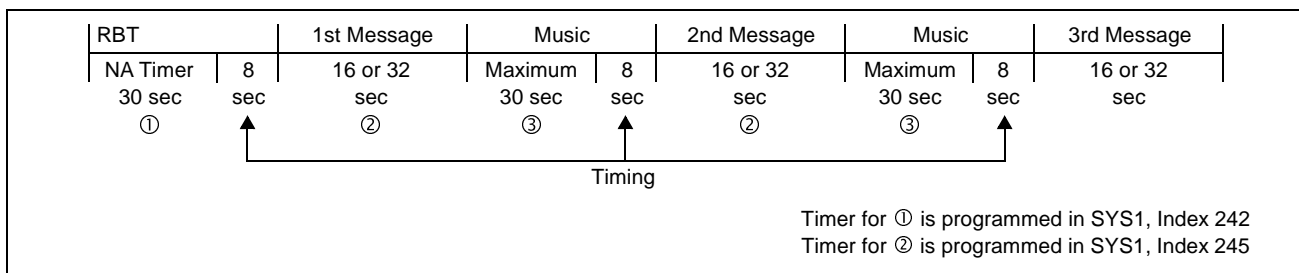
3. This feature is not available for TAS incoming calls.
4. When the system is in NIGHT mode, this service is not available.
5. At the time of DAY/NIGHT mode changeover, the call connected to the announcement will be released, and the calling party receives reorder tone. A call will be released as follows, according to the incoming trunk type:
  - a.) When a call terminates from a trunk where trunk release cannot be supervised, the trunk will be released forcefully. (Night Transfer station cannot be assigned.)

**Service Conditions (cont'd)**

- b.) When a call terminates from a trunk where trunk release can be supervised, the trunk will not be released forcefully, but will be released on its own accord. (Night Transfer station can be assigned.)
- 6. This service is not available for incoming calls to an individual Attendant.
- 7. When a CO line incoming call terminates to a trunk where call clear cannot be confirmed after the call has been answered, the incoming trunk and announcement trunk remain connected until Attendant answers and releases the trunk.
- 8. When a call terminates to an incoming trunk, for which this service is not required, the connection route between the incoming trunk and the announcement trunk is restricted.
- 9. The announcement trunk remains connected until the incoming trunk is released. (Timer Control Release is not used.)
- 10. In case of multiple connection:
  - a.) Caller is not connected at the beginning of the announcement.
  - b.) The announcement trunk is not released by Attendant upon answering or releasing the incoming trunk.
- 11. For single connections, this service is not available when the announcement trunks are all busy.
- 12. When an external announcement machine is used, the announcement starts from the time the PBX acknowledges the announcement trunk answer, and ends at the time of the announcement trunk release.
- 13. Whether to use an announcement trunk for single or multiple connection is determined by the System Data on a tenant basis.

**When the announcement is provided after the ringback tone has been heard:**

- 1. This service requires a PA-4DATA/4DATB (DAT) circuit card or an external announcement machine.
- 2. When the caller is hearing the message or music, the call is still indicated on the ICI key on the Attendant Console. Therefore, the Attendant can answer the call anytime by pressing the ANSWER key or the corresponding ICI key.
- 3. The message is sent in the following sequence. Whether to send the second message and after can be determined in the system data. When the other message(s) is not sent after the first announcement, MUSIC ON HOLD [M-7] continues.



**Note:** *Separate timers are used for No Answer Timer and Music On Hold.*

- 4. Each channel of the DAT can record a single message. Recording time for a single message is 16 or 32 seconds.
- 5. When Multiple Playback is selected, additional DAT channel is required for the second announcement, even if the second announcement has the same contents as the first one.
- 6. A maximum of 10 incoming trunk calls can be connected to a single DAT trunk at one time for sending a prerecorded message from the beginning to the called parties.

**Service Conditions (cont'd)**

7. The maximum programmable channels of DAT for this feature are:
  - 1st announcement: 5 channels
  - 2nd announcement: 5 channels
8. When a call encounters announcement trunks all busy, the call waits in a queue until a trunk becomes available. The latter trunk call hears ringback tone until the announcement to the former terminated call completes.
9. When providing the first message, the answer signal is sent to the opposite end (the billing starts here). In the case of central office trunks, where trunk release cannot be detected after the call had been answered, the display on the Attendant Console continues even after the calling party has gone on-hook. (The trunk does not release.) Therefore, the incoming call should always be answered by the Attendant.
10. In the case of billing for the incoming call, billing starts when the caller is answered by the Attendant, not when connected to a message.
11. When the call terminates to the Attendant Console at the time of DAY/NIGHT mode changeover, this service is activated as follows:

DAY/NIGHT Mode Change	Call Processing
Attendant Console in Day Mode to Night Attendant Console	The announcement service is provided after the call is transferred to the Night Attendant Console and the Night Attendant Console answers the call.
Attendant Console in Day mode to Attendant Console of Night Connection - Fixed [N-1]/Flexible [N-2]	The call stays at the Attendant Console in Day mode and the announcement service is provided. The Attendant Console answers the call.
Night Attendant Console to Attendant Console of Night Connection - Fixed [N-1]/Flexible [N-2]	The call stays at the Night Attendant Console and the announcement service is provided. The Night Attendant Console answers the call.

12. This feature is not available for the following calls:
  - a.) AUTOMATIC RECALL [A-8] calls
  - b.) calls from an Attendant (ATTENDANT-TO-ATTENDANT CALLING [A-60] / INTER-POSITION TRANSFER [I-5])
  - c.) calls from a station (DIAL ACCESS TO ATTENDANT [D-2]/OFF-HOOK ALARM [O-6]/PRIORITY CALL [P-9], etc.)
  - d.) calls transferred to the Attendant due to unused number dialing
  - e.) calls transferred to the night station via ATTENDANT NIGHT TRANSFER [A-19]
  - f.) calls via CALL FORWARDING - ALL CALLS [C-5]/BUSY LINE [C-2]/DON'T ANSWER [C-3]
  - g.) incoming calls via CCIS/Tie Line
  - h.) TAS incoming calls
13. This service is not available for incoming calls to an individual Attendant.
14. This service is not activated for the Attendant of NIGHT CONNECTION - FIXED [N-1] or NIGHT CONNECTION - FLEXIBLE [N-2].
15. The message is sent only once. If the Attendant does not answer by the end of the message, the caller will be disconnected from the announcement trunk automatically and will hear MUSIC ON HOLD [M-7].
16. CALL QUEUING [C-9] and CALL WAITING LAMP [C-13] services are available when this service is activated.
17. The calling party cannot receive the message if the restriction between the incoming trunk and the announcement trunk is not cleared.

**Service Conditions (cont'd)**

18. When this service is allowed in system data, the ATTENDANT OVERFLOW [A-105] feature cannot be activated.
19. When the external announcement machine is used, the announcement starts from the time when the PBX acknowledges the announcement trunk answer, and ends at the time of the announcement trunk release.
20. When activating this feature in an FCCS network, Digital Announcement Trunk (DAT) and the called Attendant Console must be accommodated in the same node.

# D-149 Direct Station Selection (DSS) Console

## General Description

A Direct Station Selection (DSS) Console may be connected to each D<sup>term</sup>. The DSS keys can be used as line keys or feature keys.

## Operating Procedure

Refer to the User Guide.

## Service Conditions

1. The DSS console has 60 keys, each with one or two lamps.
2. The DSS console has following two operating functions:
  - a.) DSS/BLF function
  - b.) ADM function

Either function is assigned to each console depending on the connected line and the office data.

### DSS/BLF Function

1. The 60 keys are used as the line keys, allowing the user to activate SPEED CALLING - ONE TOUCH and call transfer.

#### To originate a call using SPEED CALLING - ONE TOUCH:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the DSS key where the desired number is assigned.

#### To transfer the call to the station assigned on the DSS key:

1. While engaged in a call with a trunk or station, press the desired DSS key; receive ringback tone. The originally connected party is placed on hold (MUSIC ON HOLD [M-7]).
2. When the third party answers, announce the call and replace the handset. The originally connected party and the third party are connected.

**Note 1:** *When the user flashes switch hook during ringback tone, the user returns to the held party, and the third party (the DSS station) stops ringing.*

**Note 2:** *If the user replaces the handset before the third party answers, blind transfer is activated. In this case, if the third party does not answer for approximately 30 seconds, the user is recalled and upon answering, will be connected to the held party.*

3. When the user calls the DSS station using SPEED CALLING - ONE TOUCH and the DSS station is either busy, not available, or restricted, the user receives reorder tone.
4. When the user transfers the call to the DSS station which is either busy, not available, or restricted, the user receives reorder tone. The user returns to the original call by switch hook flash.
5. When the user calls the DSS station by SPEED CALLING - ONE TOUCH, or transfers the call to the DSS station, following services set by the DSS station are not available:

BUSY VERIFICATION	[B-3]
CALL BACK	[C-1]
CALL WAITING	[C-12, C-31]
EXECUTIVE RIGHT-OF-WAY	[E-1]
MESSAGE REMINDER	[M-19]
STEP CALL	[S-13]

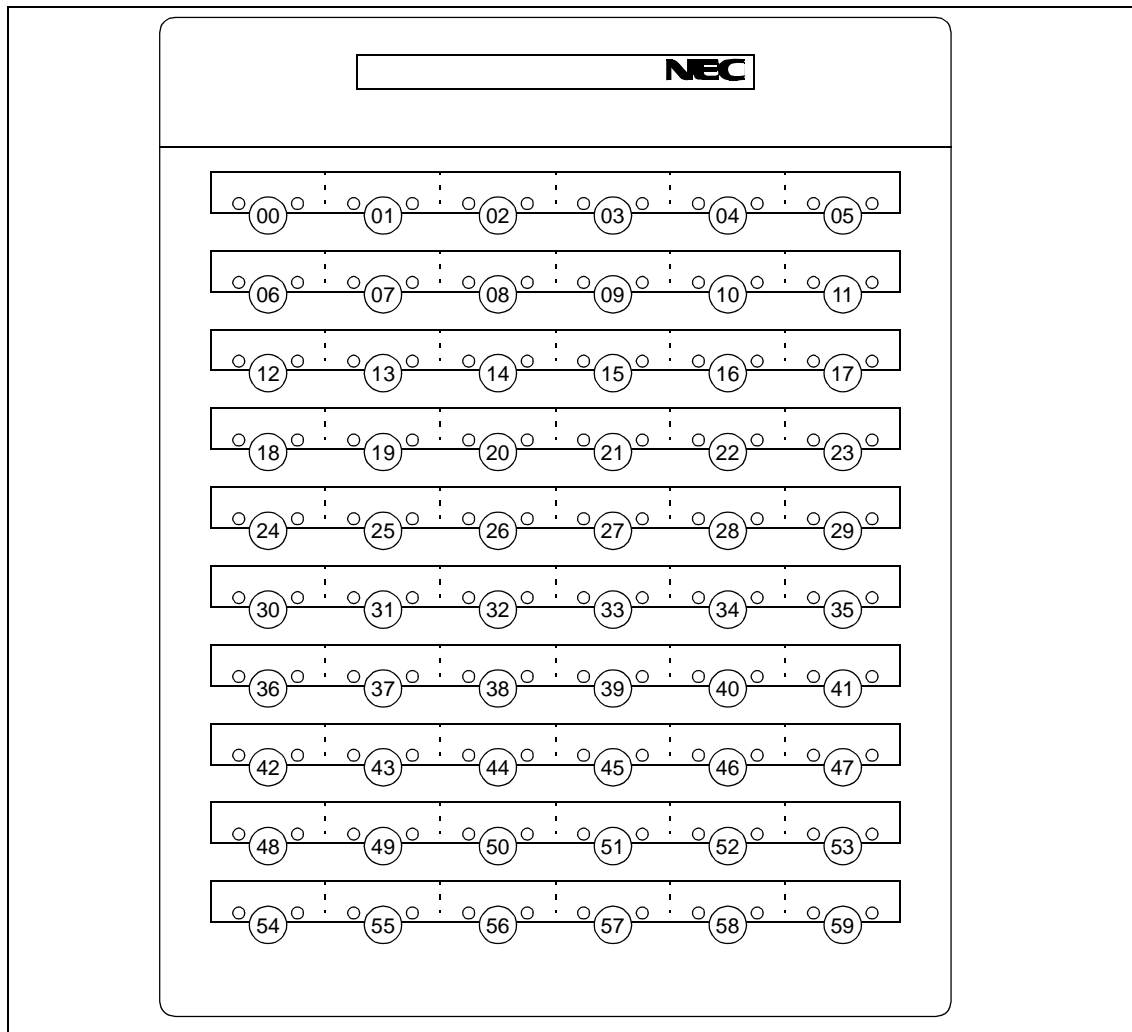
6. When the user calls the DSS station by SPEED CALLING - ONE TOUCH, or transfers the call to the DSS station, and the DSS station is the member of the UCD [U-1] or station hunting group, the call follows the UCD or the hunting operation. (If the MCI is valid, the message is sent out.)

### Service Conditions (cont'd)

7. The user can recognize the idle/busy status of the accommodated stations by the lamps. The left lamp (red) lights when busy and goes out when idle and shows incoming call, hold, etc. The right lamp (green) shows I-used, I-hold, etc.
8. The DSS console and the connected D<sup>term</sup> may be accommodated in the different circuit card, but should belong to the same module group.

### ADM Function

1. The 60 keys are used as the feature keys. The key layout of the DSS console is as follows:



2. On the 25th key and after, MESSAGE REMINDER [M-19], D<sup>term</sup> my line/prime line cannot be assigned.
3. The 48th key and after can be used only as the feature keys, not as the line keys. (These keys do not have the green lamps, therefore, I-used or I-hold cannot be indicated.)
4. Only 8-button and 16-button D<sup>term</sup> can be used when using the DSS console in the ADM mode.
5. The D<sup>term</sup> to be connected to the DSS console should be accommodated in the same circuit card as the DSS consoles on the even-numbered port, using a number smaller than the one where the DSS console is accommodated.



# D-153 Distinctive Ringing - Caller ID

## General Description

This feature is a part of CALLER ID service. This feature provides a distinctive ringing pattern (0, 1, 5, 6 or 7) according to the received calling number.

## Operating Procedure

No manual operation is required.

## Service Conditions

- On-off timing of Ringer Patterns 0, 1, 5, 6 and 7 can be changed using ASYD command. System data assigned for Ringer Patterns 6 and 7 cannot be applied to the analog telephone.
- Ringer patterns 6 and 7 can be used for ELC circuit cards and the following LC circuit cards. With regard to other LC cards, ringer patterns 0, 1, 5 are available for this feature.

Circuit Card Name	Remarks
PA-16LCBE	
PA-16LCBJ	
PA-16LCBJ-A	
PA-16LCBJ-B	
SN868 DRE-A	
SN880 DRE-A	

- When the calling number is not received, this service is not available (the ringing pattern is determined according to the parameter 12:DR of ARTD).
- The calling number for this service is assigned to the parameter CID of ACID. When only the first part of the calling number is assigned to the CID, this feature is applied to any calling number that begins with the assigned number. For example, when "1471" is assigned to the CID, this feature is applied to any calling number that begins with "1471" such as 1471-12-3456 and 1-471-234-5678.
- The following numbers cannot be assigned to the parameter CID of ACID command:
  - The first part of the already assigned number
  - The number whose first part is the same as the already assigned number
 For example, when "123" is already assigned to the CID, such numbers as "1", "12" or "1234" cannot be assigned.
- When the calling number is received via CCIS line, this feature is available for the first 16 digits (provided that "1" is assigned to 98: CI of ARTD).
- This service is available only for stations (single line telephone and D<sup>term</sup>).
- This service is available when an incoming call is directly terminated to a station and/or an incoming call is transferred to a station using Call Forwarding - All Calls/Busy Line/Don't Answer.
- This service is not available when a call is terminated to an ISDN terminal.
- FAX Ringer overrides this feature.
- This feature takes precedence over the Personal Ringer function.
- A maximum of 12 calling numbers can be assigned for a single station.

**Service Conditions (cont'd)**

13. Ringer patterns 2, 3 or 4 cannot be assigned for this feature. When one of those ringer patterns is assigned from the MAT, default value "Ringer pattern 6" is automatically set.
14. When System Data 3 is changed, circuit card (LC,ELC) initialization is required.
15. The following circuit card is required for Analog Caller ID:

Circuit Card Name	Remarks
PA-8COTBJ	

16. When the multiple incoming calls are simultaneously terminated to the multi-line on the D<sup>term</sup>, the priority of ringing pattern is as follows:

Priority	1st	2nd	3rd	4th	5th
Ringing pattern	RG7	RG6	RG5	RG0	RG1

# D-156

# Dual Station Call

## General Description

This feature allows a user to simultaneously call two stations (referred as a Main Station and Sub Station), which are accommodated in two different nodes within an FCCS network, by dialing one telephone number of the Main Station. At that time, the call can be answered from either the Main or the Sub Station. Additionally, when this service is used with BOSS-SECRETARY service, the Main Station can forward a call automatically from a secretary station.

This service requires the data setting of FCCS link. For more information on FCCS data, see the NEAX2400 IMX Fusion Network System Manual.

## Operating Procedure

### When DUAL STATION CALL is activated without BOSS-SECRETARY service:

1. To call two  $D^{\text{term}}$ s from the station:
  - a.) Lift the handset.
  - b.) Receive dial tone.
  - c.) Dial the telephone number of a Main Station.
  - d.) Main Station and Sub Station ring.
2. To pick up a call:
  - a.) A station answers the call.
  - b.) The caller is connected with the station which picked up the call (the other station stops ringing).

**Note:** *If the call is abandoned, both  $D^{\text{term}}$ s stop ringing.*

### When DUAL STATION CALL is activated with BOSS-SECRETARY service (B-MOVE key is not set):

Station A —→ Main Station (Boss Station)

Station B —→ Sub Station

Station C —→ Secretary station which accommodates sub line to be assigned the Main Station's number

1. To call two  $D^{\text{term}}$ s from a station:
  - a.) Lift the handset.
  - b.) Receive dial tone.
  - c.) Dial Station A's telephone number.
  - d.) Station A, Station B and Station C ring.
2. To pick up a call via Station C:
  - a.) Station C answers the call.
  - b.) The caller is connected with Station C.
  - c.) Station A and Station B stop ringing.
  - d.) Station C presses Station A's line.
  - e.) The caller hears MSC.
  - f.) Station C calls Station A.

### When DUAL STATION CALL is activated with the BOSS-SECRETARY service (B-MOVE key is set):

Station A —→ Main Station (Boss Station)

Station B —→ Sub Station (the destination for the B-MV key)

Station C —→ Secretary station which accommodates sub line to be assigned the Main Station's number

1. To call two  $D^{\text{term}}$ s from a station:
  - a.) Lift the handset.
  - b.) Receive dial tone.

## Operating Procedure (cont'd)

- c.) Dial Station A's telephone number.
- d.) Station A, Station B and Station C ring.
- 2. To answer a call via Station C:
  - a.) Station C answers.
  - b.) The caller is connected with Station C.
  - c.) Station A and Station B stop ringing.
  - d.) Station C presses Station A's line.
  - e.) The caller hears MSC and Station C's user hears ringback tone.
  - f.) Station C calls Station B as assigned Station A's destination for B-MV key. Station B rings.

**Note 1:** When Station B is busy, Station C hears busy tone. Station C can perform a switch hook flash to connect with the calling party again. This operation is the same as CONSULTATION HOLD-ALL CALLS [C-17].

**Note 2:** When a Sub Station is programmed as BOSS station, the current BOSS-SECRETARY service is activated.

**Note 3:** When the destination for NUMBER SHARING is set by pressing the PS key, the secretary station cannot transfer a call to the Sub Station.

### To set/cancel the B-MV key:

- 1. To set the B-MV key:
  - a.) When a D<sup>term</sup> is idle, press the B-MV key.
  - b.) Lamps of the B-MV key accommodated in the Main Station and Sub Station light. (When the PS key is assigned to the D<sup>term</sup>, PS key lights also.) The LCD displays as shown below:

**FORWARD SET**

- 2. To cancel the B-MV key:
  - a.) Press the B-MV key while the D<sup>term</sup> is idle.
  - b.) Lamps of the B-MV key accommodated in the Main Station and Sub Station go off. (When the PS key is assigned to the D<sup>term</sup>, PS key also goes off.) The LCD displays as shown below:

**FORWARD CANCEL**

## Service Conditions

- 1. A telephone number must be assigned to Main Station and Sub Station.
- 2. Only the D<sup>term</sup> can be programmed as Main Station and Sub Station.
- 3. Any station within the FCCS network can be a pair of Main Station and Sub Station.
- 4. Main Station or Sub Station assignment cannot be duplicated for another pair.
- 5. Only one telephone number as Sub Station can be assigned to a Main Station.
- 6. B-MV feature key can only be set when the station is idle.
- 7. The calling party's LCD will display the telephone number of a Main Station no matter which station picks up the call. Also, when Sub Station picks up a call from CCIS line, the telephone number of the Main Station is sent to the calling party.
- 8. MESSAGE REMINDER [M-19] is available for the terminating station service (all stations).
- 9. MESSAGE WAITING service set by the CMWL command is available for the preassigned station.
- 10. CALL BACK [C-1] is available for only the station to be set CALL BACK.

### Service Conditions (cont'd)

11. This service is activated in a Hotel/Motel system, but not activated with Hotel/Motel application service.
12. When a Sub Station is in communication, the telephone number of the Sub Station is sent to OAI or MFC as Calling Number notification.
13. When a Sub Station is busy, a call terminates to the Main Station only. However, when a Main Station is busy, a call is not terminated to an idle Sub Station.
14. When the telephone number of a Sub Station is dialed, a call is terminated to the Sub Station only.
15. When this service is activated with BOSS-SECRETARY service and a Sub Station is assigned as a BOSS station, the BOSS-SECRETARY service is activated as usual by pressing Boss's line accommodated in secretary station's sub line.
16. When a Sub Station is called through FCCS link, FLEXIBLE ROUTING - FCCS [F-35] is not available, even though all FCCS links are busy.

### Interactions

1. When any of these services is set to a Main Station, the service has priority over DUAL STATION CALL:
 

CALL FORWARDING-BUSY LINE	[C-2]
CALL FORWARDING-ALL CALLS	[C-5]
DO NOT DISTURB	[D-11]
2. When CALL FORWARDING - DON'T ANSWER is set to a Main Station, it is activated depending on the time-out data programmed in the Main Station.
3. When CALL BLOCK is set to a Main Station, which is in the middle of being called for DUAL STATION CALL, CALL BLOCK has priority over this feature. (CALL BLOCK cannot be set to Sub Station while DUAL STATION CALL is activated.)
4. The LCD indication for My Line displays each station's telephone number.
5. When a Main Station is assigned as a member of a UCD group or a STATION HUNTING group, the priority order of these services is shown in the table below:

Main Station		Controlling/Pilot Station (Note)		The Other Member Station	
		None	Set	None	Set
<b>B-MV Key</b>					
Group	Station Hunting-Pilot	1	1	1	2
	Station Hunting-Circular	1	1	1	2
	UCD	1	2	1	2

**Legend:**

1 = Both Main Station and Sub Station are called (DUAL STATION CALL is activated).

2 = UCD/STATION HUNTING is activated.

6. When CALL FORWARDING-ALL CALLS/-BUSY LINE/-DON'T ANSWER is set to a Sub Station:
  - a.) DUAL STATION CALL is activated by dialing the Main Station's telephone number.
  - b.) The services shown above are activated by dialing the Sub Station's telephone number.
7. A station cannot be used simultaneously for DUAL STATION CALL and NUMBER SHARING since the data of these services are used in common. For more detailed information on NUMBER SHARING, refer to the NEAX2400 IMX PCS Features and Specifications.
8. When a calling party sets VOICE CALL [V-2] or performs switch hook flash while calling a Main Station and Sub Station, the Sub Station stops ringing.

**Interactions (cont'd)**

9. This service is not activated when a call is terminated via INTERCOM CALLING [I-9], AUTOMATIC/MANUAL INTERCOM [A-30], DIAL INTERCOM [D-87] or MANUAL SIGNALING [M-47] (only the Main Station rings).
10. This service is not activated while CALL BACK [C-1], CALL BACK DELAYED [C-73], CALL BACK-CCIS [C-44], ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] or ATTENDANT CAMP-ON WITH TONE INDICATION-CCIS [A-45] is activated.
11. When a Main or Sub station accommodates PS key and B-MV key, both keys light by pressing any of these keys.
12. When Do Not Disturb [D-11] is set to Sub Station, the incoming call routed to Main Station is terminated to Main Station only.
13. When Sub Station is set Call Block [C-150], the incoming call routed to Main Station terminates to both Main Station and Sub Station.
14. When Do Not Disturb [D-11] or Call Block [C-150] is set to Sub Station, the incoming call routed to Sub Station is restricted.
15. When a Sub Station is called through an FCCS link, FLEXIBLE ROUTING - FCCS [F-35] is not available.
16. When a Main Station does not pick up a CALL FORWARDING-DON'T ANSWER call within the preassigned time via system data, the Sub Station stops ringing.

# E-1 Executive Right-of-Way

## General Description

This feature enables selected users, upon encountering a busy condition at an internal station, to bridge into the busy connection.

## Operating Procedure

### To enter a busy connection:

1. Dial the busy station; receive busy tone.
2. Switch hook flash; receive special dial tone.
3. Dial the EXECUTIVE RIGHT-OF-WAY access code; warning tone is sent.
4. The calling station is now bridged into a three-way call.

## Service Conditions

1. Two tone bursts of .08 second duration are transmitted upon activation of this feature to alert the connected parties that an executive override connection is being made.
  2. The LCD display on the interrupted party's  $D^{\text{term}}$  will give an indication only if INTERMEDIATE STATION NUMBER DISPLAY -  $D^{\text{term}}$  [I-10D] has been programmed in System Data.
  3. EXECUTIVE RIGHT-OF-WAY is denied if the busy station is:
    - a.) dialing or in a LINE LOCKOUT [L-3] state
    - b.) listening to a tone
    - c.) being rung
    - d.) protected from override via CLASS OF SERVICE - INDIVIDUAL [C-15]
    - e.) being connected to an ATTENDANT CONSOLE [A-3] loop
    - f.) activating a conflicting feature, such as:
 

ATTENDANT OVERRIDE	[A-7]
BOSS - SECRETARY OVERRIDE - $D^{\text{term}}$	[B-5, B5-D]
BUSY VERIFICATION	[B-3, B-9]
CALL HOLD	[C-6, C-6D]
CALL TRANSFER	[C-10, C-11, C-50, C-54]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, C-58]
DATA LINE SECURITY	[D-12, D-66]
DATA PRIVACY ON DEMAND	[D-17, D-68]
DIAL ACCESS TO ATTENDANT	[D-2, D-71]
EXCLUSIVE HOLD - $D^{\text{term}}$	[E-4D]
NON-EXCLUSIVE HOLD - $D^{\text{term}}$	[N-7D]
OFF-HOOK QUEUING	[O-7, O-11]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY - $D^{\text{term}}$	[P-14D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL - $D^{\text{term}}$	[V-2, V-7]
- Data Call through a Data Adapter / Data Call through a Data Module

**Note:** In any of the above instances, the calling station will receive reorder tone.

**Service Conditions (cont'd)**

4. If one party disconnects after the three-way conference bridge is established, the remaining two parties will still be connected.
5. The EXECUTIVE RIGHT-OF-WAY access code may be assigned according to customer preference.
6. The maximum number of simultaneous Executive Overrides allowable is dependent on the number of conference function trunks in the system. (Conference function is included in TSW and MUX circuit cards.)
7. This feature can be denied on DICTATION ACCESS [D-3] and PAGING ACCESS [P-1, 28] connections through programming in System Data.
8. If the called station has activated CALL FORWARDING - ALL CALLS [C-5] or - BUSY LINE [C-2] and the forwarded-to station is busy, the EXECUTIVE RIGHT-OF-WAY call will bridge into the forwarded-to station.
9. If the called station line has a party on CALL HOLD [C-6], override is not allowed to the called station line, and reorder tone is provided. Terminating override calls are denied when the called party has another party in a CONSULTATION HOLD [C-17] condition.
10. If the called station is maintenance busy and EXECUTIVE RIGHT-OF-WAY is invoked, override is denied and reorder tone is returned to the calling station.
11. It is possible, via System Data, to disable the sending of a warning tone during an EXECUTIVE RIGHT-OF-WAY connection. Normally the two burst warning tone is sent when the connection is initiated.
12. The node accommodating the called station requires Conference Trunk (CFT) function in the FCCS network.



# E-1D Executive Right-of-Way - D<sup>term</sup>

## General Description

This feature enables selected D<sup>term</sup> users, upon encountering a busy condition at an internal station, to bridge into the busy connection after transmitting a warning tone.

## Operating Procedure

To enter a busy connection from a D<sup>term</sup>:

1. Dial the busy station; receive busy tone.
2. Press the EXECUTIVE RIGHT-OF-WAY OVER key; the associated LED lights and warning tone is sent.
3. The calling station is bridged into a THREE-WAY CALLING [T-2]; the LCD displays:

Interrupted Party	Called Party
<b>VERRIDE</b>	<b>XXXX</b>
<b>(Time Display)</b>	<b>XXXX</b>

The LCD then displays:

<b>CONF</b>
<b>(Time Display)</b>

## Service Conditions

1. Two burst tones (.08 second) are transmitted upon activation of this feature to alert the connected parties that an EXECUTIVE RIGHT-OF-WAY call has been bridged into the connection.
2. The LCD display on the interrupted party's D<sup>term</sup> will give an indication only if INTERMEDIATE STATION NUMBER DISPLAY - D<sup>term</sup> [I-10D] has been programmed in System Data.
3. EXECUTIVE RIGHT-OF-WAY is denied if the busy station is:
  - a.) dialing or in a LINE LOCKOUT [L-3] state
  - b.) receiving a tone
  - c.) being rung
  - d.) protected from override via CLASS OF SERVICE - INDIVIDUAL [C-15]
  - e.) being connected to an Attendant loop
  - f.) activating a conflicting feature, such as:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS - SECRETARY OVERRIDE	[B-5D]
BUSY VERIFICATION	[B-3, B-9]
CALL HOLD	[C-6, C-6D]
CALL TRANSFER	[C-10,C-11,C-50, C-54]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, C-58]
DATA LINE SECURITY	[D-12, D-66]
DATA PRIVACY ON DEMAND	[D-17, D-68]
DIAL ACCESS TO ATTENDANT	[D-2, D-71]

**Service Conditions (cont'd)**

EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
OFF-HOOK QUEUING	[O-7, O-11]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY - D <sup>term</sup>	[P-14D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL	[V-2, V-7]
VOICE CALL - D <sup>term</sup>	[V-2D]
Data Call through Data Adapter / Data Call through Data Module	

**Note:** *In any of the above instances, the calling station will receive reorder tone.*

4. If one party disconnects after the THREE-WAY CALLING [T-2] has been established, the other two parties will remain connected.
5. EXECUTIVE RIGHT-OF-WAY can also be accessed via the dial pad (access code) or SPEED CALLING - ONE TOUCH - D<sup>term</sup> [S-26D].
6. The maximum number of simultaneous executive overrides allowable is dependent on the number of conference function trunks in the system. (Conference function is included in TSW and MUX circuit cards.)
7. This feature can be denied on DICTATION ACCESS [D-3] and PAGING ACCESS [P-1, 28] connections through programming in System Data.
8. If the called station has activated CALL FORWARDING - ALL CALLS [C-5] and the forwarded-to station is busy, EXECUTIVE RIGHT-OF-WAY will bridge into the forwarded-to station.
9. It is possible, via System Data, to disable the sending of a warning tone during an EXECUTIVE RIGHT-OF-WAY connection. Normally, the two-burst warning tone is sent when the connection is initiated.
10. If the called station line has a party on CALL HOLD [C-6], override is not allowed to the called station line. Also override to a station line in CALL HOLD [C-6] is denied and reorder tone is provided. Terminating override calls are denied when the called party has another party in a CONSULTATION HOLD [C-17] condition.
11. If the called station is maintenance busy and EXECUTIVE RIGHT-OF-WAY is invoked, override is denied and reorder tone is returned to the calling station.
12. The node accommodating the called station requires Conference Trunk (CFT) function in the FCCS network.

## E-3D Elapsed Time Display - D<sup>term</sup>

### General Description

This feature provides an LCD display of the time elapsed while a D<sup>term</sup> is connected to any trunk.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. The ELAPSED TIME is displayed in the eight left-side positions of the LCD display.
2. The ELAPSED TIME can reach a maximum of 9 hours, 59 minutes and 59 seconds. After that time, the clock returns to zero.
3. A continuous time display will occur during CONSULTATION HOLD - ALL CALLS [C-17] and THREE-WAY CALLING [T-2].
4. When a call is transferred, the time display of the party receiving the transfer begins from zero.
5. The elapsed time is not displayed when the station is in a specific condition such as:
  - a.) THREE-WAY CALLING [T-2]
  - b.) connected to a trunk with held trunk, as in the case of CONSULTATION HOLD [C-17].

## E-4D Exclusive Hold - D<sup>term</sup>

### General Description

This service feature allows a user to place a call on hold and to exclude all other users from retrieving the held call.

### Operating Procedure

#### While a call is in progress:

1. Press the HOLD key twice; the LCD displays:



2. To return to the held call, press the held line key; the conversation is reestablished.

### Service Conditions

1. EXCLUSIVE HOLD - D<sup>term</sup> may be activated from any line appearing on a D<sup>term</sup>.
2. After EXCLUSIVE HOLD has been set, the user can make or answer calls from any other line appearing on the D<sup>term</sup>.
3. Only the D<sup>term</sup> that sets EXCLUSIVE HOLD may retrieve the held call.
4. After a variable programmable period of time, the held call will enter AUTOMATIC RECALL [A-8] regardless of the status of the D<sup>term</sup>. Ringing, however, is disabled while DO NOT DISTURB - D<sup>term</sup> [D-11D] is activated.
5. The LCD of other D<sup>term</sup> stations on which the held line appears will be lit steadily.
6. Two-Party Hold is not available when a D<sup>term</sup> is engaged in a 3-party conference with a station and/or trunk.
7. The held station is denied the following services:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3, B-9]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]

# E-11

# Emergency Call

## General Description

This feature allows a user to make an EMERGENCY CALL by dialing a special telephone number (emergency telephone number). Even if the calling station goes on-hook, the calling station is recalled and the speech path is maintained until the emergency telephone goes on-hook. When a station dials the emergency telephone number, a system message is printed out to report the EMERGENCY CALL.

## Operating Procedure

The operation of EMERGENCY CALL is the same as STATION-TO-STATION CALL [S-11].

## Service Conditions

1. This service feature is available when an emergency telephone number is dialed via STATION-TO-STATION CALLING [S-11].
2. This service feature is also available when an emergency call is made via CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY LINE [C-2].
3. Switch hook flash services, such as CONSULTATION HOLD - ALL CALLS [C-17], may be restricted.
4. Only the emergency telephone is allowed to disconnect from an emergency call. Upon disconnection, the calling station will hear reorder tone.
5. This service feature is not available between emergency stations. When either of the emergency stations goes on-hook, the other emergency station receives reorder tone, and CALL BACK [C-1] is not performed.
6. When a station makes an EMERGENCY CALL by any method, other than STATION-TO-STATION CALLING [S-11] (e.g., STATION-TO-STATION CALLING - OPERATOR ASSISTANCE [S-12], OFF-HOOK ALARM [O-6], etc.), there is no system message printout, but CALL BACK [C-1] to the calling station is performed.
7. When a D<sup>term</sup> is used for an EMERGENCY CALL, VOICE CALL [V-2] can be used.
8. An emergency telephone can assign CALL FORWARDING - BUSY LINE [C-2] or CALL FORWARDING - ALL CALLS [C-5], but when transfer is made to other than an emergency station, this service feature is not available.
9. An emergency station can assign CALL FORWARDING - DON'T ANSWER [C-3]. In this case, when a call terminates to the emergency station, a system message printout is performed. When a call is transferred by CALL FORWARDING - DON'T ANSWER [C-3], the situation regarding when the station goes on-hook is as follows:
  - a.) If neither the calling station nor the transfer destination station is an emergency station, there is no CALL BACK [C-1].
  - b.) If either the calling station or the transfer destination is an emergency station, CALL BACK [C-1] is operative. (No printout is performed).
  - c.) If both the calling and destination stations are emergency stations, there is no CALL BACK [C-1]. (No printout is performed).
10. When the emergency station is busy, the caller receives busy tone, and this service feature is not available.
11. The emergency station can be a member of a hunting group. If hunting results in transfer to a station other than an emergency station, this service is not available.
12. The emergency station can be a member of a UCD [U-1] group. If a call is distributed to the emergency station after queuing, system message printout is not performed.

**Service Conditions (cont'd)**

13. When the emergency station is busy, CALL BACK [C-1] to the emergency station is effective (no printout is performed).
14. When the emergency station is busy, CALL WAITING - ORIGINATING [C-31] and CALL WAITING - TERMINATING [C-12] are effective, but this service feature is not available. However, when a 2-way call is made between an emergency station and another station, CALL BACK [C-1] is performed when the station releases.
15. When an emergency station is busy, ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] to the emergency station is effective, but the service feature is not available to the CAMP-ON call.
16. When a D<sup>term</sup> is used as an emergency station, VOICE CALL [V-2] to the emergency station is possible. If the calling station goes on-hook before the emergency station answers by pressing the SPEAKER key or going off-hook, CALL BACK [C-1] is not possible.
17. When Camp-On or Privacy is set to a station, the station cannot be recalled from the emergency station. Therefore, data security (SFI=11 should be 0) must be assigned to the emergency stations, so that Camp-On and Privacy cannot be set.

**Interactions**

1. STATION-TO-STATION CALLING [S-11] must first be provided.
2. SINGLE-DIGIT STATION CALLING [S-1] may be utilized with this feature.
3. If re-ring is not in service, the Emergency Station can press the TRANSFER key to re-ring the calling station.

# E-18 E911-ANI Unified Number Of Digits

## General Description

This service unifies the number of ANI information digits sent out by E911-ANI service.

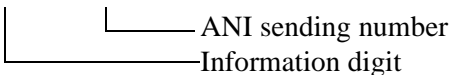
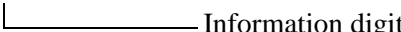


## Operating Procedure

The operating procedure is the same as for a normal outgoing connection.

## Service Conditions

1. The ANI function for E911 outgoing connections is the same as in previous E911-ANI service and is applicable to the following connections:
  - a.) LCR call from a station by MF signalling
  - b.) LCR call from an Attendant Console by MF signalling.
2. ANI sending number by this enhanced service is NXX-XXXX.
3. The method of obtaining the ANI sending number is shown below:
 

Caller's telephone number: 12345 (closed numbering)  
 Outgoing route number (RT): \*\*  
 Station outgoing: (AT = 0)  
 Number of digits of caller's telephone number: 16  
 ANI assigned data (from the above data):  
 Skip: 2 (Number of digits to be skipped from the top of the telephone number)  
 Add: 4 (Number of digits to be added to ANI information)  
 ANI information: 7890

  - a.) The specified number of Skip digits is deleted from the telephone number: 12345
  - b.) The ANI sending number is created by combining these digits with the ANI information: 7890345
  - c.) Sending ANI information: KP-0-789-0345-ST
4. Sending digit patterns in E911-ANI:
  - a.) Outgoing call from station.
    - If ANI data is assigned:  
 KP-0-NXX-XXXX-ST  

    - If ANI data is not assigned:  
 KP-2-ST  

  - b.) Outgoing call from Attendant:
    - If Individual Attendant Access Code is assigned, and also ANI data is assigned:  
 KP-0-NXX-XXXX-ST  

    - If Individual Attendant Access Code is not assigned, and ANI data is assigned:  
 KP-0-NXX-XXXX-ST  


**Service Conditions (cont'd)**

- If ANI data is unassigned:

KP-1-ST

└────────── Information digit

5. An independent route is required for E911 interface.
6. After the caller's number is sent to the distant office by E911-ANI, it takes some time until a speech path is established.
7. Sending data is considered to be not assigned if:
  - a.) Service version data specifies that Unified Number of Digits is provided,
  - b.) No data is assigned for Unified Number of Digits service, and
  - c.) Data for previous E911-ANI service is assigned
8. After digits have been sent out, DDD seizure tone is not sent.
9. Other interactions are the same as those of outgoing calls by MF signaling.
10. An 8RST-K circuit card is used.

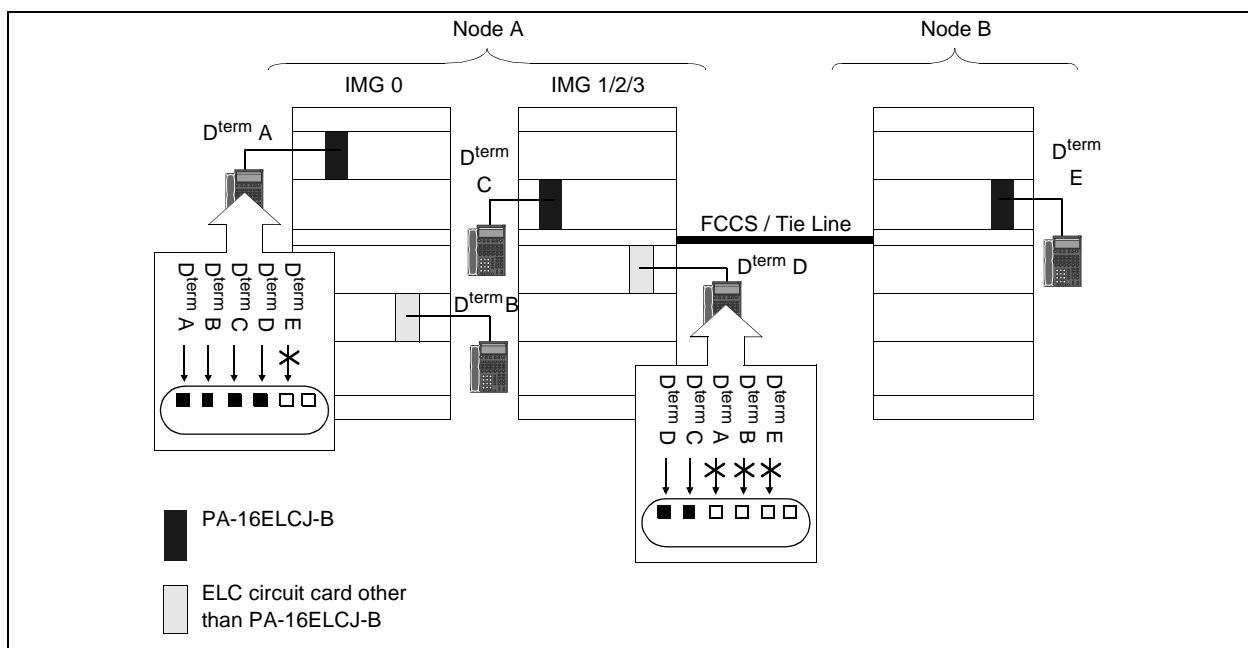


## E-26 Expanded Multiple Line Operation - D<sup>term</sup> (Series 7400 software feature)

### General Description

This feature allows operation of whichever lines from ELC card(s) in the same IMG or in different IMGs in the same node, as a D<sup>term</sup>'s programmable Multiple Lines (My Line + Prime Line/Sub Lines). While Multiple Line Operation - D<sup>term</sup> [M-20] only allows such a programming within the reach of ELC card(s) in the same IMG, this feature enables the Multiple Line Operation beyond the reach of a single IMG (though the ELCs cannot be in different nodes).

**Note:** To use Multiple Lines beyond different IMGs, the D<sup>term</sup> My Line must be accommodated on the PA-16ELCJ-B card. For details, refer to the figure (and Service Conditions) below:



### Operating Procedure

No manual operation is required.

### Service Conditions

1. To use this feature (operation of Multiple Lines beyond different IMGs), a PA-16ELCJ-B(ELC) circuit card is required.
2. Depending on the switch setting on PA-16ELCJ-B, the assignable Multiple Lines vary.
  - a.) PA-16ELCJ-B, SW10, Element 1 = ON: A D<sup>term</sup> My Line, accommodated on this card, and the other Lines (other analog telephone/D<sup>term</sup>) must be in the same IMG. **(Note)**

## Service Conditions (cont'd)

- b.) PA-16ELCJ-B, SW10, Element 1 = OFF: A D<sup>term</sup>, accommodated on this card, and the other Lines (other analog telephone/D<sup>term</sup>) can be in different IMGs (but in the same node). For more details on the PA-16ELCJ-B circuit card, refer to the NEAX2400 IMX Circuit Card Manual.

**Note:** *Even when Element 1 of SW10 is ON, data programming for this feature (Multiple Lines beyond different IMGs) is possible. However, the data does not become effective until the switch is manually placed to OFF.*

3. A D<sup>term</sup> cannot register a Sub Line accommodated on an ELC card in a different node (having a different CPU). Therefore, if your system is an IMX-U (16-IMG) type, this feature must be programmed on a node basis.
4. Three kinds of lines can appear on a D<sup>term</sup> line/feature key:
  - MY Line (ML): This line is associated with the extension number assigned to the port on the interface circuit.
  - Prime Line (PL): This line is given priority for outgoing and incoming calls. The prime line is automatically seized when going off-hook.
  - Sub Line (SL): This line designates any other line appearing on a D<sup>term</sup>. The MY Line will serve as a prime line, unless differentiated in system data programming.
5. A maximum of 32 PA-16ELCJ-B cards (a total of 512 ports) can be used for this feature (Multiple Lines beyond different IMGs), per node.

**Note:** *This is not the case if the Multiple Lines are programmed in a single IMG.*

6. If the system is a 1-IMG type, this feature is not available.
7. A virtual line (Software Line Appearance [S-33]), single line telephone or D<sup>term</sup> can be assigned as a subline.
8. To use this feature, flag "1" to the ASYD command, SYS 1, INDEX 321, b0.
9. When KD = 1 (Intercom) or KD = 2 (DSS Key) is assigned on the AKYD command, this service is not available. Be sure to assign KD = 0 (Line).

## Interactions

1. This feature is effective with the following services:

Call Hold	[C-6, 6D]
Call Forwarding - Busy Line	[C-2, 2D]
Call Forwarding - Don't Answer	[C-3, 3D]
Call Forwarding - All Call	[C-5, 5D]
Voice Call	[V-2]
Call Pick Up - Group	[C-7, 7D]
Boss - Secretary Override - D <sup>term</sup>	[B-5D] <b>(Note)</b>
Boss - Secretary - Message Lamp Control	[B-8] <b>(Note)</b>
Boss - Secretary Transfer	[B-11] <b>(Note)</b>
Station Hunting - Circular	[S-7]
Station Hunting - Secretarial	[S-8]
Station Hunting - Terminal	[S-9]
Three Way Calling	[T-2, 2D]
Call Transfer	[C-11, 11D]
Consultation Hold - All Calls	[C-17, 17D]
Blind Transfer To Attendant	[B-17]
Blind Transfer To Station	[B-18]

**Interactions (cont'd)**

Serial Call	[S-15]
Serial Call - Loop Release	[S-64]
Serial Call - CCIS	[S-52]
Serial Call - D <sup>term</sup>	[S-127]
Executive Right-of-Way	[E-1, 1D]
Call Back	[C-1, 1D]
Message Reminder	[M-19, 19D]
Brokerage - Hot Line	[B-6]
Split Call Forwarding	[S-99]
Call Waiting - Terminating	[C-12]
Call Waiting - Answer - D <sup>term</sup>	[C-27D]
Call Waiting - Originating	[C-31]

**Note:** *Boss-Secretary features are not available via ISW.*

2. This feature does not support OAI/ACD related services.
3. This feature does not support Hotel related services.
4. This feature does not provide Privacy Release [P-18], if the Multiple Lines are programmed beyond different IMGs.
5. Follow Phone [F-31] is not available for this feature.

# F-1 Flexible Numbering of Stations

## General Description

This feature provides the ability to assign telephone numbers of the voice station and data station to any corresponding instrument location, depending solely upon numbering plan limitations.

## Operating Procedure

Refer to the NEAX2400 IMX Office Data Specification.

## Service Conditions

1. Careful consideration should be given to any numbering assignment, especially in larger systems, to avoid the unnecessary loss of access codes or duplication of telephone numbers. There is no limit to the number of groups that can be assigned per system.
2. Where TENANT SERVICE [T-12] is provided, telephone numbers may not be duplicated between tenants. A combination of one, two, three, four and five-digit numbering may be used.

Example:

a.	3	1		
b.	3	2	1	
c.	3	2	2	1

Example a., b., c., can be assigned as 3 different stations.

3. BUSY LAMP FIELD - FLEXIBLE [B-2] service can be provided only when the defining telephone number digits exceed two.
4. The FCCS network allows the user to use a telephone number in addition to the existing station numbers. FCCS service features are activated when a telephone number is dialed. A telephone number, which can be assigned on a station basis, is a unique number on the FCCS network.

**Note:** *A maximum of 16 digits can be used as a telephone number. When OAI/ACD/Hospitality features are used, a maximum of 5 digits can be used.*

## Interactions

Caution should be exercised when programming this feature. Large quantities of potential telephone numbers are consumed. As programmed below, the system will be equipped with just one 2-digit station and one 3-digit station.

## F-2

# FX Access

### General Description

This feature provides dial access to distant Central Offices using Foreign Exchange (FX) trunks. All incoming calls to the NEAX2400 IMX from the FX Central Office area are placed to the listed Foreign Exchange Directory number and are answered by the Attendant in a manner similar to LDN service. Outgoing calls can be made on an Attendant handled basis using direct or dial access and/or on a direct basis by stations.

### Operating Procedure

#### To place an outgoing FX call from a station:

1. Lift the handset and receive dial tone.
2. Dial the FX trunk access code and receive second dial tone.
3. Dial the desired telephone number.

#### To answer an incoming FX call at the ATTENDANT CONSOLE [A-3]:

1. The FX lamp flashes.
2. An audible signal is received.
3. Press the FX or ANSWER key to answer.
4. Process the call in a normal manner.

### Service Conditions

1. One INCOMING CALL IDENTIFICATION [I-2] key may be used for all FX groups.
2. Access to various types of trunks may be denied to certain stations according to CLASS OF SERVICE - INDIVIDUAL [C-15] programming.
3. TOLL DENIAL/TOLL DIVERSION [T-6] may be provided for FX ACCESS [F-2].
4. TOLL RESTRICTION - 3/6-DIGIT [T-7] may be provided for FX trunks on a per-route basis.
5. Care should be exercised in system data assignment when utilizing this feature in conjunction with LEAST COST ROUTING - 3/6-DIGIT [L-5] since Foreign Exchange trunks may require that the digit 1 be dialed as a prefix to the desired number.

### Interactions

1. LEAST COST ROUTING - 3/6-DIGIT [L-5]: FX trunk groups may be assigned to a LEAST COST ROUTING [L-5] list.
2. ROUTE ADVANCE [R-6]: This feature routes outgoing FX calls over alternate facilities when the first-choice trunk group is busy.
3. UNIFORM CALL DISTRIBUTION [U-1]: This feature permits incoming calls, including FX calls, to be terminated directly from the Central Office to the next idle station in a prearranged group of stations without Attendant assistance.
4. DIRECT-IN TERMINATION [D-7]: This feature allows one FX trunk to terminate directly to a designated station. Incoming FX calls to this station are queued if the station is busy.
5. OUTGOING TRUNK QUEUING [O-2]: This feature provides a means for users to dial a busy FX trunk group to be automatically placed in a queue, and to be called back when a trunk in the trunk group becomes available.

## Interactions (cont'd)

6. When the system is in the night mode of operation, incoming FX calls can be answered using NIGHT CONNECTION - FIXED [N-1], FLEXIBLE [N-2] or TRUNK ANSWER FROM ANY STATION [T-8] feature.
7. DIRECT INWARD DIALING [D-8] is not provided for FX trunks. All calls are normally routed to the Attendant, UCD group, or a CAS Attendant.
8. Outgoing FX trunk calls can be restricted from preselected stations by the assignment of one or more of the following restrictions:
  - a.) Restriction from Outgoing Calls
  - b.) Miscellaneous Trunk Restrictions
  - c.) Toll Restriction
9. FX CO Access: This service provides access to a distant CO via FX trunks. All incoming calls to the system (from the FX, CO area) are placed to the listed FX directory number and are answered by the Attendant in a similar way to Listed Directory Number (LDN) service. Outgoing calls are made on an Attendant-handled basis or on a dial access basis by stations.
10. A unique Attendant Console INCOMING CALL IDENTIFICATION (ICI) [I-2] may be displayed for each local and FX LDN.
11. A unique Attendant Console trunk group busy lamp may be assigned to indicate the busy/idle status for an FX trunk group.
12. The COT circuit packages are used to provide the trunk interface circuit.
13. An FX route may be used with any other feature available to any other route, including the following:
 

DIRECT OUTWARD DIALING	[D-9]
REMOTE ACCESS TO SYSTEM	[R-2]
TRUNK-TO-TRUNK CONNECTION	[T-10]
TRUNK ANSWER FROM ANY STATION (TAS)	[T-8]
TOLL RESTRICTION-3/6 DIGIT	[T-7]

## F-3D

# Flash Button - D<sup>term</sup>

### General Description

This feature provides for a D<sup>term</sup> set to program one of the programmable line/feature keys to function as a FLASH BUTTON. The FLASH BUTTON will function in the manner a switch hook flash does for a single-line set.

### Operating Procedure

**When activating features common to both D<sup>term</sup> and single-line sets:**

1. Press the FLASH BUTTON to receive special dial tone,
2. Dial the access code of the desired feature.

### Service Conditions

1. When using the FLASH BUTTON, the feature will not be activated again until digits are dialed. The FLASH BUTTON may function during a two-way connection.

**Note:** *If a transfer is attempted via the FLASH BUTTON, three-way conference will be established by pressing the FLASH BUTTON again. To retrieve the original connection after the connection with the transferred station, the TRANSFER key should be pressed.*

2. The FLASH BUTTON is optional. Its use in various features will be explained throughout this document.

### Interactions

1. This feature provides switch hook flash capabilities to a D<sup>term</sup> with a Connection Index (CI) of Busy. See ASPA. The features in which a FLASH key are used include CALL BACK [C-1] and OUTGOING TRUNK QUEUING [O-2]. The FLASH BUTTON is usually required with the 4-button D<sup>term</sup>.
2. See ASYD, System Data 3, Index 2 for programming the characteristics of a switch hook flash (Hooking).

## F-4D Flash Entry - D<sup>term</sup>

### General Description

This feature allows a D<sup>term</sup> user to insert a switch hook flash as the first digit in a stored SPEED CALLING-ONE TOUCH-D<sup>term</sup> [S-26D] number.

### Operating Procedure

To add a flash to a stored SPEED CALLING-ONE TOUCH-D<sup>term</sup> [S-26D] number to a D<sup>term</sup>:

1. Stay on-hook.
2. Press the Feature key and the SPEED CALLING-ONE TOUCH-D<sup>term</sup> [S-26D] key; the LCD display will either be blank or a display of previously stored digits.
3. Press RECALL key as first digit; a switch hook flash is entered into the memory and the LCD displays:

**(Time Display)** !

4. If a feature access code is to follow the Flash Entry, dial the desired digits.
5. Press the Feature key; the LCD displays:

**SPEED SET**  
**(Time Display)**

To add a flash to a stored SPEED CALLING - ONE TOUCH [S-32D] number to a D<sup>term</sup>:

1. Stay on-hook.
2. Press the feature key and the SPEED CALLING - ONE TOUCH [S-32D] key; LCD will either be blank or display previously stored digits.
3. Press the RECALL key as the first digit; a switch hook flash is entered into the memory and the LCD displays:

**(Time Display)** !

4. If a feature access code is to follow the FLASH ENTRY, dial the desired digits.
5. Press the feature key; the LCD displays:

**SPEED SET**  
**(Time Display)**

### Service Conditions

1. A FLASH ENTRY may be entered only as a first digit.

Example:

- a.) Call Transfer - “!+Telephone Number”
- b.) Busy Service - “+Calling Waiting - Originating access code” “!+Executive Right-of-Way access code”
- c.) Call Hold - “!+Call Hold access code”



**Service Conditions (cont'd)**

2. A FLASH ENTRY, stored as a flash, may be used only once, unless digits are dialed between use.

**Interactions**

Refer to the NEAX2400 IMX Office Data Specification, ASYD, System Data 3, Index 2 for programming the characteristics of a switch hook.

## F-5D Flexible Ringing Assignment - D<sup>term</sup>

### General Description

This feature enables D<sup>term</sup> line appearances to be individually programmed for ringing, not ringing, ringing (day only), or ringing (night only).

### Operating Procedure

No manual operation is required once FLEXIBLE RINGING ASSIGNMENT has been programmed in System Data.

### Service Conditions

1. Recall ringing supersedes all ringing possibilities and will ring regardless of other programming.
2. Incoming Central Office ringing supersedes internal calls and will interrupt internal call ringing while it is in progress.
3. Recall ringing, Central Office ringing, and internal call ringing all vary. Refer to DISTINCTIVE RINGING [\[D-10\]](#).

### Interactions

The following ASYD assignments are for normal ringer patterns. For more information, refer to DISTINCTIVE RINGING [\[D-10\]](#).

# F-6 Faulty Trunk Report

## General Description

This feature allows a station to report a noisy or faulty trunk number by dialing a special access code before hanging up. The FAULTY TRUNK REPORT consists of a trunk number, telephone number, associated time division switch and reported time. This information is displayed at the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18] and/or system printer.

## Operating Procedure

### To enter a FAULTY TRUNK REPORT:

1. Switch hook flash before disconnecting; receive special dial tone.
2. Dial the FAULTY TRUNK REPORT access code; receive service set tone.
3. The MAT records the FAULTY TRUNK REPORT and returns the line to the original connection.

## Service Conditions

1. This feature may be accessed during any station-to-station or station-to-trunk connection.
2. The following information will appear on a station-to-station FAULTY TRUNK REPORT:
  - a.) station at which the operation was performed
  - b.) called telephone number
  - c.) time division switch
  - d.) time and date.
3. The following information will appear on a station-to-trunk FAULTY TRUNK REPORT:
  - a.) station at which the operation was performed
  - b.) route number and trunk number
  - c.) time division switch
  - d.) time and date.
4. Stations are assigned this feature according to CLASS OF SERVICE - INDIVIDUAL [C-15] programming in system data.
5. When this feature is activated, a supervisory alarm (SUP) will appear on the system.

## Interactions

1. When this feature is activated, System Message [6-H] Faulty Trunk is generated. This message is sent to the MAT or fault printer.
2. FAULTY TRUNK REPORT data is displayed/printed in the hexadecimal numbering system.
3. The FAULTY TRUNK REPORT is displayed/printed periodically or can be obtained directly with the DFTD, Display of System Message command.

# F-7 Forced Account Code

## General Description

This feature is a variation of the ACCOUNT CODE [A-18] feature, which makes it mandatory to enter an ACCOUNT CODE (up to 10 digits) for all outgoing calls. The account code must be dialed before dialing the outgoing number. Calls are processed only when the dialed account code is valid.

The FORCED ACCOUNT CODE can be masked on the D<sup>term</sup> display if necessary using the AUTHORIZATION CODE DISPLAY ELIMINATION [A-99].

## Operating Procedure

### When dialing an outgoing call:

1. Lift the handset; receive dial tone.
2. Enter the access code; receive service set tone.
3. Enter the FORCED ACCOUNT CODE (up to 10 digits); receive dial tone.
4. Dial the desired number.

**Note:** *The access code for FORCED ACCOUNT CODE will be a maximum of 3 digits.*

## Service Conditions

1. The maximum number of digits per ACCOUNT CODE [A-18] is ten.
2. If both FORCED ACCOUNT CODE and AUTHORIZATION CODE [A-20] are provided in the system, the maximum number of codes are 20,000. **(Note)**

**Note:** *Capacity depends on system configuration.*

These specifications are based on the digits being assigned as follows:

1st digit:	A (when A equals a unique digit from 0 - 9)
2nd digit:	B - C (when b, c equal any two unique digits from 0 - 9)
3rd digit:	D-E (when d, e equal any two unique digits from 0 - 9)
4th digit:	F-G-H (when f, g, h equal any three unique digits from 0 - 9)
5th - 8th digits:	Any combination 0 - 9
9th & 10th digits:	Assigned using the checksum. These are for validation purposes only.

**Note:** *See ETI: 082 for details on AUTHORIZATION CODE/FORCED ACCOUNT CODE [F-7] assignment.*

3. AUTHORIZATION CODE [A-20] and FORCED ACCOUNT CODE cannot be provided simultaneously for the same TENANT SERVICE [T-12] group. System Data programming determines whether AUTHORIZATION CODE [A-20] or FORCED ACCOUNT CODE is provided for each Tenant.
4. Stations are assigned this feature according to CLASS OF SERVICE - INDIVIDUAL [C-15] programming in System Data.
5. An assigned FORCED ACCOUNT CODE can be used for REMOTE ACCESS TO SYSTEM [R-2].
6. FORCED ACCOUNT CODE can be recorded on SMDR [S-10] for INWATS and central office incoming calls, when used in conjunction with REMOTE ACCESS TO SYSTEM [R-2]. A maximum of 10 digits can be registered as an account code for SMDR purposes.
7. When used in conjunction with REMOTE ACCESS TO SYSTEM [R-2], FORCED ACCOUNT CODE cannot be registered on SMDR if the incoming calls are terminated to stations via night service or DID [D-8].
8. FORCED ACCOUNT CODE can be output in the SMDR [S-10] record for outgoing calls from a station handled with OUTGOING TRUNK QUEUING [O-2].

## Service Conditions (cont'd)

**Note:** *There are two methods of FORCED ACCOUNT CODE assignment. These methods are Full Implementation and the Check Sum method. In the Full Implementation method, the whole FORCED ACCOUNT CODE is assigned in the AATC command and System Data 1, Indexes 12, 13, & 14 are assigned 00H. In the Check Sum method, partial assignment for each FORCED ACCOUNT CODE is assigned in the AATC command. The last one or two digits (programmable option) are determined according to the data assignments in ASYD, System Data 1, Indexes 12, 13, & 14.*

## Interactions

1. If FORCED ACCOUNT CODES are used on a per-tenant basis, AUTHORIZATION CODES [A-20] and ACCOUNT CODES [A-18] are not.
2. Station and Remote Access users share the same FORCED ACCOUNT CODES, assigned in AATC.
3. There are no restrictions regarding the first digit of FORCED ACCOUNT CODES except what is programmed in AMND. Tenant 0 does not conflict with the PBX numbering plan. This is true when separate tenant tables are provided. If common tenant tables are used, a conflict between LCRS and OGC (A) used with SMDR will occur.

**Note:** *The Access Code to the FORCED ACCOUNT CODES feature must be assigned within the PBX numbering plan.*

4. When a D<sup>term</sup> user initiates the LAST NUMBER CALL-D<sup>term</sup> [L-6D] feature, the FORCED ACCOUNT CODE will be recorded if previously dialed.
5. The AMND command determines the length of FORCED ACCOUNT CODES based on the first digit of the code. For example, FORCED ACCOUNT CODES beginning with the digit 4 can be assigned as six digits long, and codes beginning with 5 can be assigned as three digits long.
6. PEG COUNTS [P-7] of invalid FORCED ACCOUNT CODES are not available.
7. FORCED ACCOUNT CODES can be dialed by a user when establishing a CONSULTATION HOLD [C-17] connection.
8. Access to the FORCED ACCOUNT CODE feature is determined by the station's CLASS OF SERVICE-INDIVIDUAL [C-15].
9. FORCED ACCOUNT CODES cannot be programmed for use via SPEED CALLING-SYSTEM, GROUP, INDIVIDUAL [S-7, 8, 9] features. As a feature to make outgoing calls, SPEED CALLING [S-7, 8, 9] does not first provide translation for feature access. However, FORCED ACCOUNT CODES can be programmed as part of the D<sup>term</sup> SPEED CALLING-ONE TOUCH [S-26D] feature.

## F-17 Flexible Assignment of Function Buttons

### General Description

This feature allows D<sup>term</sup> function (feature) buttons (REDIAL, FEATURE, SPEAKER, CONF, ANSWER, RECALL, HOLD, and TRANSFER) to be flexibly assigned on each individual D<sup>term</sup>.

Function (feature) buttons are programmed through the Maintenance Administration Terminal (MAT) and are part of System Data.

### Service Conditions

1. A feature button cannot be used as a line button.
2. SPEAKER, ANSWER, FEATURE, CONF, and REDIAL should be assigned to feature buttons that have lamps.
3. SPEAKER must always be assigned.
4. RECALL and TRANSFER must be assigned because they are used to indicate a pause (-), Hooking (H) (!), and Voice Call (V) when programming a SPEED CALLING - ONE TOUCH - D<sup>term</sup> [S-26D] destination number.

# F-31

# Follow Phone

## General Description

This feature allows individual station data of a terminal to be exchanged with another without the assistance of MAT. The result of the exchange is printed out in the system message. The exchange of terminal data by this service is called SWAP service. The following information is included in the system message:

- a.) Successful activation: Station data change notice.
- b.) Unsuccessful activation: Station data change notice and error code to indicate the restricted condition.

## Operating Procedure

**To operate: (To swap the station data of Station A (202) for Station B (209), operating from Station A)**

1. Go off-hook; receive dial tone.
2. Dial the Swap service access code; receive special dial tone. The LCD displays:

<b>SWAP</b> <b>(Time Display)</b>
--------------------------------------

3. Dial the Station Bus number (209); receive service set tone. The LCD displays:

<b>SWAP OK</b> <b>(Time Display)</b>	<b>209</b>
---	------------

4. Replace the handset; the service will be activated.  
When the service is restricted, the user hears reorder tone after dialing the target telephone number. The LCD displays:

Flashing

<b>REST</b> <b>(Time Display)</b>	<b>209</b>
--------------------------------------	------------

**To confirm:**

5. Dial 202 from Station A; Station B rings, and Station A receives ringback tone, or vice versa.

## Service Conditions

1. This service is available for the following telephone class:  
TEC= 1: Analog telephone - DP (10P)  
2: Analog telephone - PB  
3: Analog telephone - DP/PB  
4: Analog telephone - DP (20P)  
12: Digital terminal (D<sup>term</sup>)
2. This service is available between the same type of terminals.
3. The target station has to be idle in order to activate this service. In case the station is busy or lock out is set, the service will be restricted.
4. This service is available for the terminals that belong to the same Tenant or Module Group.

**Service Conditions (cont'd)**

5. Following data assigned to each D<sup>term</sup> will be cleared when this service is activated:
 

DO NOT DISTURB	[D-11]
LAST NUMBER CALL	[L-6]
MESSAGE REMINDER	[M-19]
SAVE AND REPEAT	[S-24]
6. This service is not available for the following stations:
  - a.) Night station (ACSI)
  - b.) HOT LINE [H-1] station
  - c.) HOUSE PHONE [H-2]
  - d.) Data line, or D<sup>term</sup> that has a data line assigned
  - e.) Station setting/being set CALL BACK [C-1] or OUTGOING TRUNK QUEUING [O-2]
  - f.) Stations where following services are set:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
CALL FORWARDING - DON'T ANSWER	[C-3]
MESSAGE WAITING INDICATION - D <sup>term</sup>	[M-85D]
  - g.) DIT [D-7]
  - h.) D<sup>term</sup> calling from a sub-line.
  - i.) Station which has set or has been set for Busy service.

**Note:** *The service is available after the message is cancelled.*

7. The following information is swapped when this service is activated:

Item	Data Swapped in FOLLOW PHONE Service	Station Type	
		Single Line	D <sup>term</sup>
1.	Feature key information	Not Available	Available
2.	Add-On Module key information ( <b>Note 1</b> )	Not Available	Available
3.	Flexible line/feature key information	Not Available	Available
4.	Speed Calling - One Touch data ( <b>Note 2</b> )	Not Available	Available
5.	Intercom information (Automatic, Manual, Dial)	Not Available	Available
6.	Telephone Number	Available	Available
7.	Route Restriction Class	Available	Available
8.	Service Class	Available	Available
9.	Speed Calling - Group/Station data	Available	Available
10.	Phantom Number	Available	Available
11.	Name Display information	Available	Available

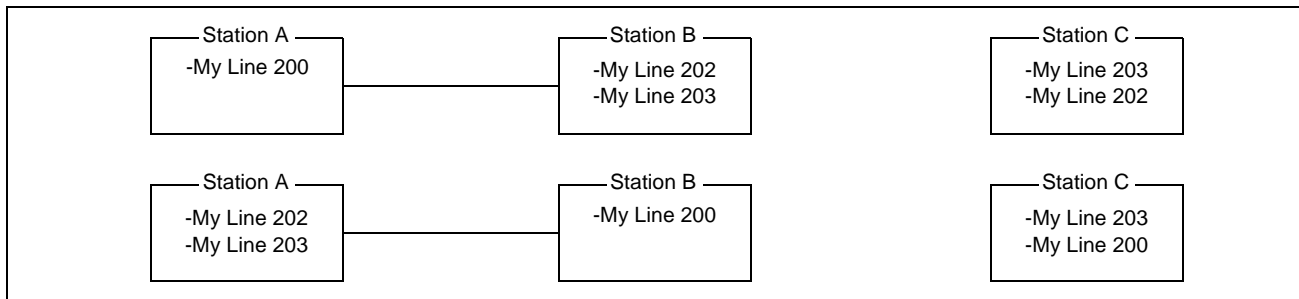
**Note 1:** *The Add-On Module key information of D<sup>term</sup> does not swap.*

**Note 2:** *There are some hardware/firmware limitations in order to swap all the Speed Calling key information. The Speed Calling key assigned in the feature keys does not swap.*



## Service Conditions (cont'd)

12. When this service is activated, the key information of  $D^{\text{term}}$ , which has the target station as a multi-line will be changed automatically. For example:



13. If the multi-line LED of  $D^{\text{term}}$  is lit (busy) when the station swaps, the line LED key may not light immediately after the service is activated. The LED light normally after the user goes on-hook.
14. For the stations that belong to the following service groups, this service is available only for those stations belonging to the same group.

CALL PICKUP	[C-7, 30]
CALL PARK	[C-29]
STATION HUNTING - CIRCULAR	[S-7]
STATION HUNTING - TERMINAL	[S-9]
UCD	[U-1]

**Note:** *In case of STATION HUNTING - SECRETARIAL [S-8], the function as the secretarial station does not swap even when the station swaps. (The secretary station is not considered as a member of the hunt group.)*

15. When following station activates this service, its destination station is not swapped.
- Station where following services are set:
    - CALL FORWARDING - BUSY LINE set by the system
    - CALL FORWARDING - DON'T ANSWER set by the system
    - CALL FORWARDING - INTERCEPT/ANNOUNCEMENT [C-25]
  - Predetermined station for HOTLINE [H-1]
  - Predetermined station for OFF-HOOK ALARM [O-6]
  - DIRECT-IN TERMINATION (DIT) [D-7] station
16. If  $D^{\text{term}}$  has individual terminal data assigned, this service is available for  $D^{\text{term}}$ s with identical terminal data.
17. This service is not available for:
- $D^{\text{term}}$  with OAI service key.
  - ACD agent console and supervisory console.
  - $D^{\text{term}}$  with CALL WAITING LAMP - UCD [C-76].
18. This feature cannot be activated between  $D^{\text{term}}$ s of different types. When different  $D^{\text{term}}$ s are used, there may be cases where the incoming call cannot be answered or some services cannot be activated, due to lack of line/feature keys. In this case, the data can be restored by activating the service again or by exchanging the terminal sets.
19. When activating this service, the terminals cannot be exchanged. (There may be some inconvenience if number of Speed Calling keys, etc. differ between the terminals.)
20. When activating this service, swap of the Speed Calling - One Touch key data start upon replacement of the handset. It takes approximately 42 seconds for the Speed Calling key data to swap, and during this time, Follow Phone Service and Speed Calling - One Touch operations are restricted.

**Service Conditions (cont'd)**

21. After this service is activated, and if DM load reset is activated before the data is backed up to the hard disk, the stations return to the previous status. However, this is not the case with the Speed Calling - One Touch keys.
22. The DSS Console data does not swap. The My Line of the connected D<sup>term</sup> may swap, but in this case, reassignment of DSS data and cabling will be necessary. The above is the same when using DSS as an Add-On Module.
23. This feature is only available for stations in the same node within the FCCS network.

**Interactions**

This service is restricted for a D<sup>term</sup> using Expanded Multiple Line Operation - D<sup>term</sup> [E-26].

## F-35

# Flexible Routing - FCCS

### General Description

With this feature, an FCCS trunk call can automatically be routed via a non-FCCS trunk (C.O. or Tie Line), if all the FCCS trunks are busy or a Data Link Failure occurs at the FCH card.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. This feature is activated when all FCCS trunks are busy, a transmission failure occurs, or FCCS Link Failure (Layer 2 down) occurs at the FCH card.
2. Call origination through a trunk assigned as an alternative route should be established normally. Numbering plan data for the external alternative route should be programmed prior to this feature.
3. This feature is available only when the called party is an analog station, a D<sup>term</sup> or an ISDN terminal. This feature is not available for a wireless terminal, or a DAT/Paging trunk.
4. When an incoming call from C.O./Tie Line encounters all FCCS trunk busy and it is routed to a Tie Line trunk by this feature, the normal Tie Line service is applied.
5. Only the LCR or LCRS is applied for alternate routing to a Tie Line/C.O. line for Tie Line. (The signaling system is limited to ISDN or CCIS.)
6. The access code for the alternative route is a maximum of 24 digits, assigned by the AFRFL command.
7. When the selected non-FCCS trunks (LCR/LCRS) are also busy, route selection is performed according to the LCR/LCRS table. The same is performed when the section encounters an FCCS trunk busy again.

### Interactions

1. The following services can be provided with this feature:
 

CALL FORWARDING - BUSY LINE	[C-2]
CALL FORWARDING - DON'T ANSWER	[C-3]
CALL FORWARDING - ALL CALLS	[C-5]
CALL TRANSFER - ALL CALLS	[C-11]
CALL FORWARDING - ALL CALLS - ANNOUNCEMENT	[C-69] <b>(Note 1)</b>
DIRECT INWARD DIALING (DID)	[D-8]
DISTINCTIVE RINGING	[D-10] <b>(Note 2)</b>
INTERMEDIATE STATION NUMBER DISPLAY - D <sup>term</sup>	[I-10D] <b>(Note 3)</b>
PRIORITY CALL	[P-9]
REMOTE ACCESS TO SYSTEM	[R-2]
STATION HUNTING	[S-7,8,9] <b>(Note 4)</b>
STATION-TO-STATION CALLING	[S-11]
STEP CALL	[S-13] <b>(Note 5)</b>
SPEED CALLING - GROUP	[S-23]
SERVICE DISPLAY - D <sup>term</sup>	[S-25D] <b>(Note 3)</b>
SPLIT CALL FORWARDING	[S-99] <b>(Note 6)</b>
UNIFORM CALL DISTRIBUTION	[U-1] <b>(Note 4)</b>

**Note 1:** Available when CCIS is activated in the network.

**Note 2:** When a call terminates from the alternative route, the ringing for the trunk call is provided.

## Interactions (cont'd)

**Note 3:** *The display is changed depending on the specification of ACIS.*

**Note 4:** *Has priority over the FLEXIBLE ROUTING - FCCS service. FLEXIBLE ROUTING - FCCS is activated only when the FCCS trunk for the destination station is busy.*

**Note 5:** *A trunk is used after the call encounters station busy between the stations in the FCCS network.*

**Note 6:** *Available only at the time of the data assignment for alternative route.*

2. The following services are available when the alternative route is CCIS and the service is provided in the CCIS network:

CALL FORWARDING - ALL CALLS - CCIS	[C-45]
CALL FORWARDING - BUSY LINE - CCIS	[C-46]
CALL FORWARDING - DON'T ANSWER - CCIS	[C-47]
CALLING NUMBER DISPLAY - CCIS	[C-52]
DATA PRIVACY ON DEMAND - CCIS	[D-68]
DIGITAL DISPLAY - CCIS	[D-72]
DISTINCTIVE RINGING - CCIS	[D-75]
MESSAGE REMINDER - CCIS	[M-34]
NAME DISPLAY - SYSTEM - CCIS	[N-37]
STEP CALL - CCIS	[S-59]
VOICE CALL - CCIS	[V-7]

# F-36

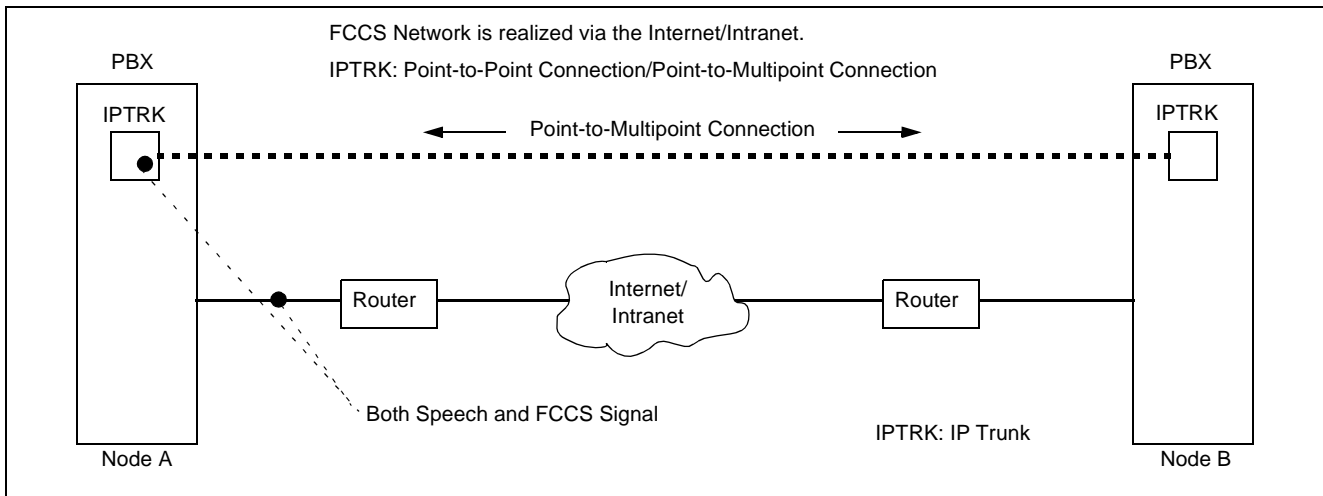
## FCCS Networking via IP (Series 7400 software feature)

### General Description

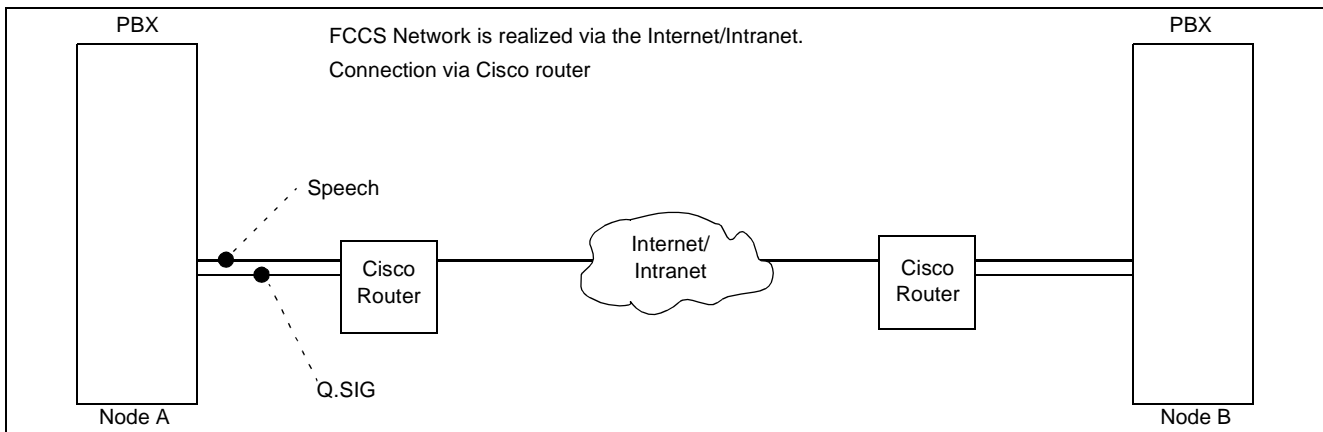
This feature allows the system to exchange both speech and FCCS signals over Internet/Intranet. To establish/release a call, the following two connection patterns can be selected:

- IPTRK Point-to-Point Connection:** For both speech and FCCS signal channels, an IPTRK circuit card is used. At this time, the IPTRK cards in the self-node and each of its connected node(s) must be in 1-to-1 ratio.
- IPTRK Point-to-Multipoint Connection:** For both speech and FCCS signal channels, an IPTRK circuit card is used. At this time, the IPTRK card, accommodated in the self-node, can be connected to multiple destinations (i.e. IPTRK cards of multiple nodes).

Point-to-Point Connection is functionally a kind of form within Point-to-Multipoint Connection.



- Connection via Cisco router:** To establish an FCCS link, Q-SIG is used between the system and the router.



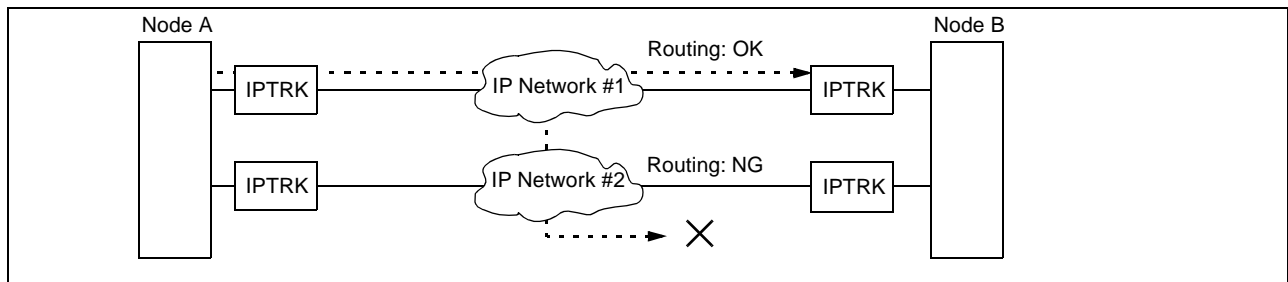
### Operating Procedure

No manual operation is required.

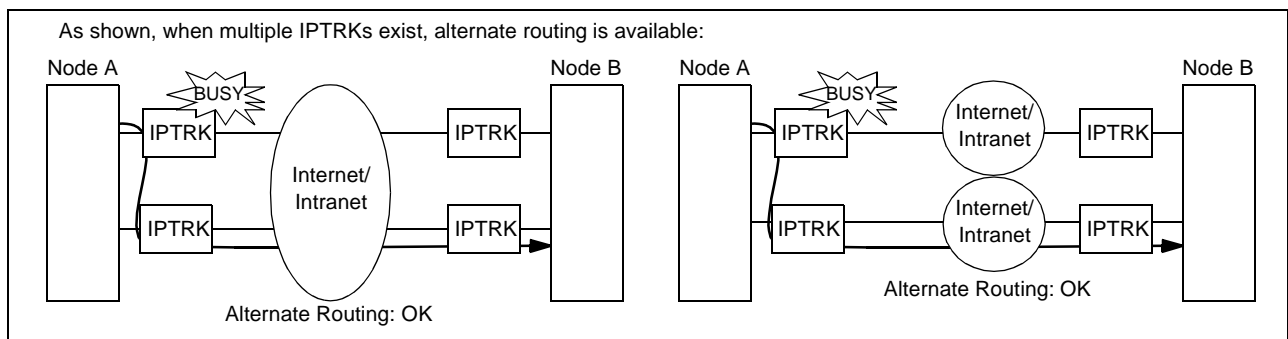
### Service Conditions

#### Service Conditions for FCCS over IPTRK:

1. To send/receive voice information, each node shall use IPTRK circuit card(s). At this time, the IPTRK cards in the self-node and its connected node(s) can be either in 1-to-1 ratio, respectively (called point-to-point connection), or in 1-to-n [n=2 or more] relations (called point-to-multipoint connection). For point-to-point connection, FCH-FGH card is used for FCCS signaling.
2. Be sure to place a router for connections between IP network and IPTRK/FGH card.
3. A maximum of 2 IPTRK cards per unit can be installed. Accordingly, a total of 16 IPTRK cards can be accommodated per IMG.
4. Only voice and FAX (G3) information can be sent/received via IPTRK card.
5. Only a single FCH-FGH card can be connected to a router (i.e. an FCH-FGH, connected to a router, cannot control the IPTRK card(s) connected to the other router). Accordingly, redundant configuration of FCH-FGH is not available.
6. A call cannot be established/routed across multiple IP networks. See the figure below:



7. When multiple IPTRK cards are used for node-to-node connection and all the lines on an IPTRK are busy, alternate routing is available (see the following figure). However, if a router or FCH-FGH card cannot be used, all the related IPTRK routes are also made unavailable.



8. When using IPTRK card for point-to-multipoint connection, the port, assignable for FCCS signaling, is the 1st LEN of each HW block. Other ports are to be used for speech channels.
9. For point-to-multipoint connection, a D-channel, assigned on an IPTRK card, can control the B-channels of the same card, and also of a maximum of 7 other IPTRK cards.
10. IPTRK-related tandem connection is not available.

**Service Conditions (cont'd)**

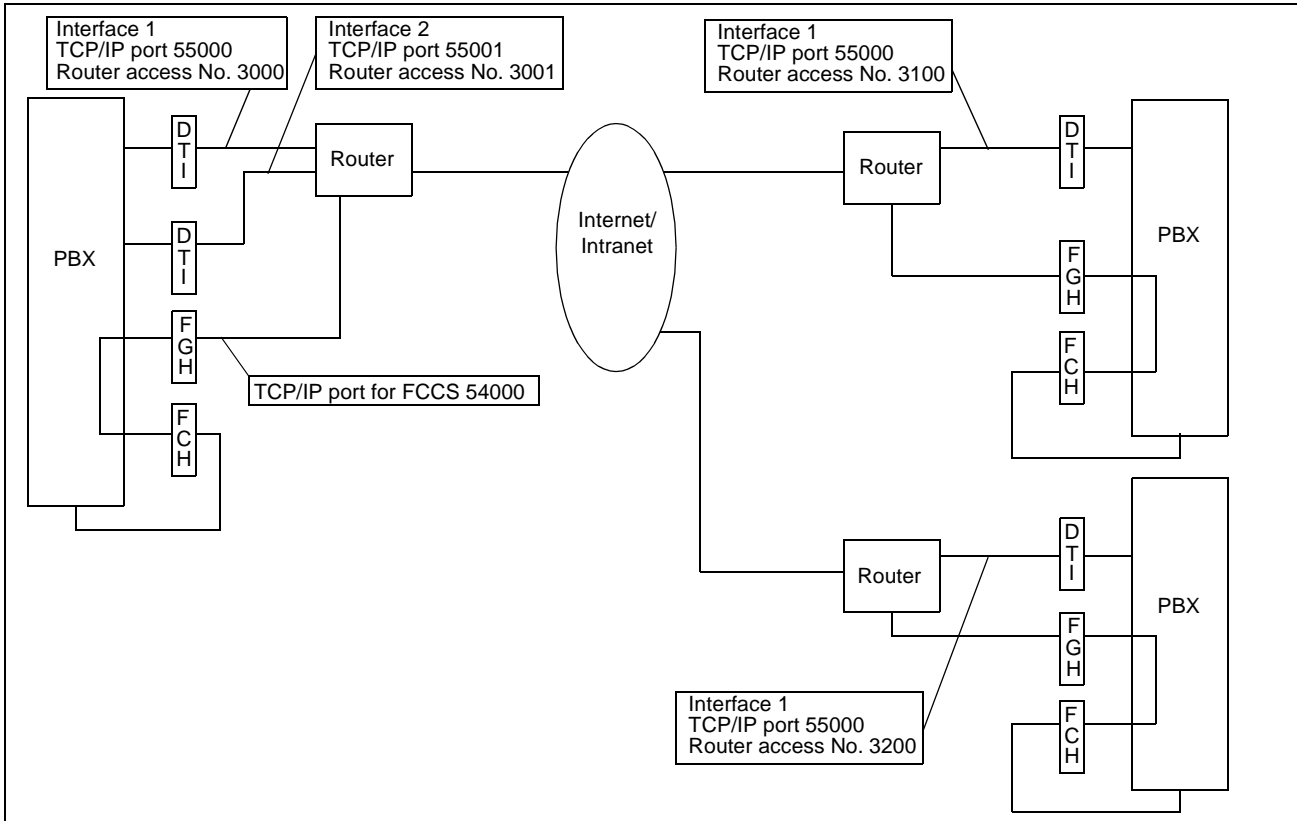
11. Any service not available on the FCCS network, is not available with this feature.
12. Tandem Path through function is not provided.
13. This feature supports QoS (Quality of Service) function.
14. When a system message indicates TCP link failure due to data congestion on the router or IP network, a call cannot be made via an IPTRK circuit card. When a call is attempted despite this, the caller hears busy tone.
15. When a system message, related to TCP link failure, is created during a call origination or speech, that calls speech channel is automatically restored via patrol function.
16. When all lines of an IPTRK card are busy, alternate routing to C.O. line or tie line is available. Details on alternate routing patterns are shown in the following table:

	<b>From FCCS over IPTRK (Point-to-Point/Point-to-Multipoint)</b>	<b>To FCCS over IPTRK (Point-to-Point)</b>
Analog C.O. Line	Not Available	Not Available
Analog Tie Line	Available	Not Available
CCIS	Available	Not Available
ISDN	Available (via Sub Address-Addressing only)	Not Available
FCCS over DTI	Available	Available
FCCS over ISW (IMX-U System)	Available	Available
FCCS over IP (using Cisco router)	Available	Available
FCCS over IPTRK (Point-to-Point / Point-to-Multipoint)	Available	Available
CCIS over IP	Available	Available

17. PAD can be provided for Receive control only.
18. This feature does not support Broad Band Services H0, H1 of ISDN/CCIS line. This feature supports 1B only.
19. When FCH-FGH card is used for FCCS signaling, a maximum of 16 nodes can be connected via this feature.
20. When FCH-FGH card is used for FCCS signaling, the NDM data broadcasting may not work normally via the FCCS link.
21. This feature does not support any OAI/ACD service.

## Service Conditions (cont'd)

### Service Conditions for FCCS over IP using Cisco router:



1. DTI (1.5M and 2.0M) interface is used as speech channel.
2. The FCH-FGH card is used as a signal channel. Only a single FCH-FGH card can be connected to a router. Accordingly, redundant configuration of FCH-FGH is not available.
3. An interface number is assigned to each speech channel and is changed into the TCP/IP port number between PBX and router for speech channel control.
4. The TCP/IP port number for the TCP/IP (FCCS) packet, which is not controlled at speech channel, should be different from that for the interface number. The TCP/IP packet is transmitted between PBXs such as upon remote log-in to another node with Windows MAT. At this time, only the routing for the TCP/IP packet is performed by the router.
5. The channel number and the connected-to router (router access number as termination number information) can be recognized by adding Q.SIG message to TCP/IP packet, which makes speech channel control between PBX and router available.
6. The router applying to FCCS Networking via IP service must be used.
7. The maximum number of digits for the router access code is 16.



## G-2

# Group Calling

### General Description

This feature allows a user to dial certain frequently called stations within an NEAX2400 IMX group using an easily remembered number. The same number can be assigned to different user groups. The group call can initiate CALL WAITING - ORIGINATING [C-31] to a busy station.

### Operating Procedure

#### To initiate a group call:

1. Lift the handset; receive dial tone.
2. Dial the GROUP CALLING access code (maximum 3 digits) plus the GROUP CALLING Station Code (1 or 2 digits).
3. The call is completed.

#### To initiate a group call from a D<sup>term</sup>:

1. Redial key, plus GROUP CALLING station code (1 or 2 digits).
2. Call is completed.

### Service Conditions

1. Each primary station equipped in a calling group will program the GROUP CALLING numbers through their telephone.
2. GROUP CALLING data is retained in memory, even in the event of power failure, by means of Hard Drive Backup via BKUPI command.
3. The memory for GROUP CALLING is shared with SPEED CALLING - STATION [S-21] or GROUP [S-23].
4. A group for GROUP CALLING is identical to that of a SPEED CALLING - GROUP [S-23].
5. The number of groups per Module Group for GROUP CALLING and SPEED CALLING STATION/ GROUP [S-21, 23] is limited to the following:
 

GROUP CALLING Station Code:	1 digit (X)	Maximum 100 Groups
	2 digits (XX)	Maximum 10 Groups
6. The number of stations that can be called per group can be set within the following limit:
  - a.) Number of Groups x Number of Station Codes = Less than 1,000
  - b.) The number of stations per group is assigned in multiples of 10
7. For more information, refer to SPEED-CALLING GROUP [S-23].
8. A station using GROUP CALLING must be allowed individual SPEED CALLING STATION [S-21] and CALL WAITING - ORIGINATING [C-31] service.
9. CALL WAITING - ORIGINATING [C-31] service can be set when the called station is busy. CALL WAITING - ORIGINATING [C-31] will not be activated under the following conditions:
  - a.) DO NOT DISTURB (DND) [D-11D] is set to the called station.
  - b.) DATA LINE PRIVACY is set to the called station.
  - c.) The called station is connected to the ATTENDANT CONSOLE [A-3].
  - d.) The called station is in a THREE-WAY CALLING [T-2] condition.
  - e.) CALL BACK [C-1], CAMP-ON [A-1] or CALL WAITING - ORIGINATING [C-31] service is set to the called station.
10. To initiate CALL WAITING - ORIGINATING [C-31] with GROUP CALLING, a D<sup>term</sup> must:
  - a.) Dial the CALL WAITING - ORIGINATING [C-31] access code.

**Service Conditions (cont'd)**

- b.) Dial the GROUP CALLING access code (maximum 3 digits).
- c.) Dial the GROUP CALLING station code (1 or 2 digits).
- d.) CALL WAITING-ORIGINATING access code is not needed if automatic is set.

**Interactions**

1. As an example of a GROUP CALLING application, the following conditions exist:  
System Station Numbering: 5XXXX and 6XXX  
Speed Calling Access: 3 (Assigned in ASPA)  
100 Groups of ten stations  
GROUP CALLING Station Numbering consists of the following: 30-39
2. Station in GROUP CALLING dial only two digits to reach other members of the group.
3. All normal STATION-TO-STATION CALLING [S-11] capabilities and restrictions apply, such as VOICE CALL-D<sup>term</sup> [V-2D], MESSAGE REMINDER-D<sup>term</sup> [M-19D], CALL BACK [C-1], etc.
4. GROUP CALLING applies to the MY-Line of the D<sup>term</sup>.

# H-1

# Hotline

## General Description

This feature permits a pair of station sets to be associated with one another on an automatic ringdown basis.

## Operating Procedure

### To place a **HOTLINE** call:

1. Station A lifts the handset.
2. Station B is rung.
3. Station B lifts the handset; the conversation proceeds.

## Service Conditions

1. If both phones in a hotline pair are equipped with dials, either one may transfer a hotline call to another station.
2. There is no limit to the number of hotline stations.
3. Hotline assignments are programmed into System Data via the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
4. The hotline station will hear reorder tone when the called station is in busy, lockout or make busy condition.
5. When the station called from the hotline has activated CALL FORWARDING - BUSY LINE [C-2], the call will be forwarded when the called station is busy.
6. When the station called from the hotline has activated CALL FORWARDING - ALL CALLS [C-5], the call will be forwarded.
7. When the station called from the hotline has activated CALL FORWARDING - DON'T ANSWER [C-3], the call will be forwarded when the called station doesn't answer after a predetermined time interval.
8. STATION HUNTING [S -7, 8, 9] and UCD [U-1] will be activated for a call from the hotline, but the incoming hotline call cannot be placed in the UCD [U-1] queue.
9. The hotline station will hear reorder tone (ROT) if the called station has set CALL FORWARDING - ALL CALLS/BUSY LINE - OUTSIDE [C-28, 60].
10. ASAT numbers cannot be a connecting station (destination).
11. This feature can be activated via FCCS.
12. Only the station assigned telephone number is available for the station assignment when activating this feature via FCCS.
13. The station, the Attendant Console/Desk Console (operator call), and the trunk can be a destination for Hotline.
14. When Call Forwarding - All Calls/Busy Line/Don't Answer service has been set to the called station, these features are available for the call to the station.
15. When a calling party encounters a busy station, the call may bridge into the connection depending on the data assigned by the ASYD command.

## Interactions

1. The connecting station does not have to be a **HOTLINE** station. If the connecting station is busy, the **HOTLINE** station will hear reorder tone.

**Interactions (cont'd)**

2. CONSULTATION HOLD [C-17]: The HOTLINE station may put the destination station on CONSULTATION HOLD [C-17]. In this state, the HOTLINE station may make an outgoing call, and is therefore affected by CLASS OF SERVICE-INDIVIDUAL [C-15].
3. CALL WAITING-ORIGINATING [C-31]: A HOTLINE will not be allowed to camp-on to a busy destination station.
4. If the connecting station is also a HOTLINE station, then the reverse connection must also be programmed.

---

# H-2 House Phone

## General Description

This feature allows selected stations to reach the ATTENDANT CONSOLE [A-1] by going off-hook.

## Operating Procedure

To reach the ATTENDANT CONSOLE [A-1]:

1. The HOUSE PHONE user lifts the handset. The Attendant is called automatically.
2. The Attendant answers.
3. The Attendant connects the user to the desired station or trunk.

## Service Conditions

1. Attendant Console indications will appear as follows:
  - a.) ATND lamps flash
  - b.) Console buzzer sounds.
2. HOUSE PHONES may be equipped with or without dials.
3. HOUSE PHONE assignments are programmed into system data via the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
4. There is no limit to the number of HOUSE PHONES permitted in the system.

## Interactions

1. The AHLS command is not needed. When a station is programmed as TEC: 14, HOTLINE, it will automatically be connected to the Attendant Console.
2. If the House Phone is to be used for outgoing calls via the Attendant Console (ARSC command RRI 2), assign a Route Restriction Class that will allow these connections. The same consideration should be made for Incoming calls via the Attendant Console (RRI 0).

# H-4D Hands-free Answer Back - D<sup>term</sup>

## General Description

This feature allows the user to respond to a VOICE CALL - D<sup>term</sup> [V-2D] without lifting the handset.

## Operating Procedure

### To answer an incoming call:

1. Lift the handset and press the line key to answer the call.
2. Press the feature key and “1”; the MIC LED lights.
3. Press the feature key and “5” to select HANDS-FREE operation.
4. Press the SPEAKER key and replace the handset; respond to the call HANDS-FREE.

### To answer a VOICE CALL [V-2D]:

1. Press the feature key and “1”; the MIC LED lights.
2. Press the feature key and “5” to select HANDS-FREE operation.
3. Respond to the call HANDS-FREE.

## Service Conditions

1. The MIC may be left ON at all times.
2. HANDS-FREE operation may be selected at all times.
3. HANDS-FREE ANSWER BACK may be used when responding to a VOICE CALL [V-2D] on My Line.

# H-5D Hands-free Dialing/Monitoring - D<sup>term</sup>

## General Description

This feature allows the D<sup>term</sup> user to dial or monitor and call without lifting the handset.

## Operating Procedure

### To dial a call HANDS-FREE:

1. Press the SPEAKER key; receive dial tone.
  - a.) Dial the desired number.
  - b.) When the called party answers, lift the handset.

### To monitor a call HANDS-FREE:

1. When placed on hold, press the SPEAKER key.
2. Replace the handset; when the call resumes, pick up the handset.

## Service Conditions

None.

# H-9 Hotline - Outside

## General Description

This feature allows a user to access an outside destination by going off-hook or selecting the HOTLINE-OUTSIDE [H-1] line/feature key and automatically dialing a SPEED CALLING-SYSTEM [S-3] number.

## Operating Procedure

### To place a HOTLINE - OUTSIDE call using a single-line telephone:

1. User lifts handset.
2. PBX automatically selects a trunk and dials the outside number.
3. Called number is answered and conversation proceeds.

### To place a HOTLINE - OUTSIDE call from a D<sup>term</sup>:

1. The D<sup>term</sup> user presses the HOTLINE-OUTSIDE line/feature key and lifts handset or presses the SPEAKER key.
2. The PBX automatically selects a trunk and dials the outside number.
3. The called number is answered and the conversation proceeds.

## Service Conditions

1. There is no limit to the number of HOTLINE stations.
2. The destination parties for this service use abbreviated call codes prepared in SPEED CALLING - SYSTEM [S-3]. Therefore, the number of destination stations is limited by the capacity of SPEED CALLING - SYSTEM [S-3].
3. When a user is confronted with a situation whereby all trunks are busy, or all senders are busy at the same time calling in this service, reorder tone is heard at the HOTLINE stations.
4. Outside connection in BROKERAGE HOTLINE - OUTSIDE [B-12] service can be realized when the LCD indicates:
  - a.) trunk classification such as DDD, TIE, and CCSA and trunk number for an outgoing call.
  - b.) time duration, trunk classification, and trunk number for an incoming call.
5. When a user of BROKERAGE HOTLINE - OUTSIDE [B-12] is confronted with a situation in which all trunks are busy or all senders are busy, the user hears reorder tone. No indication is shown on the LCD of the user's D<sup>term</sup>.
6. Station Message Detail Recording (SMDR) [S-10] is available for outgoing calls with the HOTLINE - OUTSIDE service.
7. OUTGOING TRUNK QUEUING [O-2] is not provided for a HOTLINE-OUTSIDE call.
8. The prime line of a D<sup>term</sup> cannot be assigned as a HOTLINE-OUTSIDE.
9. When a D<sup>term</sup> activates HOTLINE-OUTSIDE, the display will be for an outgoing trunk connection.
10. This feature can be activated via FCCS.
11. Only the station assigned telephone number is available for the station assignment when activating this feature via FCCS.
12. The station, the Attendant Console/Desk Console (operator call), and the trunk can be a destination for Hotline.

## Interactions

SPEED CALLING-SYSTEM [S-3] must first be provided.



# I-1 Immediate Ringing

## General Description

This feature causes called stations to ring immediately upon establishment of connections.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Ringing is applied to a called station as soon as the switch has determined that the station is idle. There is no delay caused by waiting for a ring cycle.
2. This feature applies to STATION-TO-STATION [S-11], Attendant (originated or completed), Direct Inward Dialing (DID), and tie line calls.
3. An idle station rings immediately after the last digit of the called station is dialed.

# I-2 Incoming Call Identification

## General Description

This feature allows an ATTENDANT CONSOLE [A-3] to visually identify the type of service and/or trunk group that is arriving or waiting to be answered.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. A flashing lamp indicates a call waiting to be answered.
2. A steady lamp indicates an answered call.
3. A limit of 12 lamp and key groups can be associated with INCOMING CALL IDENTIFICATION.
4. Lamps and keys may be assigned as follows:
 

LDN:	Listed Directory Number (Central Office)
WATS:	Wide Area Telephone Service
FX:	Foreign Exchange
ATND:	Attendant Call
RECALL:	Attendant Recall Calls
ICPT:	Call Forwarding - Intercept
NANS:	Call Forwarding - Don't Answer
BUSY:	Call Forwarding - Busy Line
TIE:	Tie Line
TF:	Inter-Position Transfer
CAS:	Centralized Attendant Access
PR1:	Priority Call 1
PR2:	Priority Call 2
PR3:	Priority Call 3
SC/RC:	Serial Call Recall Key
EMG:	Off-Hook Alarm
5. More than one INCOMING CALL IDENTIFICATION lamp can be duplicated at the ATTENDANT CONSOLE [A-3]. The Attendant can select any incoming call by pressing the associated key.
6. Calls can be answered via the ANSWER key for first-in, first-out priority. (CALL QUEUING [C-9]).
7. ATTENDANT CONSOLES [A-3] are limited to 12 unique INCOMING CALL IDENTIFICATION indications. However, more than one incoming trunk group can be programmed for the same INCOMING CALL IDENTIFICATION.

## Interactions

1. Step 1 is not required to fulfill the requirements of the feature description. However, the CALL WAITING LAMP [C-13] should be programmed in relationship to the INCOMING CALL IDENTIFICATION.
2. System Data 2, Index 8, Bits 6 and 7, and Index 9, Bits 0-3 can be flagged to represent an incoming call, but the meaning of the incoming call can be re-assigned via the AAKP command.
3. The first six keys (LDN to CCSA) are fixed and cannot be changed. The AAKP command is used to program the remaining six optional keys.

# I-3 Incoming Central Office Call to Tie-Line Connection

## General Description

This feature permits an Attendant to connect an incoming public network exchange call, via a TIE Line, to a station at a distant PBX.

## Operating Procedure

### To connect an incoming call:

1. The Attendant presses the LDN key and answers the incoming trunk call.
2. Dial the TIE Line access code; receive dial tone from distant PBX.
3. Dial the distant PBX extension number.
4. Press the RELEASE key.
5. The TIE Line and Central Office call are connected.

## Service Conditions

1. The Attendant can connect a trunk and TIE Line call either before or after the distant station answers.
2. There is no limitation on the number of incoming trunks that may be connected to TIE Lines using this feature.
3. TRUNK-TO-TRUNK CONNECTION [T-10] may significantly degrade transmission quality.
4. TRUNK-TO-TRUNK CONNECTION [T-10] can be restricted through Alternative Route restriction assignments.
5. AUTOMATIC RECALL [A-8] is denied on Incoming Central Office Call To Tie-line Connection.
6. Since AUTOMATIC RECALL [A-8] cannot be initiated by a trunk, the ATTENDANT LOCKOUT [A-5] feature is automatically disabled in order to allow the Attendant to reenter TRUNK-TO-TRUNK CONNECTION [T-10] calls held on the ATTENDANT CONSOLE [A-3].
7. This feature is applicable to the following types of incoming CO calls:
  - FX
  - WATS
  - CCSA
  - DID (Direct Inward Dialing)
  - COT (Ring Down/Loop Start)
8. Loop-start CO trunks can be connected to tie trunks since release supervision is provided by the tie trunks.
9. When release signal is not provided by TIE Line trunk, the Attendant must monitor the connection and manually disconnect after use.

## Interactions

1. The Attendant Console must first be programmed.
2. For TIE Line route to Central Office route connection, the reverse must be programmed. However, program for ARI-D-RES:, Direct connection. This connection may also be Toll Restricted by using the ATDP command.
3. A station can transfer a call to a station or to the Attendant Console at a distant PBX via a TIE Line connection. This station must be assigned a proper class of service.

**Interactions (cont'd)**

4. Stations must be allowed access to the routes they will need via the appropriate connection status, either via the Attendant Console (RRI 2) or Direct connection (RRI 3).
5. Various combinations of TRUNK-TO-TRUNK [T-10] connections can be restricted by Alternate Route Restriction (ARRC command).

# I-4 Individual Trunk Access

## General Description

This feature permits an Attendant to access an individual trunk within a trunk group via dial access at the ATTENDANT CONSOLE [A-3].

## Operating Procedure

1. Press the TKSL key.
2. Dial the trunk route number (2 digits or 3 digits).
3. Dial the trunk identification number (3 digits).
4. If the trunk is idle, dial tone will be received.

OR

1. Press an idle TKSL key.
2. Dial the Central Office code number (4 digits).
3. If the trunk is idle, dial tone will be received.

**Note:** *On a system basis, either the Central Office code number or trunk route number and the trunk identification number dialing can be assigned.*

## Service Conditions

1. A digital display will appear on the ATTENDANT CONSOLE [A-3], which will consist of either:
  - a.) TENANT [T-12] number, route number, and trunk number, or
  - b.) Central Office code number. This data is programmed on a per-route basis.
2. If the trunk is busy, the Attendant will receive a busy tone.
3. The Attendant can use ATTENDANT OVERRIDE [A-7], if it is included in system programming, to gain entry into a particular trunk when it is in use.
4. If the trunk is made busy, either by hardware or software control, the Attendant can still access that trunk using the above mentioned operating procedure.
5. The Desk Console is not available for this feature.
6. Central Office Code (COC) is not available to access an individual trunk through FCCS link.

## Interactions

1. If the trunk is busy, ATTENDANT OVERRIDE [A-7] may be used. THREE-WAY CALLING [T-2] is established following a Warning Tone. If the station should disconnect, the Attendant Console can either disconnect or extend the trunk to another station via the keypad by pressing the START key and entering the desired telephone number.
2. A station may access a specific trunk if it is allowed a Service Feature Class that allows SFI 39, Individual Trunk Access. The station then goes off-hook and dials the INDIVIDUAL TRUNK ACCESS feature access code. This requires assignments in ANPD and ASPA. In ASPA SRV = SSC (Service Code); SID=17. Assign for a Connection Index of Normal (N). Individual Trunk Access also allows the station to conduct Interoffice trunk tests. Refer to the NEAX2400 IMX System Operations and Maintenance Manual, system message [6-I].

# I-5 Inter-position Transfer

## General Description

This feature allows Attendants to transfer calls at their ATTENDANT CONSOLE [A-3] to another Attendant's Console in systems where MULTIPLE CONSOLE OPERATION [M-4] has been provided.

## Operating Procedure

### To transfer a call from Attendant Console A to Attendant Console B:

1. Press the START key.
2. Attendant A dials Attendant Console B identification number, or "0" for all Attendants.
3. The call is indicated at Attendant Console B or all Attendant Consoles.
4. Attendant B presses the ANSWER key or TF ICI key.
5. Attendant A presses the RELEASE key to transfer, or may consult first, then release.

## Service Conditions

1. A designated identification number is assigned to each ATTENDANT CONSOLE [A-3] for the purpose of INDIVIDUAL ATTENDANT ACCESS [I-6].
2. This feature can be provided on a TENANT SERVICE [T-12] basis.
3. An Attendant can receive one INTER-POSITION TRANSFER call at a time. An INCOMING CALL IDENTIFICATION (TF ICI) [I-2] key can be designated for receipt of these calls.
4. An Attendant cannot transfer a conference connection to another Attendant.
5. An Attendant can extend an inter-position transferred call to any other destination.
6. NIGHT CONNECTION - FIXED/FLEXIBLE [N-1, 2]: When Night Service is active, an Attendant position call to another Attendant cannot be answered by the night service arrangements. The calling Attendant hears reorder tone.
7. When the operator call code is dialed, the call is routed to the predetermined Attendant Console designated in System Data for the FCCS network.

## Interactions

The ASAT number may not be programmed in place of a telephone number in the ASID and ASGD commands. See OFF-HOOK ALARM [O-6], ATTENDANT NIGHT TRANSFER [A-19], and PRIORITY CALL [P-9].

---

# I-6 Individual Attendant Access

## General Description

This feature permits a user to call a particular ATTENDANT CONSOLE [A-3] via an individual Attendant identification number.

## Operating Procedure

1. The user dials the individual Attendant identification number.
2. The directed Attendant gets INCOMING CALL IDENTIFICATION (ICI) [I-2] indication (“ATND”) and can answer using the normal operating procedure.

## Service Conditions

1. Attendant identification numbers (maximum 5 digits) must be programmed and published for each Attendant Console.
2. The ASAT number should be the same number of digits as any other station number. ASAT assigns a station number to each Attendant Console.
3. ATTENDANT NIGHT TRANSFER [A-19] feature cannot be activated for calls in this feature.
4. The individual attendant identification number cannot be used to assign the destination of Call Forwarding service.
5. Only a Telephone Number can be assigned as the individual attendant identification number when this feature is activated via FCCS.

# I-7D

# I-Hold Indication - D<sup>term</sup>

## General Description

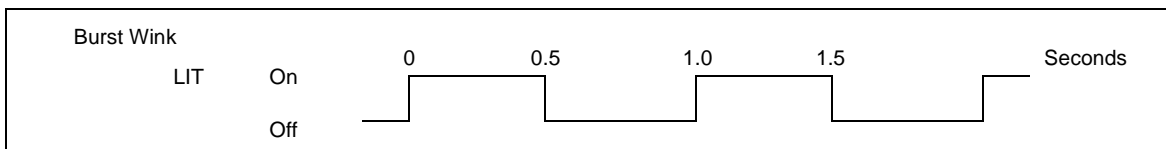
This feature provides the D<sup>term</sup> with a distinctive flash to differentiate between a call the user placed on hold from other calls.

## Operating Procedure

No manual operation is required.

## Service Conditions

Condition of the LED is as follows:





## I-8D

## I-Use Indication - D<sup>term</sup>

### General Description

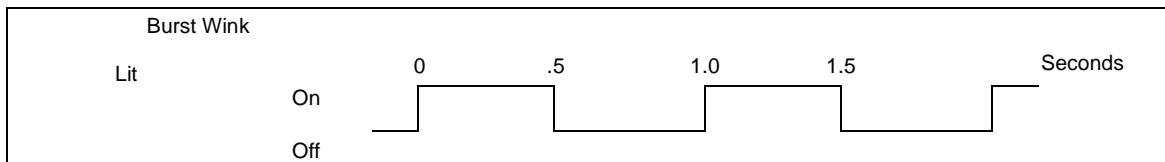
This feature provides the D<sup>term</sup> with a unique LED indication to display the particular line the user is on.

### Operating Procedure

Manual operation is not required.

### Service Conditions

Condition of LED is as follows:



# I-9 Intercom Calling

## General Description

This feature allows a sub-line appearance, assigned to a D<sup>term</sup>, to be used for INTERCOM CALLING.

## Operating Procedure

### To originate an intercom call:

1. Press the Intercom sub-line appearance.
2. Lift the handset or press the SPEAKER key; dial tone is heard.
3. Dial an Intercom station, receive ringback tone. The display will show:

ICM	(Time Display)	XXXX
-----	----------------	------

4. The called party answers and the conversation begins.

### To answer an Intercom call:

1. Ringing is heard from the Intercom sub-line.
2. Press the Intercom sub-line appearance. The display will show:

ICM	(Time Display)	XXXX
-----	----------------	------

3. Lift the handset or press the SPEAKER key.
4. The conversation can then begin.

## Service Conditions

1. An Intercom sub-line appearance cannot be the Prime Line of a D<sup>term</sup>.
2. An Intercom sub-line appearance cannot call any station or trunk in a system other than another Intercom sub-line appearance.
3. An Intercom sub-line appearance cannot activate any features.
4. An Intercom sub-line appearance must be assigned as a Software Line Appearance.
5. This feature is only available for D<sup>term</sup>s.
6. Intercom sub-lines must be allowed the service feature restriction of SFI=70.
7. FCCS link is not available for this feature.

## Interactions

1. As an example for Group Calling application, the following conditions exist: System Station Numbering 5XXXX and 6XXX  
Speed Calling Access:  
3 (Assigned in ASPA)  
100 Groups of Ten Stations  
Group Calling Station  
Numbering Consists of the following:  
30-39
2. Stations in Group Calling would dial only two digits to reach other members of the group.

**Interactions (cont'd)**

3. All My-line STATION-TO-STATION CALLING [S-11] capabilities such as VOICE CALL-D<sup>term</sup> [V-2D], MESSAGE REMINDER-D<sup>term</sup> [M-19D], CALL BACK [C-1], etc. are denied because INTERCOM CALLING uses a virtual circuit sub-line appearance.
4. An incoming Intercom Call will be provided with distinctive three-burst ringing.
5. An intercom station is only allowed to call other intercom stations. If a non-intercom station attempts a call, reorder tone is heard, and the LCD displays:

<b>REST</b> <b>(Time Display)</b>
--------------------------------------

6. An intercom station cannot call the Attendant Console.

# I-10D Intermediate Station Number Display - D<sup>term</sup>

## General Description

This feature provides an LCD display to the called and calling D<sup>term</sup> station when an intermediate station has been involved in call processing.

## Operating Procedure

No manual operation is required.

## Service Conditions

- For a transferred call, the LCD displays:

Intermediate Station	Calling/Called Station
<b>TRANSFER</b>	<b>XXXX</b>
<b>(Time Display)</b>	
	<b>XXXX</b>

**Note:** When the telephone number of the intermediate or calling/called station exceeds 8 digits, last 8 digits are displayed. However, a maximum of 16-digit calling/called telephone number can be displayed on the middle line of the LCD depending on the System Data.

- The LCD will display one of the features being used.
 

TRANSFER - Call Transfer	[C-11]
PICKUP - Call Pickup	[C-7]
CF ALL - Call Forwarding - All Calls	[C-5]
CF BUSY - Call Forwarding - Busy Line	[C-2]
CF NANS - Call Forwarding - Don't Answer	[C-3]
HUNTING - Station Hunting	[S-7, 8, 9]
- The INTERMEDIATE STATION NUMBER DISPLAY will not be displayed if a call is announced in CALL TRANSFER - ALL CALLS [C-11].
- For the FCCS network, when a telephone number has been assigned for a station, it is displayed on the D<sup>term</sup> LCD. However, if a telephone number is 7 digits or more, the Physical Station Number is displayed.

## Interactions

**ASYD** - System Data 1, Index 78, Bit 0 & 1 - These two Bits will enable all displays on the 16-button D<sup>term</sup> instrument.

# I-11 Inter-Office Off-Hook Queuing

## General Description

This feature can be employed in a Main-Satellite configuration to allow a Satellite user to queue for LEAST COST ROUTING - 3/6-DIGIT [L-5] at the Main location. This feature can also be used when all outgoing facilities are concentrated at the Main location.

## Operating Procedure

### Operation at the Main location:

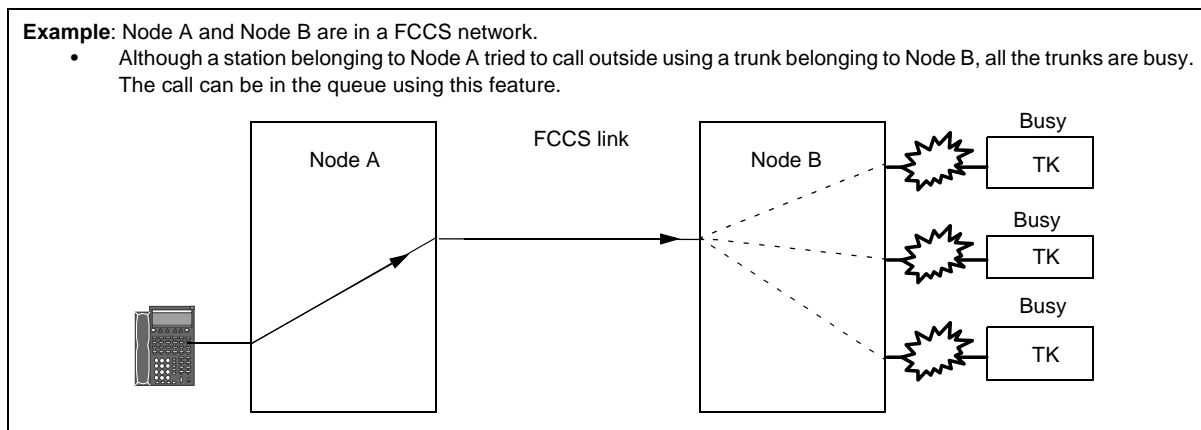
1. The Main location receives dialed digits from the Satellite location via a TANDEM TIE TRUNK [T-1].
2. The Main location determines that no trunks are available and places the call in an available hold on queue slot.
3. The Main location returns service set tone to the Satellite caller.
4. The Satellite caller remains off-hook, and waits for the call to be completed.
5. If there are no hold on queue slots available, the Main location will return reorder tone to the Satellite caller.
6. If the Satellite caller goes on-hook (TANDEM TIE TRUNK [T-1] releases) while in queue, the assigned hold on queue slot is cleared.

## Service Conditions

1. This feature is usually used in conjunction with LEAST COST ROUTING - 3/6-DIGIT [L-5].
2. The maximum queuing slots per system are: 64 calls for 1 IMG system  
256 for 4 IMG/IMX-U system

The queue slots are commonly used by OFF-HOOK QUEUING [O-7], INTER-OFFICE OFF-HOOK QUEUING [I-11], and OUTGOING TRUNK QUEUING [O-2, 2D, 16].

3. If the incoming tie trunk is a second dial tone signal trunk, the caller will hear service set tone while waiting in queue for a maximum of 3 minutes. After this period, the trunk will automatically be released.
4. When a trunk becomes available, the dialed number is automatically sent to the connecting Central Office.
5. If all OFF-HOOK QUEUING [O-7] slots are in use, reorder tone (fast busy tone) will be sent to the Satellite office.
6. This feature can also be activated when using a trunk in the remote node via FCCS link.



**Service Conditions (cont'd)**

7. OGQ data is transmitted to and stored in the Network Control Node (NCN). Therefore, all the OGQ data will be cleared by the system initialization of the NCN.
8. When the access to the NCN is impossible (system down or the cable disconnection or trouble has occurred), the user cannot set or cancel OGQ data. After dialing the access code or pressing the feature keys for set/cancel OGQ, the user hears the reorder tone.
9. When the trunk becomes idle status after the NCN is recovered, and the call in the queue will be called back, if data has not been cleared. If data has been cleared, the call is cancelled automatically.
10. A maximum of 1024 stations/system may utilize OFF-HOOK QUEUING [O-7] and OUTGOING TRUNK QUEUING [O-2] simultaneously in an FCCS network.

**Interactions**

1. This feature is a combination of other features. See TRUNK-TO-TRUNK CONNECTION [T-10], TANDEM SWITCHING OF TIE TRUNKS-2/4 WIRE [T-1], OFF-HOOK QUEUING [O-7], OUTGOING TRUNK QUEUING [O-2] and LEAST-COST ROUTING 3/6 DIGIT [L-5].
2. Calls in queue are served on a first in/first out basis. All routes share a common queue.
3. This feature is used with LEAST-COST ROUTING-3/6 DIGIT [L-5]. It is not used with ALTERNATE ROUTING [A-16], or MISCELLANEOUS TRUNK ACCESS [M-2].

# I-20                      Immediate Ringback Tone

## General Description

IMMEDIATE RINGBACK TONE will be heard by the caller immediately upon determination by the system that the called station is idle. IMMEDIATE RINGBACK TONE is connected, even if the call occurs during the OFF portion of the ringing cycle.

## Operating Procedure

### When a station calls another station or Attendant:

1. The station goes off hook, hears dial tone, and dials the desired station or Attendant.
2. IMMEDIATE RINGBACK TONE is returned.

### When an Attendant calls another station or Attendant:

1. The Attendant presses an idle loop key and dials the desired station or Attendant.
2. IMMEDIATE RINGBACK TONE is returned.

### When a trunk is connected to a station or Attendant:

1. The calling party will hear IMMEDIATE RINGBACK TONE when the source of the ringback tone is the NEAX2400 IMX, as is the case on DID and TIE Line calls.

## Service Conditions

The initial ringback tone is a brief burst, after which the system resynchronizes the ringback tone with the ringing cycle.

# I-21 Internal Zone Paging

## General Description

This feature allows an individual to make a voice call through the D<sup>term</sup> speakers of the designated group by dialing the INTERNAL ZONE PAGING access code or pressing the INTERNAL ZONE PAGING key on the D<sup>term</sup>.

## Operating Procedure

### Voice Call by Internal Zone Paging (Single)

#### To originate:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Dial the access code or press the feature key for INTERNAL ZONE PAGING [I-21]; receive special dial tone.
3. Dial the desired group number (01-99) of INTERNAL ZONE PAGING [I-21].
4. Announce the call over the built-in speakers on the D<sup>term</sup>s in the INTERNAL ZONE PAGING [I-21] group.

#### To answer:

- When using the Prime Line: **(Note)**
  1. **(Series 7400 software enhancement)** Press the Prime Line key or lift the handset on the called party D<sup>term</sup>.
  2. The call is connected to your station.
- **(Series 7400 software enhancement)** When using the Off-Hook key: **(Note)**
  1. Lift the handset.
  2. The call is connected to your station.

**Note:** *Using Prime Line or off-hook to answer is selected by system data; press Prime Line key after off-hook/press off-hook.*

- When using CALL PICKUP-DIRECT [C-30]:
  1. Lift the handset; receive dial tone.
  2. Dial the access code for CALL PICKUP-DIRECT [C-30]; receive second dial tone.
  3. Dial the desired telephone number in the INTERNAL ZONE PAGING [I-21] group.
  4. The call is connected to your station.
- When using CALL PICKUP-GROUP [C-7]:
  1. Lift the handset; receive dial tone.
  2. Dial the access code or press the feature key for CALL PICKUP-GROUP [C-7].
  3. The call is connected to your station.

### Voice Call by Internal Zone Paging (Station Hold)

#### To originate:

1. Receive a call.
2. Perform a switch hook flash; receive special dial tone.
3. Dial the access code or press the feature key for INTERNAL ZONE PAGING; receive second dial tone.
4. Dial the desired group number (01-99) of INTERNAL ZONE PAGING.
5. Announce the call over the built-in speakers on the D<sup>term</sup>s in the INTERNAL ZONE PAGING group.

#### To answer:

- When using the Prime Line: **(Note)**
  1. **(Series 7400 software enhancement)** Press the Prime Line key for the INTERNAL ZONE PAGING call before or after lifting the handset, or press the SPEAKER key.



## Operating Procedure (cont'd)

2. The call is connected to your station.
3. The calling station goes On-Hook.
4. The connection is established between your station and the forwarded party.
  - **(Series 7400 software enhancement)** When using the Off-Hook key: **(Note)**
    1. Lift the handset.
    2. The call is connected to your station.
    3. The calling station goes On-Hook.
    4. The connection is established between your station and the forwarded party.

**Note:** *Using Prime Line or off-hook to answer is selected by system data; Press Prime Line key after off-hook/press off-hook.*

### Voice Call by Internal Zone Paging (Trunk-Hold)

#### To originate:

1. Receive a call.
2. Perform the switch hook flash; receive special dial tone.
3. Dial the access code or press the feature key for INTERNAL ZONE PAGING; receive second dial tone.
4. Dial the desired group number (01-99) of INTERNAL ZONE PAGING.
5. Announce the call over the built-in speakers on the D<sup>term</sup>s in the INTERNAL ZONE PAGING group.

#### To answer:

- When using the Prime Line: **(Note)**
  1. **(Series 7400 software enhancement)** Press the Prime Line key for the INTERNAL ZONE PAGING call before or after lifting the handset.
  2. The call is connected to your station.
  3. The calling station goes On-Hook.
  4. The connection is established between your station and the forwarded party.
- **(Series 7400 software enhancement)** When using the Off-Hook key: **(Note)**
  1. Lift the handset.
  2. The call is connected to your station.
  3. The calling station goes On-Hook.
  4. The connection is established between your station and the forwarded party.

**Note:** *Using Prime Line or off-hook to answer is selected by system data; press Prime Line key after off-hook/press off-hook.*

- When using CALL PICKUP-DIRECT [C-30]:
  1. Lift the handset or press the SPEAKER key; receive dial tone.
  2. Dial the access code for CALL PICKUP-DIRECT [C-30]; receive second dial tone.
  3. Dial the desired telephone number in the INTERNAL ZONE PAGING [I-21] group.
  4. The call is connected to your station.
  5. The calling station goes on-Hook.
  6. The connection is established between your station and the forwarded party.
- When using CALL PICKUP-GROUP [C-7]:
  1. Lift the handset; receive dial tone.
  2. Dial the access code or press the feature key for CALL PICKUP-GROUP [C-7].
  3. The call is connected to your station.
  4. The calling station goes On-Hook.
  5. The connection is established between called station and forwarded party.

## Service Conditions

1. The number of Internal Zone Paging groups is a maximum of 99 groups for each tenant.
2. Each D<sup>term</sup> can be a member of multiple Internal Zone Paging groups.
3. A maximum of 255 groups per system can be simultaneously paged using this feature.
4. This feature is activated to idle stations in an Internal Zone Paging group.
5. When all INTERNAL ZONE PAGING groups are busy, busy tone is sent.
6. This feature is not available from the Attendant Console, Central Office or Tie Line.
7. If all D<sup>term</sup>s in the designated group are unavailable, a busy tone will be sent.
8. When originating a call (or answering an incoming call) from a multi (sub) line on the D<sup>term</sup> called by INTERNAL ZONE PAGING, the voice call to the prime line stops and becomes idle, and the path on the multi line is established. Even if the call is completed, the voice call is not established again.
9. When a user cancels this feature with a held call, the user is recalled.
10. **(Series 7400 software enhancement)** A maximum number of 24 D<sup>term</sup>s can be set this feature in a group.
11. **(Series 7400 software enhancement)** A maximum of four stations is allowed INTERNAL ZONE PAGING in a Group of LEN(Level0-Level7).
12. **(Series 7400 software enhancement)** If a station in the paged group is busy when the INTERNAL ZONE PAGING call is originated, the station is not called/recalled even if the station becomes idle later.
13. **(Series 7400 software enhancement)** After a station in the paged group answers the INTERNAL ZONE PAGING call, ringing at the other member stations stop and two-way conversation starts.
14. **(Series 7400 software enhancement)** While member stations are paged by INTERNAL ZONE PAGING call, the prime lines of stations in the group are busy status. Thus, the stations can not take another call from station, tie line, C.O. line or Attendant Console during paging.
15. **(Series 7400 software enhancement)** When a prime line of a station in the paged group is a sub line of another D<sup>term</sup>, the sub line assigned to another D<sup>term</sup> cannot be affected by the INTERNAL ZONE PAGING call (the sub line key does not flash or light for INTERNAL ZONE PAGING call).

## Interactions

When a station answers a voice call using this feature, the call becomes station-to-station connection status. Accordingly, various hooking services (such as CALL HOLD - CONFERENCE [\[C-146\]](#)) are available.

# L-1

# Lamp Check

## General Description

This feature allows the Attendant, by pressing the LCHK key, to light all lamps and sound the ATTENDANT CONSOLE [A-3] buzzer.

## Operating Procedure

1. Attendant presses the Position Busy key; the LED lights.
2. Attendant simultaneously presses the HOLD, SRC and L3 keys.
3. All lamps will light.

## Service Conditions

1. Every lamp field, including the BUSY LAMP FIELD - FLEXIBLE [B-2], will be lit upon pressing of the three keys located on the ATTENDANT CONSOLE [A-3].
2. The console lamp test displays the digit 8 in each field of the digital display.
3. When the keys are released, all lamps and digit display fields are immediately restored to normal.

# L-3 Line Lockout

## General Description

This feature provides for the automatic release of a station from the common equipment when it has remained off-hook for longer than the usual interval before dialing. The NEAX2400 IMX may be programmed to return a Howler Tone to the station in the LINE lock-out mode.

## Operating Procedure

### For LINE lock-out:

1. User goes off-hook and receives dial tone.
2. After approximately 12 seconds, if the user has not initiated dialing, he receives reorder tone.
3. After 30 seconds of reorder tone, the station is automatically placed into the LINE lock-out state.
4. Upon replacing the handset, the station is released from the LINE lock-out state and operation returns to normal.

### For LINE lock-out with Howler Tone:

1. User goes off-hook and receives dial tone.
2. After approximately 12 seconds, if the user has not initiated dialing, he receives reorder tone.
3. After 30 seconds of reorder tone, a Howler Tone is sent to the station.
4. Upon replacing the handset, the station is released from the Howler Tone state and operation returns to normal.

## Service Conditions

1. A station in the LINE lock-out state can neither receive nor originate calls.
2. This feature is provided on a system-wide basis.
3. The Attendant cannot activate any feature to a station in the LINE lock-out state.
4. After 30 seconds of reorder tone, the station is automatically placed into LINE lock-out, if the system is not provided with Howler Tone service.
5. Howler Tone should not be used with OPX lines.
6. Howler Tone can be provided or denied on a system-wide basis.
7. Howler Tone is only sent to analog stations.

## Interactions

1. When the BUSY LAMP FIELD - FLEXIBLE (BLF) [B-2] feature is provided, the associated station status lamp on the ATTENDANT CONSOLE [A-3] will flash, indicating the telephone number is in LINE lock-out.
2. CALL FORWARDING - DON'T ANSWER [C-2, 3]: A call cannot extend a lock-out station via CALL FORWARDING - DON'T ANSWER [C-3].
3. BUSY VERIFICATION [B-3]: Busy verification of a locked-out station results in reorder tone being heard by the Attendant.
4. NIGHT CONNECTION - FLEXIBLE/FIXED [N-1, 2] with TAS [T-8] feature not active: When the Night Station is in a lock-out state, calls directed to the Night Station will receive ringback tone. If the TAS [T-8] feature is active, calls are directed to the Night Bell.
5. CALL WAITING [C-12, 31]: Call Waiting cannot be activated on a station in lock-out. The calling party will receive reorder tone.

---

**Interactions (cont'd)**

6. CALL HOLD [C-6]: From a special dial tone state, LINE lock-out will occur if a user attempting to place a station on hold dials the CALL HOLD [C-6] access code and partially dials any number. The sequence prior to lock-out is: interdigit time-out for 6 seconds, reorder tone for 30 seconds, optional Howler Tone for 30 seconds. When the station in lock-out goes on-hook, it will be rung by the station on hold. The Busy Lamp Field will not flash
7. EXECUTIVE RIGHT-OF-WAY [E-1]: Reorder tone will be returned to a calling party that is attempting Executive Override toward a station in lock-out.
8. THREE-WAY CALLING [T-2]: An attempt to establish a Three-Way Conference with a station in lock-out will result in the reorder tone being returned to the user making the attempt. The user can return to the station on hold by switch hook flashing.
9. With the following calls, when a user fails to hang up after the other party has disconnected, the station will be placed in a lock-out condition after a 30-second reorder tone (time-out), optional 30-second Howler Tone warning (time-out):

DIRECT INWARD DIALING (DID) call	[D-8]
STATION-TO-STATION call	[S-11]
Trunk-to-Station call	
Attendant-to-Station call	
10. CALL BACK [C-1]: To activate Call Back, the user dials the appropriate access code after reaching a busy station. If the user fails to go on-hook within 30 seconds after receiving service set tone, LINE lock-out will occur. The sequence prior to lock-out is: Service set tone for 30 seconds, reorder tone for 30 seconds, optional Howler Tone warning for 30 seconds. Call Back cannot be activated toward a station in lock-out.
11. CALL WAITING - ORIGINATING [C-31]: If a user fails to complete dialing of the access code while attempting to activate CALL WAITING - ORIGINATING [C-31], LINE lock-out will occur.
12. A station in LINE lock-out will be restored to service when the user goes on-hook for 280 milliseconds or more.
13. MESSAGE REMINDER [M-19D]: A Message Reminder cannot be sent to a station in LINE lock-out.
14. ATTENDANT NIGHT TRANSFER [A-19] is not available if the Night Transfer Station is in LINE lockout. The caller will hear ringback tone then reorder tone.

# L-5 Least Cost Routing - 3/6-Digit

## General Description

This feature allows the NEAX2400 IMX to be programmed to route outgoing calls over the most economical facility (WATS, FX, DDD). Based on the area code and office code dialed (6-digit analyzing), the system examines the programming tables and chooses the facilities in the order specified. Least-Cost Routing (LCR) may also be performed on a sender basis (LCR(S)).

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the trunk access code (usually “9”); receive second dial tone.
3. Dial the area code, office code and number.
4. The system automatically completes the call via the most economical route.

## Service Conditions

The following is a step-by-step explanation, which when reviewed in conjunction with the figure on the following page, will provide better insight as to how the NEAX2400 IMX switch accomplishes LCR:

1. If dialing a toll or local call (NPA-NXX-XXXX or NXX-XXXX), routing begins with translation of 3-digit (NPA or NXX) area or office code. For specific numbers, this translation may result in the immediate selection of the 3-digit routing patterns. If the number dialed is an NPA and 6-digit translation is required, the NXX code is verified in the SCC (XX) or the FX (XX) Table (**Note**). If the NXX is not located in either table, refer to Service Condition (3). There is a maximum of 4000 Outgoing Pattern Routing (OPR) Tables with a maximum of 8 routes for selection.

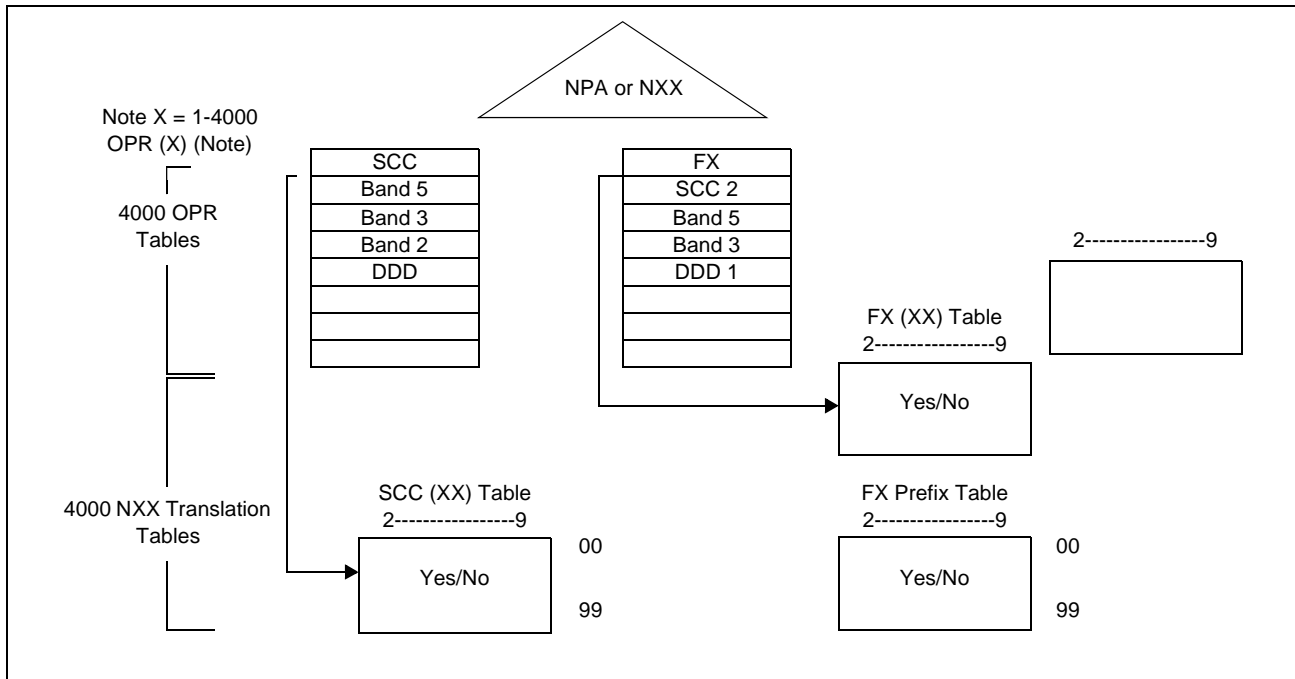
**Note:** a. SCC (XX) is the Special Common Carrier NXX Translation Table.

b. FX (XX) is the FX NXX Translation Table.

2. First-choice route option in an NPA pattern will usually be a Specialized Common Carrier. If a trunk is available in this group, further digit translation will be required in order to determine whether the called number is served by the carrier. NXX digit translation will also be required in instances where a call is routed over a TIE or FX trunk. For these purposes, 4000 NXX patterns are available.
3. In the case of Specialized Common Carriers, associated NXX patterns will return either a YES or a NO answer to the switch, indicating whether or not the dialed number is within the designated service area of the selected SCC. If service is available, the switch will seize the trunk and complete the connection. If the NO answer is returned, the switch searches for the next available trunk group.
4. Calls routed over FX trunk groups may require out-pulsing of prefix digit “1”, depending on the NXX number dialed. For this purpose, another group of associated NXX patterns may be used, operating on the same YES/NO principle. A YES answer returned to the switch in this instance will result in prefix “1” being added automatically before sending digits to the called Central Office.
5. Where the selected route is an FX trunk group, NXX translation may be used to either allow or disallow the connection. This is accomplished via YES/NO answers from a designated group of NXX patterns, and enables calls to selected Central Office areas to be effectively restricted to only the most economical routes.

The routing method described provides some of the most flexible options available for call routing, and functions as a highly effective method of cost control. For details, see the following figure.

## Service Conditions (cont'd)

**3/6-digit Least Cost Routing Translation Table, Dialed Number 9-NPA-NXX-XXXX**

6. In certain cases, 3 and 6-digit translation will provide sufficient information for identification of the service area. 4000 separate Outgoing Routing Patterns are available for this circumstance.
7. Up to 8 trunk routes can be in each Outgoing Routing Pattern.
8. STATION MESSAGE DETAIL RECORDING SYSTEM [S-10] may be used in conjunction with LCR - 3/6-DIGIT. The route selected by the switch will be recorded by the SMDR unit.
9. TIE Lines can be included in route patterns.
10. Application of NXX patterns provides for inclusion of multiple common carriers serving different areas.
11. When a TIE Trunk requiring an off-net connection to the local Central Office is included as a route option, the NEAX2400 IMX can provide a 2.8-second prepause before sending out the selecting signal.
12. Senders (DP or DTMF) are provided with this feature for outpulsing.
13. Pre-translation function minimizes waiting time after dialing. After enough digits are collected to determine a route, the system starts outpulsing before the station completes dialing the entire number (LCR - SENDER).
14. If OUTGOING TRUNK QUEUING [O-2] is activated during LCR, all routes listed in the Outgoing Routing Pattern will be available to the queue, if one of these trunks becomes idle.
15. When LCR - 3/6-DIGIT is provided, the Attendant cannot pass dial tone to a station. The desired number must be dialed by the Attendant.
16. Stations having different Route Restriction Classes, but using the same LCR - 3/6-DIGIT pattern, can be denied access to the last choice trunk route(s) in that pattern. Route Restriction Classes may be set up so that a station dialing an area code can use WATS, FX, and DDD; or only the WATS line, if such an arrangement is desired. This is a form of forced LCR.
17. NXX patterns may be programmed to restrict all stations in the system from completing calls to specific NXX numbers over FX trunks.

**Service Conditions (cont'd)**

18. The system will include the ability to detect a dialed DDD number and compare it with a DDD list table to determine if the call is directed to a facility served by the trunk network. If the dialed number is found in the DDD list table, a translation is provided to the 7-digit on-net number (ABC-XXXX) served by the TIE Trunk. This allows an expensive public network dialed number to be trapped and automatically diverted to an available leased facility. If a TIE Line is not available, the call will be routed as dialed.
19. The NEAX2400 IMX is capable of converting a maximum of 24 receiving digits into a required 24-digit number entirely. Interdigit pauses can be inserted whenever necessary. This provides for an extremely flexible numbering plan for a complex network.
20. When deleting the AOPR command, this also deletes the ASDC table using the OPR pattern.
21. Advancing to C.O. line is not available in the FCCS network.
22. The outgoing call using a trunk in the remote node via FCCS link is available. Therefore, Route Restriction class data must be identical in the FCCS network. For more detailed information, see the NEAX2400 IMX Fusion Network System Manual.
23. The ASDC command is not applicable in the FCCS network.
24. When using this feature within an FCCS network, deleting the AOPRL/N command also deletes the ASDCL/N table using the OPR pattern.
25. **(Series 7400 software enhancement)** In case of LCRS feature, the system starts connecting and communication between the calling party and the called party without completing the maximum digits (MND) of destination number which is set in the AMND command from the calling party.
26. **(Series 7400 software enhancement)** LCRS call without completing the MND of AMND command:
  - a.) ARTI - Assign the parameter DCANS (CDN:54) as "1" to the objected route.
  - b.) ARTD - Assign the parameter OSGS (CDN:1) as "2" (second dial tone) and LSG (CDN:15) as other than "12" (CCIS/ISDN) to the objected route class of outgoing trunk.
27. **(Series 7400 software enhancement)** This feature is available:
  - a.) When a call is directly originated from a station via LCRS
  - b.) When a station/trunk call, once placed on hold, is originated via LCRS
  - c.) When a trunk call is originated via LCRS (Tandem Connection)

**Note:** *This feature is not available when the LCRS call from a Attendant Console or LCR call by the individual Trunk Access.*

**Interactions**

1. AFRS and AMND tables must correlate to each other. If dialing patterns listed in AFRS are not programmed in AMND, the calls will not go through. Also, if dialing patterns are not set in AFRS, including simple local calls, the calls will not go through.
2. LCR(S) provides only route selection based on digits dialed and route availability. Once a route has been determined to be available because of dialed digits, Route Restriction Class will determine if this route will be made available to the station. If denied and other routes are available, the same process will occur. If no other route is available, the user will hear a reorder tone.
3. In ARTD, CDN 9:TQ must be assigned for the LCR(S) Flag Route 31 if Trunk Queuing is to operate in conjunction with LCR(S).



# L-6 Last Number Called - Single-Line Station

## General Description

When a user originates a station-to-station call or an outgoing trunk call, but the call is not established, this feature allows the calling station to recall the same destination by dialing only the special code instead of dialing all the digits of the number.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the desired party's number.
3. The call has not been established.
4. Busy tone or reorder tone is heard.
5. Hang up.
6. Lift the handset; receive dial tone.
7. Dial the LAST NUMBER CALL access code (maximum 3 digits).
8. The system will automatically redial the last number dialed from that station.

## Service Conditions

1. The number of dial digits to which this service is applicable is 18 maximum.
2. Dialing any digits after going off-hook causes previously stored digits to be erased from memory and the new digits to be programmed into memory.
3. In a STEP CALL, the final combination of digits is stored in memory. For example, dial 201, 201 is busy; dial 2, station 202 rings; station 202 is stored in the LAST NUMBER CALLED memory.
4. In CALL FORWARDING [C-2, 3, 5], CALL PICKUP - GROUP [C-7], and STATION HUNTING [S-7, 8, 9], the number stored is the number dialed, i.e. the number displayed in the INTERMEDIATE STATION NUMBER DISPLAY - D<sup>term</sup> [I-10D].
5. This feature can be activated when the station accesses STATION-TO-STATION CALLING [S-11] or station-to-trunk calling.
6. SPEED CALLING - SYSTEM [S-3, S-21], or GROUP [S-23] numbers (abbreviated digit codes) can be stored in the LAST NUMBER CALLED memory.
7. An AUTHORIZATION CODE [A-20] will not be stored, and must be entered each time the LAST NUMBER CALLED is accessed.

## Interactions

LAST NUMBER CALLED will operate for both internal and outgoing calls.

# L-6D Last Number Called - D<sup>term</sup>

## General Description

This feature allows the user of a D<sup>term</sup> to store the last five numbers dialed, and to redial the numbers by pressing the REDIAL key. The D<sup>term</sup> user can choose any destination out of the last 5 calls that have been stored in memory, thus enabling the user to place a call without redialing the full number.

## Operating Procedure

### How to check the dialed numbers stored in the memory (up to 5 destinations):

1. Press the REDIAL key on a D<sup>term</sup>.
  - a.) The Prime Line lights green.
  - b.) The Speaker Lamp lights green.
  - c.) Receive dial tone from the speaker with the following display on the D<sup>term</sup>.

LNR [*] / SPD [ _ _ ] - 1			
MIC	FDB	FDN	811625643
			>>>

2. Press the REDIAL key on the D<sup>term</sup> again.
  - a.) The Prime Line lights green.
  - b.) The Speaker Lamp lights green.
  - c.) Receive dial tone from the speaker with the following display on the D<sup>term</sup>.

LNR [*] / SPD [ _ _ ] - 2			
MIC	FDB	FDN	25191
			>>>

**Note:** The indication on the display is changed in sequence by pressing the REDIAL key. Once the stored telephone number display reaches LNR[#]/SPEED[]-5, LNR[#]/SPEED[]-1 appears again by pressing the REDIAL key.

### How to originate a call:

3. Press the REDIAL key on a D<sup>term</sup>.
  - a.) The Prime Line lights green.
  - b.) The Speaker Lamp lights green.
  - c.) Receive dial tone from the speaker with the following display on the D<sup>term</sup>.

LNR [*] / SPD [ _ _ ] - 1			
MIC	FDB	FDN	811625643
			>>>

4. Repeat the above procedure until you reach your desired destination.

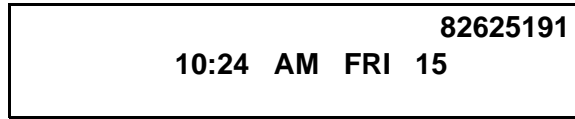
LNR [*] / SPD [ _ _ ] - 4			
MIC	FDB	FDN	82625191
			>>>

5. Press “#” to originate your call while the desired destination is being displayed on the D<sup>term</sup>.
  - a.) The Prime Line lights green.
  - b.) The Speaker Lamp lights green.
  - c.) Receive ringback tone from the speaker with the following display on the D<sup>term</sup>.

	82625191
10:24 AM FRI 15	

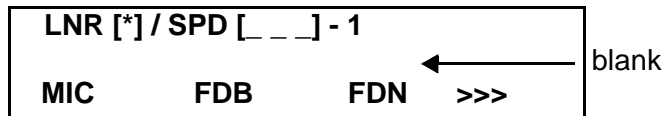
**Operating Procedure (cont'd)**

6. The called party answers the call.
  - a.) The Prime Line lights green.
  - b.) The Speaker Lamp is OFF.

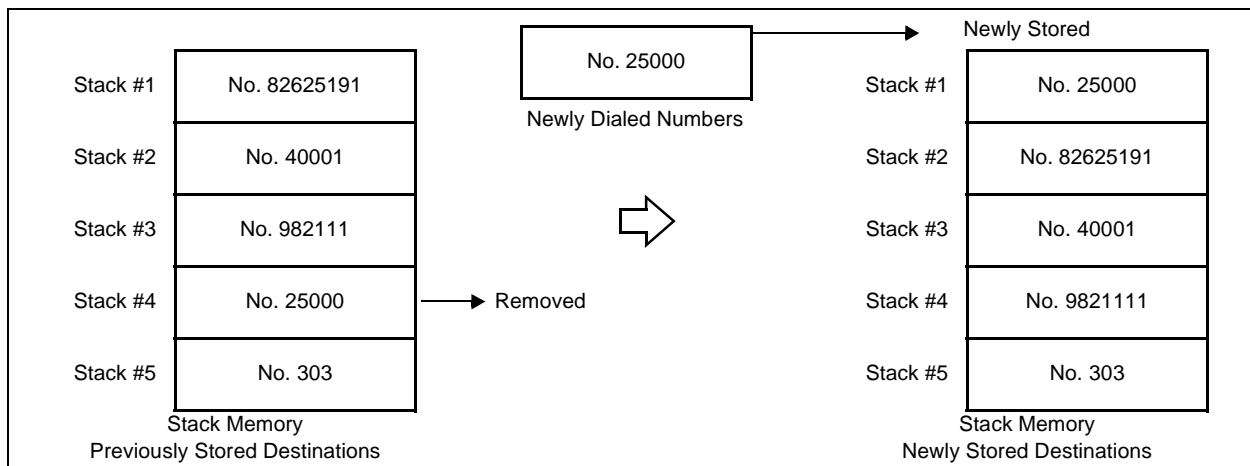


**Service Conditions**

1. A maximum of 5 destinations can be stored.
2. The maximum digits of the destination is 32 digits.
3. When a feature key has been assigned as Last Number Called, the feature key also works as REDIAL key.
4. This feature is also effective when the calling party presses the REDIAL key while the SPEAKER key is being pressed.
5. When the REDIAL key is pressed, # or the REDIAL key must be pressed within 12 seconds. Otherwise, the calling party hears reorder tone.
6. The calling party can enter abbreviated codes after pressing the REDIAL key.
7. Any number entry (other than #) from a D<sup>term</sup> after pressing the REDIAL key is recognized as abbreviated code(s) (1 or 2 digits) of SPEED CALLING-STATION.
8. A D<sup>term</sup> can display the upper 16 digits among the stored 32 digits.
9. When any destination has not been stored in the system, which occurs after initialization of the circuit card, the D<sup>term</sup> displays no destination as shown below.



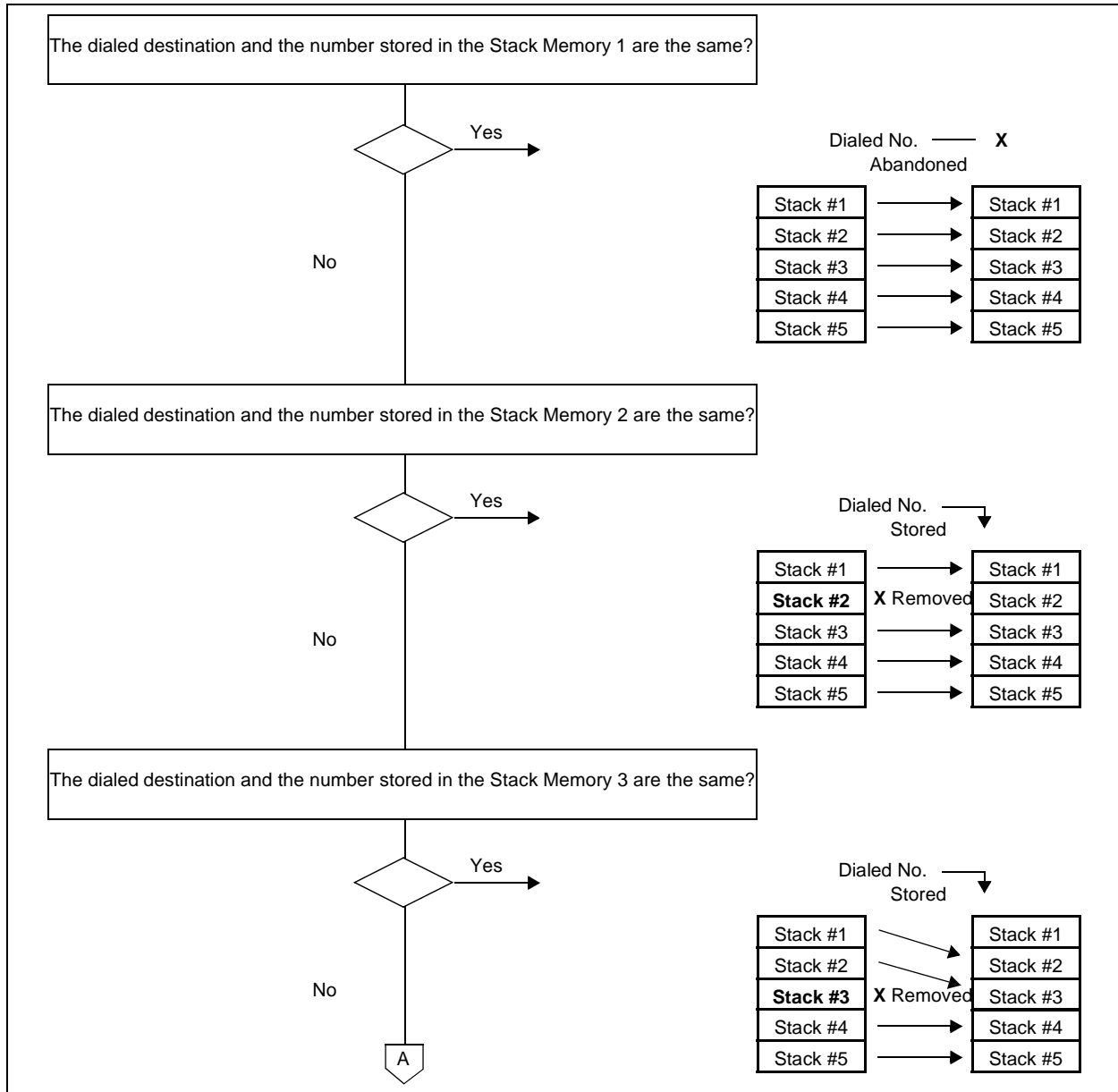
10. When a D<sup>term</sup> user dials the same destination that has already been stored in the system, the newly dialed destination is stored in the following manner:



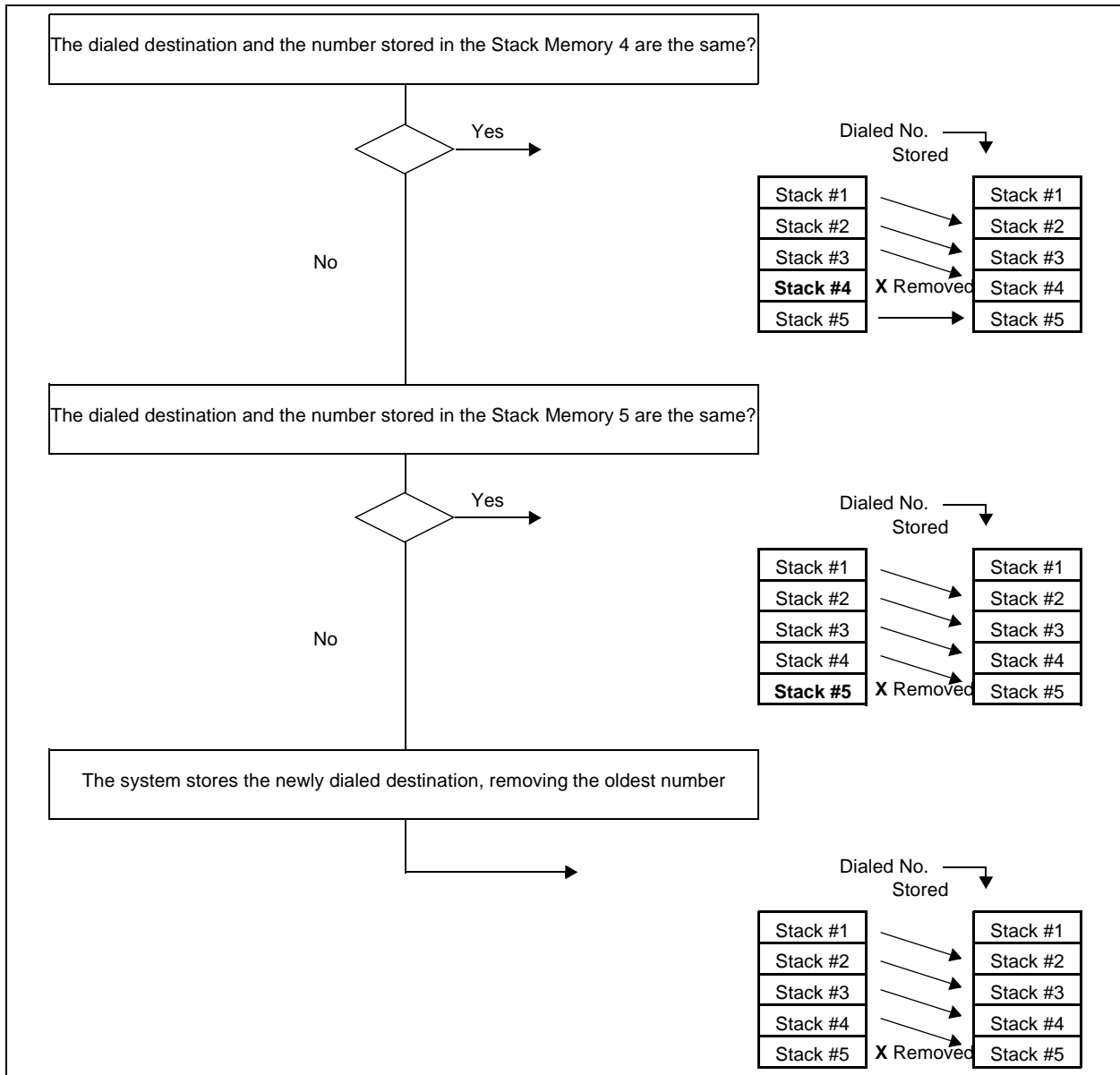
11. The number dialed during the call can be stored as the LAST NUMBER CALL - stock redial with a maximum of 32 digits.

Service Conditions (cont'd)

- If making an abbreviated call using the REDIAL key, the number dialed is not stored. Therefore, redialing through LAST NUMBER CALL - stock redial is not available. A newly dialed destination is stored in accordance with the following flowchart:



Service Conditions (cont'd)



# L-7D Line Reconnect - Same Line - D<sup>term</sup>

## General Description

This feature allows a user to disconnect a call and receive dial tone by pressing the RECALL key.

## Operating Procedure

### While a call is in progress:

1. Press the RECALL key; disconnect and receive dial tone on the same line.
2. User is ready to dial again.

## Service Conditions

1. Conflicting service features are: CALL TRANSFER - ALL CALLS [C-11], CONSULTATION HOLD - ALL CALLS [C-17] and CALL HOLD [C-6]. Pressing RECALL key will result in reconnection of the held line.
2. System should be programmed to provide for First Party Release.
3. If the system is not programmed for First Party Release and programmed as Calling, Called, or Both Party Release, a release guard is activated. If a party is not allowed to terminate a call and presses RECALL key, that station remains connected to the original call.

# L-8D            Line Reconnect - Other Line - D<sup>term</sup>

## General Description

This feature allows a user to select another line key without going on-hook.

## Operating Procedure

While off-hook on the original line, press a line key that is either idle or ringing; the user is disconnected from the original line and connected to the new line.

## Service Conditions

1. LINE RECONNECT - OTHER LINE D<sup>term</sup> cannot be used with a line currently in use, unless Privacy Release is in service (LED lit steady). LINE RECONNECT-OTHER LINE-D<sup>term</sup> can be used when the other line is on NON-EXCLUSIVE HOLD-D<sup>term</sup> [N-7D].
2. System data programming should provide for First Party Release.

# L-9D Line Pre-selection - D<sup>term</sup>

## General Description

This feature provides the user with the ability to select an idle or ringing line before going off-hook.

## Operating Procedure

### To originate:

1. Press the desired line key; receive dial tone.
2. Dial the desired destination.

### To answer:

1. Press the line key (ringing and flashing LED alerts incoming call).
2. Lift the handset or press SPEAKER key; answer the incoming call.

## Service Conditions

1. A line key whose associate LED is lit steady cannot be interrupted by pressing its key, unless PRIVACY RELEASE is in service.
2. After the desired line key is pressed, LINE PRESELECTION - D<sup>term</sup> will remain in effect for 10 seconds. After 10 seconds, line selection returns to the primary line.



# L-10

# LCR - Time Of Day Routing

## General Description

This feature provides automatic routing of outgoing calls over alternative customer facilities, based on the destination code. The system will select the most economical route available at the time of connection. The pattern of alternate routing can be changed up to 8 times per day, based on a prearranged time schedule.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the trunk access code (usually “9”); receive second dial tone.
3. Dial the area code, office code, and subscriber number.
4. The system automatically completes the call via the most economical route available.

## Service Conditions

1. A maximum of 8 patterns can be provided during a 24-hour interval for LCR - TIME OF DAY ROUTING.
2. Each pattern can be programmed at a maximum increment of 30 minutes.

## Interactions

1. For each Time-of-Day Change, the entire AOPR and ASDC tables must be created. Caution should be exercised to use data memory economically.
2. LEAST-COST ROUTING-3/6 DIGIT [L-5] must first be provided.

# L-11

# Line Load Control

## General Description

This feature allows the Attendant to deny a preselected group of stations the ability to originate calls by activating a key. The sole intention of this feature is to temporarily restrict the least important internal stations from outward calling during an excessive traffic load or emergency conditions.

## Operating Procedure

### To activate **LINE LOAD CONTROL** from the **ATTENDANT CONSOLE [A-3]**:

- a.) Press a loop key.
- b.) Dial the **LINE LOAD CONTROL** access code; receive service set tone.
- c.) Press the **RELEASE** key.

### To cancel **LINE LOAD CONTROL** from the **ATTENDANT CONSOLE [A-3]**:

- a.) Press the loop key.
- b.) Dial the **LINE LOAD CONTROL** cancel code; receive service set tone.
- c.) Press the **RELEASE** key.

## Service Conditions

1. This feature is controlled entirely from the **ATTENDANT CONSOLE [A-3]**.
2. Individual stations are programmed for this feature via **CLASS OF SERVICE - INDIVIDUAL [C-15]**.
3. The lamp on the **ATTENDANT CONSOLE [A-3]** will illuminate when **LINE LOAD CONTROL** is set in the system.
4. Incoming call from a trunk can be restricted in System Data.
5. When **LINE LOAD CONTROL** is activated or cancelled, a system message will be output via the **MAINTENANCE ADMINISTRATION TERMINAL [M-18]**.
6. While **LINE LOAD CONTROL** is activated, a single line station will receive busy tone (or the display for the  $D^{\text{term}}$  is blank) when going off-hook.
7. A station in **LINE LOAD CONTROL [L-11, 20, 21]** can receive incoming calls.
8. Incoming calls terminated via **CCIS/ISDN** trunks are not restricted.

## Interactions

1. Calls in progress are not affected when this feature is activated.
2. This feature is implemented on a per-system basis.
3. Only the Attendant Console can activate this feature by seizing a loop and dialing the feature access code. A designated key cannot be assigned at the Attendant Console to control this feature.
4. Access to the System Data via the Maintenance Administration Terminal (MAT) is allowed while **LINE LOAD CONTROL** is active.
5. Station-to-station calling to affected stations is not allowed during **LINE LOAD CONTROL**.
6. **HOTLINE [H-1]** and **HOUSE PHONE [H-2]** connections become inoperative during **LINE LOAD CONTROL**.

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# L-20 Line Load Control - Automatic

## General Description

This feature allows the system to automatically deny a preselected group of stations the ability to originate calls. The sole intention of this feature is to temporarily restrict the least important internal stations from outward calling during an excessive traffic load or emergency conditions.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Individual stations are programmed for this feature via CLASS OF SERVICE - INDIVIDUAL [C-15].
2. The lamp on the ATTENDANT CONSOLE [A-3] illuminates when LINE LOAD CONTROL - AUTOMATIC [L-20] is set in the system.
3. Incoming calls from a trunk can be restricted in System Data.
4. When LINE LOAD CONTROL - AUTOMATIC [L-20] is activated or cancelled, a system message will be output via the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
5. While LINE LOAD CONTROL - AUTOMATIC [L-20] is activated, a single line station will receive busy tone (or the display of the D<sup>term</sup> is blank) when going off-hook.
6. A station in LINE LOAD CONTROL [L-11, 20, 21] can receive incoming calls.
7. Incoming calls terminated via CCIS/ISDN trunks cannot be restricted.

# L-21 Line Load Control - MAT

## General Description

This feature allows the MAT [M-18] to deny a preselected group of stations the ability to originate calls by activating a command key. The sole intention of this feature is to temporarily restrict the least important internal stations from outward calling during an excessive traffic load or emergency conditions.

## Operating Procedure

The ALLC command is used to designate start and stop of LINE LOAD CONTROL - MAT.

## Service Conditions

1. Individual stations are programmed for this feature via CLASS OF SERVICE - INDIVIDUAL [C-15].
2. The lamp on the ATTENDANT CONSOLE [A-3] will illuminate when LINE LOAD CONTROL - MAT is set in the system.
3. Incoming calls from a trunk can be restricted in System Data.
4. When LINE LOAD CONTROL - MAT is activated, a station will receive busy tone (or the display for the D<sup>term</sup> is blank) when going off-hook.
5. A station in LINE LOAD CONTROL [L-11, 20, 21] can receive incoming calls.
6. When LINE LOAD CONTROL - MAT is activated or cancelled, a system message will be output on the MAT [M-18].
7. Incoming calls terminated via CCIS/ISDN trunks are not restricted.

---

# L-24 Listed Directory Number

## General Description

This feature allows Listed Directory Number Display on the ATTENDANT CONSOLE [A-3] when the Attendant has answered a Listed Directory Number call.

## Operating Procedure

1. The Attendant at an ATTENDANT CONSOLE [A-3] answers an incoming call (DID, TIE).
  - a.) The DEST lamp lights up.
  - b.) The Listed Directory Number is displayed.
2. The Attendant presses the SRC key.
  - a.) The DEST lamp goes out and the SRC lamp lights up.
  - b.) The route/trunk number is displayed.

## Service Conditions

1. This service is effective when the Attendant at an ATTENDANT CONSOLE [A-3] has answered a Listed Directory Number call.
2. If the Attendant presses the SRC key while the Listed Directory Number is displayed, the display changes to the calling party's route/trunk number. In this case, the Listed Directory Number of the call being handled at present cannot be displayed again.
3. While the Listed Directory Number is displayed, the Attendant can transfer the call to a desired station by entering the destination number on the key pad. In this case, the Listed Directory Number of the call being handled at present cannot be displayed again.
4. While the Listed Directory Number is displayed, the Attendant can place the present call on hold by pressing the HOLD key. In this case, the Listed Directory Number will not be displayed again when the Attendant returns to the call on hold.
5. The LISTED DIRECTORY NUMBER should be assigned in System Data.

# L-28 LDN Night Connection

## General Description

This service feature routes LISTED DIRECTORY NUMBER (LDN) calls to a preselected station when the system is in night mode.

## Operating Procedure

### To answer LDN NIGHT CONNECTION calls (DID, TIE):

1. An incoming LDN call in night mode is automatically routed to a preselected LDN NIGHT CONNECTION station within the system.
2. The calling party receives ringback tone.
3. The ringing signal is sent to the LDN NIGHT CONNECTION station.
4. The LDN NIGHT CONNECTION station goes off-hook to answer the incoming call. If necessary, this station can transfer the incoming call to another station within the system using the CALL TRANSFER - ALL CALLS [C-11] service feature.

## Service Conditions

1. NIGHT CONNECTION - FIXED [N-1] and NIGHT CONNECTION - FLEXIBLE [N-2] take priority over this feature.
2. The destination station can be assigned on a per-LDN basis.
3. This feature is available for a maximum of 16 LDNs per tenant.
4. A data terminal cannot be used as a destination station for this feature.
5. The following service features are not available for the destination station:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
CALL FORWARDING - DON'T ANSWER	[C-3]
CALL FORWARDING - ALL CALLS - OUTSIDE	[C-28]
CALL FORWARDING - BUSY LINE - OUTSIDE	[C-60]
CALL FORWARDING - DON'T ANSWER - OUTSIDE	[C-74]
6. A UCD station can be assigned as the destination of LDN Night Connection, but queuing functions of UCD (such as DELAY ANNOUNCEMENT - UCD [D-31] and CALL WAITING LAMP - UCD [D-76]) are not available when all the stations within the UCD group are busy.
7. When the destination station is busy, an incoming call is handled as follows: The call waits in queue. The status of the destination station is periodically checked. NIGHT CONNECTION OUTSIDE - SYSTEM [N-18] or TRUNK ANSWER FROM ANY STATION [T-8] is available when CALL FORWARDING - BUSY LINE [C-2] to the Attendant or CALL FORWARDING - BUSY LINE - OUTSIDE [C-60] has been assigned.
8. MISCELLANEOUS TRUNK RESTRICTION [M-3] is not available for this service.
9. NIGHT CONNECTION OUTSIDE - SYSTEM [N-18] or TRUNK ANSWER FROM ANY STATION [T-8] is available while the destination station is in the following states:
  - a.) LOCK OUT [L-3] make busy.
  - b.) CALL FORWARDING - ALL CALLS [C-5] set to the Attendant.
  - c.) CALL FORWARDING - ALL CALLS - OUTSIDE [C-28] set.
10. The LDN NIGHT CONNECTION station and the attendant console must be accommodated in the same node for the FCCS network.

## Interactions

1. A maximum of 16 LDNs can be assigned per tenant, each with its own separate destination station. The same destination may also be used for all LDNs.
2. STATION HUNTING-CIRCULAR [S-7] and STATION HUNTING-TERMINAL [S-9] are valid from the night transfer destination station.
3. MULTIPLE CALL FORWARDING-ALL, BUSY, DON'T ANSWER [M-44, M-24, M-25] and MULTIPLE CALL FORWARDING-ALL, BUSY, DON'T ANSWER-CCIS [M-40, M-41, M-42] are valid from Night transfer destination station.
4. An incoming DID call will get busy tone if the Night transfer destination station is CALL FORWARDING-ALL [C-5] or CALL FORWARDING-BUSY LINE [C-2] to the Attendant, and TRUNK ANSWER FROM ANY STATION [T-8] is not service.
5. An incoming DID call will ring at the Night transfer destination station if CALL FORWARDING-DON'T ANSWER [C-3] is set to the Attendant.
6. There is no restriction check for LDN NIGHT CONNECTION destination stations. The station can be totally restricted from receiving incoming calls and still receive LDN NIGHT CONNECTION calls.
7. If the Night transfer destination station is busy, LDN calls will go into queue.
8. If the system is switched to Day mode while LDN calls are in queue, only those calls that are in queue will be redirected to the Attendant. LDN calls that are ringing the Night transfer destination station will continue to ring that station and will not be redirected to the Attendant.
9. If the Night transfer destination station is in the Make Busy state (MBST Command = 1 for that station) or is in LINE LOCKOUT [L-3], the LDN call will go to TRUNK ANSWER FROM ANY STATION [T-8].
10. If the Night transfer destination station (station A) is in CALL FORWARDING-BUSY LINE [C-2] to station B and both stations (station A and station B) are busy, the incoming LDN call will queue to both station A and station B, and will ring the first idle station.
11. If the Night transfer destination (station A) is in CALL FORWARDING-BUSY LINE [C-2] over CCIS to station C in the remote office, and both station A and station C are busy, busy tone is returned to the incoming LDN calling party.
12. Incoming LDN calls to a Night transfer destination station that has set CALL FORWARDING-ALL CALLS, BUSY LINE, DON'T ANSWER-CCIS [C-45, C-46, C-47] over CCIS to a busy UCD group in the remote office will queue to that group, and will activate the CALL WAITING LAMP-UCD [C-76], if programmed.

# L-30 LDN Night Connection - Outside

## General Description

This feature routes LOCAL DIRECTORY NUMBER (LDN) calls to a preselected station outside the system when the system is in Night mode.

## Operating Procedure

To answer LDN NIGHT CONNECTION calls (DID, TIE):

1. An incoming LDN call in Night mode is automatically routed to a preselected LDN NIGHT CONNECTION station outside the system.
2. The calling party receives ringback tone.
3. The ringing signal is sent out to the LDN NIGHT CONNECTION-OUTSIDE station.
4. The LDN NIGHT CONNECTION station answers the incoming call. If necessary, this station can transfer the incoming call to another station outside the system using the CALL TRANSFER - ALL CALLS [C-11] feature.

## Service Conditions

1. NIGHT CONNECTION - FLEXIBLE [N-2] and NIGHT CONNECTION - FIXED [N-1] take priority over this feature.
2. The maximum number of digits in the destination number is 8. SPEED CALLING - SYSTEM [S-3] can be used when more than 8 digits are needed.
3. The destination station outside the system can be assigned on a per-LDN basis.
4. This feature is available for a maximum of 16 LDNs per tenant.
5. LDN NIGHT CONNECTION - OUTSIDE [L-30] will not route an incoming call on an MFC signaling trunk through another MFC signaling trunk.
6. NIGHT CONNECTION OUTSIDE - SYSTEM [N-17] or TRUNK ANSWER FROM ANY STATION [T-8] is available while the destination station is in the following states:
 

MISCELLANEOUS TRUNK RESTRICTION	[M-3]
TOLL RESTRICTION - 3/6-DIGIT	[T-7]
Outgoing Trunk Busy	

## Interactions

1. A maximum of 16 LDNs can be assigned per tenant; each with its own separate destination number.
2. If the outgoing route is busy or if the incoming LDN route is restricted from the outgoing destination route, the LDN calling party will receive busy tone or will go to TAS, if programmed.
3. If using TYPE: 3 ADC parameter in the ALDN command, the ADC must first be assigned in the ASPD command. TYPE: 3 must be used for outside numbers greater than eight digits.



# M-1 Meet-Me Paging

## General Description

This feature allows a user dial access to paging equipment, and connects both parties automatically, after the called party has answered the page.

## Operating Procedure

### To page:

1. Calling station dials the Paging access code; receives continuous ringback tone for 1 second.
2. Calling station pages the desired party.
3. Calling station remains off-hook or hangs up.

### To answer:

1. Called party dials the Page answer code.
2. NON-DELAY OPERATION
  - a.) The party paged is immediately connected to the calling party.
3. DELAY OPERATION
  - a.) The party paged receives ringback tone.
  - b.) The calling station rings.
  - c.) The calling station goes off-hook and is immediately connected to the paged station.

## Service Conditions

1. A maximum of six routes can be provided with paging trunks.
2. Paging equipment is customer provided.
3. One paging trunk will be assigned to each route.
4. Paging access and answer codes are assigned in System Data programming to correspond with each route.
5. The maximum number of digits that can be used as a paging access and/or answer code is 3.
6. The type of paging service provided on a system basis is programmed via the MAINTENANCE ADMINISTRATION TERMINAL [M-18] into the system database.
7. A page waiting to be answered is automatically cancelled after a predetermined program duration. See VARIABLE TIMING PARAMETER [V-1] for other selectable timing choices.
8. Central Office Trunks (COTs) are used as interface circuits to the paging equipment.
9. Loop signaling is the recommended signaling type. Refer to PAGING TRANSFER [P-10].

## Interactions

1. MEET-ME PAGING and PAGING ACCESS [P-1] can be provided simultaneously in the same system. In ARTD, CDN 6:TCL must be assigned as data "8" for MEET-ME PAGE, while PAGING ACCESS [P-1] routes may be assigned as data "11", General Page, or as data "1", DDD. Separate access codes for each feature are required. A MEET-ME PAGING answer and cancel code is required for each MEET-ME PAGING zone.
2. MEET-ME PAGING is limited to stations and Attendant Consoles. CO trunks, TIE LINE ACCESS [T-3], or REMOTE ACCESS TO PBX SYSTEM [R-2] calls must have the Attendant Console or user perform the paging operation.
3. The Attendant Console cannot dial the MEET-ME PAGING answer codes.

**Interactions (cont'd)**

4. BUSY VERIFICATION [B-3] and EXECUTIVE OVERRIDE [E-1]: These features will be denied for a connection that includes the Paging route.
5. DELAY OPERATION: Station A is connected to party B. Station A momentarily presses the switch hook and dials the MEET-ME PAGE route access code. When connected to the page, Station A requests Station C to dial the MEET-ME PAGE answer code. Station A hangs up. When Station C dials the answer code, Station A is rung. Station C and Station A are connected. If Station A hangs up, Party B is connected to Station C. If Station A momentarily presses the switch hook, all three parties are connected together in a THREE-WAY CALLING [T-2] connection. If Station C does not call the MEET-ME PAGE answer code after 30 seconds, Party B rings back to Station A.
6. NON-DELAY OPERATION: Station A is connected to Party B. Station A momentarily presses the switch hook and dials the MEET-ME PAGE route access code. When connected to the page, Station A requests Station C to dial the MEET-ME PAGE answer code. Station A stays on the trunk and is still voice-connected to the paging equipment. Station C dials the MEET-ME PAGE answer code. The paging trunk becomes idle. Station A is connected to Station C. If Station A hangs up, Party B is connected to Station C. If Station A momentarily presses the switch hook, all three parties are connected together in a THREE-WAY CALLING [T-2] connection. There is no time-out period if Station C does not dial the MEET-ME PAGE answer code. Station A may press the switch hook to disconnect the page trunk and reconnect to Party B. If desired, Station A may hang up and Station A will be recalled by Party B.
7. Stations allowed Priority Page, SFI = 57, will come into the paging route, except when the Attendant Console is paging.
8. To answer MEET-ME PAGE, while connected to another party, CALL HOLD [C-6] must be used. THREE-WAY CALLING [T-2] is not allowed.

## M-2 Miscellaneous Trunk Access

### General Description

This feature provides access to all types of external and customer provided equipment/facilities, such as FX [F-2], WATS [W-1], CCSA [C-14], TIE LINE [T-3], and Exchange Network, along with DICTATION [D-3], PAGING [P-1], and CODE CALLING [C-21].

### Operating Procedure

MISCELLANEOUS TRUNK ACCESS is accomplished via System Data programming at the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].

### Service Conditions

1. Access to these trunk groups is allowed or denied via CLASS OF SERVICE - INDIVIDUAL [C-15].
2. An interface circuit must be provided per trunk required.

### Interactions

If other features are being used (such as SMDR, toll restriction, and/or LCR (S)), refer to those feature descriptions, as other commands may be required that are not listed below.

## M-3 Miscellaneous Trunk Restriction

### General Description

This feature provides for certain stations and certain dial-repeating TIE trunks to be denied access to particular trunk groups, such as FX [F-2], WATS [W-1], CCSA [C-14], TIE LINE [T-3], Exchange Network, DICTATION [D-3] or PAGING [P-1].

### Operating Procedure

MISCELLANEOUS TRUNK RESTRICTION is accomplished via system data programming at the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].

### Service Conditions

1. Restricted call attempts can be either:
  - a.) intercepted by the Attendant,
  - b.) reorder tone can be initiated back to the originating user,
  - c.) user can be connected to an announcement informing the user of the restricted call attempt, or
  - d.) prompted for Authorization Code.
2. Station line access to a given miscellaneous trunk group is controlled by assigning a Route Restriction Class (RSC) to each line. There can be a maximum of 15 different RSCs (RSC1-15) per TENANT [T-12], each of which can be programmed to restrict an assigned station from none, one, or more than one miscellaneous trunk group.
3. If the user's class of service allows outgoing route completion via the ATTENDANT CONSOLE [A-3], the user can dial "0" to reach the Attendant for completion of miscellaneous trunk calls.
4. The CALL TRANSFER - ALL CALLS [C-11] feature will operate as follows:
  - a.) if the restricted station is the controller, this station cannot add a trunk from which this station is restricted.
  - b.) if the restricted station line is not the controller, the controller cannot connect the restricted station line to a trunk from which the station is normally restricted.
5. Two outgoing trunk group restriction tables are provided per system. The Direct Dial Access table is indexed when a user dials the trunk group access code and the ATTENDANT CONSOLE [A-3] table is indexed on Attendant completed calls. The restriction options per RSC can differ per table, thus allowing Attendant completion of outgoing calls for restricted stations.
6. NIGHT SERVICE [N-1, 2]: Restrictions can be changed for a given station when the system is switched to the Night mode of operation.
7. CALL TRANSFER - ALL CALLS [C-11]: If a restricted user calls another station, the called station cannot use the CALL TRANSFER feature to connect the calling station to a trunk group to which the restricted station is denied dial access. If transfer is attempted, the controlling station is rung back.
8. TIE LINE ACCESS [T-3]: If the user accesses a TIE trunk at a distant PBX, access to outside exchanges can only be controlled by the distant PBX.

### Interactions

If other services are being used [such as SMDR, toll restriction, and/or LCR (S)], refer to those feature descriptions, as other commands may be required that are not listed.

# M-4 Multiple Console Operation

## General Description

This feature allows one or more ATTENDANT CONSOLES [A-3] to operate within the same system.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The maximum number of consoles per PIM is 4.
2. The maximum number of consoles allowable per system is:

1 IMG:	16
4 IMG/IMX-U:	60
3. Each incoming call is displayed on an ATTENDANT CONSOLE [A-3], whether idle or busy. If all Attendants are involved in processing calls when another Central Office call arrives, the CALL WAITING LAMP [C-13] will light on all ATTENDANT CONSOLE [A-3]. This is a switched loop Attendant operation.
4. If one of the ATTENDANT CONSOLE [A-3] enters the night mode, all calls addressed to the Attendant will be directed to the other ATTENDANT CONSOLE [A-3]. However, the ATTENDANT CONSOLE [A-3] that has entered the night mode must complete processing of all calls already connected to its loops.
5. A station can be connected to only one Attendant loop at a time. Any attempt at establishing multiple connections will result in reorder tone being sent to the Attendant.
6. INTER-POSITION TRANSFER [I-5] is used to transfer calls between ATTENDANT CONSOLE [A-3].
7. Two methods of operation are available for placing the system (or tenant group) into the night mode:
  - a.) All ATTCON Change System Day to Night: When all ATTENDANT CONSOLE [A-3] press the NITE key, the system (or associated TENANT [T-12]) enters the night mode. Night to Day: When one ATTENDANT CONSOLE [A-3] releases the NITE key, the system (or associated TENANT [T-12]) enters the day mode.
  - b.) Primary ATTCON Change System Day to Night: When the designated primary ATTENDANT CONSOLE [A-3] presses the NITE key, the system (or associated TENANT [T-12]) enters the night mode. If an ATTENDANT CONSOLE [A-3] other than the primary console presses the NITE key, only that console enters the night mode. Night to Day: When the primary ATTENDANT CONSOLE [A-3] releases the NITE key, the system (or associated TENANT [T-12]) enters the day mode.
8. The automatic distribution of Attendant seeking calls is not provided (see Call Queuing). Any ATTENDANT CONSOLE [A-3] assigned to the same tenant can answer a particular call; an exception is an INTER - POSITION TRANSFER [I-5] directed call.

## Interactions

1. See ATTENDANT CONSOLE [A-3] for information regarding a single Attendant Console and system features provided to the Attendant Consoles. The Attendant Console must first be provided.
2. For each tenant, only one type of Attendant Console system can be assigned, either normal or Primary Attendant Console system.
3. ASAT must be programmed for INTER-POSITION TRANSFER [I-5].

**Interactions (cont'd)**

4. When more than one Attendant Console is installed, a Primary Attendant Console may be assigned (AMAT command). This Attendant Console will control the implementation of DAY/NIGHT CLASS OF SERVICE [D-15].
5. If the Primary Attendant places the system into Night mode, the Night LED on the other consoles do not light.

## M-7

# Music On Hold

### General Description

This feature allows a party to hear music while in the CALL HOLD [C-6], CALL TRANSFER [C-10, 11], or ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] conditions.

### Operating Procedure

No manual operation is required for this software controlled feature.

### Service Conditions

1. The system is capable of supplying two switch-selectable music channels. Music is generated by 3 synthesizers included in the package.
2. If another music source (tuner, tape-deck, etc.) is desired, it must be customer provided.
3. Only one music source can be provided per system.
4. The held call condition can be the result of:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
CALL HOLD	[C-10]
CONSULTATION HOLD - ALL CALLS	[C-17]
SPLITTING	[S-4]
Attendant Hold	
5. Only one music source, either customer-provided or internal, can be provided per system (system option).
6. ATTENDANT CONSOLE [A-3]: Attendant operations resulting in music to be provided to the calling party include the following:
  - a.) The calling party or the remaining party (not talking with the Attendant) hears music, if the Attendant splits a call prior to completion or after answering an Attendant recall.
  - b.) When incoming calls to the Attendant are answered and the Attendant presses the HOLD key, the held party hears music.
  - c.) When the Attendant camps on a call to a busy station, the calling party is connected to music until the called party answers or the Attendant reenters the switched loop.
7. When a user in a two-party talking connection switch hook flashes, the second party is placed on hold and is connected to music.
8. When activating this feature via the FCCS network, when either the internal or the external source is used, it is recommended to set the source as the same MOH at each node for the node-to-node connection, since the node that controls MOH varies depending on the connection pattern.

### Interactions

1. Two types on MUSIC-ON-HOLD (MOH) exist; internal source MOH and external source MOH.
2. The input to the system is an 8-ohm output from the external music source. An 8-ohm music source is a typical input to an 8-ohm speaker.
3. An external MOH source is connected to the EMA circuit card with 16 PH EXALM CA cable.

# M-11 Meet-Me Paging - Attendant

## General Description

This feature allows an Attendant to hold an incoming call, page the called party, and connect the two after the called party has answered the page.

## Operating Procedure

### Procedure 1:

#### To page:

1. Place the incoming call on hold by pressing the HOLD key.
2. The Attendant seizes an idle loop.
3. The Attendant dials the paging access code; receives continuous ringback tone for 1 second.
4. The Attendant pages the desired party.
5. The Attendant presses the RELEASE key.

#### To answer:

1. The paged party dials the PAGE answer code; receives ringback tone.
2. Ringing is heard at console. After the call is answered (on loop), the Attendant and paged party converse.
3. The Attendant presses the loop of the held outside call.
4. The Attendant presses the RELEASE key to connect both parties.

### Procedure 2:

#### To page:

1. The Attendant answers incoming call.
2. The Attendant dials the paging access code; receives 1 second of ringback tone.
3. The Attendant pages the desired party.
4. The Attendant presses the RELEASE key.

#### To answer:

1. Paged party dials the PAGE answer code and is directly connected to the holding party.  
OR
2. Paged party dials the PAGE answer code and the individual Attendant number and receives ringback tone. The Attendant and the paged party converse. The Attendant presses the loop key of the held outside call. The Attendant presses RELEASE key to connect both parties.

## Service Conditions

1. If operating Procedure 2 is used, a maximum of six (6) routes can be provided with paging trunks.
2. If Procedure 1 is used, the limitation of routes is based on the number of COT cards equipped.
3. Paging equipment is customer provided.
4. One paging trunk (COT) will be assigned to each route.
5. If Procedure 2 is used, only one held call waiting for a paged party can be held at a time at the console.
6. Paging access and answer codes are assigned to correspond with each route.
7. The maximum number of digits that can be used as a PAGE access and/or answer code is 3.
8. The type of Paging service provided on a system basis is programmed via the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18] into the System Data base.
9. A Page waiting to be answered is automatically cancelled after a predetermined programmed duration. See VARIABLE TIMING PARAMETERS [V-1] for selectable timing choices.



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## Service Conditions (cont'd)

10. Loop signaling is the recommended signaling type.
  - a.) Both MEET-ME PAGING and PAGING ACCESS [P-1] (loudspeaker - basic) can be provided in the same system.
  - b.) A separate access code for MEET-ME PAGING and PAGING ACCESS [P-1] is required for the same paging zone.
  - c.) A paging answer code is required for each MEET-ME PAGING zone.
  - d.) The maximum number of answer back ports is limited to the number of paging zones (20 maximum). These answerback ports are used for RADIO PAGING [R-16] service also.
  - e.) ALL ZONE PAGING [A-53] cannot be used with MEET-ME PAGING.
  - f.) Paging over the loudspeaker system is limited to paging from a station, an ATTENDANT CONSOLE [A-3] or a TIE trunk. Callers on outside CO trunks must make arrangements with an Attendant or a user to have paging performed.
  - g.) Direct access (key) to paging from the ATTENDANT CONSOLE [A-3] is not available.
  - h.) The Attendant cannot dial the paging answer codes.
11. CALL TRANSFER - ALL CALLS [C-11]: A user can flash and place a second party on hold, hear special dial tone, and dial the paging access code. The Paging Transfer (and use of loudspeaker paging system with a party on hold) is allowed, unless denied by the Class of Service of the user's line.
12. Central Office trunks are used as interface circuits to the Paging equipment.
13. BUSY VERIFICATION [B-3]: Busy Verification is denied on a station line that is connected to paging equipment. Attempts to busy-verify a station line will result in the Attendant hearing reorder tone.
14. ATTENDANT-CONTROLLED CONFERENCE [A-2]: When a conference call is established, an Attendant cannot connect the conference connection to paging loudspeakers.
15. CALL WAITING [C-12, 31]: A call is not allowed to wait on a line that has accessed loudspeaker paging (making a page). The user hears reorder tone.
16. EXECUTIVE RIGHT-OF-WAY [E-1] is denied to a station line connected to loudspeaker paging. The user receives reorder tone.
17. ATTENDANT CAMP-ON [A-1] is not allowed on a line that has accessed loudspeaker paging. The user receives reorder tone.
18. THREE-WAY CALLING [T-2] is not allowed after the paged party has been connected to the originating station.
19. Delayed or non-Delayed operation are the two methods for answer back, either can be selected.
  - a.) Delayed Operation: The paging party goes on-hook to wait for the paged party to answer back.
  - b.) Non Delayed Operation: The paging party remains off-hook to wait for the paged party to answer back.
20. The paging trunk remains in a busy state, while the paging party remains unanswered (e.g., the paging answer code has not been dialed). The paging answer back state will be cancelled after a programmable time-out period, if the answer code is not dialed within the prescribed interval, releasing the paging trunk and the paging party as well, if still in the off-hook mode.

## Interactions

1. MEET-ME PAGING and PAGING ACCESS [P-1] can be provided simultaneously in the same system. ARTD, CDN 6:TCL must be assigned as data "8" for MEET-ME PAGE, while PAGING ACCESS routes may be assigned as data "11", General Page, or as data "1", DDD. Separate access codes for each feature is required. MEET-ME PAGING answer and cancel codes are required for each MEET-ME PAGING zone.

**Interactions (cont'd)**

2. MEET-ME PAGING is limited to stations and Attendant Consoles. CO trunks, TIE LINE ACCESS [T-6] or REMOTE ACCESS TO PBX SYSTEM [R-2] calls must have the Attendant or user perform the Paging operation.
3. The Attendant Console cannot dial the MEET-ME PAGING answer codes.
4. BUSY VERIFICATION [B-3] and EXECUTIVE OVERRIDE [E-1]: These features will be denied for a connection, including the Paging route.
5. DELAY OPERATION: The Attendant Console is connected to party B.
  - a.) The Attendant dials the MEET-ME PAGE route access code. When connected to the Page trunk, the Attendant requests Station C to dial the MEET-ME PAGE answer code. The Attendant presses RELEASE key. When Station C dials the answer code, Party B is connected to Station C.  
OR
  - b.) The Attendant presses the HOLD key, then seizes an idle loop and dials the MEET-ME PAGE route access code. After the paging, the Attendant presses the RELEASE key. When Station C dials the answer code, Station C terminates to an idle loop key on the Attendant Console. The Attendant answers and places this call on hold, then sequentially presses the two held loop keys. This connects the Attendant to the party connected to the first pressed loop key. The Attendant can either press the TALK key, creating a THREE-WAY CALLING [T-2] connection, or press the RELEASE key, allowing Party B and Station C to be connected. If Station C does not call the MEET-ME PAGE answer code within 30 seconds, Party B rings back to the Attendant Console. Normal operating indications are applied.
6. Stations and Attendant Consoles allowed Priority Page, SFI = 57, will barge into the Paging route, except when the Attendant Console is paging. An access code to Priority Page must be assigned in ASPA, SRV = SSC (Service Code), SID 40, and assigned for a Connection Index of Normal (N).
7. To answer the MEET-ME PAGE while connected to another party, CALL HOLD [C-6] must be used. THREE-WAY CALLING [T-2] is not allowed.

# M-15

# Maintenance Printout

## General Description

The NEAX2400 IMX can provide a hard copy of maintenance and system management data via the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18] printer.

## Operating Procedure

Refer to the NEAX2400 IMX Office Data Specification.

## Service Conditions

The following hard copy reports can be obtained:

1. History printout for command execution: When the command is executed, the following information will be printed
  - Office Name
  - Command Name
  - Date and time of execution of the specific command.
  - Parameter data and other information typed in by MAT [M-18] operator.
  - Date and time of command completion.
2. System Message printout: The system message will be printed automatically, and/or when the command is executed.
3. Traffic and Peg count printout: The traffic and peg count will be printed automatically by request from the MAT [M-18].
4. Office Data printout: The office data lists can be printed to include telephone number list, trunk data list, and access code data list.

## Interactions

1. All other printouts are automatically printed in conjunction with the operation of the MAT or in requesting Traffic Data. See MAINTENANCE ADMINISTRATION TERMINAL [M-18].
2. The MAINTENANCE PRINTOUT as described will be assigned to Port 1.
3. If Port 1 is used for MAINTENANCE PRINTOUT, another port must be used for REMOTE MAINTENANCE [R-7].
4. For Automatic MAINTENANCE PRINTOUT via the MAT, assign the MAT port in System Data 1, Index 116 as data 42H. Assign the destination of System Messages in Index 39 as Port 0. Index 86, Bits 4 & 7 assigned as data "1".
5. Indexes 116 - 123, which were used for IOC port attribute data assignment, are assigned in the AIOC command.

# M-18 Maintenance Administration Terminal (MAT)

## General Description

This feature provides a man-machine interface, using a personal computer, to accomplish such items as on-line system programming of station and trunk data, traffic information, fault condition analysis, and testing of operating programs.

## Operating Procedure

Refer to the NEAX2400 IMX Office Data Specification.

## Service Conditions

1. When used in conjunction with the NEAX2400 IMX Office Data Specification, it enables the user to perform individual maintenance and/or administration functions as required.
2. The following functions may be performed from the MAT:
  - a.) office data assignment and change
  - b.) loading of office data stored on a floppy disk
  - c.) station, trunk, and operations (peg count) data display
  - d.) fault data display
  - e.) REMOTE MAINTENANCE [R-7].
3. The above maintenance functions can be performed on site or at a remote location (see REMOTE MAINTENANCE [R-7]).
4. A maintenance printout of all transactions can be provided, along with fault data and peg count data.
5. The maximum distance between the MAT and the switching equipment is 50 feet (15m) without a modem.
6. The following traffic data can be either printed out on the printer or output to the MAT hard disk. The traffic data field in the hard disk will be copied to the floppy disk.
  - a.) calls per station
  - b.) calls per route
  - c.) station peg count
  - d.) Attendant Console peg count
  - e.) route peg count
7. The history of MAT usage can be output to the printer or MAT printer by entering the USER NAME and ID CODE when using, depending on the System Data. This feature is called Audit Trail to Track the Mat Usage.
8. When Audit Trail to Track the MAT Usage is used:
  - a.) A maximum of 15 USER NAMES can be assigned.
  - b.) The maximum digits of the USER NAME is 16, and those of the ID CODE is 8.
  - c.) The USER NAME and ID CODE can be assigned using figures (0-9) and letters (A-Z).
  - d.) A maximum of 128 System Messages can be stored. However, if other failure messages are output, the stored number for Audit Trail to Track the Mat Usage service will decrease.
  - e.) If more than 128 System Messages are output, the exceeded messages will not be stored.
  - f.) When a System Message is printed out, that information remains as OLD information.
9. If wrong ID CODEs are entered several times assigned by System Data, the I/O port used for the corresponding MAT will be locked out. This feature is called Lock Out Maintenance Port.
10. When Lock Out Maintenance Port service is used:
  - a.) A maximum of 15 USER NAMES can be assigned.

**Service Conditions (cont'd)**

- b.) The maximum digits of the USER NAME is 16, and those of the ID CODE is 8.
  - c.) Lock Out information is output with the information of the USER NAME, date, time, and IOC port used as System Message.
  - d.) A maximum of 128 System Messages can be stored. However, if other failure messages are output, the stored number for Audit Trail to Track the Mat Usage service will decrease.
  - e.) If more than 128 System Messages are output, the exceeded messages will not be stored.
  - f.) When a System Message is printed out, that information remains as OLD information.
11. Multiple MAT connection is available via RS-232C or TCP/IP interface. The allowed MAT number is as follows:
- RS-232C: Maximum of 2
  - TCP/IP: Maximum of 4 (**Note**)

**Note:** *The number of ports provided by TCP/IP is a maximum of 5. For this reason, if the ports (2 or more ports) are occupied by other applications (SMDR, MCI, OAI, MIS, etc.), the allowed MAT number is restricted as shown below:*

Total Applications Used	MATs Allowed per System
0	4
1	4
2	3
3	2
4	1

12. The number of ports for TCP/IP is 21. Therefore, restrictions are lifted to use multiple MATs (regardless of the number of other applications used). A maximum of 4 MATs may be connected per system.

**Interactions**

1. APSW must be assigned before allowing the password function in the ASYD command. If password is allowed in ASYD, before APSW is assigned, error message 0550, the PASSWORD NOT YET ASSIGNED will be displayed.
2. Deletion of a password must begin with ASYD, System Data 1, Index 116, and then the APSW command.

# M-19 Message Reminder

## General Description

This feature allows a single-line telephone to leave a MESSAGE REMINDER at the called D<sup>term</sup> set.

## Operating Procedure

### To send a message from a single-line telephone:

1. Dial the desired internal D<sup>term</sup> station; receive ringback tone or busy tone.
2. Press switch hook; receive special dial tone.
3. Dial the MESSAGE REMINDER access code; receive service set tone.
4. At the called D<sup>term</sup>, the MSG LED will light to indicate a message has been set.

### To review messages:

1. Press the MSG key; the LCD displays:

Calling Station	hr.	min.	AM/PM
MESSAGE XXXXXXXXXXXX	XX:	XX	AM
(Time Display)			

**Note:** When the station number exceeds 12 digits, MSG is not displayed.

### To return the message:

1. Lift handset or press SPEAKER key while the message is displayed.
2. Press the MSG key; calling station is automatically redialed.

## Service Conditions

1. This service feature is available only when the called party is a D<sup>term</sup> set, which has the MSG key. If a message is directed to a D<sup>term</sup> that does not have the MSG key or a single-line telephone, the calling station will hear reorder tone.
2. A message can only be sent if the called station is in the idle or busy condition.
3. A message cannot be sent to a D<sup>term</sup> engaged in calling or recalling from CALL TRANSFER - ALL CALLS [C-11], or from CONSULTATION HOLD - ALL CALLS [C-17].
4. A maximum of four messages may be received at any one D<sup>term</sup>. If a fifth message is attempted, the reorder tone will be transmitted to the calling party.
5. A message can be displayed at the called D<sup>term</sup> only when the station is on-hook.
6. A message may be cleared by displaying the message and pressing the "\*" or "#" key on the called D<sup>term</sup>'s keypad. This is selected via System Data.
7. A message is cleared when it is obtained via the MSG key.
8. A second message sent by the same telephone set is not restricted and is registered as a second unique message. The same applies to the third and fourth messages.
9. Messages are set to the call forwarded station when the called station sets CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY/DON'T ANSWER [C-2, 3].
10. In case the called D<sup>term</sup> station is in a hunting group, the message will be set to the first selected station in the hunting group when all stations are busy. The message will be set to the ringing station in the hunting group when any station is idle.
11. When the call is in the UCD queue, the MESSAGE REMINDER service is not provided.

**Service Conditions (cont'd)**

12. A maximum of 32 digits can be saved at the called party.
13. To memorize the telephone number of the calling station, assign SYS1, index 641, b0=1 by the ASYDN command.

# M-19D Message Reminder - D<sup>term</sup>

## General Description

This feature allows a D<sup>term</sup> to leave a MESSAGE REMINDER at another D<sup>term</sup>.

## Operating Procedure

### To send a message from a D<sup>term</sup>:

1. Dial the desired D<sup>term</sup> station, receive ringback tone or busy tone.
2. Press the MSG key; the LCD displays:

	Called Station
<b>MESSAGE SET</b>	<b>XXXX</b>
<b>(Time Display)</b>	

Service set tone is heard.

3. At the called D<sup>term</sup>, the MSG LED will light to indicate a message has been set.

### To review the messages:

1. Press the MSG key; the LCD displays:

Calling Station	hr.	min.	AM/PM
<b>MSG XXXXXXXXXXXXX</b>	<b>XX:</b>	<b>XX</b>	<b>AM</b>
<b>(Time Display)</b>			

**Note:** When the station number exceeds 12 digits, MSG is not displayed.

### To return the message:

1. Lift the handset or press the SPEAKER key while message is displayed.
2. Press the MSG key; the calling station is automatically redialed.

## Service Conditions

1. This feature is only available between two D<sup>term</sup> sets, both of which have the MSG key. If a message is directed to a D<sup>term</sup> that does not have the MESSAGE REMINDER feature, the calling station's LCD displays:

<b>MESSAGE REST</b>
<b>(Time Display)</b>

2. Messages can only be sent if the called station is in the idle or busy condition.
3. Messages cannot be sent while engaged in calling and recalling from CALL TRANSFER - ALL CALLS [C-11] and from CONSULTATION HOLD - ALL CALLS [C-17].
4. A maximum of four messages may be received at any one D<sup>term</sup>. If a fifth message is attempted, the LCD will display:

<b>MESSAGE BUSY</b>
<b>(Time Display)</b>



**Service Conditions (cont'd)**

5. Messages can be displayed only when the station is on-hook. A message may be cleared by displaying the message and pressing the “\*” or “#” key on the called D<sup>term</sup>'s key pad.
6. A message is cleared when it is obtained via the MSG key.
7. Messages cannot be cleared by the message sender.
8. A second message sent by the same calling D<sup>term</sup> is registered as a second unique message. The same applies to the third and fourth messages.
9. If a message is returned to an unattended station, the telephone number may be stored as a LAST NUMBER DIALED [L-6], SAVE AND REPEAT [S-24], or a new MESSAGE REMINDER may be sent.
10. Messages are sent to the forwarded-to station, which is set by CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY/DON'T ANSWER [C-2, 3].
11. Messages cannot be sent to a UCD [U-1] station when all stations in the UCD group are busy.
12. Messages are sent to a dialed station when all stations in a Station Hunting (Circular) group are busy.
13. If CALL WAITING - ORIGINATING [C-31] automatic operation is in service, it will supersede this service. If a third station calls and receives busy tone, MESSAGE REMINDER - D<sup>term</sup> cannot be set.
14. A maximum of 32 digits can be saved at the called party.
15. To utilize the telephone number of the calling station, assign SYS1, Index 641, b0=1 by the ASYDN command.
16. For the FCCS network, when using this feature with a D<sup>term</sup> Series E, the following circuit cards are recommended:

Function Name	Circuit Card
16ELC	PA-16ELCJ
DAI	PA-DAIG, PA-DAIH, PA-DAIJ
2DAI	PA-2DAIK
DRU	

**Note:** *If the D<sup>term</sup> Series III is accommodated on one of these circuit cards, a telephone number is indicated by the first eight digits only.*

17. The setting station in the FCCS network must provide telephone numbers for this feature.
18. Message (telephone number) is cleared by the circuit card initialization or the system initialization.
19. Memory clear is necessary before reprogramming of station data and before using Follow Phone service.

**Interactions**

If CALL WAITING-ORIGINATING [C-31] automatic operation is in service, it will supersede MESSAGE REMINDER-D<sup>term</sup>. If a third station calls and receives busy tone, MESSAGE REMINDER-D<sup>term</sup> can be set.

# M-20D Multiple Line Operation - D<sup>term</sup>

## General Description

This feature allows for the appearance of multiple lines on the programmable line/feature keys of the D<sup>term</sup> set.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Three kinds of lines can appear on D<sup>term</sup>s:
  - MY Line (ML): This line is associated with the extension number assigned to the port on the interface circuit.
  - Prime Line (PL): This line is given priority for outgoing and incoming calls. The prime line is automatically seized when going off-hook.
  - Sub Line (SL): This line designates any other line appearing on a D<sup>term</sup>. (The MY Line will serve as a prime line, unless differentiated in System Data programming).
2. If a feature is activated that can trigger an AUTOMATIC RECALL [A-8], only the station being recalled will ring, and the associated line lamp will rapid wink. Other D<sup>term</sup> stations will display that line as busy.
3. All sublines of a D<sup>term</sup> must be located in the same Module Group as the D<sup>term</sup> MY Line.
4. A virtual line (Software Line Appearance [S-33]), single line telephone or D<sup>term</sup> can be assigned to the subline.

## Interactions

1. Sublines can belong to another station, or be a virtual/software line appearance. Sublines will operate under the restrictions of the MY Line. Sublines must be located within the same Module Group as the MY Line when assigning ASYD, System Data 1, Index 321, bit 0 as "0."
2. Multi Line service in the Inter-Module Group under the control of one LP is available when assigning ASYD, System DATA 321, bit 0 as "1."

## M-23 Message Waiting Lamp Setting - Attendant

### General Description

This feature permits an ATTENDANT CONSOLE [A-3] to set or cancel a Message Waiting indication on a station provided with this feature.

### Operating Procedure

#### To set a Message Waiting indication:

1. Press an idle loop key.
2. Dial the Message Waiting set code (up to 3 digits); receive special dial tone.
3. Dial the telephone number; receive service set tone.
4. Message Waiting indication is set.
5. Press the RELEASE key to return to an idle condition.

#### To cancel a Message Waiting indication:

1. Press an idle loop key.
2. Dial the Message Waiting cancel code (up to 3 digits); receive special dial tone.
3. Dial the telephone number; receive service set tone.
4. Message Waiting indication is cancelled.
5. Press the RELEASE key to return to an idle condition.

### Service Conditions

1. The Message Waiting lamp on a single line telephone or a D<sup>term</sup> will be lit when this feature is activated.
2. When Message Waiting is set to a D<sup>term</sup> station, the LCD display indicates:



3. Message Waiting cannot be set when the ATTENDANT CONSOLE [A-3] is in a consultation condition with a station or trunk.
4. An Attendant attempting to set Message Waiting to a station where Message Waiting has previously been set, will receive busy tone.
5. In a MULTIPLE CONSOLE OPERATION [M-4], if Message Waiting is set by one ATTENDANT CONSOLE [A-3], it can be cancelled by another.
6. Message Waiting indications are cleared when the system is initialized.

**Service Conditions (cont'd)**

7. When Call Indicator Lamp (**Note**) is controlled by MESSAGE WAITING LAMP SETTING - STATION [M-30], the tone and display indication of the Attendant Console and Call Indicator Lamp of the station are as follows, depending on the status of the station.

Status of Preassigned Station		Attendant Console			Call Indicator Lamp Status
		Operation	LCD	Type of Tone	
Unused telephone number Dead Level Restricted station		Cancelling	Telephone number	Reorder Tone	
		Setting			
Call Indicator Lamp OFF	Idle Busy Lock Out Make Busy	Cancelling	Telephone number	Service Set Tone	OFF
		Setting			ON
Call Indicator Lamp OFF set from Attendant	Call Indicator Lamp ON set from station	Cancelling	Telephone number	Service Set Tone	ON
		Setting			
Call Indicator Lamp ON set from Attendant	Call Indicator Lamp OFF set from station	Cancelling	Telephone number	Service Set Tone	OFF
		Setting		Busy Tone	ON
	Call Indicator Lamp ON set from station	Cancelling	Telephone number	Service Set Tone	ON
		Setting		Busy Tone	

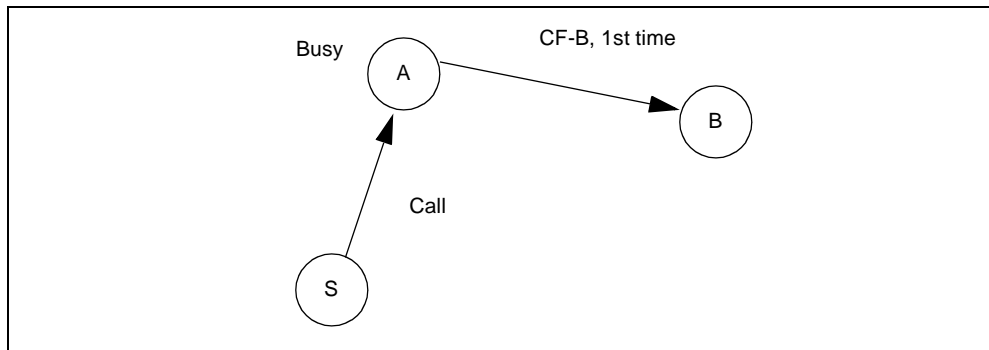
**Interactions**

1. For MESSAGE WAITING LAMP SETTING-ATTENDANT, an 8DLC/16ELC card is required.
2. An external power source is required to light a lamp for a single-line telephone. The D<sup>term</sup> uses an 80 VDC power source. NEC stocks Lorain Model HSA3H, stock number 241440.
3. Only the Attendant can set and extinguish the Message Waiting Lamp.

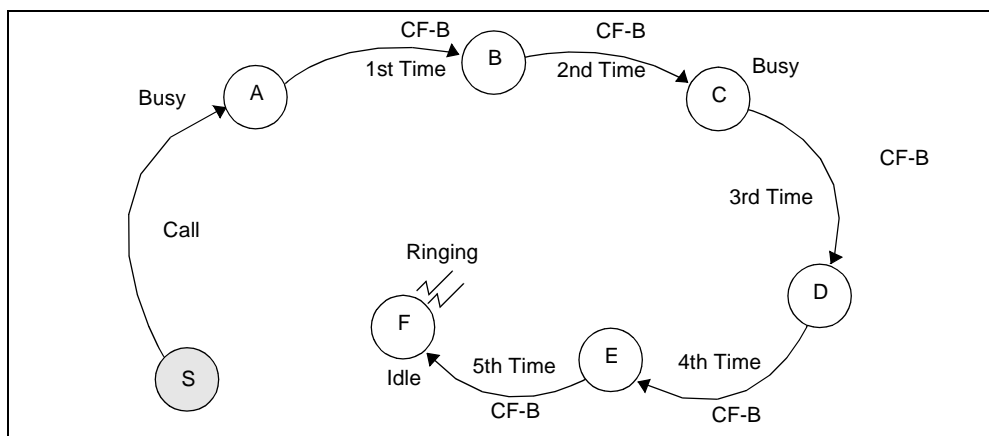
## M-24 Multiple Call Forwarding - Busy Line

### General Description

This feature permits a call to a busy station to be forwarded, a maximum of five times, to preprogrammed idle stations.



Existing CALL FORWARDING - BUSY LINE [C-2] service



MULTIPLE CALL FORWARDING - BUSY LINE [M-24] service

### Operating Procedure

#### To set CALL FORWARDING - BUSY LINE [C-2] from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - BUSY LINE access code; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone.

#### To cancel CALL FORWARDING - BUSY LINE [C-2] from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - BUSY LINE [C-2] cancel code; receive service set tone.

#### To set CALL FORWARDING - BUSY LINE [C-2] from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the CALL FORWARDING - BUSY LINE [C-2] access code; receive special dial tone.
3. Dial the TENANT [T-12] number (2 or 3 digits).
4. Dial the originating telephone number.

## Operating Procedure (cont'd)

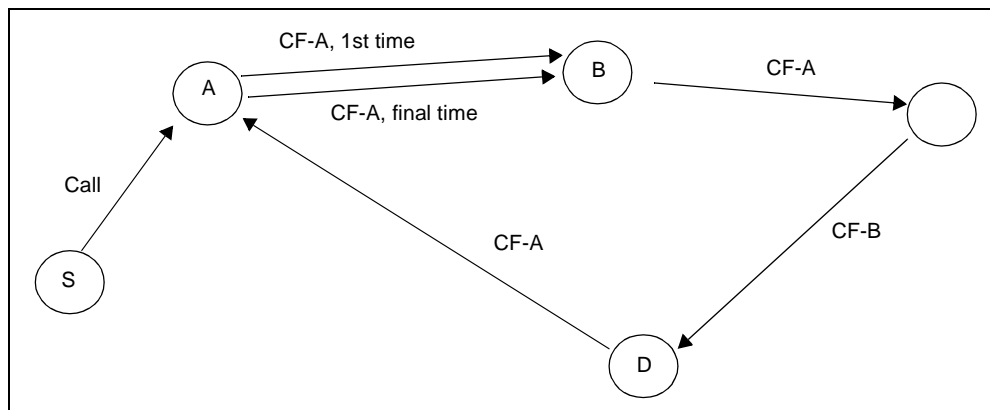
5. Dial the desired target telephone number; receive service set tone.

### To cancel CALL FORWARDING - BUSY LINE [C-2] from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the CALL FORWARDING - BUSY LINE [C-2] cancel code; receive special dial tone.
3. Dial the TENANT [T-12] number (2 or 3 digits).
4. Dial the originating telephone number; receive service set tone.

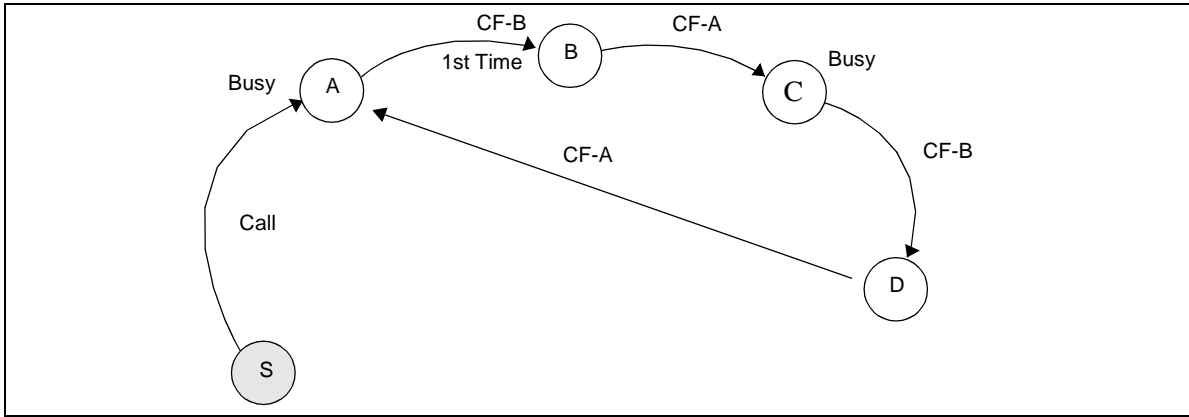
## Service Conditions

1. If the called station is busy and MULTIPLE CALL FORWARDING - BUSY LINE [M-24] is set at the called station, the call is forwarded to the designated station.
2. A call cannot be forwarded more than five times, even if the fifth station has CALL FORWARDING - BUSY LINE set.
3. A call cannot be forwarded to the originating station.
4. If the call is forwarded back to the originally called station, or a station that has already been forwarded to, call forwarding will end at that station.
5. CALL FORWARDING - BUSY LINE [C-2] and CALL FORWARDING - ALL CALLS [C-5] combined:
  - a.) Any combination of CALL FORWARDING - BUSY LINE [C-2] and CALL FORWARDING - ALL CALLS [C-5] may be made, up to a total of five forwards.
  - b.) If the fifth forwarding destination is busy, the caller receives busy tone, and the call will not forward again.
  - c.) If a forward destination is the calling station, the calling station will receive busy tone.
  - d.) If a forwarding destination is the originally called station, and if the originally called station forwarded the call with CALL FORWARDING - ALL CALLS [C-5], the ultimate destination is the originally called station's CALL FORWARDING - ALL CALLS [C-5] destination.

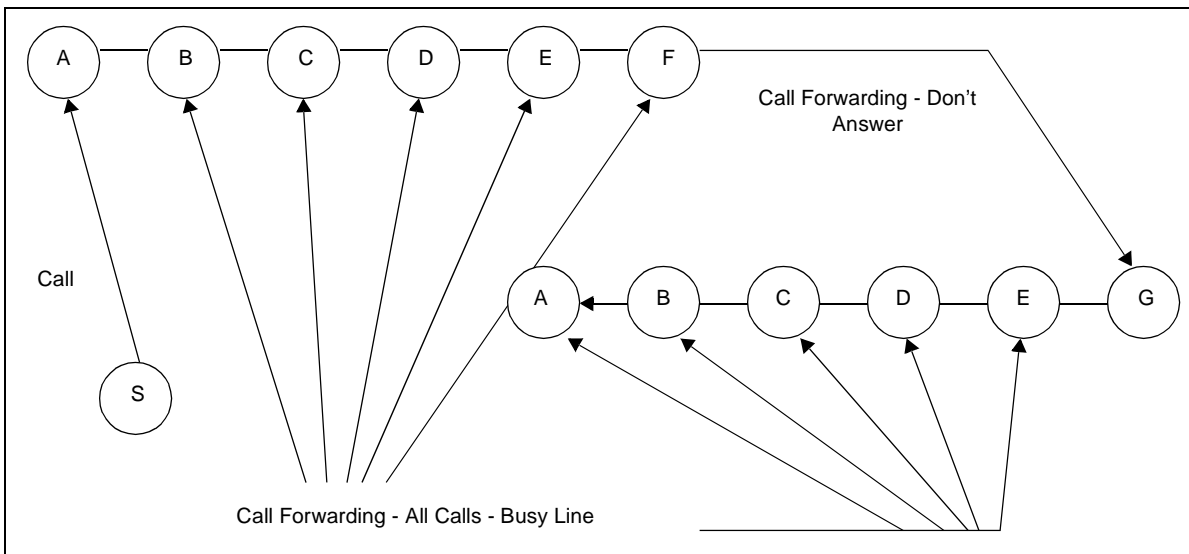


Service Conditions (cont'd)

- e.) If a forwarding destination is the originally called station, and if the originally called station forwarded the call with CALL FORWARDING - BUSY LINE, the ultimate destination is the originally called station.



- f.) If the call is forwarded to a station where it has previously been forwarded to, the call will end at that station.
6. CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2] and CALL FORWARDING - DON'T ANSWER [C-3] combined:
    - a.) Although CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2] and combinations of the two are limited to five forwards, when a forwarding sequence is divided by CALL FORWARDING - DON'T ANSWER [C-3], CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2] can begin again (the only limit is five consecutive forwards).



7. Forwarding to an Attendant Console:
  - a.) If an Attendant Console is designated as the destination of CALL FORWARDING - ALL CALLS [C-5], the call is forwarded to the Attendant Console that handles the tenant to which the calling station belongs.

### Service Conditions (cont'd)

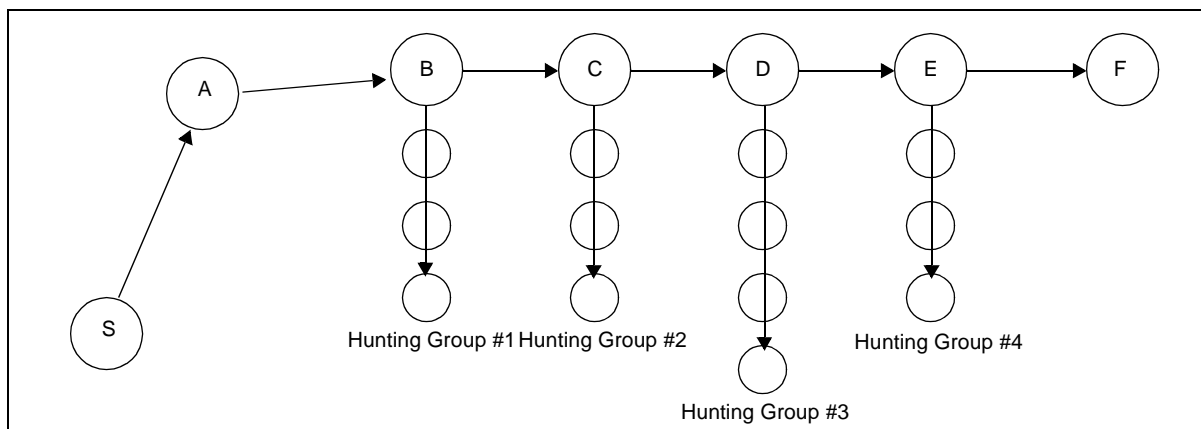
- b.) The Attendant Console key that lights when a call is forwarded to the console depends on the forwarding status of the originally called station. The following table shows the key that will light (if the forwarding status of the originally called station is CALL FORWARDING - BUSY [C-2], and the call is from a station, then the BUSY key will light).

Forwarding Status Of Originally Called Station			
	Call Forward -All Calls	Call Forward -Busy	Call Forward -Don't Answer
Call From Station	ATND	BUSY	NANS
Call From Trunk	Depends on trunk class	BUSY	NANS

- c.) If the call is forwarded by CALL FORWARDING - DON'T ANSWER [C-3] at any point in a forward sequence, the NANS key on the Attendant Console will light, even if the call status of the originally called station is CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY LINE [C-2].
- d.) Called Number Display is only provided if a call is forwarded to the Attendant Console by CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2], or by CALL FORWARDING - DON'T ANSWER [C-3].
8. Forwarding to a D<sup>term</sup>:
- a.) The calling D<sup>term</sup>'s display will show the number of the called station on the left, and the number of the station being rung on the right. The display on the ringing D<sup>term</sup> will show the number of the originally called station on the left, and the number of the calling station on the right.
- b.) The forwarding status of the originally called station is shown on the far left of each D<sup>term</sup>'s display: FDB for CALL FORWARDING - BUSY [C-2] or FDA for CALL FORWARDING - ALL CALLS [C-5].
9. UCD Groups:
- a.) If the destination of CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY [C-2], or CALL FORWARDING - DON'T ANSWER [C-3] is a UCD group control station, and CALL FORWARDING - ALL CALLS [C-5] is not set at that station, the call will be forwarded according to UNIFORM CALL DISTRIBUTION [U-1] procedures.
- b.) In the UCD procedure, if CALL FORWARDING - ALL CALLS [C-5] is set on a station in the group, that station is skipped.
10. Hunting:
- a.) If the ultimate destination station is busy, or if some condition prevents the call from being forwarded, a busy line is selected, and a hunting check is performed.)
- b.) If a call is forwarded several times by CALL FORWARDING - BUSY LINE [C-2] to stations that are members of hunting groups, a hunting check is performed on the busy line closest to the called station or on the busy line closest to the ultimate destination. In the diagram below, a hunting check is performed on Hunt Groups 1 or 4. A hunting check is never performed on groups 2 or 3.



## Service Conditions (cont'd)



11. Busy Services such as EXECUTIVE OVERRIDE [E-1], CALL BACK [C-1], etc.:
  - a.) Busy service is provided to the busy line closest to the originally called station.
12. DIT, NIGHT CONNECTION - FIXED [N-1]:
  - a.) For CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2], a forward check is made up to 5 times by System Data.
  - b.) In DIRECT-IN TERMINATION [D-7], if a line is busy, CALL FORWARDING - BUSY LINE [C-2] to the Attendant is not activated. Instead, the destination for the call can be specified by System Data:
    - System Data 2 INDEX = 11
    - Bit 7 = 0 - Call is routed to the Attendant Console.
    - Bit 7 = 1 - Call is placed in queue until the called station becomes idle.
13. A telephone number must be set to the call forwarding destination.
14. A call cannot be forwarded more than five times.
15. The number of times is assigned by System Data.
16. The OAI monitor number and the ACD pilot number cannot be assigned as the Call Forwarding target telephone number.

## Interactions

1. If access codes for CALL FORWARDING-BUSY LINE [C-2] and CALL FORWARDING-DON'T ANSWER [C-3] are the same, only one key needs to be assigned in AKYD or ADSL, and only one access code needs to be assigned in ASPA.
2. When CALL WAITING [C-12], ATTENDANT CAMP-ON WITH TONE INDICATION [A-1], or CALL BACK [C-1] is directed toward Station A, with CALL FORWARDING-BUSY LINE [C-2] set to Station B, Station A will receive call waiting tones when Station B is also busy.
3. A non-controlling UCD station is allowed to activate CALL FORWARDING-BUSY LINE [C-2]. When this station sets CALL FORWARDING-BUSY LINE [C-2], only directly-dialed calls to this station are call forwarded.
4. If a controlling station of a UCD group sets CALL FORWARDING-BUSY LINE [C-2], forwarding will not take place. The incoming call will follow the UCD hunt.

**Interactions (cont'd)**

5. If an Attendant attempts BUSY VERIFICATION [B-3] to Station A, which has CALL FORWARDING-BUSY LINE [C-2] set to Station B and Station B is busy, BUSY VERIFICATION [B-3] proceeds against Station B. If Station A has set CALL FORWARDING-BUSY LINE [C-2] to the Attendant Console, BUSY VERIFICATION [B-3] is allowed at Station A, if Station A is busy.
6. When CALL FORWARDING-BUSY LINE [C-2] is in effect, the activating station may be used to originate calls.
7. When a station is call forwarded, the destination station is recorded by STATION MESSAGE DETAIL RECORDING [S-10].

# M-25 Multiple Call Forwarding - Don't Answer

## General Description

This feature permits a call to an unanswered station to be forwarded, multiple times, to preprogrammed idle stations that do not have Call Forwarding set.

## Operating Procedure

### To set CALL FORWARDING - DON'T ANSWER [C-3] from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - DON'T ANSWER [C-3] access code; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone.

### To cancel CALL FORWARDING - DON'T ANSWER [C-3] from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - DON'T ANSWER [C-3] cancel code; receive service set tone.

### To set CALL FORWARDING - DON'T ANSWER [C-3] from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - DON'T ANSWER [C-3] access code; receive special dial tone.
3. Dial the TENANT [T-12] number (2 or 3 digits).
4. Dial the originating telephone number.
5. Dial the desired target telephone number; receive service set tone.

### To cancel CALL FORWARDING - DON'T ANSWER [C-3] from the ATTENDANT CONSOLE [A-3]:

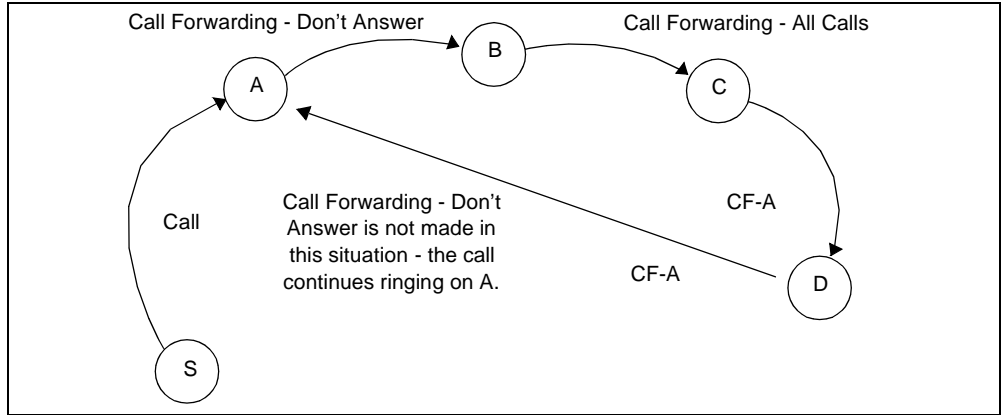
1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - DON'T ANSWER [C-3] cancel code; receive special dial tone.
3. Dial the TENANT [T-12] number (2 or 3 digits).
4. Dial the originating telephone number; receive service set tone.

## Service Conditions

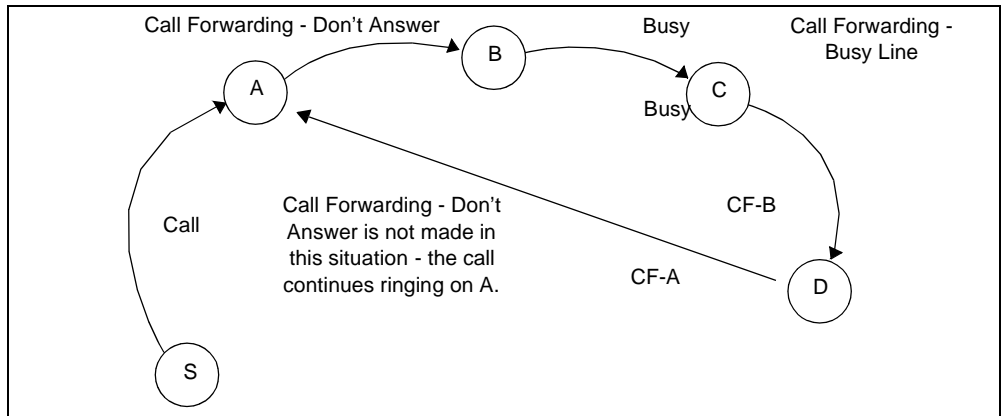
1. If the called station does not answer and MULTIPLE CALL FORWARDING - DON'T ANSWER [M-25] is set at the called station, the call is forwarded to the designated station.
2. There is no limit to the number of times a call can be forwarded by MULTIPLE CALL FORWARDING - DON'T ANSWER [M-25].
3. A call cannot be forwarded to the originating station.
4. CALL FORWARDING - DON'T ANSWER [C-3], CALL FORWARDING - BUSY LINE [C-2] and CALL FORWARDING - ALL CALLS [C-5] combined:
  - a.) After a CALL FORWARDING - DON'T ANSWER [C-3] forward has been made, up to five CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY LINE [C-2] forwards may be made.
  - b.) If the fifth or last CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY LINE [C-2] destination after a CALL FORWARDING - DON'T ANSWER [C-3] is busy, the originally called station will continue ringing.
  - c.) If a station has CALL FORWARDING - BUSY LINE [C-2] or CALL FORWARDING - ALL CALLS [C-5] to the originating station set, the call will not be forwarded to the originating station. The originally called station is rung.

Service Conditions (cont'd)

- d.) If the forwarding sequence, after a CALL FORWARDING - DON'T ANSWER [C-3] goes through several stations with CALL FORWARDING - ALL CALLS [C-5] set and ends up at the original CALL FORWARDING - DON'T ANSWER [C-3] station, CALL FORWARDING - DON'T ANSWER [C-3] is not activated.



- e.) If the forwarding sequence, after a CALL FORWARDING - DON'T ANSWER [C-3] goes through several busy stations with CALL FORWARDING - BUSY LINE [C-2] set and ends up at the original CALL FORWARDING - DON'T ANSWER [C-3] station, CALL FORWARDING - DON'T ANSWER [C-3] is not activated.



5. If a call is transferred blind to a station that is CALL FORWARDED - DON'T ANSWER [C-3] to another destination (internal or external), the call will not forward but will recall back to the transferee station. This recall parameter is controlled by System Data.
6. Forwarding to an Attendant Console:
  - a.) If an Attendant Console is the destination of MULTIPLE CALL FORWARDING - DON'T ANSWER [M-25], the call is forwarded to the Attendant Console that handles the tenant to which the CALL FORWARDING - DON'T ANSWER [C-3] station belongs.

## Service Conditions (cont'd)

- b.) The Attendant Console key that lights when a call is forwarded to the console depends on the forwarding status of the originally called station (except in case c). The following table shows the key that will light (e.g., if the forwarding status of the originally called station is CALL FORWARDING - BUSY LINE [C-2], and the call is from a station, then the BUSY key will light).

Forwarding Status Of Originally Called Station			
	Call Forward -All Calls	Call Forward -Busy	Call Forward -Don't Answer
Call From Station	ATND	BUSY	NANS
Call From Trunk	Depends on trunk class	BUSY	NANS

- c.) If the call is forwarded by CALL FORWARDING - DON'T ANSWER [C-3] at any point in a forward sequence, the NANS key on the Attendant Console will light, even if the call status of the originally called station is CALL FORWARDING - ALL CALLS or CALL FORWARDING - BUSY LINE.
7. Forwarding to a D<sup>term</sup>:
- The calling D<sup>term</sup>'s display will show the number of the called station on the left, and the number of the station being rung on the right. The display on the ringing D<sup>term</sup> will show the number of the originally called station on the left, and the number of the calling station on the right.
  - The forwarding status of the originally called station is shown on the far left of each D<sup>term</sup>'s display: FDB for CALL FORWARDING - BUSY LINE or FDA for CALL FORWARDING - ALL CALLS.
8. UCD Groups:
- If the destination of a CALL FORWARDING - DON'T ANSWER [C-3] is a UCD group control station, the call will be forwarded into the UCD group.
  - If the destination of a CALL FORWARDING - BUSY LINE [C-2] or a CALL FORWARDING - ALL CALLS [C-5] forward is a UCD group control station, the call will be forwarded into the UCD group.
9. Hunting:
- If the final destination station of a MULTIPLE CALL FORWARDING-DON'T ANSWER is a controlling station in a STATION HUNTING-TERMINAL [S-9] or a member station of a STATION HUNTING-CIRCULAR [S-7], then hunting will take place if that destination station is busy.
10. An Applications Floppy Disk is needed to permit the CALL FORWARDING-DON'T ANSWER [C-3] call to be transferred up to five times by CALL FORWARDING-ALL CALLS [C-5] and CALL FORWARDING-BUSY LINE [C-2].
11. For the FCCS network, assign ASYDN SYS1, index 69, b7=1 (MULTIPLE CALL FORWARDING-DON'T ANSWER is in service).
12. The OAI monitor number and the ACD pilot number cannot be assigned as the Call Forwarding target telephone number.

## Interactions

- If access codes for CALL FORWARDING-BUSY LINE [C-2] and CALL FORWARDING-DON'T ANSWER [C-3] are the same, only one key needs to be assigned in AKYD or ADSL, and only one access code needs to be assigned in ASPA.

**Interactions (cont'd)**

2. Any UCD station is allowed to activate CALL FORWARDING-DON'T ANSWER [C-3]. When this station sets CALL FORWARDING-DON'T ANSWER [C-3], calls directed to this station through UCD hunting or directly-dialed will ring and then follow the destination of the CALL FORWARDING-DON'T ANSWER [C-3].
3. CALL FORWARDING-DON'T ANSWER [C-3] to an Attendant Console will not operate when the system is in Night mode. If ATTENDANT NIGHT TRANSFER [A-19] is provided, the call is forwarded to the night transfer station.
4. If the CALL FORWARDING-DON'T ANSWER [C-3] target station is a D<sup>term</sup> with DO NOT DISTURB [D-21D] activated, call forwarding is not activated. The forwarding station will ring beyond the timer set in ASYD, System Data 1, Index 139.
5. When the CALL FORWARDING-DON'T ANSWER [C-3] feature is set from Station A to Station B, if Station A is idle and Station B is busy, Station A will ring beyond the timer set in ASYD, System Data 1, Index 139.
6. When a call is call forwarded, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].

# M-26 Message Center Interface

## General Description

This feature provides an interface to an external CPU for Message Center information when a specific UCD [U-1] group or ATTENDANT CONSOLE [A-3] is called. This interface allows external control of Call Indicator Lamp (Note) indications on equipped NEAX2400 IMX stations. This feature also provides a socket interface (LAN interface) for connection to an external LAN.

**Note:** *Call Indicator Lamp on D<sup>term</sup> Series E is used as the Message Waiting Lamp.*

This feature also provides a socket interface (LAN interface) for connection to an external LAN.

## Operating Procedure

The MESSAGE CENTER INTERFACE (MCI) can provide one of two modes of operation. These modes are described as Feature 1 and Feature 2. The functions of each feature are as follows:

### Feature 1:

1. Incoming call information is sent to the MCI when an Attendant answers.
2. Control of Call Indicator Lamp based on data from the external CPU.

### Feature 2:

1. Incoming call information is sent to the MCI when a UCD station is called.
2. Dual Call Forwarding service is possible.
3. Control of Call Indicator Lamp based on data from the external CPU.

**Note:** *Feature 2 is not available when a hot line call terminates to a UCD station.*

### Feature 1

1. When the Attendant answers a call, the NEAX2400 IMX transmits a call handling record to the MCI. The external CPU, based on the received data, will display a profile of the station/trunk being handled by the Attendant on the CRT.
2. Call Indicator Lamp control is based on data from the external CPU. Through the external CPU terminal, when information is registered, the Host/CPU system forwards Call Indicator Lamp control data according to the Call Indicator Lamp On/Off control information sent.
3. The NEAX2400 IMX, upon receiving this control data from the MCI, will extinguish or illuminate the Call Indicator Lamp, depending on the subscriber displayed on the Attendant's monitor/display.
4. The called station will be able to receive a message from the Attendant by dialing "0", or a computer terminal by entering an identification number.
5. The external CPU, upon receiving retrieved message information, will transmit a data record requesting the NEAX2400 IMX to extinguish the Call Indicator Lamp of the corresponding station.

### Feature 2

1. This provides an interface to a Voice Mail System, or a Message Center Computer that is capable of sending Call Indicator Lamp control data to the NEAX2400 IMX.
2. To perform the data transfer to the external CPU, a station/trunk is connected to a designated UCD [U-1] group. The stations of the UCD [U-1] group are connected to the Voice Mail System/Message Center System in order to collect call connection status of Call Indicator Lamp control information. The block diagram of this concept follows on the next page.
3. The NEAX2400 IMX, upon receiving this control data from the MCI, extinguishes or illuminates the Call Indicator Lamp depending upon the information displayed on the Attendant's monitor/display.
4. The called station will be able to receive a message by dialing "0", or by a computer terminal by entering his/her identification number.

**Operating Procedure (cont'd)**

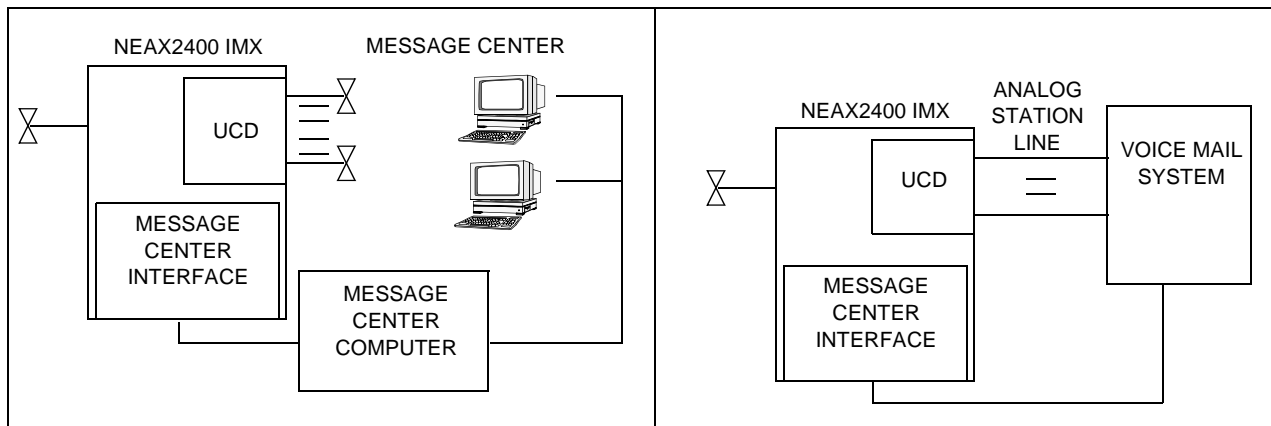
- The external CPU, upon receiving retrieved message information, will transmit a data record requesting the NEAX2400 IMX to extinguish the Call Indicator Lamp of the corresponding station.

**Service Conditions**

- The call type is sent to the external CPU via the MCI interface, this call record will pertain to the following services:

ATTENDANT CAMP-ON	[A-1]
AUTOMATIC RECALL	[A-8]
CALL FORWARDING - DON'T ANSWER	[C-3]
CALL FORWARDING - BUSY LINE	[C-2]
CALL FORWARDING - ALL CALLS	[C-5]
Call returned from Hold	
CALL TRANSFER - ALL CALLS <b>(Note)</b>	[C-11]
CENTRALIZED ATTENDANT SERVICE (CAS)	[C-20]
DIAL ACCESS TO ATTENDANT	[D-2]
DID to the Specific UCD Group	
DIT to the Specific UCD Group	
Intercept Call to the Attendant	
INTER-POSITION TRANSFER	[I-5]
LDN call	
OFF-HOOK ALARM	[O-6]
Recall	
Recall from a Series Call	
Series Call Re-Entry	
Tandem Transferring/Hold Entry	

**Note:** Available for interoffice station transfer calls only.



- The NEAX2400 IMX MESSAGE CENTER INTERFACE [M-26] can control the display of a D<sup>term</sup> for Message Indication; MW in a Message Center application.
- If an ATTENDANT CONSOLE [A-3] calls a UCD [U-1] group directly, for Feature 2, the NEAX2400 IMX will not generate a call record to the MCI.

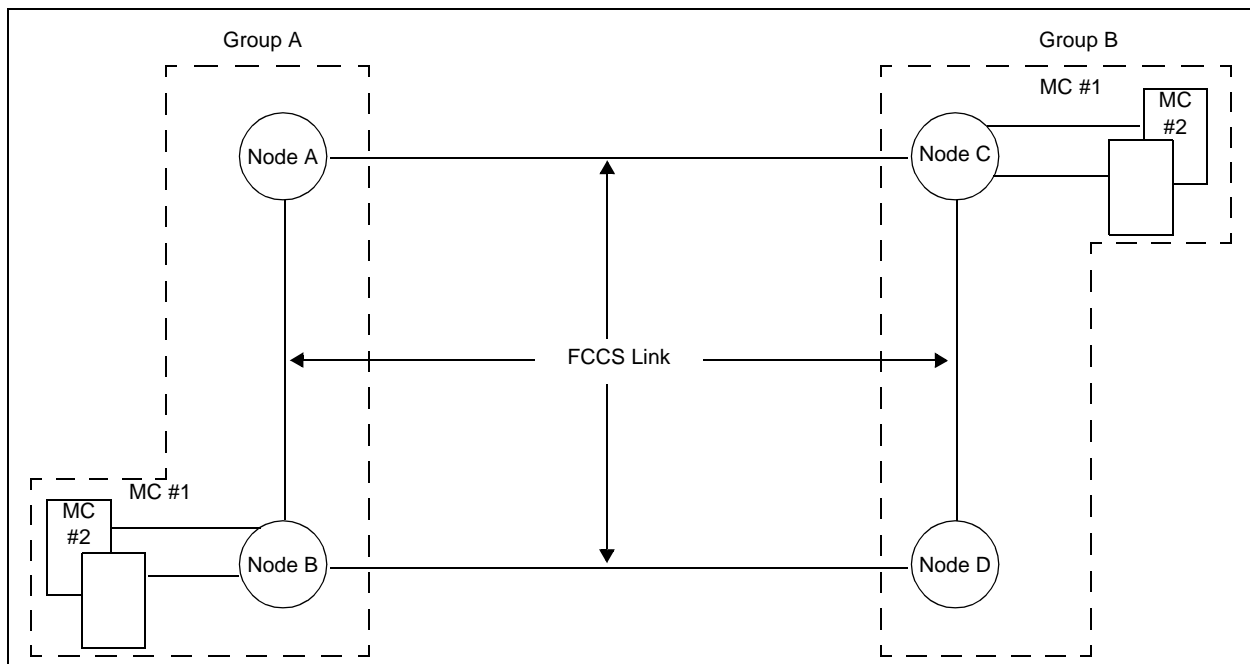


**Service Conditions (cont'd)**

4. If the Host/CPU malfunctions and stops collecting call records, the NEAX2400 IMX can store up to 16 call records. If the maximum of 16 call records is stored and a 17th is generated, the system will write over the oldest stored record, thus giving the stack the most recently generated call records.
5. MCI data will not be output when a hotline station is terminated to a station that is forwarded to a Voice Mail System.
6. It can be determined on a UCD group basis whether to send the incoming call information of the call terminating to a station in the UCD group to the message center CPU. When OVERFLOW - UCD [O-7] is activated, the MCI operation of the overflow UCD group is followed.
7. When the calling party number is received via the C.O. line/ISDN line/CCIS line, the number is sent to the MCI. The calling number is output to the additional MCI text format.
8. When activating this feature via the FCCS network, the station number type (Physical Station Number or telephone number) to be output for MCI IMX format may be designated in system data.
9. When activating this feature via the FCCS network, a maximum of 2 Messages Centers per node are available.

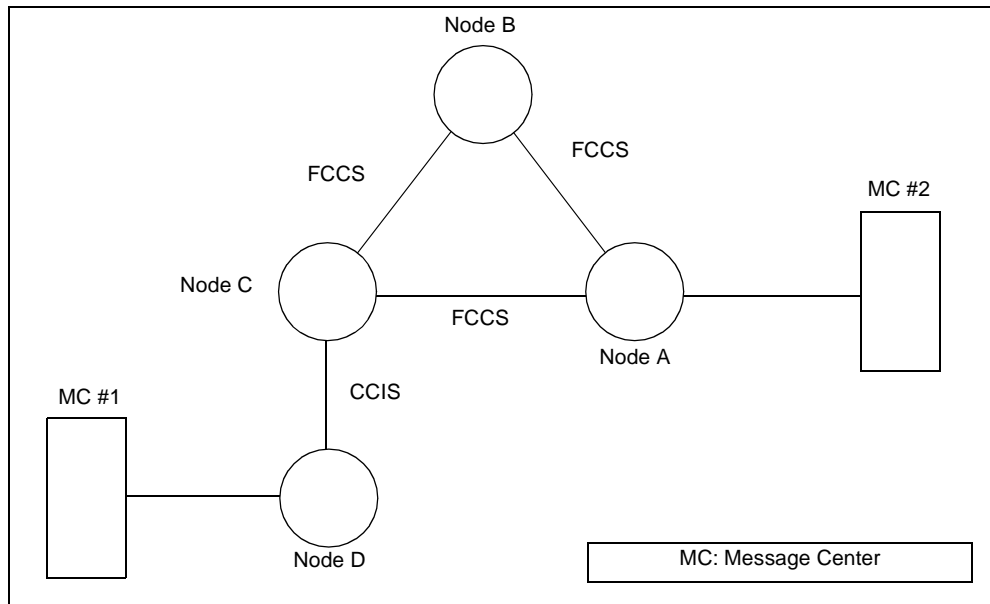
**SOCKET Interface (LAN interface) Conditions:**

1. LAN interface and IOC interface cannot be used concurrently for MCI.
2. The socket interface will be used for transfer data to and from the Message Center connected to the LAN.
3. After the link has been released, it will always be the client which presents a link establishment request.
4. The MCI messages which are transferred via the LAN interface is IMX format messages only.
5. Multiple nodes within an FCCS network can accommodate the Message Center (MC).
6. When activating this feature via the FCCS network, a maximum of 32 nodes can be assigned as the remote node. Stations accommodated in remote node are controlled by the Message Waiting Lamp (MWL) by the MC.



## Interactions

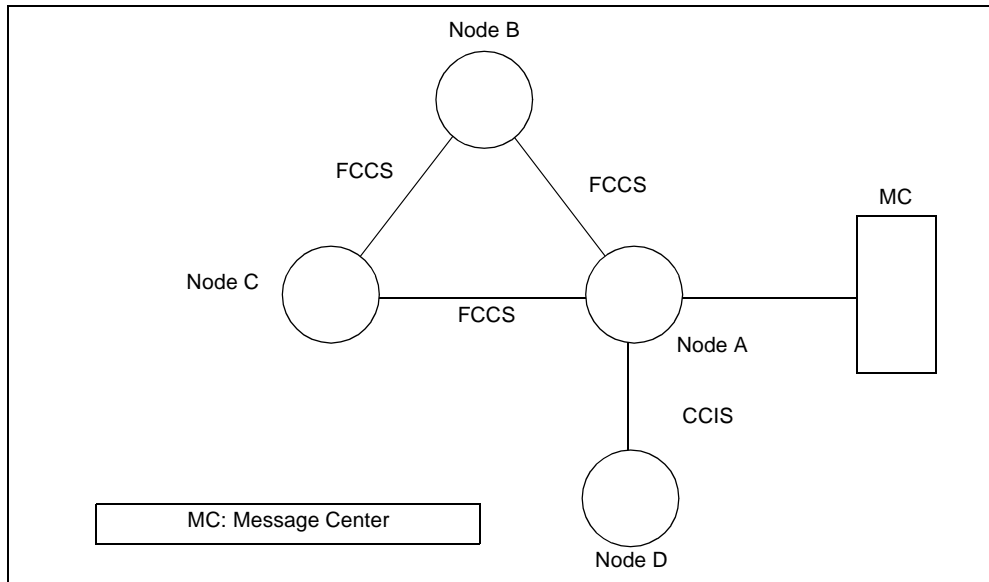
1. In case a Message Center exists on each side of the FCCS network and CCIS network:
  - a.) Message data will be transmitted to the MC on the side of the CCIS network (in the figure below, MC#1), provided that a call from any of the FCCS network nodes (in the figure, node A/B/C) terminates to an ATTCON/UCD station of the non-FCCS node (in the figure, node D).
  - b.) Message data will be transmitted to the MC on the side of the FCCS network (in the figure below, MC#2), provided that a call from the non-FCCS node (in the figure, node D) terminates to the ATTCON/UCD station of any of the FCCS network nodes (in the figure, node A, B, C).



2. In case a Message Center is shared by both CCIS and FCCS networks:
  - a.) Message data will be transmitted to the shared MC (in the figure below, assumed to be connected to the FCCS node A), given that a call from the CCIS node (in the figure, node D) terminates to the ATTCON/UCD station of any of the FCCS network nodes (in the figure, node A, B, C).

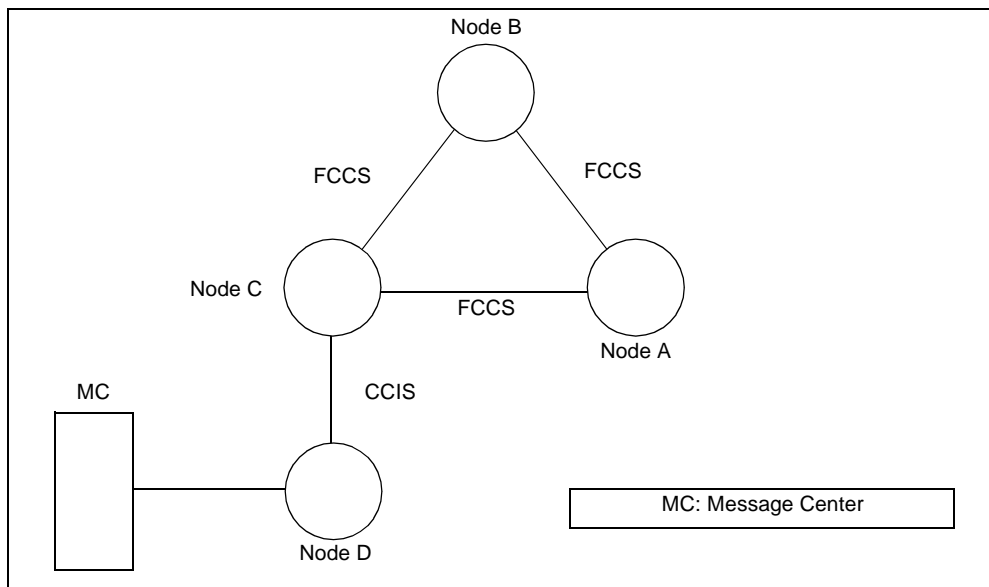
Interactions (cont'd)

- b.) The shared Message Center also can let the Message Waiting Lamps for both FCCS and non-FCCS (CCIS) network stations go ON and OFF to inform the telephone user of the message arrival.



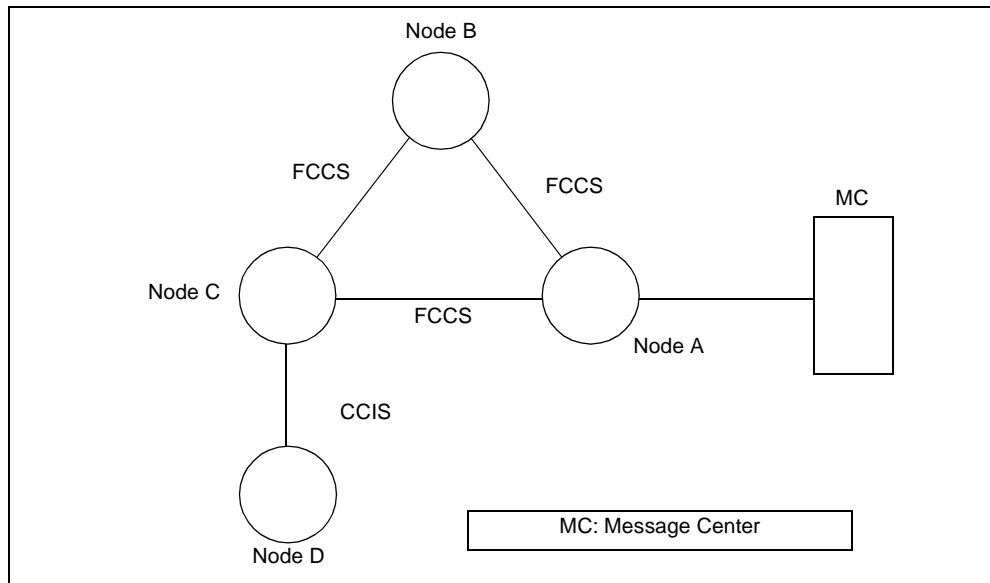
3. In case the Message Center exists only on the side of CCIS network:

- a.) Message data will be transmitted to the offered MC (in the figure below, assumed to be connected to node D), given that a call from any of the FCCS network nodes (in the figure, node A/B/C) terminates to an ATTCO/UCD station of the CCIS node (in the figure, node D).
- b.) The MC, though provided outside the FCCS network, can also control the Message Waiting Lamp for each station on the FCCS service link, as well as ON/OFF indication of the lamps for stations on the CCIS link.



**Interactions (cont'd)**

4. In case the Message Center exists only on the side of FCCS network:
  - a.) Message data will be transmitted to the offered MC (in the figure below, assumed to be connected to node A), given that a call from the CCIS node (in the figure, node D) terminates to the ATTCN/UCD station of any of the FCCS network nodes (in the figure, node A, B, C).
  - b.) The MC, though provided only inside the FCCS network, can also control the Message Waiting Lamp for each station on the CCIS link, as well as ON/OFF indication of the lamps for stations within the FCCS link.



# M-30 Message Waiting Lamp Setting - Station

## General Description

This feature allows a station to set/cancel a Message Waiting indication or lamp. Any single line telephone or D<sup>term</sup> can set/cancel Message Waiting indication to any single line telephone equipped with a 90v neon lamp, or a D<sup>term</sup>.

**Note:** *Call Indicator Lamp on D<sup>term</sup> Series E is used as the Message Waiting Lamp.*

## Operating Procedure

For example:

Station 200: User's station  
 Station 201: Message Agent\*

**Note:** *A Message Agent is a preassigned station allowed to set/cancel a Message Waiting indication.*

1. Station 200 sets Call Forwarding to Station 201.
2. An incoming call to Station 200 is call forwarded to Station 201.
3. Station 201 receives a message from the calling party.
4. Station 201 hangs up.
5. Station 201 sets the Message Waiting indication for Station 200. (Procedure 1)
6. Station 200 sees the Message Waiting indication.
7. Station 200 calls Station 201.
8. Station 200 receives the message from Station 201.
9. The call is terminated.
10. Station 201 cancels the Message Waiting indication for Station 200. (Procedure 2)

### Procedure 1:

#### To set a Message Waiting Indication from a single line telephone:

1. Lift the handset; receive dial tone.
2. Dial the Message Waiting Set access code (up to 3 digits); receive special dial tone.
3. Dial the desired telephone number; receive service set tone.
4. Message Waiting indication is set.

#### To set a Message Waiting Indication from a D<sup>term</sup> or MY Line:

1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the Message Waiting Set line/feature key; receive special dial tone.
3. Dial the desired telephone number; the LCD displays:



Service set tone is heard.

4. Message Waiting indication is set.

### Procedure 2:

#### To cancel a Message Waiting Indication from a single line telephone:

1. Lift the handset; receive dial tone.
2. Dial the Message Waiting Cancel access code (up to 3 digits); receive special dial tone.
3. Dial the desired telephone number; receive service set tone.
4. Message Waiting indication is cancelled.

**Operating Procedure (cont'd)**

**To cancel a Message Waiting Indication from a D<sup>term</sup> or MY Line:**


1. Lift the handset or press the SPEAKER key; receive dial tone.
2. Press the Message Waiting Cancel line/feature key, receive special dial tone.
3. Dial the desired telephone number; the LCD displays, and service set tone is heard.:



4. Message Waiting indication is cancelled.

**Service Conditions**

1. Any number of D<sup>term</sup> stations within the system can be assigned to activate this feature.
2. Any attempt to set Message Waiting to a station that already has a Message Waiting indication will receive busy tone.
3. Each station can cancel the Message Waiting indication.
4. This feature can be restricted by CLASS OF SERVICE - INDIVIDUAL [C-15].
5. Message Waiting for one station of the network can be controlled from the ATTENDANT CONSOLE [A-3] and any other station at the same time.
6. The Message Waiting indication on a station appears as follows:

Type of Station Set	Condition
Single line telephone with MWL D <sup>term</sup> Series without display	Message Waiting Lamp is ON
D <sup>term</sup> Series with display	Display shows: 

**Service Conditions (cont'd)**

7. The LCD on the D<sup>term</sup> Series E station displays the following messages:

		LCD	
MESSAGE WAITING already set	SETTING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <b>MW BUSY</b> (Time Display)                 </div>	Busy Tone
	CANCELLING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <b>MW CANCEL</b> (Time Display)                 </div>	Service Set Tone
MESSAGE WAITING not set	SETTING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <b>MW SET</b> (Time Display)                 </div>	Service Set Tone
Restricted station, unused telephone number, dead level, restriction	SETTING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <b>MW REST</b> (Time Display)                 </div>	Reorder Tone
	CANCELLING	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <b>MW REST</b> (Time Display)                 </div>	Reorder Tone

**Interactions**

1. For MESSAGE WAITING LAMP SETTING-STATION, the 8DLC/16ELC card is required.
2. An external power source is required to light a single line telephone lamp. The nondisplay D<sup>term</sup>s use an 80 VDC power source. NEC stocks Lorain Model HSA3H.
3. The use of the following features has no effect on this feature. MESSAGE WAITING LAMP SETTING-STATION can still be set to a station that has previously activated any of the following features:
  - DO NOT DISTURB-D<sup>term</sup> [D-21D].
  - CALL BACK-D<sup>term</sup> [C-1D] set to called station.
  - CALL BACK-D<sup>term</sup> [C-1D] set from called station.
  - CALL FORWARDING-ALL CALLS-D<sup>term</sup> [C-5D] will not follow forwarding data.
  - CALL FORWARDING-DON'T ANSWER-D<sup>term</sup> [C-3D] will not follow forwarding data.
  - CALL FORWARDING-BUSY LINE-D<sup>term</sup> [C-2D] will not follow forwarding data.

**Interactions (cont'd)**

4. When an incoming call is answered by the sub-line appearance on another station, the following services may be activated either by the answering station or by another station towards the answering station. These services will not interfere with the answering station's ability to leave a Message Waiting indication.

PRIVACY-D <sup>term</sup>	[P-14D]
CONSULTATION HOLD-ALL CALLS	[C-17]
ATTENDANT CAMP-ON WITH TONE INDICATION (set to answering station)	[A-1]
CALL WAITING-ORIGINATING (set to answering station)	[C-31]
CALL WAITING-ORIGINATING (set from answering station)	[C-31]
THREE-WAY CALLING-D <sup>term</sup>	[T-2D]
NON-EXCLUSIVE HOLD-D <sup>term</sup>	[N-7D]
EXCLUSIVE HOLD-D <sup>term</sup>	[E-4D]
DUAL HOLD	[D-32]

5. Message Waiting can be set to yourself if you wish to leave yourself a reminder.
6. Numbering plan data (ANPD and ASPA) is not required if only digital D<sup>term</sup> sets use this feature.



## M-44 Multiple Call Forwarding - All Calls

### General Description

This feature permits a call to a CALL FORWARDING - ALL CALLS station to be forwarded multiple times to a predesignated idle station.

### Operating Procedure

#### To set MULTIPLE CALL FORWARDING - ALL CALLS [C-5] from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - ALL CALLS access code; receive special dial tone.
3. Dial the desired target telephone number; receive service set tone.

#### To cancel MULTIPLE CALL FORWARDING - ALL CALLS [C-5] from an individual station:

1. Lift the handset; receive dial tone.
2. Dial the specific CALL FORWARDING - ALL CALLS cancel code; receive service set tone.

#### To set MULTIPLE CALL FORWARDING - ALL CALLS [C-5] from the ATTENDANT CONSOLE [A-3]:

1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - ALL CALLS access code; receive special dial tone.
3. Dial the TENANT [T-12] number (2 or 3 digits).
4. Dial the originating telephone number.
5. Dial the desired target telephone number; receive service set tone.

#### To cancel MULTIPLE CALL FORWARDING - ALL CALLS [C-5] from the ATTENDANT CONSOLE [A-3]:

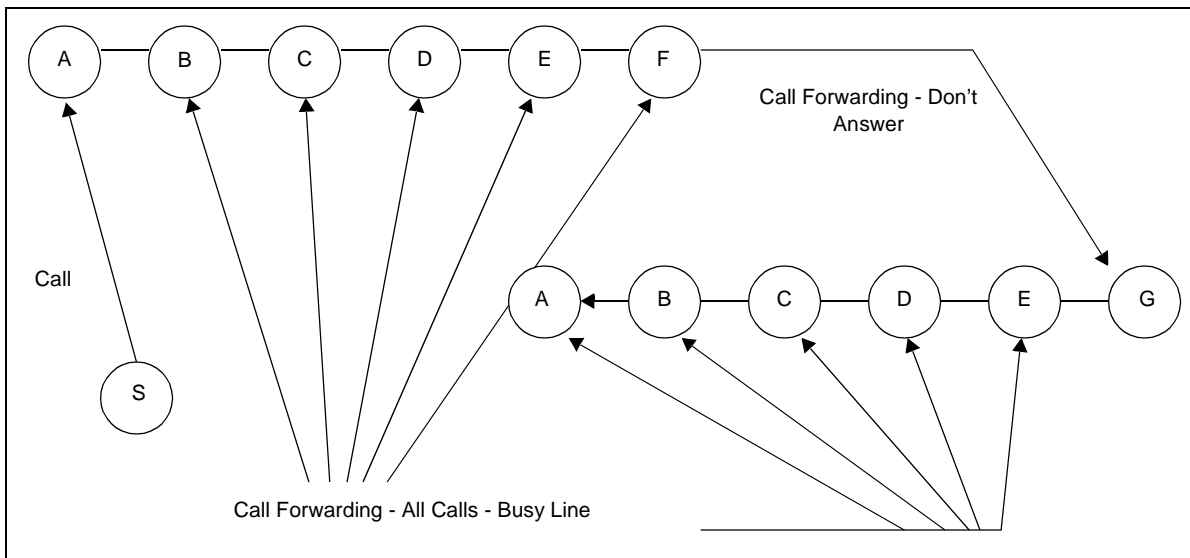
1. Press an idle loop key.
2. Dial the specific CALL FORWARDING - ALL CALLS cancel code; receive special dial tone.
3. Dial the TENANT [T-12] number (2 or 3 digits).
4. Dial the originating telephone number; receive service set tone.

### Service Conditions

1. If CALL FORWARDING - ALL CALLS [C-5] is set at the called station, the call is forwarded to a designated station that has set CALL FORWARDING-ALL CALLS [C-5] or CALL FORWARDING-BUSY LINE [C-2].
2. A call can be forwarded up to five times, maximum, by MULTIPLE CALL FORWARDING - ALL CALLS [C-5], and only by the voice port of a D<sup>term</sup>, or by a single line telephone.
3. A call will not forward any farther than the station to where it has been forwarded to.
4. If a forward destination is busy, and if neither CALL FORWARDING - BUSY LINE [C-2] nor CALL FORWARDING - ALL CALLS [C-5] is set, the caller hears a busy tone.
5. If the originating station is designated as the forward destination, the call will not be forwarded.
6. CALL FORWARDING - BUSY LINE [C-2] and CALL FORWARDING - ALL CALLS [C-5] combination:
  - a.) A maximum of five forwarding operations can be performed by any combination of CALL FORWARDING-ALL CALLS [C-5] AND CALL FORWARDING-BUSY LINE [C-2].
  - b.) If the fifth forward destination is busy, the call will forward if CALL FORWARDING - DON'T ANSWER [C-3] is set. Otherwise, the caller will hear a busy tone.

**Service Conditions (cont'd)**

- c.) If a sequence of CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2] forwards the call back to the originating station, the forward is not made and the caller hears a busy tone.
  - d.) If a sequence of CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2] forwards the call back to the originally called station, and if that station forwards the call with CALL FORWARDING - BUSY LINE [C-2], the ultimate destination will be the originally called station. If, however, the originally called station forwards the call with CALL FORWARDING - ALL CALLS [C-5], the ultimate destination will be the station it has designated as its CALL FORWARDING - ALL CALLS [C-5] destination.
  - e.) If the call is forwarded back to the station where it has been forwarded to, the CALL FORWARD will terminate at that station.
7. CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2] and CALL FORWARDING - DON'T ANSWER [C-3] combination:  
 Although CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2] and combinations of the two are limited to forwarding five times, when a sequence of forwards is divided by CALL FORWARDING - DON'T ANSWER [C-3], CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-3], forwards can begin again (the only limit is shown below).



8. Forwarding to an Attendant Console:
- a.) If an Attendant Console is designated as the destination of CALL FORWARDING - ALL CALLS [C-5], the call is forwarded to the Attendant Console handling the tenant to which the calling station belongs.

**Service Conditions (cont'd)**

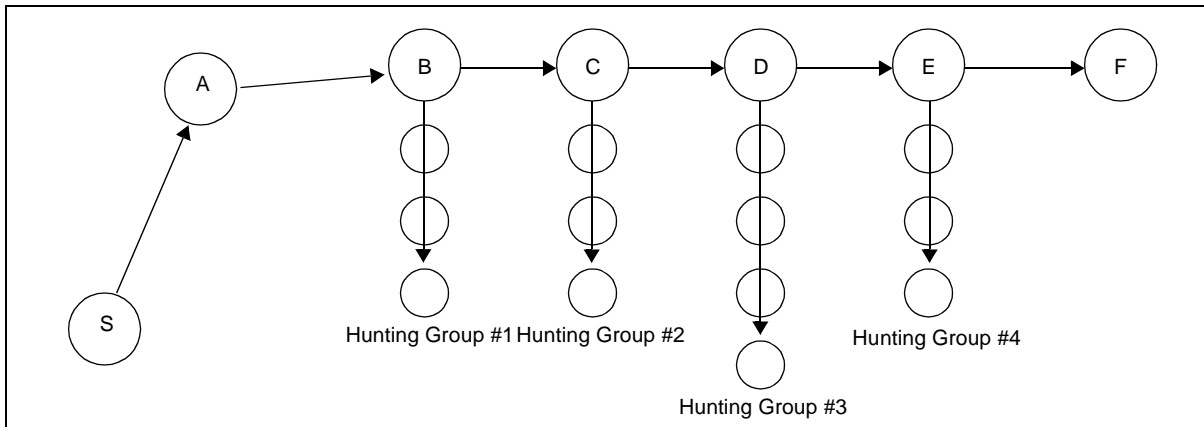
- b.) The Attendant Console key that lights when a call is forwarded to the console depends on the forwarding status of the originally called station (except in paragraph c). The following table shows the key that will light; e.g., the BUSY key will light, if the forwarding status of the originally called station is CALL FORWARDING - BUSY LINE [C-2], and the call is from a station.

Forwarding Status Of Originally Called Station			
	Call Forward -All Calls	Call Forward -Busy	Call Forward -Don't Answer
Call From Station	ATND	BUSY	NANS
Call From Trunk	Depends on trunk class	BUSY	NANS

- c.) If the call is forwarded by CALL FORWARDING - DON'T ANSWER [C-3] at any point in a forwarding sequence, the NANS key on the Attendant Console will light, even if the call status of the originally called station is CALL FORWARDING - ALL CALLS or CALL FORWARDING - BUSY LINE.
- d.) Called Number Display is only provided if a call is forwarded to the Attendant Console by CALL FORWARDING - ALL CALLS [C-5] or by CALL FORWARDING - BUSY LINE [C-2].
9. Forwarding to a D<sup>term</sup>:
- a.) The calling D<sup>term</sup>'s display will show the number of the called station on the left, and the number of the station being called on the right. The display on the ringing D<sup>term</sup> will show the number of the originally called station on the left, and the number of the calling station on the right.
- b.) The forward status of the originally called station is shown on the far left of each D<sup>term</sup>'s display: FDB for CALL FORWARDING - BUSY LINE [C-2]; FDA for CALL FORWARDING - ALL CALLS [C-5].
10. UCD Groups:
- a.) If the destination of a CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2], or CALL FORWARDING - DON'T ANSWER [C-3] is a UNIFORM CALL DISTRIBUTION (UCD) [U-1] group control station, and CALL FORWARDING - ALL CALLS [C-5] is not set at that station, the call will be forwarded according to UCD [U-1] procedures.
- b.) In the UCD procedure, if CALL FORWARDING - ALL CALLS [C-5] is set on a station in the group, that station is skipped.
11. Hunting:
- a.) If the final destination station is busy, or if some condition prevents the call from being forwarded, a busy line is selected, and a hunting check is performed.

### Service Conditions (cont'd)

- b.) If a call is forwarded by CALL FORWARDING - BUSY LINE [C-2] to stations that are members of hunting groups, a hunting check is performed on the busy line closest to the called station, or on the busy line closest to the final forward destination. In the diagram below, a hunting check is performed on Hunt Groups 1 or 4. A hunting check is never performed on Groups 2 or 3.



12. Busy Services, such as, EXECUTIVE OVERRIDE [E-1], CALL BACK [C-1], etc.:
  - a.) Busy service is provided to the busy line closest to the originally called station.
13. DIT, NIGHT CONNECTION - FIXED [N-1]:
  - a.) For CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2], a forwarding check is made up to 5 times by System Data.
  - b.) If a line is busy in DIRECT-IN TERMINATION [D-7], CALL FORWARDING - BUSY LINE [C-2] to the Attendant is not activated. Instead, the destination for the call can be specified by System Data:
    - System Data 2 INDEX = 11
    - Bit 7 = 0 - Call is routed to the Attendant Console
    - Bit 7 = 1 - Call is placed in queue until the called station becomes idle.
14. When activating this feature via FCCS, a telephone number must be set to the call forwarding destination.
15. When activating this feature via FCCS, a call cannot be forwarded more than five times.
16. When activating this feature via FCCS, the number of times is assigned by system data.
17. The OAI monitor number and the ACD pilot number cannot be assigned as the Call Forwarding target telephone number.

### Interactions

1. Users are unaccustomed to hearing ringback tone when responding to their own station's ring. Be sure to inform users when providing ringback tone with MULTIPLE CALL FORWARDING-ALL CALLS in System Data 1, Index 69, Bit 1.
2. MULTIPLE CALL FORWARDING can only be activated from an idle station.
3. When CALL WAITING [C-12, 31] ATTENDANT CAMP-ON WITH TONE INDICATION [A-1], and CALL BACK [C-1] is directed toward Station A with CALL FORWARDING set to Station B, Station B will receive CALL WAITING tones.

**Interactions (cont'd)**

4. When a station in a STATION HUNTING [S-7, 8, 9] group initiates MULTIPLE CALL FORWARDING-ALL CALLS, calls normally destined for this station will not be received. The hunt group operates as if the station were busy.
5. A noncontrolling UCD station is allowed to activate CALL FORWARDING [C-5]. With this station call forwarded, only calls dialed directly to this station are call forwarded. The member station is removed from the UCD group under the conditions of this call forwarding feature.
6. If an Attendant attempts BUSY VERIFICATION [B-3] to Station A, which has MULTIPLE CALL FORWARDING-ALL CALLS set to Station B, BUSY VERIFICATION proceeds as if the Attendant had attempted to verify Station B. If Station A has set MULTIPLE CALL FORWARDING-ALL CALLS to the Attendant Console [A-3], BUSY VERIFICATION [B-3] is allowed at Station A, if Station A is busy.
7. When MULTIPLE CALL FORWARDING-ALL CALLS is in effect, the activating station may be used to originate calls. See System Data 2, Index 6, Bit 4.
8. When a station is call forwarded, the destination station is recorded for STATION MESSAGE DETAIL RECORDING [S-10].
9. MULTIPLE CALL FORWARDING-ALL CALLS can be overridden, allowing Station B to initiate or transfer calls back to Station A.
10. STATION-TO-STATION CALLING [S-11] must be provided first.

# M-47

# Manual Signaling

## General Description

This feature permits D<sup>term</sup> users to send a one-second ring to a predetermined station. The manual intercom SIGNAL key (SIG key) is operational at all times. An Intercom call is not required. If the signalled station is ringing from another call, the manual intercom signal will interrupt that ringing.

## Operating Procedure

Press the SIG key; send a one-second ring to the predetermined station.

## Service Conditions

1. When MANUAL SIGNALING is initiated by a user, this one-second ring takes priority over any other incoming call indications from the multi-line appearances.
2. Only D<sup>term</sup> can be assigned a manual SIG key.
3. One destination station can be assigned for manual signaling through the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
4. Stations that can signal each other must be assigned in the same Module Group. **(Note)**
5. A station can manually signal one other D<sup>term</sup>.
6. MANUAL SIGNALING is an operation of MANUAL INTERCOM [A-30] and is used independently of the MANUAL INTERCOM [A-30] feature.

**Note:** *This is also applied to FCCS service.*

# M-48 Multi Channel Recording - DAT

## General Description

This feature allows a user to record a message to multiple Digital Announcement Trunks (DATs) in a single operation. The message recorded in a trunk is automatically copied to other trunks one after another.

## Operating Procedure

1. Recording by designating RT and TK:
  - a.) Lift a handset; receive dial tone.
  - b.) Dial the MULTI CHANNEL RECORDING (RECORDING) access code from the station; receive special dial tone.

**REC**  
**(Time Display)**

- c.) Enter Route Number and Trunk number; the special dial tone stops.

**REC**  
  
**005** **001**  
┌ ┌  
Route Trunk

Hear service set tone when # is pressed. The service set tone continues for 3 seconds.

**RECORDING START**

- d.) Start your recording when the service set tone is stopped.

**DDD** **1**

┌  
Recording Time (**Note**)

- e.) Replace the handset to finish recording.

**RECORDING END**

↓ In 5 seconds

**(Time Display)**

**Note:** The recording length is a multiple of 2 (= 2n sec).

2. Playback by designating RT and TK
  - a.) Lift a handset; receive dial tone.

**Operating Procedure (cont'd)**

- b.) Dial the MULTI CHANNEL RECORDING (REPLAY) access code from the station; receive special dial tone.

**REPLAY**  
**(Time Display)**

- c.) Enter Route Number and Trunk Number; the special dial tone stops.

**REPLAY**  
**005 001**  
Route Trunk

- d.) A recorded message of the designated trunk is automatically played back.

**REPLAY START**  
↓ In 5 seconds  
**DDD 1**  
Replay Time

- e.) Replace the handset to finish playback of the recorded message.

**(Time Display)**

**Note:** *Even though recording of a message has been finished, playback of the trunk cannot be accepted until dubbing of the message to the remaining trunks is complete.*

- 3. Recording by designating RT (All trunks within the designated route are recorded.)
  - a.) Lift a handset; receive dial tone.
  - b.) Dial the MULTI CHANNEL RECORDING (RECORDING) access code from the station; receive special dial tone.

**REC**  
**(Time Display)**

- c.) Enter Route Number and press #; the special dial tone stops.

**REC**  
**005**  
Route



## Operating Procedure (cont'd)

Hear service set tone when # is pressed. The service set tone continues for 3 seconds.

**RECORDING START**

d.) Start your recording when the service set tone is stopped.

**DDD 1**

Recording Time (**Note**)

e.) Replace the handset to finish recording.

**RECORDING END**

↓ In 5 seconds

**(Time Display)**

**Note:** The recording length is a multiple of 2 (= 2n sec).

4. Playback by designating RT

a.) Lift a handset; receive dial tone.

b.) Dial the MULTI CHANNEL RECORDING (REPLAY) access code from the station; receive special dial tone.)

**REPLAY**  
**(Time Display)**

c.) Enter Route Number and press #; the special dial tone stops.

**REPLAY**  
**005**

Route

d.) A recorded message of the designated route is automatically played back.

**REPLAY START**

↓ In 5 seconds

**DDD 1**

Replay Time

Operating Procedure (cont'd)

- e.) Replace the handset to finish playback of the recorded message.

**(Time Display)**

**Note:** *Even though the recording of a message has been finished, playback of the trunk cannot be accepted until dubbing of the message to the remaining trunks is complete.*

5. Recording of an announcement for a UCD group

- a.) Lift a handset; receive dial tone.
- b.) Dial the MULTI CHANNEL RECORDING (RECORDING) access code from the station; receive special dial tone.

**REC**  
**(Time Display)**

- c.) Press \* and enter the UCD controlling telephone number.

**REC**  
**25191**

UCD controlling telephone number

- d.) Wait until you hear service set tone. The waiting time depends upon Register Inter Digit Timer (normally 6 seconds).  
The service set tone continues for 3 seconds.

**RECORDING START**

- e.) Start your recording when the service set tone is stopped.

**DDD** **1**

Recording Time (**Note**)

- f.) Replace the handset to finish recording.

**RECORDING END**

↓ In 5 seconds

**(Time Display)**

**Note:** *The recording length is a multiple of 2 (= 2n sec).*

6. Playback of a message recorded for a UCD group

- a.) Lift a handset; receive dial tone.

**Operating Procedure (cont'd)**

- b.) Dial the MULTI CHANNEL RECORDING (REPLAY) access code from the station; receive special dial tone.

<b>REPLAY</b> <b>(Time Display)</b>
--

- c.) Press \* and enter the UCD controlling telephone number; the special dial tone is stopped.

<b>REPLAY</b>  <b>25191</b>
-----------------------------------

UCD controlling telephone number

- d.) A recorded message of the designated UCD group is automatically played back.

<b>REPLAY START</b>
---------------------

↓ In 5 seconds

<b>DDD</b> <span style="float: right;"><b>1</b></span>
--

Replay Time

- e.) Replace the handset to finish playback of the recorded message.

<b>(Time Display)</b>
-----------------------

**Note:** *Even though the recording of a message has been finished, playback of the trunk cannot be accepted until dubbing of the message to the remaining trunks is complete.*

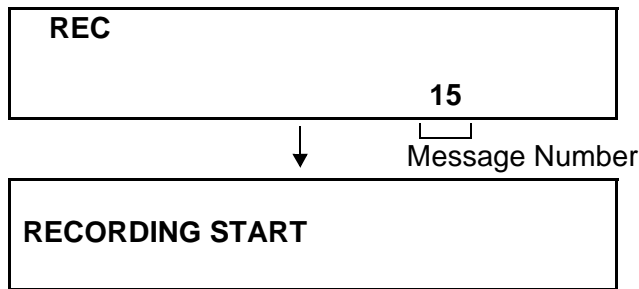
7. Recording of a message for ACD

- a.) Lift a handset; receive dial tone.  
 b.) Dial the MULTI CHANNEL RECORDING (RECORDING) access code from the station; receive special dial tone.

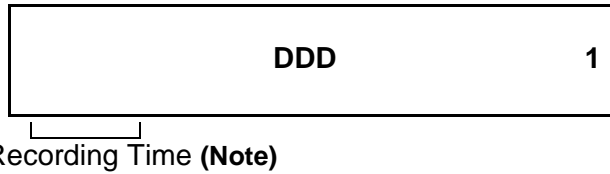
<b>REC</b> <b>(Time Display)</b>
-------------------------------------

**Operating Procedure (cont'd)**

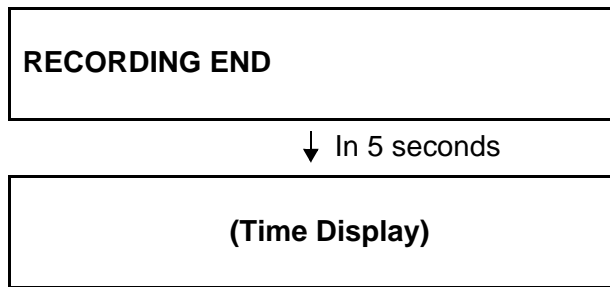
- c.) Press # and enter the message number that has been assigned in the AAST command; receive service set tone. The service set tone continues for 3 seconds.



- d.) Start your recording when the service set tone is stopped.



- e.) Replace the handset to finish recording.

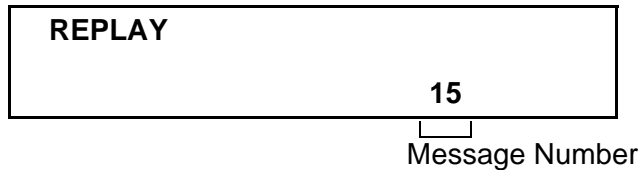


**Note:** The recording length is a multiple of 2 (= 2n sec).

- 8. Playback of a message for ACD
  - a.) Lift a handset; receive dial tone.
  - b.) Dial the MULTI CHANNEL RECORDING (REPLAY) access code from the station; receive special dial tone.

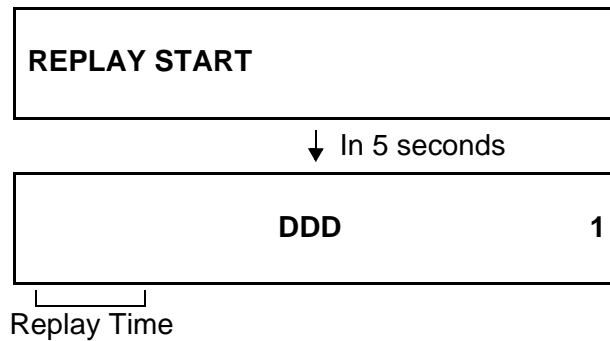


- c.) Press # and enter the Message Number that has been assigned in the AADT command.



## Operating Procedure (cont'd)

- d.) A recorded message of the designated Message Number for ACD is automatically played back.



- e.) Replace the handset to finish playback of the recorded message.



**Note:** Even though the recording of a message has been finished, playback of the trunk cannot be accepted until dubbing of the message to the remaining trunks is complete.

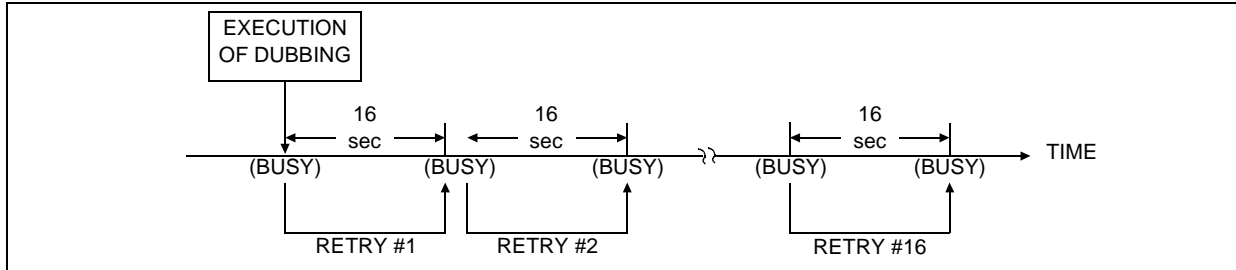
## Service Conditions

- Any entry of RT, TK, UCD Controlling Station, and Message Number that has not been assigned results in reorder tone (ROT) connection.  
The values that each parameter can take fall into the ranges:  
RT: 001 - 999  
TK: 000 - 255  
Message Number: 01 - 58
- The maximum recording length is 60 sec (30 sec in the case of UCD).
- This feature is not effective for trunks being dubbed or placed in busy.
- A user cannot record a message to a trunk in which a recording/dubbing is being made.
- When a user encounters Digital Announcement Trunk-All Busy, after dialing RT/TK/UCD Controlling telephone number/Message Number from the terminal, the user hears a busy tone.
- After completion of dialing RT/TK/UCD Controlling telephone number/Message Number, a user hears the service set tone. In this instance, if the designated trunk is making a dub or being dubbed, the dubbing is stopped. When the user goes on-hook during the service set tone, the dubbing is also stopped.
- A message is recorded in the following sequence. As illustrated below, 1.5 sec after the service set tone and 1 sec before going on-hook are not recorded.



**Service Conditions (cont'd)**

8. When the system encounters a busy trunk in an attempt to make a dubbing of the message to the remaining trunks, the trunk is retried after a 16 second interval. Each trunk is attempted a maximum of 16 times. If the final attempt is rejected because of busy, no further dubbing attempts will be made.



9. Only the portion in which a message has been recorded is played back.
10. The dubbing time is calculated by the following equation:  $(\text{Dubbing Time}) = (\text{Recording time} + 2 \text{ sec}) \times (\text{Number of Trunk})$ . Refer to the following table to obtain the approximate time for dubbing:

Dubbing Time	Number of Trunk					
	1	10	15	20	63	1
6 seconds	8	80	120	160	504	8n
16 seconds	18	180	270	360	1134	18 x 1
30 seconds	32	320	480	640	2016	32 x 1
46 seconds	48	480	720	960	3024	48 x 1
60 seconds	62	620	930	1240	3906	62 x 1

11. This feature is not available to access a 4-DAT trunk through FCCS link.

# M-84

# MF Signaling - DID

## General Description

In the Associated Channel Interoffice Signaling system, this feature allows use of selective codes of Multifrequency (MF) signals.

MF - (ANSI) codes: A total of 15 codes are available by combining two out of six frequencies.

Code	CCITT/ BELL	0 (700Hz)	1 (900Hz)	2 (1100Hz)	4 (1300Hz)	7 (1500Hz)	K (1700Hz)
1	1	X	X				
2	2	X		X			
3	3		X	X			
4	4	X			X		
5	5		X		X		
6	6			X	X		
7	7	X				X	
8	8		X			X	
9	9			X		X	
10	0				X	X	
11	C <sub>11</sub>	X					X
12	C <sub>12</sub>		X				X
13	KP <sub>1</sub>			X			X
14	KP <sub>2</sub>				X		X
15	ST					X	X

(ANSI)

## Operating Procedure

No manual operation is required.

## Service Conditions

1. When using MF signaling system, Least Cost Routing (LCR) or Register Sender LCR (LCRS) must be assigned.
2. Even when LCRS is assigned, digit outputting to the distant office is not started until all digits have been received when the signaling is MF. If there is DP or PB lines among alternate routes, an outgoing call may be originated by seizing a DP or PB line, even when the route advance sequence for that line is lower than MF lines. When the route advance sequence of MF to DP or PB is predetermined, LCR must be assigned in the numbering plan.
3. Unless otherwise specified, MP starting at termination of an incoming call will be activated upon receiving an ST signal.

**Service Conditions (cont'd)**

4. Connection patterns to which MF signaling system can be applied are as follows:
  - a.) Individual call origination by station
  - b.) Attendant-to-Attendant connection
  - c.) Individual call origination by Attendant
  - d.) Call origination by Attendant via station/trunk
  - e.) MF line connection from CONSULTATION HOLD [C-17]
  - f.) Call transfer to MF line via Call Forwarding.
5. Connection to the following services is not available:
  - a.) Call origination services to MF lines, such as, OUTGOING TRUNK QUEUING
  - b.) Call termination services from MF lines, such as, UCD [U-1]
  - c.) Call Waiting, REMOTE ACCESS TO SYSTEM [R-2].
6. Assignment of MF signaling system or DP, PB signaling system can be determined on a per route basis.
7. A PA-8RSTK (8RST) circuit card is required for performing this service.



# M-85D Message Waiting Indication - D<sup>term</sup>

## General Description

This feature allows Message Waiting (MW) information to be displayed on the middle line (24 digits) of the LCD.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The LCD displays the following information, when MESSAGE WAITING INDICATION - D<sup>term</sup> is activated:

Initial Display  
(Time Display)

<b>10:00 AM FRI 01 JAN 1999</b>
---------------------------------

When controlled by  
MCI, Attendant or  
station

<b>MW</b>
-----------

2. When this service is assigned to a D<sup>term</sup> with a 1-line LCD, the service is not available, and the display remains unchanged.
3. This service can be controlled via MAT command program.
4. This service is available only when OAI service is not available (SYS1, INDEX=79, b6=1). When OAI service is available (SYS1, INDEX=79, b6=0), the information cannot be displayed on the lower line of LCD, but will be displayed on the upper line.
5. While Message Waiting information control is being executed to a D<sup>term</sup> equipped with a 2-line LCD by this service, time information is not displayed on the LCD. When Message Waiting information control is cancelled, the time information display is resumed.
6. For the FCCS network, this feature is available for a telephone number having less than 7 digits.

# M-101

# MF ANI to SMDR

## General Description

This feature allows an office receiving ANI information by means of MF signal to output the information to the expanded SMDR area.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Output conditions are same as current conditions of MF ANI. (i.e., charging information for incoming calls is output only).
2. About the expanded output format, refer to SMDR OUTPUT EXPANSION-ANI/CPN [\[S-129\]](#).
3. When the tandem connection is established through CCIS, the maximum digits of ANI information output to the SMDR port are 16.

# N-1 Night Connection - Fixed

## General Description

This feature routes calls normally directed to the ATTENDANT CONSOLE [A-3] to a preselected common station within the system when the Night Mode has been entered.

## Operating Procedure

### To answer NIGHT CONNECTION calls:

1. The incoming calls to the ATTENDANT CONSOLE [A-3] in the night mode are automatically transferred to a preselected NIGHT CONNECTION - FIXED station.
2. Calling party hears ringback tone.
3. Ring signal is sent to the NIGHT CONNECTION - FIXED station.
4. NIGHT CONNECTION - FIXED station goes off-hook to answer the incoming call. If necessary, this station can transfer the incoming call to another station within the system, using CALL TRANSFER - ALL CALLS [C-11] feature.

## Service Conditions

1. Calls that are being processed or are in the hold state when the night mode is entered, continue being processed or held after the mode changeover has been completed.
2. If the NIGHT CONNECTION - FIXED station, to which an incoming call has been directed is busy, the calling party will hear ringback tone until the station becomes idle.
3. This service feature may be provided with NIGHT CONNECTION - FLEXIBLE [N-2] and TRUNK ANSWER FROM ANY STATION [T-8] in the same system.
4. If the NIGHT CONNECTION - FIXED station is set for CALL FORWARDING - ALL CALLS [C-5], incoming Central Office trunk calls terminated to that station will be forwarded to the designated station.
5. Programmed NIGHT CONNECTION - FIXED stations can use CALL HOLD [C-6], CALL TRANSFER [C-10, 11] and THREE-WAY CALLING [T-2] provided these features are programmed into its CLASS OF SERVICE - INDIVIDUAL [C-15].
6. Only Ring Down (COT) incoming calls will be routed to NIGHT CONNECTION - FIXED stations.
7. If an incoming call has terminated to a NIGHT CONNECTION - FIXED, and if the station is busy or in LINE LOCKOUT [L-3], the call will be forwarded to the TRUNK ANSWER FROM ANY STATION (TAS) [T-8] unit, if equipped.
8. When activating this feature within an FCCS network, the different destination for C.O. incoming calls (Ring down) cannot be set at each tenant group.

## Interactions

1. The Night station is assigned to each trunk, and the same NIGHT CONNECTION - FIXED can be assigned to several trunks.
2. All trunks to be terminated at the NIGHT CONNECTION - FIXED station must be programmed in ACSI. Refer to DIRECT-IN TERMINATION [D-7] for more information on DITs.
3. The system must enter Night mode. Refer to ATTENDANT CONSOLE [A-3] and DAY/NIGHT CLASS OF SERVICE [D-15].
4. The Attendant Console must first be provided.

## Interactions (cont'd)

5. When the NIGHT CONNECTION - FLEXIBLE [N-2] feature is provided, assignments can be made by the ATTENDANT CONSOLE [A-3] or NIGHT CONNECTION - FIXED station by use of the CALL FORWARDING - ALL CALLS [C-5] feature.
6. CALL FORWARDING - BUSY LINE/DON'T ANSWER [C-2, 3]: A Night user can activate the CALL FORWARDING - BUSY LINE/DON'T ANSWER [C-2, 3] feature if available to the user. A call ringing at an idle NIGHT CONNECTION - FIXED station rings for 30 seconds before forwarding. A call forwarded from a busy NIGHT CONNECTION - FIXED station rings normally at the designated station. A station-to-Attendant call cannot be forwarded to a NIGHT CONNECTION - FIXED station. An incoming trunk call forwarded from an idle unanswered NIGHT CONNECTION - FIXED station alerts the designated station with distinctive ringing.
7. CALL WAITING [C-12, 13]: Call Waiting tones are not directed to a busy NIGHT CONNECTION - FIXED. When the Night user goes on-hook, ringing is returned if a call is waiting.
8. CALL TRANSFER - ALL CALLS [C-11]: When the NIGHT CONNECTION feature is active, the CALL TRANSFER - ALL CALLS [C-11] feature is always enabled, regardless of the Class of Service of the station assigned to NIGHT CONNECTION - FIXED.
9. STATION MESSAGE DETAIL RECORDING (SMDR) [S-10]: The SMDR records contain Night service calls. The SMDR call record includes the station number answering the call.
10. Incoming Restricted Line: When NIGHT CONNECTION - FIXED or FLEXIBLE [N-2] is active, the line Class of Service restrictions can be automatically changed when the system is in the Night mode, to allow a station normally restricted during the day to receive incoming calls.
11. NIGHT CONNECTION - FIXED: Arrangements are provided to route calls normally directed to the Attendant, to a preselected station line within the system when Night service is activated. In addition, incoming calls from specific non-Direct Inward Dialing (DID) exchange network trunks can be arranged to route to specific station lines. The routings are provided on a fixed basis via the MAT [M-18]. TRUNK ANSWER FROM ANY STATION (TAS) [T-8], when available, may also be provided for Night calls not assigned to Night stations. Assignments can be made per incoming trunk.
12. When CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY LINE/DON'T ANSWER [C-2, 3] is provided, and the station is busy, Call Forwarding is implemented on the station line. If the station is in a HUNT GROUP [S-7, 8, 9], call forwarding will take place prior to the station hunting feature or UCD [U-1].
13. CALL QUEUING [C-9]: Incoming trunk calls to the Night Connection station will queue on a First In/First Out basis.
14. CLASS OF SERVICE - INDIVIDUAL [C-15]: Night Connection station's class of service should be constructed to allow access to the routes and service features required to complete the tasks of the Night Connection station.
15. DIRECT INWARD DIALING [D-8]: Only Listed Directory Number DID calls (as assigned in the ALDN command) will be directed to the Night Connection station. All DID trunks must be programmed to the Night Connection station via the ACSI command.
16. When system is in the Night mode of operation, incoming calls are directed in the following order:
 

NIGHT CONNECTION - FLEXIBLE	[N-2]
NIGHT CONNECTION - FIXED	[N-1]
TAS	[T-8]

## N-2 Night Connection - Flexible

### General Description

This feature provides arrangements to route calls, usually directed to the ATTENDANT CONSOLE [A-3], instead to a preselected station on a flexible, assignable basis within the system, when the Night Mode has been entered.

### Operating Procedure

1. Answering the operation is the same as that for NIGHT CONNECTION - FIXED [N-1].
2. Each evening, before placing the ATTENDANT CONSOLE [A-3] into the Night Connection mode, the Attendant programs CALL FORWARDING - ALL CALLS [C-5] from the fixed NIGHT CONNECTION - FIXED station to the desired station.

### Service Conditions

1. The NIGHT CONNECTION - FLEXIBLE station may be programmed from either the ATTENDANT CONSOLE [A-3] or the NIGHT CONNECTION - FIXED [N-1] station. Refer to CALL FORWARDING - ALL CALLS [C-5] for details.
2. NIGHT CONNECTION - FLEXIBLE: Arrangements are provided to route calls, normally directed to the Attendant, to a preselected station line within the system when Night service is activated. Additionally, incoming calls from specific non-DID exchange network trunks can be arranged to route to the specific station line. The routings can be assigned on a flexible basis by the Attendant or NIGHT FIXED station by use of the Call Forwarding feature and remain in effect until changed. For NIGHT CONNECTION - FLEXIBLE to function, a NIGHT CONNECTION - FIXED telephone number must be assigned to the trunk via the MAT [M-18]. In the event of a power failure, the assignments are not lost. The TAS [T-8] answering capability is provided for Night calls not assigned to Night stations.
3. When activating this feature within an FCCS network, the different destination for C.O. incoming calls (Ring down) cannot be set at each tenant group.

## N-3 Non-delay Operation

### General Description

This feature allows the ATTENDANT CONSOLE [A-3] to place any calling party on hold, dialing the call, and connecting the calling and called parties.

### Operating Procedure

1. The Attendant answers an operator call by pressing the ANSWER or ATND key.
2. Press the START key.
3. Dial the exchange network access code.
4. Dial the desired telephone number.
5. Press the RELEASE key.
6. The parties are connected.

### Service Conditions

1. The Attendant may terminate the connection either before or after the called station answers.
2. There is no AUTOMATIC RECALL [A-8] for station-to-trunk and trunk-to-trunk calls when the called party does not answer.
3. If the station is restricted, the Attendant will receive a reorder tone when attempting to establish a Central Office connection.
4. When the PASSING DIAL TONE [P-2] feature is provided, and the Attendant has accessed an outgoing trunk, the call may be released from the ATTENDANT CONSOLE [A-3], and the user is allowed to complete dialing.
5. This feature allows the Attendant to place an outgoing call for a user who reached the Attendant via a dial "0" call without requiring the user to hang up.
6. The Attendant can dial the called number for the user, or using the PASSING DIAL TONE [P-2] feature, allow the user to complete the dialing.
7. A call can be transferred to a trunk in the remote node via FCCS link.

### Interactions

1. The Attendant Console can seize the dial tone and dial an outgoing number for any station in the system. The Attendant Console cannot pass an unrestricted dial tone to any station. See PASSING DIAL TONE [P-2] for more information.
2. The Attendant Console must first be provided.

# N-7D Non-exclusive Hold - D<sup>term</sup>

## General Description

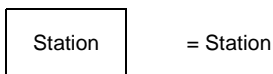
This feature allows a D<sup>term</sup> user to place a call on Hold, from which it can be retrieved by any D<sup>term</sup> station that displays the held line.

## Operating Procedure

1. While a call is in progress, press the HOLD key.
2. To retrieve a held call; press the held line.

## Service Conditions

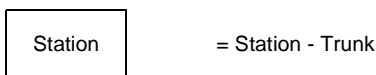
1. Any D<sup>term</sup> station displaying the held line can seize the held call.
2. AUTOMATIC RECALL [A-8] is directed only to the station that placed the call on Hold.
3. The station initiating Hold will receive a distinctive I-HOLD INDICATION [I-7D].
4. A two-party Hold is available when a D<sup>term</sup> is engaged in a three-party conference with a station and/or trunk. An EXECUTIVE RIGHT-OF-WAY [E-1] call cannot activate a two-party Hold.
5. When two parties are put on Hold, service features such as EXECUTIVE RIGHT-OF-WAY [E-1], ATTENDANT OVERRIDE [A-7], CALL WAITING - ORIGINATING [C-31], CALL WAITING - TERMINATING [C-12], BUSY VERIFICATION [B-3] and ATTENDANT CAMP-ON [A-1], cannot be activated to the busy line.
6. The two held parties remain connected and can talk to each other. MUSIC ON HOLD [M-7] is not activated.
7. The two held parties cannot be placed on EXCLUSIVE HOLD [E-3D] by the D<sup>term</sup> user.
8. If one of the two held parties is released from the connection, MUSIC ON HOLD [M-7] will be activated on the remaining connection. When the holding party returns to the connection, a two-party connection is established.
9. If the sub-line appearance placed in the NON-EXCLUSIVE HOLD condition is assigned to a single-line telephone, the single-line telephone can retrieve the held call by lifting the handset.
10. NON-EXCLUSIVE HOLD - D<sup>term</sup> will operate when the D<sup>term</sup> station has been put in CONSULTATION HOLD by the other party.
11. This service feature is available when a station is in the following states, where “=” means a path and “-” means music on hold:
  - a.) when a station has a path to another station:



- b.) when a station has a path to a trunk

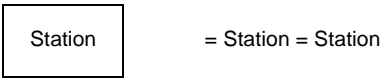


- c.) when a station has a path to a station that has a trunk held by MUSIC ON HOLD [M-7] for CONSULTATION HOLD - ALL CALLS [C-17] D<sup>term</sup> [C-17D]:



**Service Conditions (cont'd)**

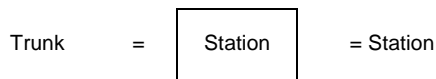
- d.) when a station has a path to a station that has a station held by MUSIC ON HOLD [M-7] for CONSULTATION HOLD - ALL CALLS [C-17] or CONSULTATION HOLD - ALL CALLS D<sup>term</sup> [C-17D]:



- e.) when a station has a path to two trunks at one time for THREE-WAY CALLING [T-2] or THREE-WAY CALLING - D<sup>term</sup> [T-2D]:



- f.) when a station has a path to a trunk and a station at one time for THREE-WAY CALLING [T-2] or THREE-WAY CALLING - D<sup>term</sup> [T-2D]:



12. This service feature is not available when a station is in the following states:

- a.) when a station has a path to a trunk and a trunk held by MUSIC ON HOLD [M-7] for CONSULTATION HOLD - ALL CALLS [C-17] or CONSULTATION HOLD - ALL CALLS - D<sup>term</sup> [C-17D]:



- b.) when a station has a path to two stations at one time for THREE-WAY CALLING [T-2] or THREE-WAY CALLING - D<sup>term</sup> [T-2D]:





# N-8D Non-square Line Assignment - D<sup>term</sup>

## General Description

This service feature allows the line function buttons on the D<sup>term</sup> set to be freely assigned as line keys or as service feature keys. These assignments are done on a per-station basis.

## Operating Procedure

Key designations are assigned via the Maintenance Administration Terminal (MAT) [M-18].

## Service Conditions

Programming one feature to more than one key will not provide enhanced service. For example, two MSG keys will not provide a D<sup>term</sup> set with eight message memories. See MESSAGE REMINDER - D<sup>term</sup> [M-19D].

# N-17 Night Connection Outside - System

## General Description

This is a night transfer service on a system basis, enabling a ring-down or LDN call to be transferred to a preselected station outside the NEAX2400 IMX when night mode has been set.

## Operating Procedure

1. The Attendant sets night mode. (Night Key, PB, Handset Extraction, MB).
2. A ring-down or LDN call terminates from a trunk.
3. The call is transferred to the outside party in accordance with NIGHT CONNECTION OUTSIDE system data.

## Service Conditions

1. The priority of this service is higher than TRUNK ANSWER FROM ANY STATION (TAS) [T-8] service but lower than DIRECT-IN TERMINATION (DIT) [D-7] and NIGHT CONNECTION - FIXED [N-1] services. Thus, if DIT [D-7] and NIGHT CONNECTION - FIXED [N-1] are set, this service is not activated.
2. If the terminating side is a ring-down trunk, a release signal cannot be received after communication is established. Therefore, the trunk to which the call is transferred must be capable of sending back a release signal.
3. Tandem restriction is applied to this feature.
4. This service cannot be used in combination with CONSECUTIVE SPEED CALLING [C-62] service.
5. The call transfer destination can be fixed on a per-tenant basis.

# N-28

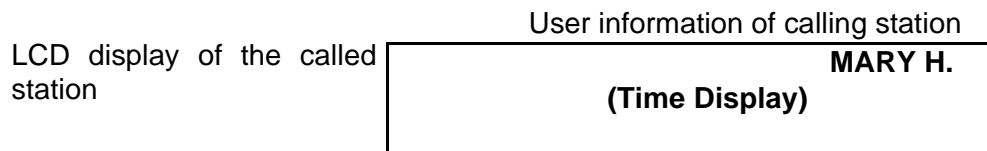
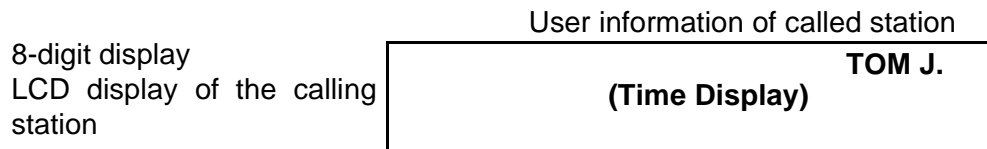
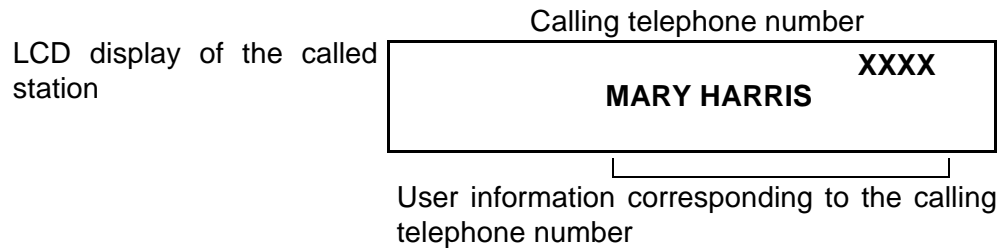
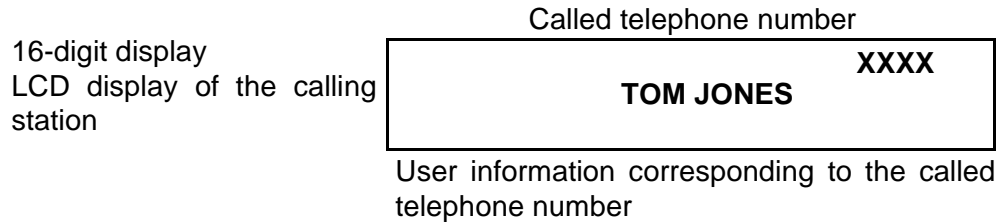
# Name Display - System

## General Description

This feature allows a D<sup>term</sup> with LCD display to indicate the user information corresponding to the calling telephone number while engaged in STATION-TO-STATION CALLING [S-11].

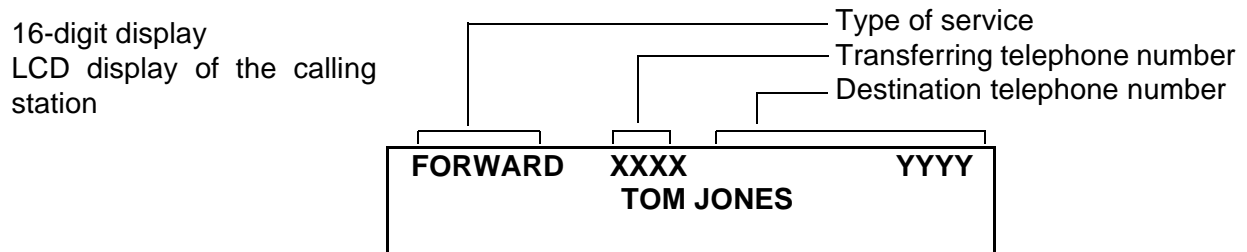
## Operating Procedure

- When originating a station-to-station call:

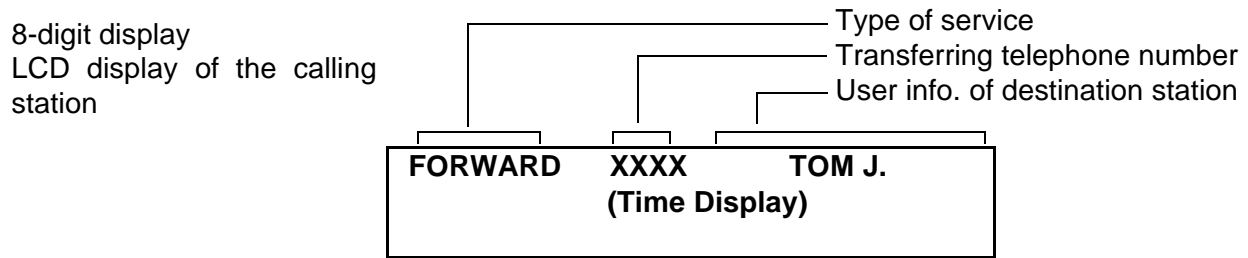
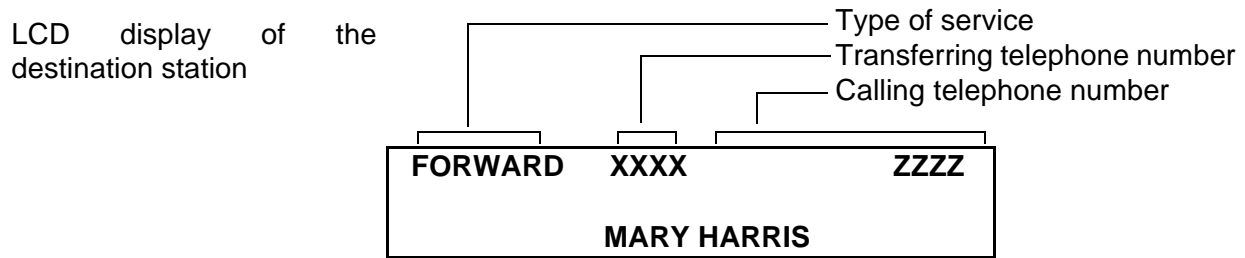


**Note:** The user information on the LCD flashes until the call is answered.

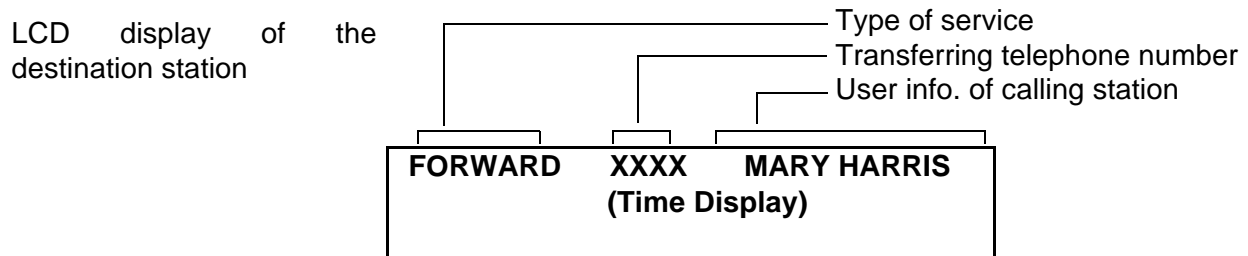
- When a station call has been transferred to another station by CALL FORWARDING - ALL CALLS [C-5]/ BUSY LINE [C-2]/DON'T ANSWER [C-3]:



**Operating Procedure (cont'd)**



**Note:** The user information on the LCD flashes until the call is answered.



3. When both the calling/called station are released from a station-to-station call, the LCD of the calling/called station displays:



**Service Conditions**

1. This service is available when either of the calling/called station is a D<sup>term</sup>, with an LCD display.
2. By this service, ASCII character data can be displayed.
3. User information corresponding to the telephone number that can be displayed on the LCD is a maximum of 16 digits. The information displayed may consist of upper case letters, numeric characters, and most keyboard symbols.
4. This service and Name Display service by Open Application Interface (OAI) cannot be activated concurrently.
5. 8-digit display or 16-digit display is selectable by System Data, but cannot be used concurrently.
6. 16-digit display:
  - a.) 16-digit display is available only in case of station (My Line only) -to-station (My Line only) calls between D<sup>term</sup>s with 2-line LCD display.

**Service Conditions (cont'd)**

- b.) User information is displayed on the middle line of LCD, beginning on the 9th segment from the left. When the information is less than 16 digits, the unused segments are left blank. The information cannot be displayed on the upper line of LCD.
- 7. 8-digit display of D<sup>term</sup> Series E:
  - a.) User information is displayed on the upper line of LCD, beginning on the 17th segment from the left. When the information is less than 8 digits, the unused segments are left blank.
- 8. If the station has no name programmed for Name Display service, the telephone number is repeated in the name field.
- 9. User information will not be guaranteed when 16-digit display service is changed to 8-digit display service.
- 10. When telephone number has been changed to a new one, the telephone number and user information to be displayed cannot be guaranteed. Therefore, system data assignment must be properly managed.
- 11. User information may be assigned to all sub-lines of a D<sup>term</sup>.
- 12. The Name Display data stored on the hard disk is loaded to the memory at the time of system initialization (including power on) or when the office data load initialization is requested by MAT command or the keys on the TOPU.
- 13. The Name Display data is backed up to the hard disk at the time of routine diagnosis.

# O-1 On-line Maintenance

## General Description

This service feature permits maintenance routines to be performed on the NEAX2400 IMX without affecting normal system operation.

## Operating Procedure

Refer to the NEAX2400 IMX Office Data Specification.

## Service Conditions

1. The following maintenance functions may be performed while the system is ON-LINE:
  - a.) Generic Program and Operating Memory testing
  - b.) Fault Contents Display and Diagnosis
  - c.) System/Office Data Entry and Change
  - d.) REMOTE MAINTENANCE [R-7]
  - e.) Traffic Measurement
  - f.) Testing facilities of outside trunks is provided as an option
  - g.) PEG COUNT [P-7] display
2. I/O port "0" is fixed at 4800 bps.

## Interactions

1. MAINTENANCE ADMINISTRATION TERMINALS [M-18] must first be provided.
2. Verify all cable connections.

## O-2 Outgoing Trunk Queuing

### General Description

This feature allows a user to dial a specified access code and enter a first-in, first-out queue, when encountering a trunk busy signal. As soon as an OUTGOING TRUNK becomes available, stations in the queue will be called back on a first-come, first-served basis.

### Operating Procedure

#### When LEAST COST ROUTING - 3/6-DIGIT [L-5] is not provided:

1. Dial the trunk access code and receive busy tone.
2. Press the switch hook and receive special dial tone.
3. Dial the OUTGOING TRUNK QUEUING (OGQ) access code and receive service set tone.
4. Replace the handset.

#### When LEAST COST ROUTING - 3/6-DIGIT [L-5] is provided:

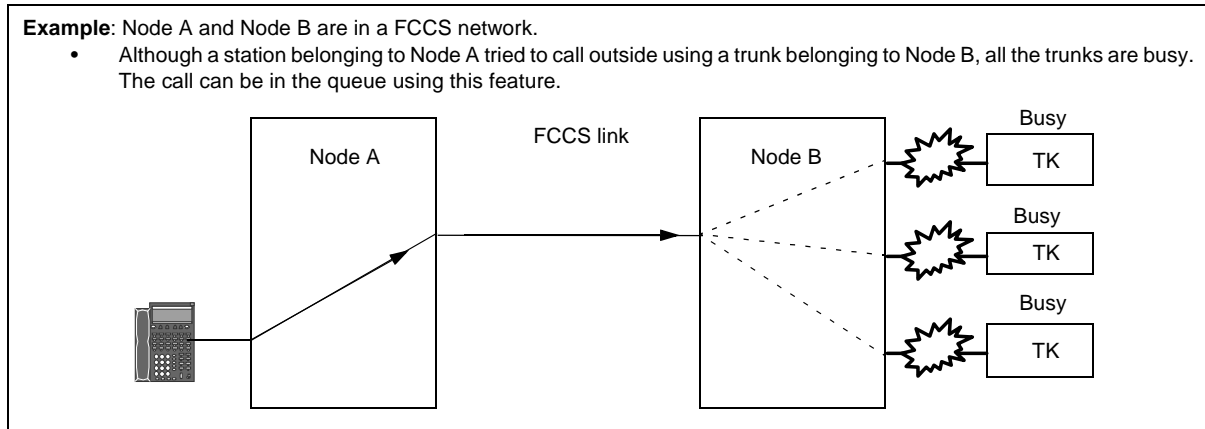
1. Dial the trunk access code and receive PBX dial tone.
2. Dial the desired number and receive busy tone.
3. Press the switch hook and receive special dial tone.
4. Dial the OGQ access code and receive service set tone.
5. Replace the handset.

### Service Conditions

1. After an OUTGOING TRUNK becomes available, the user's station will ring for 30 seconds. If not answered within that time, the station will automatically be dropped from the queue.
2. When this feature is used in conjunction with SPEED CALLING - SYSTEM [S-3], or LEAST COST ROUTING [L-5], where a sender is involved, the sender will automatically dial out the called subscriber number when the handset is lifted.
3. If the user wishes to remove himself from the queue prior to being rung, the specified cancellation code must be dialed.
4. Individual stations may only initiate one outgoing trunk queue at a time. Subsequent attempts will result in a reorder tone.
5. Stations may be restricted from using this feature in CLASS OF SERVICE - INDIVIDUAL [C-15].
6. This feature is not available for an ATTENDANT CONSOLE [A-3].
7. The maximum number of simultaneous OGQs per system:
  - 1 IMG: 64 calls
  - 4 IMG/IMX-U: 256 callsThe queue slots are used commonly by OFF-HOOK QUEUING [O-7], INTER-OFFICE OFF-HOOK QUEUING [I-11], and OGQ [O-2, 2D, 16].
8. CALL PICKUP - GROUP [C-7] cannot be used to answer a call directed to another station using OGQ.
9. OGQ is common to all Central Office-type trunk groups (COT, TIE, FX, WATS, etc.) in the system.
10. OGQ call back will return to the originating station, not the CALL FORWARDING [C-2, 3, 5] terminating station.
11. OGQ is denied to a station line when the CALL BACK [C-1] or CALL HOLD [C-6] feature is already activated.
12. The Attendant cannot CAMP-ON [A-1] a call to a station that has activated OGQ.

## Service Conditions (cont'd)

13. If a user goes on-hook within 6-8 seconds after encountering all trunks busy, OUTGOING TRUNK QUEUING can be set automatically to the station.
14. The station is set for OGQ for a minimum of 30 seconds to one hour, maximum. This time is adjustable through the System Data base. After this time, OGQ will be cancelled automatically.
15. ACCOUNT CODE [A-18] and FORCED ACCOUNT CODE [F-7] information can be recorded on SMDR [S-10], when used in conjunction with OGQ.
16. This feature can be activated when using a trunk in the remote node via FCCS link.



17. The maximum number of the OGQs stations is 1,024 within the FCCS network (NCN can manage a maximum of 1,024 calls).
18. OGQ data is transmitted to and stored in the Network Control Node (NCN). Therefore, all the OGQ data will be cleared by the system initialization of the NCN.
19. When the access to the NCN is impossible (system down or cable disconnection or any trouble has happened), the user cannot set or cancel OGQ data. (After dialing the access code or pressing the feature keys for set/cancel OGQ, the user hears the reorder tone.)
20. When the trunk becomes idle status after the NCN is recovered, the call in the queue will be called back, if data has not been cleared. If data has been cleared, the call is cancelled automatically.

## Interactions

1. Dial pad operation for  $D^{\text{term}}$  sets may be used. A FLASH BUTTON [F-3D] must be programmed to a programmable line/feature key.
2. OGQ-AUTOMATIC may operate with either same or separate access codes. If the Automatic option is chosen, service set tone will be sent when encountering an all trunks busy situation. No dial pad operation will be required.
3. When testing OGQ, at least one trunk of the trunk group being tested must be engaged in a station-to-trunk or trunk-to-trunk connection. Use of the MB key only on the trunk circuit card will not allow OGQ to test and operate properly.



## O-2D Outgoing Trunk Queuing - D<sup>term</sup>

### General Description

This service allows a D<sup>term</sup> user, upon encountering a trunk busy signal, to enter a first-in, first-out queue.

### Operating Procedure

#### Without LEAST COST ROUTING - 3/6-DIGIT [L-5]:

1. Dial the trunk access code; receive busy tone.
2. Press the CALL BACK key, receive service set tone. The LCD displays:

<b>OG-Q SET</b> <b>(Time Display)</b>
--

3. Replace the handset.
4. When the trunk becomes idle, the station will be rung.

#### With LEAST COST ROUTING - 3/6-DIGIT [L-5]:

1. Dial the trunk access code; receive PBX dial tone.
2. Dial the desired number; receive busy tone. The LCD displays:

<b>BUSY</b> <b>(Time Display)</b>	Called Party <b>XXXXXX</b>
--------------------------------------	-------------------------------

3. Press the CALL BACK key; receive service set tone. The LCD displays:

<b>OG-Q SET</b> <b>(Time Display)</b>
--

4. Replace the handset.
5. When the trunk becomes idle, the station will be rung. Once connected to the trunk, the system automatically redials the number.

### Service Conditions

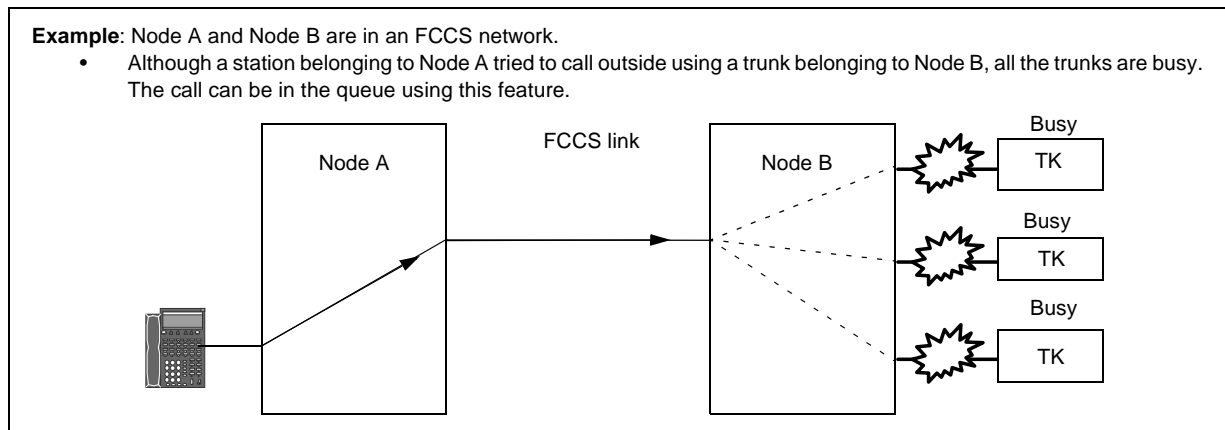
1. When an OUTGOING TRUNK becomes available, the user's station will ring for 30 seconds. If the user does not answer within that time, the station will be automatically dropped from queue.
2. When this feature is used in conjunction with SPEED CALLING [S-3, 21, 23], or LEAST COST ROUTING - 3/6-DIGIT [L-5] where a sender is involved, the sender will automatically dial out the called number when the handset is lifted.
3. To cancel the OUTGOING TRUNK QUEUING from a D<sup>term</sup>, go off-hook and press CALL BACK key. The LCD displays:

<b>OGQ CANCEL</b> <b>(Time Display)</b>
--

The user will hear service set tone.

### Service Conditions (cont'd)

4. Individual stations may only initiate one OUTGOING TRUNK QUEUE - D<sup>term</sup> at a time. Subsequent attempts will produce a reorder tone.
5. Stations may be restricted from use of this feature via CLASS OF SERVICE - INDIVIDUAL [C-15].
6. The station is put in queuing condition for a maximum of 30 seconds to one hour (adjustable through system data). After this timing, OG queuing will be cancelled automatically.
7. The maximum number of simultaneous OGQs per system:
  - 1 IMG: 64 calls
  - 4 IMG/IMX-U: 256 calls
8. CALL PICKUP [C-7] cannot be used to answer a call directed to another station using the OUTGOING TRUNK QUEUING - D<sup>term</sup> feature.
9. OUTGOING TRUNK QUEUE - D<sup>term</sup> is common to all trunk groups (COT, TIE, FX, WATS, etc.) in the system.
10. OUTGOING TRUNK QUEUING - D<sup>term</sup> and CALL BACK [C-1] are mutually exclusive.
11. OUTGOING TRUNK QUEUING - D<sup>term</sup> is denied to a station if the CALL BACK [C-1] or CALL HOLD [C-6] feature is already activated.
12. The Attendant cannot CAMP-ON [A-1] a call to a station that has activated this feature.
13. ACCOUNT CODE [A-18] and FORCED ACCOUNT CODE [F-7] information can be recorded on SMDR [S-10] when used in conjunction with OUTGOING TRUNK QUEUING - D<sup>term</sup>.
14. OUTGOING TRUNK QUEUING - D<sup>term</sup> is only available from the MY- Line of a D<sup>term</sup>.
15. This feature can also be activated when using a trunk in the remote node via FCCS link.



16. The maximum number for the OGQ station is 1,024 within the FCCS network (NCN can manage a maximum of 1,024 calls).
17. OGQ data is transmitted to and stored in the Network Control Node (NCN). Therefore, all the OGQ data will be cleared by the system initialization of the NCN.
18. When the access to the NCN is impossible (system down, cable disconnection or trouble has occurred), the user cannot set or cancel OGQ data. (After dialing the access code or pressing the feature keys for set/cancel OGQ, the user hears the reorder tone.)
19. When the trunk becomes idle status after the NCN is recovered, the call in the queue will be called back, if data has not been cleared. If data has been cleared, the call is cancelled automatically.

**Interactions**

1. Dial pad operation for D<sup>term</sup> sets may be exercised. A FLASH BUTTON [F-3D] must be programmed to a programmable line/feature key.
2. OGQ-AUTOMATIC may operate with either same or separate access codes. If the Automatic option is chosen, service set tone will be sent when encountering an all trunks busy situation. No dial pad operation will be required.
3. When testing OGQ, at least one trunk of the trunk group being tested must be engaged in a station-to-trunk or trunk-to-trunk connection. Use of the MB key only on the trunk circuit card will not allow OGQ to test and operate properly.

# O-6 Off-Hook Alarm

## General Description

This feature allows a user to call the Attendant or a predetermined station by simply staying OFF-HOOK. The calling number is automatically displayed at the ATTENDANT CONSOLE [A-3] or a D<sup>term</sup> series with a display.

## Operating Procedure

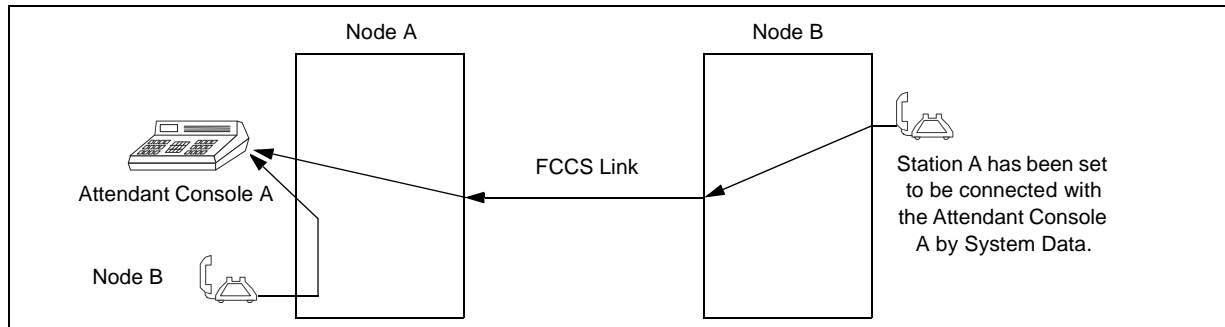
1. Lift the handset and stay off-hook.
2. After a predetermined time elapses (2 to 30 sec.), the call will terminate at the ATTENDANT CONSOLE [A-3] or the predetermined station.
3. The calling telephone number will be displayed at the ATTENDANT CONSOLE [A-3] or D<sup>term</sup> when answered.

## Service Conditions

1. Predetermined timing interval is programmable through the MAINTENANCE ADMINISTRATION TERMINAL [M-18] (MAT) (2 to 30 seconds).
2. In the night mode, an OFF-HOOK ALARM call directed to the ATTENDANT CONSOLE [A-3] will not terminate at the ATTENDANT NIGHT TRANSFER [A-19] predetermined night station. The caller will receive a reorder tone.
3. A station will be assigned as a member of an OFF-HOOK ALARM group and will be connected to the predetermined stations that are assigned for each off-hook group.
4. Maximum number of OFF-HOOK ALARM groups is 7 per-TENANT [T-12] group. A group number must be assigned to all the stations to be included in a group.
5. The station assigned as a terminating station of each OFF-HOOK ALARM group can be a member of a HUNTING GROUP [S-7, 8, 9].
6. This service is programmed via System Data. Stations may be restricted from using this feature in CLASS OF SERVICE - INDIVIDUAL [C-15].
7. The ATTENDANT CONSOLE [A-3] can answer by pressing EMG key, which must be assigned by the MAT [M-18]. Using the ANSWER key will not give priority to the OFF-HOOK ALARM call.
8. The predetermined target station can set CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2].
9. When the predetermined station is busy, the OFF-HOOK ALARM call receives ringback tone until the station becomes idle.
10. This feature cannot be applied while in CONSULTATION HOLD - ALL CALLS [C-17] or CALL HOLD [C-6] mode.
11. When an OFF-HOOK ALARM call is directed to a Pilot station of a UCD [U-1] group, queuing is not available when all the stations within the group are busy.
12. This feature can also be activated when a station and the called party belong to different nodes.

## Service Conditions (cont'd)

13. If a station belongs to the node that has an Attendant Console, the station is connected with the Attendant Console. If a station belongs to the node that does not have an Attendant Console, the station is connected with the specified Attendant Console in the remote node according to the system data assigned. See the figure below.



## Interactions

1. A total of seven OFF-HOOK ALARM Groups per tenant may be assigned to the system, if the termination point is a station. Any station not assigned in ASGD will go to reorder tone after the Register Prepause timer (ASYD, System Data 1, Index 128) expires. If the termination point is the Attendant Console, all stations in the tenant will terminate to the Attendant Console.
2. ASAT cannot be used to construct different OFF-HOOK ALARM groups terminating to specific Attendant Consoles. If the tenant is equipped with more than one Attendant Console, OFF-HOOK ALARM calls will be directed to all consoles with OFF-HOOK ALARM keys programmed in AAKP.
3. The following features will function on terminating calls to a predetermined station:
 

CALL PICKUP	[C-7]
CALL TRANSFER	[C-11]
CALL HOLD	[C-6]
CALL FORWARDING	[C-5A]
4. No tone is provided on CALL WAITING-TERMINATING [C-12].

# O-7 Off-Hook Queuing

## General Description

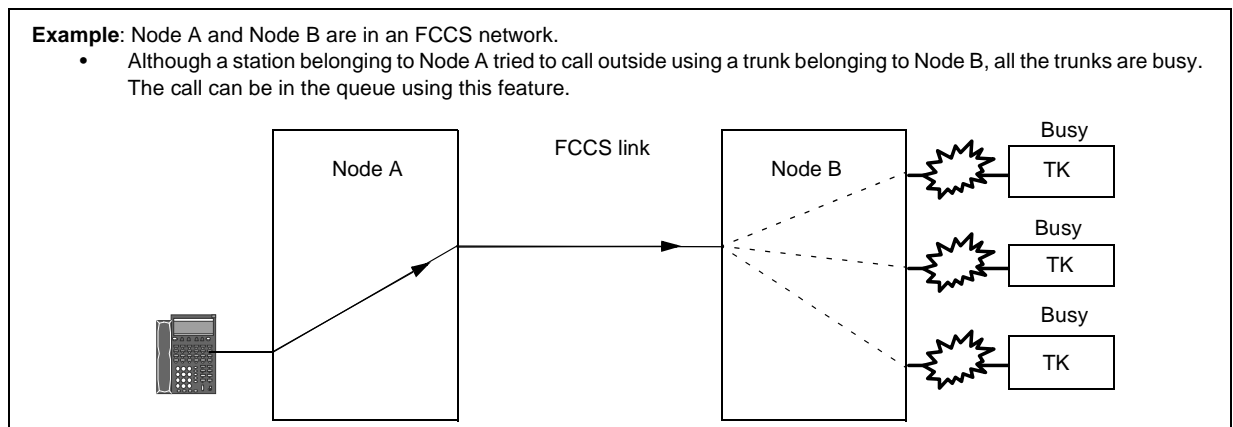
This service allows a user, upon encountering a trunk-busy condition, to remain off-hook and automatically enter a first-in, first-out queue. As soon as an outgoing trunk becomes available, the switch connects the next call to this trunk.

## Operating Procedure

1. Lift the handset; receive a dial tone.
2. Dial the Outgoing Call access code and the desired number (LCR access).
3. The NEAX2400 IMX determines that no trunks are available and places the call in an available queue slot.
4. The caller receives service set tone; remains off-hook and waits.
5. When a trunk becomes available, the dialed number is automatically sent forward.

## Service Conditions

1. This feature is usually used in conjunction with LEAST COST ROUTING - 3/6-DIGIT [L-5].
2. The maximum number of simultaneous OFF-HOOK QUEUES per system:
  - 1 IMG: 64 calls
  - 4 IMG/IMX-U: 256 calls
3. The queue slots are used commonly by OFF-HOOK QUEUING, OUTGOING TRUNK QUEUING [O-2] and INTER-OFFICE OFF-HOOK QUEUING [I-11].
4. If no queue slots are available, the user will receive busy tone.
5. Route Class of the LCR can give the choice of the OFF-HOOK QUEUING.
6. CLASS OF SERVICE - INDIVIDUAL [C-15] is applied for each station. This class of service is different from the class of service for OUTGOING TRUNK QUEUING [O-2]. Both services are mutually exclusive.
7. When automatic outgoing queuing (on-hook queuing) is in service (tenant basis), OFF-HOOK QUEUING service is not effective.
8. ACCOUNT CODE [A-18] and FORCED ACCOUNT CODE [F-7] information can be recorded on SMDR [S-10], when used in conjunction with OFF-HOOK QUEUING.
9. This feature can also be activated when using a trunk in the remote node via FCCS link.



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## Service Conditions (cont'd)

10. The maximum of number of the OGQ stations is 1,024 within the FCCS network (NCN can manage a maximum of 1,024 calls).
11. OGQ data is transmitted to and stored in the Network Control Node (NCN). Therefore, all the OGQ data will be cleared by the system initialization of the NCN.
12. When the access to the NCN is impossible (system down, cable disconnection or trouble has occurred), the user cannot set or cancel OGQ data. (After dialing the access code or pressing the feature keys for set/cancel OGQ, the user hears the reorder tone.)
13. When the trunk becomes idle status after the NCN is recovered, the call in the queue will be called back, if data has not been cleared. If data has been cleared, the call is cancelled automatically.

## Interactions

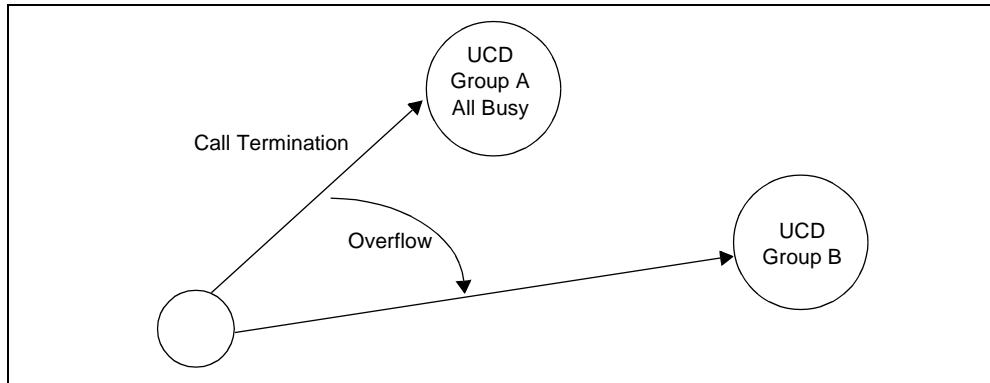
1. UNIVERSAL SENDER [U-3] must first be provided.
2. The PBX attempts trunk seizure every four seconds until the connection has been completed.
3. LEAST-COST ROUTING-3/6 DIGIT [L-5] information will be applied to these attempts. Therefore, OUTGOING TRUNK QUEUING will be set against all routes in the Outgoing Routing Pattern (OPR).
4. If all queuing memory slots are in use, the user will receive a trunk-busy signal.
5. The time a call may remain in queue is unlimited.
6. The following features cannot be activated toward the busy station: CALL WAITING - ORIGINATING [C-31], CALL WAITING - TERMINATING [C-12], ATTENDANT CAMP-ON WITH TONE INDICATION [A-1], BUSY VERIFICATION [B-3] and EXECUTIVE RIGHT-OF-WAY [E-1].
7. Do not disable constant service set tone by changing System Data 1, Index 42, Bit 7 to data "1". This changes constant service set tone to burst special dial tone, and special dial tone to burst special dial tone, followed by constant dial tone. This will also disable TANDEM OFF-HOOK QUEUING.

# O-13

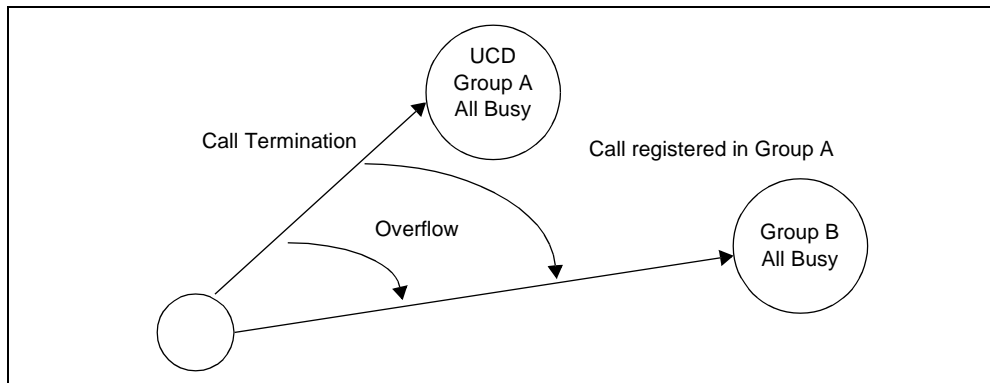
# Overflow - UCD

## General Description

1. When a call has terminated to UCD [U-1] Group A, and the incoming call has encountered all stations busy in Group A, the call is transferred to UCD [U-1] Group B, if Group B is registered as the OVERFLOW-UCD destination.



2. If all stations are busy in Group B, then the call is placed in queue for the originally called UCD [U-1] group (Group A).



## Operating Procedure

No manual operation is required.

## Service Conditions

1. An OVERFLOW group must be a UCD [U-1] Group.
2. One OVERFLOW group can be provided for one UCD [U-1] Group.
3. OVERFLOW is performed only once.
4. An OVERFLOW group cannot be registered into a queue.
5. The NEAX2400 IMX can be provided with five OVERFLOW groups.
6. This feature can be activated via FCCS.
7. When using the FCCS network, the number type (telephone number or Physical Station Number) for the station assignment must be the same between the originally called group and the forwarded group.



**Interactions**

ALL UNIFORM CALL DISTRIBUTION [U-1] interactions apply to the UCD overflow group. The incoming overflow call is handled in the same way as a regular incoming call. If both UCD groups are busy, the call will queue at Group A.

## O-16 Outgoing Trunk Queuing - Attendant

### General Description

This feature allows an ATTENDANT CONSOLE [A-3], upon encountering a trunk busy condition, to remain Off-Hook and automatically enter a first-in, first-out queue. As soon as an outgoing trunk becomes available, the switch connects the next call to that trunk.

### Operating Procedure

1. Dial the access code and the desired number.
2. When no trunks are available, the call automatically enters an available queue slot.
3. The Attendant receives service set tone; remains off-hook and waits.
4. When a trunk becomes available, the dialed number is automatically sent forward.

### Service Conditions

1. This feature is used with LEAST COST ROUTING - 3/6-DIGIT [L-5].
2. The maximum number of stations or ATTENDANT CONSOLES [A-3] that may use OFF-HOOK QUEUING [O-7] simultaneously is 256 per system.
3. The queue slots are shared by OFF-HOOK QUEUING [O-7], OUTGOING TRUNK QUEUING (OGQ) [O-2, 12D, 16] and INTER-OFFICE OFF-HOOK QUEUING [I-11].
4. If no queue slots are available, the ATTENDANT CONSOLE [A-3] will receive busy tone.
5. CLASS OF SERVICE - INDIVIDUAL [C-15] is applied to each ATTENDANT CONSOLE [A-3]. (RSC 0 and SFC 0 are reserved for ATTENDANT CONSOLE [A-3].)
6. OFF-HOOK QUEUING is utilized for this service feature.

# O-21 Outgoing Trunk Busy Announcements

## General Description

This feature permits a station-originated call, upon encountering a trunk busy signal, to be automatically routed to a recorded announcement informing the caller that all outgoing trunks are busy.

## Operating Procedure

No manual operation is required after this feature has been programmed in System Data.

## Service Conditions

1. This service feature is available when a station-originated call or tandem call encounters a busy condition.
2. MISCELLANEOUS TRUNK RESTRICTION [M-2] is also available for this service feature.
3. The announcement machine can be provided on a per-tenant basis.
4. The availability of this service feature cannot be determined for each outgoing trunk route.
5. The other services activated by an outgoing trunk-busy condition are executed prior to this service, for example:
 

OFF-HOOK QUEUING	[O-7]
OUTGOING TRUNK QUEUING	[O-2]
ROUTE ADVANCE	[R-6]
6. This feature is not available when a call origination is impossible because of a sender-busy condition, even though there are idle trunks.
7. This feature is available when a call using STATION-TO-STATION CALLING [S-11] is transferred by CALL FORWARDING - ALL CALLS - OUTSIDE [C-28] or CALL FORWARDING - BUSY LINE - OUTSIDE [C-60] and encounters busy outgoing trunks.
8. This feature is available when a station calling on a DIRECT INWARD DIALING [D-8] or a Tie Line is transferred by CALL FORWARDING - ALL CALLS - OUTSIDE [C-28] or CALL FORWARDING - BUSY LINE - OUTSIDE [C-60] and encounters busy outgoing trunks.
9. This feature is not available when a call is transferred by CALL FORWARDING - DON'T ANSWER - OUTSIDE [C-74] and encounters busy outgoing trunks.
10. This feature requires one of the following hardware alternatives:
  - a.) Central Office Trunk (COT) or 2W E&M trunk and an announcement machine
  - b.) Digital Announcement Trunk (DAT).
11. This feature is not available for DIT CALL FORWARDING-OUTSIDE.
12. This feature is only available to a trunk in the same node within the FCCS network.

# O-37D Off-Hook Line Number Display - D<sup>term</sup>

## General Description

This feature permits the D<sup>term</sup> LCD to display the calling telephone number/trunk number when the D<sup>term</sup> user originates a call by pressing a line key or using TRUNK LINE APPEARANCE [T-23] service.

## Operating Procedure

1. When a call is originated by pressing the line key:

- In the on-hook status; the LCD displays:



In the idle status and no display.

- In the off-hook status; the LCD displays:



Selected line number is displayed.

- When dialing the one digit ("3"); the LCD displays:



Selected line number is cleared and dialed number is displayed.

2. When a call is originated by using TRUNK LINE APPEARANCE service; the LCD displays:

- In the on-hook status:



In the idle status and no display.

- In the off-hook status:



Selected trunk number is displayed.

- When dialing the one digit ("0"); the LCD displays:



Selected trunk number is cleared and dialed number is displayed.

## Service Conditions

1. This service is provided when off-hook. In the preselect status, this is not provided.
2. This service is not provided when a call is originated by using HOT LINE [H-1] service.
3. In case a call is originated by using TRUNK LINE APPEARANCE service, the connected trunk number is displayed.
4. If the trunk number is not assigned, the LCD doesn't display.
5. The maximum digits of the displayed trunk number is 4.
6. The display position of the selected line/trunk number may be changed by system data as below:
  - a.)



b.)



c.)



# P-1

## Paging Access

### General Description

This feature provides both ATTENDANT CONSOLE [A-3] and users dial access to PAGING equipment.

### Operating Procedure

1. Go off-hook; receive dial tone.
2. Dial the Paging access code; receive ringback tone for several seconds.
3. Connection to Paging equipment is established.

### Service Conditions

1. Amplifiers and speakers must be customer provided.
2. One trunk circuit is required for each Paging Access.
3. Where TENANT SERVICE [T-12] is provided, separate access codes and hardware should be provided for each tenant.
4. Maximum Paging Access code is 3 digits.
5. ALL ZONE PAGING [A-53]: If the system provides multi-zone Paging with a separate direct access code assigned for each area, stations or Attendants can use all-zone Paging by dialing a special access code common for all Paging systems.
6. PRIORITY PAGING [P-30]: A predetermined station or the Attendant can preempt a Paging trunk that is connected to any station.
7. Loop signaling is the recommended signaling type.
8. PAGING ACCESS [P-1], PAGING TRANSFER [P-10] and RADIO PAGING [R-16] are provided to the paging station and the paged station in FCCS nodes.
9. When PAGING ACCESS [P-1]/PAGING TRANSFER [P-10]/RADIO PAGING [R-16] service is set to a station in the remote node or the PAGING ACCESS [P-1]/PAGING TRANSFER [P-10]/RADIO PAGING [R-16] call is answered from the remote node via FCCS link:
  - a.) the logical route number should be applied to each physical route that provides the service.
  - b.) the restriction of route-to-route connection between FCCS nodes should be released.
10. The same paging route cannot be used by another station while the paged station does not answer the page activated using the route. However, the paging activation is automatically cleared when the call is not answered within a predetermined time.
11. A user can page one station at a time.

### Interactions

1. MEET-ME PAGING [M-1, 11] and PAGING ACCESS [P-1] can be provided simultaneously in the same system.
2. To directly answer PAGING ACCESS [P-1] by the Attendant Console, the Paged party should use the INDIVIDUAL ATTENDANT ACCESS [I-4] feature.
3. Paging is limited to stations, Attendant Consoles, or TIE trunks. Other parties (CO trunks calls) must have the Attendant Console or user perform the Paging operation.
4. BUSY VERIFICATION [B-3], EXECUTIVE OVERRIDE [E-1]: These features will be denied if the Paging route has been assigned for Privacy. Verify the data in the Assignment of Route Data command, ARTD, CDN 44:PRV. If CDN 6:TCL is assigned as data "8", CDN 44:PRV is not required.

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**Interactions (cont'd)**

5. For simple PAGING ACCESS [P-1], assignments in ASFC are not required. Refer directly to the other Paging features, such as PAGING TRANSFER [P-10].
6. The Attendant can dial the PRIORITY PAGING [P-30] access code and release a station.
7. When disconnecting from a Paging trunk, the trunk becomes idle immediately.
8. Paging is possible from a CONSULTATION HOLD [C-17]. Station A places Party B on soft hold and dials the access code to the Paging trunk. A momentary pressing of the switch hook disconnects the Paging trunk immediately and reconnects Party B to Station A.
9. CALL HOLD [C-6]: A Paging trunk cannot be placed on call hold.
10. BUSY is displayed on the D<sup>term</sup> LCD display when the Paging trunk is busy. Reorder tone is returned.
11. If PRIORITY PAGING [P-30] is used with PAGING ACCESS [P-1]; ARTD, CDN 6 must be assigned as data "8", Page with ringback tone. System Data 1, Index 73 affects the operation of Page routes assigned Page with ringback tone. Therefore, if PRIORITY PAGING [P-30] is used with PAGING ACCESS [P-1], then MEET-ME PAGE [M-1, 11] and PAGING TRANSFER [P-10] are not available to the system.
12. PRIORITY PAGE [P-30] access will not disconnect an Attendant Console engaged in a Paging trunk connection.

## P-2 Passing Dial Tone

### General Description

This feature allows the Attendant to PASS DIAL TONE to a restricted user, enabling that user to place a call that would normally be restricted.

### Operating Procedure

1. Restricted user dials Attendant.
2. Attendant presses ANSWER or ATND key; tenant number, trunk route restriction class and telephone number are displayed.
3. Obtain call details.
4. Dial central office access code; tenant number, and trunk identification number are displayed.
5. Press RELEASE key; user hears dial tone.
6. User places the call.

### Service Conditions

1. This feature permits PASSING DIAL TONE to restricted and unrestricted stations only by the Attendant.
2. When LEAST COST ROUTING - 3/6-DIGIT [L-5] is provided in the system, the Attendant cannot pass dial tone. The call must be completed via the ATTENDANT CONSOLE [A-3].
3. TOLL RESTRICTION [T-7] is activated via system programming for the PASSING DIAL TONE feature.
4. The PASSING DIAL TONE feature is limited by the number of trunks that can be accessed by the Attendant and the Class of Service restrictions of the station.
5. Restriction from Outgoing Calls: This feature can be overridden by the use of the PASSING DIAL TONE.
6. The Attendant is allowed to pass dial tone to any station that has a class of service that allows normal direct dial access capabilities to the trunk group seized by the Attendant.
7. Any non-restricted station can dial through over the selected outgoing trunk. The type of address signals sent to the called location are determined by the trunk route class data.
8. Where SMDR [S-10] is provided, through-dialed calls are charged to the calling station line.
9. This feature is available when the numbering plan for call origination is Outgoing Call (OGC) or Outgoing Call Alternative (OGCA), and the answer-back signal is the second dial tone (mark-out method).
10. When placing outside calls, activation of the TOLL RESTRICTION - 3/6-DIGIT [T-7] is determined by System Data of the calling station on a tenant basis.
11. If TOLL RESTRICTION- 3/6-DIGIT [T-7] is not activated via System Data, neither the 3-digit area code nor the 6-digit area and office code are restricted.
12. If TOLL RESTRICTION- 3/6-DIGIT [T-7] is activated via System Data, the call will be restricted when the calling party dials the restricted area code.

### Interactions

1. Any station that is restricted from a route may receive access to that route by the Attendant Console. A station that is toll restricted will not be able to place calls to destinations normally restricted by having the Attendant Console pass dial tone. The same ATDP tables will apply to that station. The Attendant Console must dial the number for the station when that station is toll restricted. See NON-DELAY OPERATION [N-3].



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**Interactions (cont'd)**

2. The associated programming that should be examined is ATTENDANT CONSOLE [A-3], TOLL DENIAL/TOLL DIVERSION [T-7], TOLL RESTRICTION-3/6 DIGIT [T-8], LEAST-COST ROUTING-3/6 DIGIT [L-5], CLASS OF SERVICE-INDIVIDUAL [C-17], and the various trunk access features.
3. NIGHT CONNECTION FIXED/FLEXIBLE [N-1, 2]: The NIGHT CONNECTION FIXED/FLEXIBLE stations cannot pass dial tone to another station.
4. ATTENDANT NIGHT TRANSFER [A-19]: The ATTENDANT NIGHT TRANSFER station cannot pass dial tone to another station.
5. When LEAST-COST ROUTING-3/6 DIGIT [L-5] is programmed, the ATDP tables will be affected. During feature operation, the Attendant will dial the route access code and then release dial tone to the station. Because that route is assigned in ARNP tables against the LCR (S) access codes, the ATDP tables must also use the LCR (S) access code. For example, the Attendant dials 81 and releases. The station dials 1-516-753-7526. ATDP must be programmed as DC: 9151 and TDI: 1, allowed; not as DC: 81151. (ARNP for the route in this example is assigned with the access code = 9.)

## P-3 Power Failure Transfer

### General Description

This feature provides for certain specified trunks to be automatically connected to designated stations in the event of a loss of AC power. It is normally used when the system is not equipped with reserve power.

### Station Application

Operation is automatic if there is loss of input power to the system.

### Service Conditions

1. If the Central Office is wired ground start, stations must be equipped with ground buttons to complete calls over the exchange network.
2. Power failure station lines should not be wired to common bells. These require outside power sources and will not operate.
3. Type of telephone set (DP or DTMF) connected to CO line via POWER FAILURE TRANSFER shall correspond to the signaling system of the Central Office.
4. The maximum number of POWER FAILURE TRANSFER circuits per PIM is 24 (12 circuits per package).
5. The Power Failure Trunk (PFT) and associated Central Office Trunk should be in the same PIM.
6. When the POWER FAILURE TRANSFER feature is activated, telephone service is limited to incoming calls and/or outgoing calls via the serving Central Office. DID calls cannot be received.
7. D<sup>term</sup>s cannot be used as Power Failure stations.
8. All calls in progress and/or established calls are lost when a POWER FAILURE TRANSFER occurs. When commercial power is restored, the NEAX2400 IMX is automatically reinitialized. Back-up service is provided via the HDD unit to retain the following features:

CALL FORWARDING	[C-2, C-2D, C-3, C-3D, C-5, C-5D]
SPEED CALLING - GROUP	[S-23]
SPEED CALLING - STATION	[S-21]
NAME DISPLAY DATA	[N-28]

### Interactions

1. A PFT circuit card is required.
2. The POWER FAILURE TRANSFER station and Central Office trunk must be on the same Module Group.
3. When power is lost and the POWER FAILURE TRANSFER (PFT) feature is activated, telephone service is limited to incoming and outgoing calls via the predesignated PFT stations.
4. DID service will be lost, as this service is dependent on the operational status of Incoming Register Trunks (IRTs).
5. When power is lost, all calls (station-to-station and station-to-trunk) are lost. When power is restored, PFT calls will stay up until manually disconnected by the participants. Service to the PFT stations is then restored to normal.

# P-4 Pushbutton Calling

## General Description

This feature permits users to originate calls using pushbutton telephones and also allows D<sup>term</sup> stations the ability to control external devices requiring DTMF signals to initiate or perform functions (Code-A-Phone, Conference Unit, etc.).

## Operating Procedure

1. The users press push-buttons corresponding to the desired numbers.
- OR**
2. After a connection is established between a D<sup>term</sup> station and a station or trunk port with an external device attached, the D<sup>term</sup> user may press the key pad or SPEED CALLING BUTTONS - ONE TOUCH - D<sup>term</sup> [S-32D] key to transmit DTMF signals to control the external device.

## Service Conditions

1. If DTMF lines from the Central Office are not available, then the PUSHBUTTON-TO-ROTARY CONVERSION [P-6] feature must be provided.
2. Rotary and pushbutton instruments may be used simultaneously with PUSHBUTTON CALLING.
3. Timing for the DTMF signals can be set from 0.128 to 2.048 seconds via system commands on a system-wide basis.
4. DTMF frequency combinations are as follows:

Low - High	1,209Hz	1,336Hz	1,477Hz
697Hz	1	2	3
770Hz	4	5	6
852Hz	7	8	9
941Hz	*	0	#

## Interactions

1. Each 8RST circuit card contains eight register and eight sender circuits. Each register circuit can accept either pushbutton or rotary dial pulses. The senders can transmit pushbutton or dial pulse signals and are also used with the ATTENDANT CONSOLE [A-3], LEAST-COST ROUTING-3/6 DIGIT [L-5], SPEED CALLING-SYSTEM, STATION, GROUP [S-3, 21, 23], OUTGOING TRUNK QUEUING [O-2], OFF-HOOK QUEUING [O-7], and PUSHBUTTON-TO-ROTARY CONVERSION [P-6].
2. Register circuits are located on the first four levels (0-3) and sender circuits are located on the last four levels (4-7) of the 8RST circuit card.

## P-5 Pushbutton Calling - Attendant Only

### General Description

This feature permits an Attendant to place all calls over DTMF signaling lines from a pushbutton keypad on the ATTENDANT CONSOLE [A-3].

### Operating Procedure

Attendant presses the pushbutton keypad to dial.

### Service Conditions

1. This feature requires that all Central Office trunks and TIE Trunk terminals accept pushbutton signaling (DTMF).
2. PUSHBUTTON CALLING - ATTENDANT ONLY may be added to the system without providing PUSHBUTTON CALLING [P-4] capability to other stations.

### Interactions

The Attendant Console must first be provided.

## P-6 Pushbutton to Rotary Conversion

### General Description

This feature allows DTMF telephones to be used when DTMF signaling is not provided or are not available from the Central Office and/or TIE Line.

### Operating Procedure

Users dial the desired telephone numbers.

### Service Conditions

1. PUSHBUTTON TO ROTARY CONVERSION is software controlled on a per-trunk route basis.
2. See UNIVERSAL SENDER [U-3] for reference.
3. When the following combination of data settings are assigned, the PB station cannot originate a call:
  - ASDT** - TEC = 3 (DP/PB) station data for the calling station
  - ASPA** - SSC = OGC/OGCA
  - ARTD** - CDN1: OSGS = 2 (second dial tone)  
CDN2: ONSG = 2 (PB, 60 msec. Interruption or CCIS No. 7)

### Interactions

1. Each 8RST circuit card contains four register and four sender circuits. Each register circuit can accept either push-button or rotary dial pulses. The senders can outpulse push-button or dial pulse signals and are used with the ATTENDANT CONSOLE [A-3], LEAST-COST ROUTING-3/6 DIGIT [L-5], SPEED CALLING-SYSTEM, STATION, GROUP [S-3, 21, 23], OUTGOING TRUNK QUEUING [O-2], OFF-HOOK QUEUING [O-7], and PUSHBUTTON-TO-ROTARY CONVERSION.
2. Register circuits are located on the first four levels (0-3), and sender circuits are located on the last four levels (4-7) of the 8RST circuit card.
3. Each register may be assigned as either an outgoing or an incoming register. Incoming calls have priority over outgoing calls. Thus, a register programmed as outgoing may serve as an incoming register when none are available. However, an incoming register will never serve as an outgoing register.

## P-7

# Peg Count

### General Description

This service feature permits traffic studies and traffic analysis information to be accessed from the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18] and printed out.

### Operating Procedure

Refer to the NEAX2400 IMX System Operations and Maintenance Manual.

### Service Conditions

1. All information required for this feature is registered at the MAT.
2. The following information is available:
  - STATION PEG COUNT:
    - Number of call originations attempted
    - Number of station-to-station or station-to-Attendant calls attempted
    - Number of station-to-trunk calls attempted
    - Number of call originations abandoned
    - Number of station-to-station calls terminated
    - Number of trunk-to-station calls terminated
    - Number of total calls terminated to station
    - Number of calls unanswered within a predetermined time
    - Number of calls answered
    - Number of calls unanswered
    - Number of calls hearing busy tone and forwarded to the ATTENDANT CONSOLE [A-3]
  - ATTENDANT PEG COUNT:
    - Number of incoming calls per INCOMING CALL IDENTIFICATION [I-2] lamp
    - Number of calls answered per INCOMING CALL IDENTIFICATION [I-2] busy
  - ROUTE PEG COUNT:
    - Number of times trunk route seizure attempted
    - Number of times all trunks busy reached
    - Number of times trunk seized
    - Number of calls terminated to trunk route
    - Number of incoming calls that seized register
    - Number of incoming calls directed to ATTENDANT CONSOLE [A-3]
    - Number of incoming calls directed to station
    - Number of incoming calls directed to tandem connection
    - Number of incoming calls abandoned
3. The above information may be registered and cancelled as required.
4. The measurement information printout cycle can be any period of time ranging from 30 minutes to 120 minutes (in 10-minute increments), as required.

**Service Conditions (cont'd)**

5. Traffic measurement duration time is designated for more than one hour. If the traffic measurement duration time is not designated, the measurement is performed indefinitely until a stop command is entered on the MAT [M-18].

<b>Peg Count</b>	<b>NEAX2400 IMX</b>
Station Peg Count	TN = 1-255
Route Peg Count	RT = 1-255
ATT Peg Count - Incoming	TN = 1-255
ATT Peg Count - Answer	ATT = 1-16

**Interactions**

If the system is reset, traffic measurement requests are no longer in service.

## P-9

# Priority Call

### General Description

This feature allows the ATTENDANT CONSOLE [A-3] to answer various types of calls in the order of their priority. A special type of call can be handled prior to a regular call, at the Attendant's discretion.

### Operating Procedure

1. Lift the handset and receive dial tone.
2. Dial the PRIORITY CALL number, then wait for the Attendant to answer.

**Note:** PRIORITY CALL will terminate on a designated key on the ATTENDANT CONSOLE [A-3].

### Service Conditions

1. The PRIORITY CALL must be answered via a designated key in order to gain a priority capability. The keys must be assigned by the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
2. A PRIORITY CALL will not be picked up first, by pressing the ANSWER key, if other calls are waiting.
3. A PRIORITY CALL cannot be initiated while in CONSULTATION HOLD - ALL CALLS [C-17] or CALL HOLD [C-6].
4. In the night mode, a PRIORITY CALL will terminate at the predetermined station.
5. The calling station obtains this feature via CLASS OF SERVICE - INDIVIDUAL [C-15].
6. A station, instead of the ATTENDANT CONSOLE [A-3], can be the destination of a PRIORITY CALL in the day mode.
7. If the PRIORITY CALL encounters the destination station busy, the call will wait for the station to become idle. Ringback tone will be heard while the caller is waiting.
8. Three levels of PRIORITY CALLs can be assigned.
9. When the destination is a station, the originating stations should be assigned as a member of a PRIORITY CALL group. The maximum number of PRIORITY CALL groups is 7 per TENANT [T-12]. The terminating station must be assigned to each PRIORITY CALL group.
10. The terminating station of each group can be a member of a HUNTING GROUP [S-7, 8, 9].
11. The terminating station can set CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY LINE [C-2].
12. The terminating station for ATTENDANT NIGHT TRANSFER [A-19] and/or OFF-HOOK ALARM [O-6] can be assigned as the terminating station of a PRIORITY CALL.
13. If the destination  $D^{\text{term}}$  is busy (and not the pilot number of a UCD group), when a Priority Call is placed, ringback tone is returned to the calling party rather than busy tone, and the calling party is placed in queue.
14. When a UCD [U-1] station is assigned as the destination of PRIORITY CALL, queuing function of UCD is not available when all the stations within the UCD group are busy.
15. The Fusion Point Code (FPC) of the node which accommodates the called Attendant Console must be assigned after System Data assignment.

### Interactions

1. If the destination  $D^{\text{term}}$  is busy when a Priority Call is placed, ringback tone is returned to the calling party rather than a busy tone, and the calling party is placed in queue.
2. A Warning Tone is not provided at the called  $D^{\text{term}}$  while a Priority Call is in progress.



**Interactions (cont'd)**

3. If the destination of a Priority Call is the Attendant Console, the Priority Call does not transfer to the ATTENDANT NIGHT TRANSFER [A-19] station when the system goes into Night mode.
4. A PRIORITY CALL will not be forwarded to outside.

# P-10

# Paging Transfer

## General Description

This feature allows a user to transfer a paged call to a party that has been placed on hold.

## Operating Procedure

### While a user is engaged in a call:

1. Switch hook flash or press TRANSFER key (on D<sup>term</sup> phone); receive special dial tone.
2. Dial the Paging Access Code; receive continuous ringback tone for approximately one second.
3. Page the desired party.

### There are three paging options:

1. **NON-DELAY SYSTEM:** The party paged is immediately connected to the paging station when the paged party dials the Paging Answer Access Code.
2. **DELAY SYSTEM:** The paging user replaces the handset after the page; the paged party dials the Paging Answer access code. The paging station rings, and the paged station receives ringback tone. After the paging user lifts the handset, the paging and paged stations are connected.
3. **PAGING TRANSFER SUPERVISION:** The paging user replaces the handset after the page. By dialing the Paging Answer access code, the paged party is directly connected to the party on hold.

### For Non-Delay and Delay systems:

1. When a paging station replaces the handset after talking with the paged party, the held party is directly connected to the paged party.

## Service Conditions

1. PAGING TRANSFER service can be selected according to System Data assignment:
  - a.) Non-Delay system
  - b.) Delay and Non-Delay system
  - c.) PAGING TRANSFER Supervision
2. Paging trunks can be provided for a maximum of six routes.
3. When a paging route has been accessed and is not answered within a predetermined time, the paging activation is automatically cleared.
4. Both the COT card and the TLT card can be used as the paging trunk.
5. Loop signaling is the recommended signaling type.
6. When the Attendant Console activates the service, the conditions are as follows:
  - a.) An Attendant Console user can connect the paged party with the calling party the same way as PAGING TRANSFER SUPERVISION only (see Operating Procedure).
  - b.) If the paged party answers the page before the Attendant Console releases the loop, the Attendant Console is called from the paged party as an operator call. In this case, the Attendant Console can connect the paged party with the held party (calling party) in the procedure below:
    - Press the CANCEL key to release the loop to be used for the page.
    - Answer the operator call and press the HOLD key to hold the loop.
    - Press the loop key holding the calling party to be back to the original connection and perform the normal operation for Attendant Console Loop-to-Loop Connection (see MEET-ME PAGING [M-1] for details) to connect the two parties.
7. When using this feature via the FCCS network, PAGING ACCESS [P-1], PAGING TRANSFER [P-10] and RADIO PAGING [R-16] are provided to the paging station and the paged station in FCCS nodes.

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## Service Conditions (cont'd)

8. When using this feature via the FCCS network, when PAGING ACCESS [P-1]/PAGING TRANSFER [P-10]/RADIO PAGING [R-16] service is set to a station in the remote node or the PAGING ACCESS [P-1]/PAGING TRANSFER [P-10]/RADIO PAGING [R-16] call is answered from the remote node via FCCS link:
  - a.) the logical route number should be applied to each physical route that is provided the service.
  - b.) the restriction of route-to-route connection between FCCS nodes should be released.
9. When using this feature via the FCCS network, the same paging route cannot be used by another station while the paged station does not answer the page activated using the route. However, the paging activation is automatically cleared when the call is not answered within a predetermined time.
10. When using this feature via the FCCS network, a user can page one station at a time.

## Interactions

1. PAGING TRANSFER (MEET-ME PAGING) and PAGING ACCESS [P-1] can be provided simultaneously in the same system. Separate access codes for each service is required. A MEET-ME PAGING answer code is required for each MEET-ME PAGING zone.
2. Paging is limited to stations and Attendant Consoles. Other parties (CO and TIE trunk calls) must have the Attendant Console or user perform the paging operation.
3. The Attendant cannot dial the MEET-ME PAGING answer codes.
4. BUSY VERIFICATION [B-3], EXECUTIVE OVERRIDE [E-1]: These features will be denied to Paging routes assigned in CDN 6:TCL as data "8", Page with ringback tone.
5. PAGING TRANSFER OPERATION: Station A is connected to Party B. Station A momentarily presses the switch hook or presses the TRANSFER key (if D<sup>term</sup> phone) and then dials the PAGING TRANSFER (MEET-ME PAGE) route access code. When connected to the page, Station A requests Station C to dial the MEET-ME PAGE answer code. Station A hangs up. When station C dials the answer code, Party B is connected to Station C. Station A is removed from the connection.
6. If Station C does not call the MEET-ME PAGE answer code after 30 seconds, Party B rings back to Station A. This timer can be changed by ASYD System Data 1 Index 74 b0~b3.
7. Stations allowed Priority Page, SFI = 57, will barge into the paging route, except when the Attendant Console is paging.
8. To answer PAGING TRANSFER while connected to another party, CALL HOLD [C-6] must be used. THREE-WAY CALLING [T-2] may not be established.
9. A station must be assigned a Route Restriction Class that allows access to the routes involved in the PAGING TRANSFER.

# P-11 Periodic Time Indication Tone

## General Description

This feature provides a tone every 180 seconds, if required, to the user who has made an outgoing call.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. This feature is programmed on a per-trunk route basis using the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
2. The PERIODIC TIME INDICATION TONE is 80 ms in duration and is sent every 180 seconds. See VARIABLE TIMING PARAMETERS [V-1] for other programming time periods.
3. This feature is only available for users who have placed outgoing calls to a Central Office line or to a TIE Line.
4. Incoming calls or outgoing calls initiated by the Attendant will not have this feature.
5. When the user activates SPECIAL DIAL TONE after the outgoing call mode, this feature will be cancelled automatically.
6. When the user activates the following service features after the outgoing calls to a Central Office line or to a TIE Line, this feature will be cancelled automatically:

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
CALL HOLD	[C-6, C-6D]
CALL TRANSFER	[C-10, C-11, C-11D]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
CONSULTATION HOLD - ALL CALLS	[C-17, C-17D]
DATA PRIVACY ON DEMAND	[D-17]
EXCLUSIVE HOLD - D <sup>term</sup>	[E-4D]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]
NON-EXCLUSIVE HOLD - D <sup>term</sup>	[N-7D]
OFF-HOOK QUEUING	[O-7]
OUTGOING TRUNK QUEUING	[O-2, O-2D]
PRIVACY RELEASE	[P-18]
THREE-WAY CALLING	[T-2, T-2D]
VOICE CALL - D <sup>term</sup>	[V-2D]

## Interactions

1. The timers set in System Data 1, Indexes 137 and 138 are approximate. Expect errors of  $\pm 40$  seconds. Keeping track of time for this service is a very low priority for the CPU.
2. PERIODIC TIME INDICATION TONE is used for outgoing connections only.

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# P-13D Prime Line Pickup - D<sup>term</sup>

## General Description

This feature allows a D<sup>term</sup> user to originate or answer a call from the line designated as the Primary Line by going off-hook. It is unnecessary to press the associated line key.

## Operating Procedure

Lift the handset or press the SPEAKER key; receive dial tone.

## Service Conditions

1. One Prime Line per station is allowed.
2. Unless otherwise programmed, the MY Line is also the Prime Line.

## Interactions

1. If no data is assigned via AKYD, the MY Line will serve as the default Prime Line. If any data is assigned in AKYD, a Prime Line must be assigned, even if the MY Line and Prime Line will be the same telephone number.
2. The Prime Line may be different than the MY Line. When they are different, the following features will not operate for the Prime Line: CALL BACK [C-1], CALL PARK [C-29], DO NOT DISTURB [D-21D], and OUTGOING TRUNK QUEUING [O-2D]. CALL FORWARDING [C-2, 3, 5, 28] features may be set by the Attendant.
3. CLASS OF SERVICE-INDIVIDUAL [C-15]. The Prime Line will operate according to the CLASS OF SERVICE-INDIVIDUAL of the MY Line.
4. STATION MESSAGE DETAIL RECORDING [S-10]. All calls originated by the Prime Line will be recorded against the MY Line.
5. TOLL RESTRICTION-3/6 DIGIT [T-7]. The Prime Line will operate according to the restrictions of the MY Line.

## P-14D

## Privacy - D<sup>term</sup>

### General Description

This feature allows a D<sup>term</sup> to establish privacy so that no station can interrupt a call via EXECUTIVE RIGHT-OF-WAY [E-1].

### Operating Procedure

1. Go off-hook; receive dial tone. Press the DO NOT DISTURB (DND) key. The associated LED will flash. The LCD displays:

**PRIVACY SET**  
(Time Display)

2. Dial the desired number.
3. When the call is completed, Privacy is cancelled by going on-hook.

### Service Conditions

1. Privacy remains in effect while the D<sup>term</sup> is in use with the feature activated. Override to either party is denied.
2. If the DND key is pressed before the conversation is concluded, PRIVACY - D<sup>term</sup> is released. The LCD displays:

**PRIVACY CANCEL**  
(Time Display)

3. If the DND key is pressed with the station on-hook, the DND - D<sup>term</sup> [D-21D] feature has been activated. Calls can be made with DND [D-21D] activated. DND [D-21D] will not deny EXECUTIVE RIGHT- OF-WAY [E-1].
4. The PRIVACY - D<sup>term</sup> feature may be activated or deactivated in any conversation as often as desired.
5. PRIVACY - D<sup>term</sup> denies the following features:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-5D]
BUSY VERIFICATION	[B-3]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
EXECUTIVE RIGHT-OF-WAY	[E-1, E-1D]

## P-15D

# Privacy On All Lines - D<sup>term</sup>

### General Description

This feature restricts D<sup>term</sup> users from pressing a busy line button and entering a conversation, which can occur with 1A2 key telephones without exclusion circuits.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. A D<sup>term</sup> user cannot seize the Prime Line if it is busy.
2. LINE PRESELECTION [L-9D] is denied if the selected line is busy.
3. PRIVACY RELEASE [P-18] overrides this feature.

# P-18

# Privacy Release

## General Description

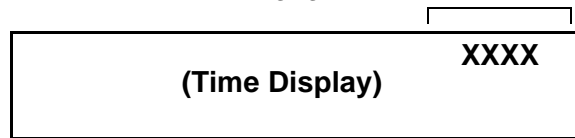
This feature allows multiple stations (maximum 6) accommodated in the same multi-line group to override a D<sup>term</sup> already engaged in communication. Also, by key operation of the D<sup>term</sup> already engaged in communication (maximum of 8-party communication), overriding from other stations in the same multi-line group can be restricted.

## Operating Procedure

### To establish a 4-party call from a D<sup>term</sup> to D<sup>term</sup>s that are in THREE-WAY CALLING [T-2]:

1. Station B and C are engaged in THREE-WAY CALLING [T-2] with a station/trunk. Station A presses the line appearance for Stations B or C. The LCD of Station A's D<sup>term</sup> displays (for 10 seconds):

Telephone number of the station/trunk engaged in communication with Stations B and C



2. Station A lifts handset or presses THE SPEAKER key; receives ringback tone and the LCD displays:



3. A 4-party call is established. The LCDs of the associated D<sup>term</sup>s display:



The line appearance will flash, indicating I-USE [I-8].

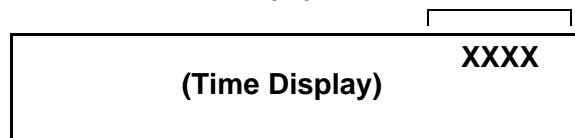
### To establish a 4-party call when the PRIVACY key is pressed by a D<sup>term</sup> engaged in THREE-WAY CALLING [T-2]:

1. While engaged in THREE-WAY CALLING [T-2] with Station B and a station/trunk, Station C presses PRIVACY key. The PRIVACY key will light, and the line appearance will flash, indicating I-USE [I-8]. The LCD displays:



2. Station A presses the line appearance for Stations B and C; the LCD of Station A's D<sup>term</sup> displays (for 10 seconds):

Telephone number of the station/trunk engaged in communication with Stations B and C





## Operating Procedure (cont'd)

- Station A lifts handset or presses SPEAKER key. The LCD displays:

**CONF REST**  
**(Time Display)**

- Station C presses PRIVACY key again.
- Station A receives ringback tone, and the LCD displays:

**CONF WAIT**  
**(Time Display)**

- A 4-party call is established. The line appearance will flash, indicating I-USE [I-8], and the LED of PRIVACY key will be turned off. The LCDs of the associated D<sup>term</sup>s display:

**CONF**  
**(Time Display)**

By following the operations described above, a maximum 8-party call can be established.

### To restrict a station from overriding an 8-party call:

- Station A presses line appearance of Station B, which is engaged in an 8-party call. The LCD of Station A displays (for 10 seconds):

**CONF REST**  
**(Time Display)**

## Service Conditions

- PRIVACY RELEASE is available for a D<sup>term</sup> connected to a station or trunk.
- PRIVACY RELEASE is not available when one of the stations in communication is a single line.
- Single line stations cannot bridge into the busy connection.
- This feature is available when the PRIVACY key is pressed to establish PRIVACY RELEASE.
- A station has to be in one of the following states to set PRIVACY by pressing PRIVACY key or the P-RLS key:
  - Connected to station or trunk,
  - Engaged in a maximum 7-party call.
 PRIVACY cannot be set when the overriding party has already received ringback tone.
- PRIVACY RELEASE is available anytime by pressing PRIVACY key or re-pressing P-RLS key. Also, PRIVACY will be released automatically when the station that has set PRIVACY is released from the call.
- PRIVACY RELEASE can be established even if the D<sup>term</sup> has activated the DO NOT DISTURB [D-21D] or DATA PRIVACY ON DEMAND [D-17] feature.
- When the party (station or trunk) engaged in a call with the overridden party in PRIVACY RELEASE is released, and when multiple stations are connected to the same line, PRIVACY RELEASE cannot be activated to any other stations.
- When a multiple-party call is established by an 8-party conference trunk (PA-CFTB circuit card), the first overridden party can set/cancel Privacy to the conference trunk by key operation.

**Service Conditions (cont'd)**

10. When a station tries to bridge into a call and presses the line appearance, and when PRIVACY RELEASE is not available because of the lack of an 8-party conference trunk, the LCD displays as follows, indicating that PRIVACY RELEASE is not available:

**CONF RST**  
**(Time Display)**

11. PRIVACY RELEASE is not available when another station is in the process of entering a multiple-party call (when receiving ringback tone). The station will not receive any tone, and the LCD displays:

**CONF RST**  
**(Time Display)**

12. When the station engaged in communication with the overridden party is released in the process of entering a multiple-party call, the other stations engaged in a call on the same line will not be released. In this case, the last overriding station will be connected to an 8-party conference trunk, but after that, EXECUTIVE RIGHT-OF-WAY [E-1] will not be available.
13. The overriding party's LCD display after pressing the line appearance of a busy station is shown below:

Overriding party's terminal status	Overriding party's line status		
	Privacy Release available	Privacy Release not available	
		Conference Trunk Blocked	Not Engaged In Two-party Call
Idle		-	CONF RST
Call Waiting status	CONF	-	CONF RST
Busy	CONF	After disconnecting the busy station, CONF RST is displayed and the status will be Call Waiting	CONF RST

**Note:** *The called telephone number is displayed even when Privacy is set.*

14. PRIVACY RELEASE is available after any of the following operations is performed by the overriding station:
- a.) The user presses the line appearance of a busy station, goes off-hook or presses the SPEAKER key.
  - b.) While connected to a station/Attendant/OG trunk/IC trunk, the user presses the line appearance of a busy station. (The call in progress will be disconnected.)
  - c.) While engaged in THREE-WAY CALLING [T-2], the user presses the line appearance of a busy station. The stations, except the one that has pressed the line appearance, will be in a 2-party connection.
  - d.) The user presses the line appearance of a busy station while hearing dial tone, ringback tone, busy tone, or reorder tone.
  - e.) While answering a VOICE CALL [V-2D], the user presses the line appearance of a busy station. The call in progress will be disconnected.

## Service Conditions (cont'd)

- f.) While engaged in a multiple-party call, the user presses the line appearance of a busy station.
  - g.) While engaged in calling a station by INTERCOM [I-9] call or Intercom Bridge call, the station presses the line appearance of busy station.
  - h.) After placing a call on CONSULTATION HOLD [H-17], the station originates a call to a station or trunk and then presses the line appearance of a busy station.
15. The following features cannot be activated by any station in a multiple-party call:
- |                             |             |
|-----------------------------|-------------|
| CALL TRANSFER-ALL CALLS     | [C-11]      |
| CALL HOLD                   | [C-6, C-6D] |
| CONSULTATION HOLD-ALL CALLS | [C-17]      |
| DATA PRIVACY ON DEMAND      | [D-17]      |
| NON-EXCLUSIVE HOLD          | [N-7D]      |
| EXCLUSIVE HOLD              | [E-4D]      |
16. The following features are restricted to all stations in a multiple-party call:
- |   |         |
|---|---------|
| ATTENDANT CAMP-ON WITH TONE INDICATION    | [A-1]   |
| ATTENDANT OVERRIDE                        | [A-7]   |
| BOSS-SECRETARY OVERRIDE-D <sup>term</sup> | [B-5D]  |
| CALL WAITING-ORIGINATING                  | [C-31]  |
| CALL WAITING-TERMINATING                  | [C-12]  |
| EXECUTIVE RIGHT-OF-WAY                    | [E-1]   |
| MESSAGE REMINDER-D <sup>term</sup>        | [M-19D] |
- Designated trunk seizure by Attendant
17. Eight-party conference trunk (PA-CFTB circuit card) assignments are as follows:
- a.) For all ports of the 8-party conference trunk, any telephone number of up to 16 digits can be assigned. Also, a phantom number can be assigned to Port 0 (L = 0).
  - b.) Ports 1 through 7 (L = 1-7) in the same conference trunk must be grouped in the same Circular Hunting Group.
  - c.) When only one 8-party conference trunk is available for a Tenant, the telephone number or phantom number of Port 0 (L = 0) should be assigned to System Data as the trunk seizure number. When several trunks (maximum of 20) are available, the telephone number or phantom number of Port 0 (L = 0) in one of the trunks should be assigned as the trunk seizure number.
18. Eight-party conference trunk seizure:
- a.) When only one trunk is available for a Tenant, the trunk cannot be seized unless all of the eight ports of the trunk (where trunk seizure number corresponding to the Tenant is assigned) are in idle status.
  - b.) When multiple trunks are available for a Tenant, the trunk in which all of the eight ports in the Hunting Group (pilot telephone number = trunk seizure number corresponding to the Tenant) are in an idle state, is hunted and seized.
  - c.) If an 8-party conference trunk seizure number corresponding to the Tenant is not assigned, the following method of trunk seizure is also available:
    - i.) The trunk that contains Port 0, whose telephone number or phantom number is AB (A = number determined by System Data, B = the last number of the overridden telephone number), and all of the eight ports in an idle state are seized.
    - ii.) If a Hunting Group (pilot telephone number = AB) is assigned among the first Ports of multiple trunks, the trunk in the Group where all of the eight ports are in an idle state is hunted and seized.

# P-30

# Priority Paging

## General Description

This feature allows a station or an ATTENDANT CONSOLE [A-3] to make a PRIORITY PAGING [P-30] access when a paging call cannot normally be originated because another paging call is in progress or is waiting for an answer.

## Operating Procedure

### Paging Access from a station:

1. The Paging station goes off-hook; hears dial tone.
2. The station dials the PRIORITY PAGING [P-30] access code; hears dial tone once again.
3. The station dials the paging access code; hears continuous ringback tone for several seconds.
4. The station performs paging.

### Paging Access from the ATTENDANT CONSOLE [A-3]:

1. The Attendant presses the loop key for an available loop.
2. The Attendant dials the PRIORITY PAGING [P-30] access code.
3. The Attendant dials the paging access code; hears continuous ringback tone for several seconds.
4. The Attendant performs paging.

## Service Conditions

1. A PRIORITY PAGING [P-30] access is allowed from a station or from the ATTENDANT CONSOLE [A-3].
2. This feature is not priority radio paging for use with a Radio Paging Access service.
3. A PRIORITY PAGING access cannot be made from a station or the ATTENDANT CONSOLE [A-3] which is waiting for an answer to another paging call.
4. PRIORITY PAGING access code + ALL ZONE PAGING [A-53] access code dialing is possible. However, even if this dialing method is used, the PRIORITY PAGING [P-30] function is not activated when the line is busy. It operates in the same way as ALL ZONE PAGING [A-53] access code dialing.
5. While a paging trunk forced release or Paging Memory clearing is being processed, the caller (station operator) who activated the PRIORITY PAGING [P-30] access hears continuous ringback tone (for about 5 - 19 seconds).
6. If all Paging Trunks are busy, the Paging Trunk forcibly released is Trunk No. 1.
7. If Paging Trunk No. 1 is not equipped or the package is in Make Busy state, the caller (station or operator) hears reorder tone. If Soft MB or circuit MB is active, Paging Trunk No. 1 is seized.
8. If all Paging Trunks are busy and Paging Trunk No. 1 is being used at the ATTENDANT CONSOLE [A-3], Paging Trunk No. 1 is not forcibly released. In this case, the caller (station or operator) hears reorder tone.
9. Multiple priority paging to the same route is possible.
10. If all Paging Memory being used by PRIORITY PAGING is in use, a PRIORITY PAGING call to a different route is not forcibly cleared.
11. If all Paging Memory being used by PRIORITY PAGING calls to a different route, the Paging Memory is not forcibly cleared. In this case, the caller (station or Attendant) hears reorder tone.

---

**Service Conditions (cont'd)**

12. Forced release of a Paging Trunk is processed so that the station connected with that specific Paging Trunk is regarded as having released. Therefore, after the forced release of the paging trunk, the state of the station is as follows:
  - a.) if there is a call on hold: Dial Tone Connection
  - b.) if there is no call on hold: Recall (Calling Only)  
(Answering - Non-Delay)  
Dial Tone Connection (Answering - Delay basis)  
(Paging Transfer)
13. Going on-hook by the station after dial tone connection will result in Recall. As the Paging Memory becomes free after this Recall, a PRIORITY PAGING call can be originated.
14. Forced clearance of the Paging Memory is processed as a time-out of a paging call awaiting answer. Therefore, after the forced Paging Memory clearance, the state of the station is as follows:
  - a.) if there is no call on hold: Same as before clearance
  - b.) if there is a call on hold: Recall **(Note)**

**Note:** *If a Recall cannot be made because of a busy line, etc., the Paging Memory is not cleared until the line is released and Recall is possible.*

15. Both the COT card and the TLT card can be used as the paging trunk.
16. Loop signaling is the recommended signaling type.

# P-57

# Pad Lock

## General Description

This feature temporarily restricts telephones from making unauthorized calls by dialing a special access code when users are away from their seats.

## Operating Procedure

### To set PAD LOCK from the station:

1. Lift the handset and receive dial tone.
2. Dial PAD LOCK access code and receive special dial tone.
3. Dial Authorization Code and receive service set tone.
4. Restore the handset.

### To cancel PAD LOCK from the station:

1. Lift the handset and receive dial tone.
2. Dial PAD LOCK cancel code and receive special dial tone.
3. Dial Authorization Code and receive service set tone.
4. Restore the handset.

## Service Conditions

1. This feature restricts telephones from making C.O. outgoing calls and/or terminating calls from C.O. trunks, stations, and attendant consoles. Stations in Pad Lock status are able to place station-to-station calls and outgoing calls using attendant assisted calling.
2. If the station under Pad Lock status dials a C.O. line access code, the station is rerouted to reorder tone or the Attendant Console.
3. Calls to stations in PAD LOCK status will receive reorder tone or, on a tenant basis, can be assigned to transfer to the Attendant Console.
4. PAD LOCK status will continue unless it is cancelled.
5. Stations are assigned this feature via Class of Service.
6. This feature is set/cancelled from the station only. The Attendant Console cannot set or cancel this feature.
7. If a D<sup>term</sup> is in PAD LOCK status, the My Line and Sub Line are restricted.
8. When the station in PAD LOCK status attempts to set PAD LOCK again, it is connected to reorder tone (RST/REST is displayed on the D<sup>term</sup>).

## P-59

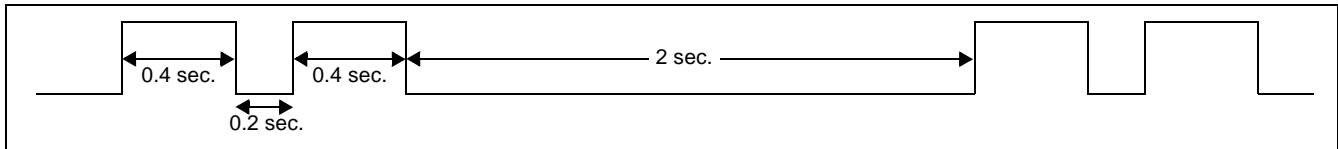
# Personal Ringer

### General Description

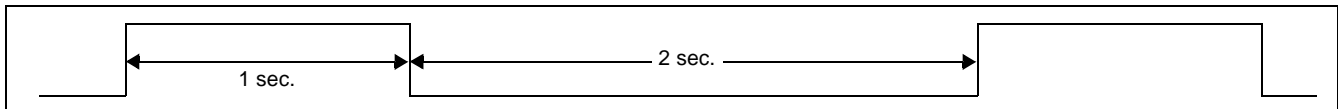
This feature provides another ringer pattern for the call terminating to the personal number and allows the user to distinguish the called number upon hearing ringing.

Ringing patterns are as follows:

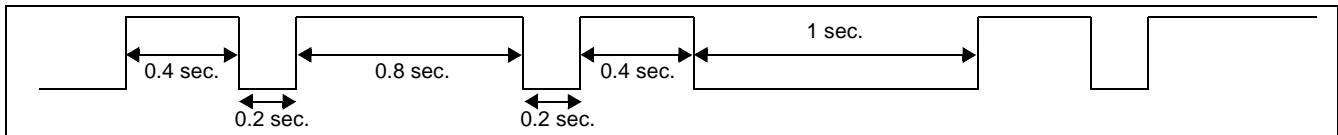
- Ringer Pattern A: used for an incoming call from Central Office to the individual number.



- Ringer pattern B: used for an incoming call from a station or TIE Line trunk to the pilot number.



- Ringer pattern C: used for an incoming call from a station or TIE Line trunk to the personal number.



Ringer pattern A, B and C correspond to ringer pattern 0, 1 and 5 in System Data respectively.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. When a station/tie line incoming call is forwarded with an operator/station assistance, ringer pattern is determined according to Service Feature Class of the forwarded station.
2. When a My Line of another D<sup>term</sup> station is assigned to a Sub Line, Ringer Pattern 5 is used for station/tie line incoming calls to the Sub Line. Accordingly, ringer of the Sub Line must be set to OFF.
3. This feature is available for the D<sup>term</sup> stations (i.e. not available for an analog station or virtual line).
4. Ringer Pattern 0 is used for C.O. line incoming call regardless of this feature.

### Interactions

Even if a station/tie line incoming call is forwarded by Station Hunting-Terminal [S-9]/Circular [S-7] or Uniform Call Distribution [U-1], ringer pattern is determined according to Service Feature Class of the forwarded station.

## R-2 Remote Access to System

### General Description

This feature allows a user outside the NEAX2400 IMX to access the system via an exchange network connection without Attendant or station assistance. The outside user may originate calls over any or all of the PBX facilities, such as WATS, FX, TIE Line or CCSA.

When a wrong code is received from a station/trunk, detailed information on the unauthorized user is output as System Message [26-M] Toll Fraud Report.

### Operating Procedure

#### To operate using AUTHORIZATION CODE [A-20]/FORCED ACCOUNT CODE [F-7]:

1. Lift the handset; receive dial tone.
2. Dial the Remote Access number to connect to the NEAX2400 IMX; receive ringback tone through public network.
3. If there is an announcement service, an announcement will be heard; receive dial tone.
4. Dial the AUTHORIZATION CODE/FORCED ACCOUNT CODE; receive PBX dial tone.
5. Dial the desired telephone number; hear ringback tone.
6. The called party answers.

#### To operate without using AUTHORIZATION CODE [A-20] / FORCED ACCOUNT CODE [F-7]:

1. Lift the handset; receive dial tone.
2. Dial the Remote Access number to connect to the NEAX2400 IMX; receive ringback tone through the public network.
3. Receive PBX dial tone.
4. Dial the desired telephone number; hear ringback tone.
5. The called party answers.

### Service Conditions

1. When a call terminates from a TIE Line, this feature is available by dialing a specific telephone number.
2. After a call terminates to AUTOMATED ATTENDANT [A-82], AUTHORIZATION CODE [A-20] and FORCED ACCOUNT CODE [F-7] services are available.
3. AUTHORIZATION CODE [A-20] is predetermined on a system basis. Refer to AUTHORIZATION CODE [A-20] for more information.
4. Announcement service is not provided when AUTHORIZATION CODE [A-20] service is not available.
5. Until the call is connected to an announcement trunk, ringback tone is heard.
6. Announcement trunks are to be used for single connections only. Announcement service is not available when the announcement trunks are all busy or are not provided. (The caller receives PBX dial tone.)
7. When a call terminates to the called station, the following services are available:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
UCD	[U-1]
CALL WAITING	
8. The second announcement is not provided to the ISDN trunk.
9. The announcement is provided for a maximum of 30 seconds. Therefore, the message recording should be completed within 30 seconds.



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## Interactions

1. The Authorization Code used in conjunction with REMOTE ACCESS TO SYSTEM will not be recorded in SMDR. System Data 2, Index 3, bit 5 is the only difference between Forced Account Code and Authorization code. This Bit determines where the dialed code will appear in SMDR. When assigned as Authorization code, those digits will not appear in SMDR.
2. The additional step of the ARAC command, for DID trunks does not eliminate the need for Forced Account Code assignments. In addition, Remote Access to System [R-2] via DID requires the use of Forced Account Codes [F-7].
3. The PBX recognizes a momentary pressing of the switch hook as a disconnect by the remote party. Therefore, all features activated via a Connection Index of Hooking (H) are not available to the REMOTE ACCESS TO SYSTEM feature user. A remote access user may participate in a feature that requires a switch hook flash generated by an internal station.
4. STATION MESSAGE DETAIL RECORDING [S-10]-REMOTE ACCESS TO SYSTEM outgoing calls are recorded in SMDR. The field in the SMDR report that lists the calling station will list the route and trunk number.
5. SPEED CALLING SYSTEM [S-3] and SPEED CALLING-STATION/INDIVIDUAL [S-21, 23] may not be accessed via REMOTE ACCESS TO SYSTEM [R-2].
6. If the REMOTE ACCESS TO SYSTEM feature is used to call stations internal to the system, allow in ARSC the Incoming Remote Access route to the RSCs of the station that may be called.
7. See AUTHORIZATION CODES [A-20] for Check/Sum method assignments.

## R-3

# Reserve Power

### General Description

This feature provides a system with a backup power supply, functioning from a battery source, in the event of a commercial power failure.

### Operating Procedure

Power is automatically supplied to the NEAX2400 IMX in the event of a commercial power failure.

### Service Conditions

1. Batteries should be installed separate from the NEAX2400 IMX.
2. Batteries and chargers are not NEC supplied.
3. No interruption of NEAX2400 IMX operation will occur during switch-over from commercial to battery power.
4. Duration of battery operation is a direct function of the capacity of batteries equipped.

## R-4 Restriction from Outgoing Calls

### General Description

This feature automatically denies preselected station lines within the NEAX2400 IMX system the ability to place outgoing calls and/or certain miscellaneous trunk calls without Attendant assistance.

### Operating Procedure

Operation is fully automatic that the restricted stations will receive reorder tone upon attempting to place a restricted call.

### Service Conditions

1. This feature is programmable via System Data programming from the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
2. Non-restricted stations within the system can CALL TRANSFER - ALL CALLS [C-11] outgoing calls to the stations restricted by this feature.
3. Only the Attendant can permit the restricted stations to place outgoing calls via either of the following features:
  - PASSING DIAL TONE [P-2]
  - NON-DELAY OPERATION [N-3]
4. Refer to CLASS OF SERVICE - INDIVIDUAL [C-15] and DAY/NIGHT CLASS OF SERVICE [D-15] for further details.
5. Station line access to a given trunk group is controlled by assigning a Route Restriction Class (RSC) to each line. There can be a maximum of 15 different RSCs (RSC1 - 15) per system, each of which can be programmed to restrict an assigned station from none, one, or more than one trunk group.
6. Two outgoing trunk group restriction tables are provided per system. The Direct Dial Access table is indexed when a user dials the trunk group access code and the ATTENDANT CONSOLE [A-3] table is indexed on Attendant completed calls. The restriction options per RSC can differ per table, thus, allowing Attendant completion of outgoing calls for the restricted stations.
7. CALL TRANSFER - ALL CALLS [C-11]: If a restricted user calls another station, the called station cannot use the Call Transfer feature to connect the calling station to a trunk group to which the calling station is restricted from outgoing calls. If transfer is attempted, the controlling station is rung back.
8. TIE LINE ACCESS [T-3]: If the user accesses a TIE trunk to a distant PBX, access to the public exchange network can only be controlled by the distant PBX.
9. THREE-WAY CALLING [T-2]: If a restricted user calls another station, the called station cannot add-on an outside exchange party via a trunk group in which the calling station is restricted from outgoing calls. An attempt to add-on (SHF) will be ignored.
10. NIGHT SERVICE: Restrictions can be changed for a given station when the system is switched to the night mode of operation.

### Interactions

1. Transferring restrictions may not be desired for a restricted station.
2. CALL TRANSFER-ALL CALLS [C-11]: Station A is allowed access to outgoing on Route 1. Station B is restricted access for outgoing on Route 1 via RRI 2 & 3. The unrestricted Station A makes an outgoing call on route 1 and cannot use the CALL TRANSFER-ALL CALLS feature to connect Station B to Route 1. If CALL TRANSFER-ALL CALLS is attempted, Station A is immediately rung back.

**Interactions (cont'd)**

3. CONSULTATION HOLD [C-17]: Station A may consult with station B when Route 1 is on Soft Hold.
4. THREE-WAY CALLING [T-2]: Station A cannot include restricted Station B in a Tree-Way Calling connection with Route 1.
5. DAY/NIGHT CLASS OF SERVICE [D-15]: Restricted Station B may be allowed access to Route 1 when the system is placed in the NIGHT mode. See DAY/NIGHT CLASS OF SERVICE [\[D-15\]](#).
6. RESTRICTION FROM OUTGOING CALLS are constructed on a per-route restriction basis. Two Route Restriction Indexes are constructed: RRI 2, Outgoing Calls via the Attendant Console and RRI 3, Outgoing Calls via Direct Dial Access.

# R-5 Rotary Dial Calling

## General Description

This feature permits users to originate calls over rotary or push-button lines using Rotary Dial telephones.

## Operating Procedure

Users dial rotary telephones in the normal fashion.

## Service Conditions

1. Rotary dial telephones installed should be industry standard 10pps instruments.
2. Pushbutton instruments may be used in conjunction with ROTARY DIAL CALLING.
3. It is possible to provide only the ATTENDANT CONSOLE [A-3] with push-button calling, while all other stations are assigned ROTARY DIAL CALLING. Refer to PUSHBUTTON CALLING - ATTENDANT ONLY [P-5] for further details.
4. If ROTARY DIAL CALLING is assigned to a line, only Rotary Dial sets can be used on that line.
5. POWER FAILURE TRANSFER [P-3]: Rotary dial telephones must be used as POWER FAILURE TRANSFER [P-3] stations if the serving central office facility is not arranged for pushbutton calling. A ground start button on the station set is required if the central office facility uses ground start signaling.

## Interactions

1. Rotary-to-Pushbutton conversion may be accomplished by assigning data "2" for CDN 2:ONSG in ARTD; or assigning data "1" in ASYD, System Data 2, Index 1, Bit 0, and assigning CDN 2:ONSG as data "3", DP/PB.
2. See UNIVERSAL SENDER [U-3] for sender programming
3. ROTARY DIAL CALLING may be accomplished via an extension of PUSH-BUTTON CALLING [P-4] if a Telephone Equipment Class of 3 has been programmed.
4. The \* or # symbols cannot be used as feature activation codes with ROTARY DIAL CALLING.
5. The PBX Originating Registers Trunks (Route 902) can accept both rotary and push-button signals (a separate register group is not required).

## R-6

# Route Advance

### General Description

This feature automatically routes outgoing calls over alternate facilities when the first-choice trunk group is busy. User selects the first-choice route by dialing the corresponding access code, and the equipment then advances through alternate trunk groups only if the first choice is busy.

### Operating Procedure

No manual operation is required.

### Service Conditions

1. No indication is provided to a user as to whether the call is routed over first-choice or subsequent choice facilities.
2. STATION MESSAGE DETAIL RECORDING SYSTEM [S-10] may be used in conjunction with this feature.
3. Only trunks of the same type may be programmed for ROUTE ADVANCE.
4. Careful consideration should be given to the use of FX trunks as an alternate facility. These lines require outpulsing of digits for long distance which the user may not dial, because he will not know he is connected to such a facility.
5. The maximum number of routes to be included in a single ROUTE ADVANCE group is 15.
6. The total number of routes that can be contained in all ROUTE ADVANCE groups is 31.
7. The same route can be included in two or more alternative groups.
8. The maximum number of trunks to be included in a route is 255.
9. No code conversion capability is provided with ROUTE ADVANCE; therefore, the exact digits (after the access code) the user dials will be sent over the selected trunk, regardless of the trunk group used. The user will not know what trunk group is selected; therefore, only those trunk groups that accept the same dialing format may be assigned to a given ROUTE ADVANCE group.
10. ROUTE ADVANCE occurs only when the dialed code accesses the first-choice trunk group in the ROUTE ADVANCE list.
11. In most cases, FX trunk groups to a Foreign Numbering Plan Area do not require the dialing of the FNPA area code. Therefore, these FX trunks may not be used in the same ROUTE ADVANCE list with local exchange or WATS trunks.
12. TIE Lines cannot be assigned to a ROUTE ADVANCE list that includes CO, FX, or WATS trunk groups.
13. The dialing party may be either a station line, ATTENDANT CONSOLE [A-3], or a TIE trunk line.
14. When using the FCCS network, the outgoing call using a trunk in the remote node is available. Therefore, Route Restriction class data must be identical in the FCCS network. For more detailed information, see the NEAX2400 IMX Fusion Network System Manual.

### Interactions

1. When OUTGOING TRUNK QUEUING [O-2] is assigned with the ROUTE ADVANCE feature, if all trunk groups in one ROUTE ADVANCE list are busy, the call queues on the first-choice trunk group. Each time the system checks for an available trunk, only the first-choice trunk group is scanned; if a trunk is not available, the call remains in queue.

---

**Interactions (cont'd)**

2. TOLL RESTRICTION - 3/6 DIGIT [T-6] may be used in conjunction with ROUTE ADVANCE. Only routes of the same type may be used in ROUTE ADVANCE. Two differently labeled C.O. trunks, such as, DDD and WATS may be in the same group.
3. There is no digit translation available for this feature. The dialed digits must be usable by whatever route is available.
4. This feature is available for a station activating CONSULTATION HOLD [C-17]. However, in the following cases, ROUTE ADVANCE is not activated, and the user receives reorder tone:
  - a.) when either the first-choice trunk group or alternate trunk group is restricted by TOLL DENIAL [T-6].
  - b.) when both the first-choice trunk group and alternate trunk group are busy or restricted by TOLL DENIAL [T-6].
5. ROUTE ADVANCE is not activated on PAGING TRANSFER [P-10] or RADIO PAGING [R-16] routes. Therefore, the caller receives reorder tone when the first trunk group is busy or restricted by TOLL DENIAL [T-6].

# R-7 Remote Maintenance

## General Description

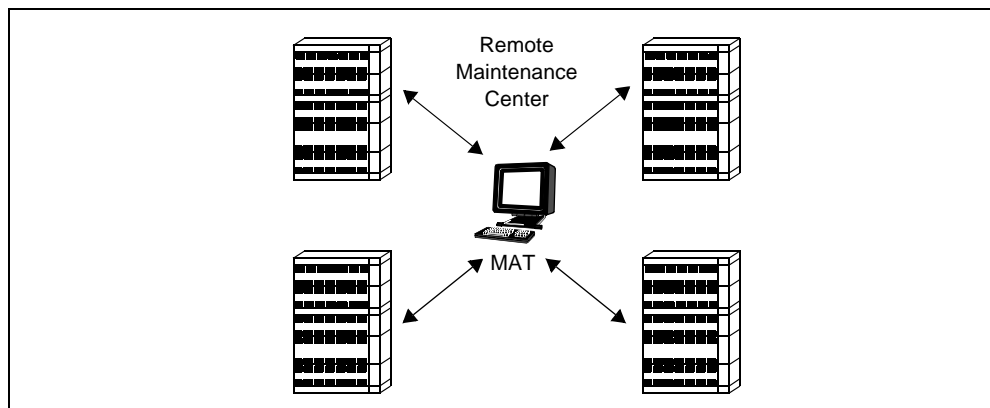
This feature allows office data changes or reassignments to be performed without a site visit by service personnel, and can be used to detect fault tendencies before they affect service. One REMOTE MAINTENANCE center can service an unlimited amount of systems, thus reducing the amount of personnel needed to maintain each site.

## Operating Procedure

The operation of this feature involves the use of the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].

## Service Conditions

1. The following additional equipment is required for this feature:
  - a.) a modem at the maintenance center, and one at each remote site,
  - b.) a dedicated or non-dedicated telephone line for each remote site.
2. The following operations can be executed from the REMOTE MAINTENANCE location:
  - a.) list of all system data (line, trunk, etc.)
  - b.) retrieval of fault data
  - c.) retrieval of traffic management information
  - d.) testing of system operation
  - e.) deletion or addition of system data (line, trunk, etc.) using a pre-programmed security password
3. The following three facility methods are available to interface with a remote test location:
  - a.) dedicated connection
  - b.) dial-up connection - TIE Line
  - c.) dial-up connection - CO Line
4. Maintenance testing can be performed at a remote central facility, using the MAT [M-18] to evaluate a trouble report, prior to the dispatching of a repair person to the customer location.
5. Two MATs can access a system simultaneously, provided they are not using the same command at the same time.



## Interactions

APSW must be assigned before allowing the password function in the ASYD command. If password is allowed in ASYD before APSW is assigned, Error Message 0550 "Password not yet assigned", will be displayed.



# R-16

# Radio Paging

## General Description

This feature allows users dialing access to customer-owned RADIO PAGING equipment and to selectively tone or voice/tone alert individuals carrying pocket RADIO PAGING receivers. The paged party may be connected to the paging party by going to the nearest telephone and dialing a unique answer-back code.

## Operating Procedure

### To page:

1. Paging user dials the RADIO PAGING access code; receives an acknowledgment tone from the radio equipment.
2. Paging user dials the radio number of desired party; receives ringback tone from the radio equipment.
3. Paging user hangs up and waits for an answer signal.

### To answer:

- Using OGC access code, a paging station accesses Radio Paging equipment whether or not the automatic answer function is provided. (System Data 1, Index 73, b4 = 1 or 0.)
1. Paged party dials the RADIO PAGING answer code.
  2. Paged party receives special dial tone.
  3. Paged party dials his own individual radio (beeper) number.
  4. Paged station is rung; the paged party receives ringback tone.

**Note:** *This operation is not available when assigning System Data 1, Index 73, b4 = 1. Only Non-Delay operation is available.*

5. Paging station is connected to the paged party.
- Using LCR/LCRS access code, a paging station accesses Radio Paging equipment providing the automatic answer function. (System Data 1, Index 73, b4 = 1.)
1. Paged party dials the paging station number/individual attendant number which is displayed on the radio pager (beeper).
  2. Paging station/attendant is rung; paged party receives ringback tone.
  3. Paging station/attendant is connected to paged party.

## Service Conditions

1. RADIO PAGING equipment is customer provided; refer to the manufacturer's description for the following specifications:
  - a.) types of tones
  - b.) capability of receiving individual radio numbers
  - c.) capability to call the addressed radio terminal
  - d.) maximum number of stations that can be assigned individual radio access numbers.
2. A maximum of three digits can be assigned as access and answer codes.
3. The maximum number of digits assigned as individual radio numbers is three.
4. ATTENDANT CONSOLE [A-3] Attendants can activate this feature.
5. A station that has the CALL HOLD [C-6] feature activated cannot use RADIO PAGING.
6. The maximum number of RADIO PAGING answer zones is six.
7. The maximum number of routes that can be assigned RADIO PAGING is six.

**Service Conditions (cont'd)**

8. If the paging user has failed to hang up within a predetermined, programmable time interval (after activation), the paging connection is forcibly released.
9. If the paged party does not answer within 30 seconds, the NEAX2400 IMX will automatically page that party again. If the paged party does not answer the second page within 30 seconds, the paging request will be cancelled from memory. (See VARIABLE TIMING PARAMETERS [V-1]).
10. Both the COT card and the TLT card can be used as the paging trunk.
11. Loop signaling is the recommended signaling type.
12. PAGING ACCESS [P-1], PAGING TRANSFER [P-10] and RADIO PAGING [R-16] are provided to the paging station and the paged station in FCCS nodes.
13. When PAGING ACCESS [P-1]/PAGING TRANSFER [P-10]/RADIO PAGING [R-16] service is set to a station in the remote node or the PAGING ACCESS [P-1]/PAGING TRANSFER [P-10]/RADIO PAGING [R-16] call is answered from the remote node via FCCS link:
  - a.) the logical route number should be applied to each physical route that is provided the service.
  - b.) the restriction of route-to-route connection between FCCS nodes should be released.
14. The same paging route cannot be used by another station while the paged station does not answer the page activated using the route. However, the paging activation is automatically cleared when the call is not answered within a predetermined time.
15. A user can page one station at a time.

**Interactions**

1. If the range of the radio page transmitter exceeds the physical limits of the PBX, an incoming C.O. call acting as a response to a Radio Page cannot be connected in loop-to-loop procedures. The paging party must disconnect, and the Attendant must extend the paged party's C. O. call.
2. RADIO PAGING and PAGING ACCESS [P-1] can be provided simultaneously in the same system. Separate access codes for each feature are required. A RADIO PAGING answer code is required for each Radio Paging zone.
3. RADIO PAGING is limited to stations and Attendant Consoles. Other parties (C.O./TIE trunk calls) must have the Attendant or user perform the paging operation.
4. The Attendant cannot dial the RADIO PAGING answer codes.
5. BUSY VERIFICATION [B-3], EXECUTIVE OVERRIDE [E-1]: These features will be denied when connected to the Radio Paging route.
6. Radio Page Answer will not follow any hunting or forwarding that the paging station has set.

# R-27                    Route Restriction - Announcement

## General Description

This feature permits a station-originated call, dialed to a restricted outgoing number, to be automatically routed to a recorded announcement informing the caller that the dialed number is restricted. (TOLL RESTRICTION [T-7])

## Operating Procedure

No manual operation is required after this feature has been programmed in System Data.

## Service Conditions

1. This service feature is available when a station-originated call encounters a restriction.
2. Access to the announcement of this service feature is restricted by MISCELLANEOUS TRUNK RESTRICTION [M-3].
3. The announcement machine can be provided on a per-tenant basis.
4. The availability of this service cannot be determined for each originating route.
5. TOLL DIVERSION [T-6] takes precedence over this feature.
6. Digital Announcement Trunk (DAT) and the calling station must be accommodated in the same node within the FCCS network.

# R-37

# RS-464A PAD

## General Description

This service is for changing the current PAD control system for the lines and external trunks to a PAD control system which conforms to the RS-464A specification.

The following table outlines the comparison between the current PAD control and the RS-464A PAD control.

Calling Terminal	Called Terminal	RS-464A PAD Control	The Current PAD Control
ONS	ONS	6dB PAD ON	5dB PAD ON
ONS	OPS	3dB PAD ON	PAD OFF (0dB)
OPS	ONS	3dB PAD ON	PAD OFF (0dB)
OPS	OPS	PAD OFF (0dB)	PAD OFF (0dB)
ONS	ATT	6dB PAD ON	PAD OFF (0dB)
OPS	ATT	3dB PAD ON	PAD OFF (0dB)
ONS	Trunk	Data assigned to ARTD, PAD	Data assigned to ARTD, PAD
OPS	Trunk	Data assigned to ARTD, PAD2	Data assigned to ARTD, PAD
ATT	Trunk	Data assigned to ARTD, PAD	Data assigned to ARTD, PAD

**Note:** ONS: Line interface to On-Premises Line (General Telephone)

OPS: Line interface to Off-Premises Line (Log Line Telephone)

When using the 24DTR/24CCT/24PRT, APAD and ARTD, PAD 2 are ignored when switch settings are set to ARTD fixed, and PAD patterns 1 and 2 are selectable by switch settings.

**Note:** In the following tables, -db indicates a decrease in volume level; +db indicates an increase in volume.

PAD PATTERN 1			PAD PATTERN 1			PAD PATTERN 1		
24 DTR with SFI 50 = 0			24 DTR with SFI 50 = 1			24 DTR with APAD Setting		
ARTD PAD Setting	Transmit PAD	Receive PAD	ARTD PAD 2 Setting	Transmit PAD	Receive PAD	APAD Setting	Transmit PAD	Receive PAD
0	-8db	-8db	0	ARTD, PAD	ARTD, PAD	1	-2db	-2db
1	-2db	-2db	1	-2db	-2db	2	-4db	-4db
2	-4db	-4db	2	-4db	-4db	3	-6db	-6db
3	-6db	-6db	3	-6db	-6db	4	-8db	-8db
4	-8db	-8db	4	-8db	-8db	5	Unused	Unused
5	0db	0db	5	0db	0db	15	Pad Off	Pad Off
6	Unused	Unused	6	Unused	Unused			
7	0db	0db	7	0db	0db			

## General Description (cont'd)

PAD PATTERN 2			PAD PATTERN 2			PAD PATTERN 2		
24 DTR with SFI 50 = 0			24 DTR with SFI 50 = 1			24DTR with APAD Setting		
ARTD PAD Setting	Transmit PAD	Receive PAD	ARTD PAD 2	Transmit PAD	Receive PAD	APAD Setting	Transmit PAD	Receive PAD
0	-9db	-3db	0	ARTD, PAD	ARTD, PAD	1	-3db	+3db
1	-3db	+3db	1	-3db	+3db	2	-3db	-3db
2	-3db	-3db	2	-3db	-3db	3	-6db	0db
3	-6db	0db	3	-6db	0db	4	-9db	-3db
4	-9db	-3db	4	-9db	-3db	5	Unused	Unused
5	0db	0db	5	0db	0db	15	Pad Off	Pad Off
6	Unused	Unused	6	Unused	Unused			
7	0db	0db	7	0db	0db			
16 COTBE with SFI 50 = 0			16 COTBE with SFI 50 = 1			16 COTBE with APAD Setting		
ARTD PAD	Transmit PAD	Receive PAD	ARTD PAD 2	Transmit PAD	Receive PAD	APAD Setting	Transmit PAD	Receive PAD
0	0db	0db	0	ARTD	PAD	1	0db	0db
1	0db	0db	1	0db	0db	2	-3db	-3db
2	-3db	-3db	2	-3db	-3db	3	-6db	-6db
3	-6db	-6db	3	-6db	-6db	4	0db	+6db
4	0db	+6db	4	0db	+6db	5	Unused	Unused
5	0db	0db	5	0db	0db	15	Pad Off	Pad Off
6	Unused	Unused	6	Unused	Unused			
7	0db	0db	7	0db	0db			
8TLTR (DID) with SFI 50 = 0			8TLTR (DID) with SFI 50 = 1			8TLTR (DID) with APAD Setting		
ARTD PAD	Transmit PAD	Receive PAD	ARTD PAD 2	Transmit PAD	Receive PAD	APAD Setting	Transmit PAD	Receive PAD
0	0db	0db	0	ARTD	PAD	1	-3db	-3db
1	-3db	-3db	1	-3db	-3db	2	-6db	-6db
2	-6db	-6db	2	-6db	-6db	3	-6db	+6db
3	-6db	+6db	3	-6db	+6db	4	0db	+6db
4	0db	+6db	4	0db	+6db	5	Unused	Unused
5	0db	0db	5	0db	0db	15	Pad Off	Pad Off
6	Unused	Unused	6	Unused	Unused			
7	0db	0db	7	0db	0db			

## General Description (cont'd)

In 4 Wire E+M Mode, the 8TLTR can set PAD values using switch settings and ARTD and APAD values.

In the following table, P0 and P1 are assigned by setting ARTD to a value of 0, CDN 30:PAD and setting values by using Switch 1 (P0) and Switch 2 (P1). P2 and P3 are assigned by setting ARTD/APAD to a value of 5, and PAD values are set by using Switch 3 positions 1, 2, 3 and 4 (P2) and positions 5, 6, 7 and 8 (P3).

8TLTR (2W E+M) with SFI 50 = 0			8TLTR (2W E+M) with SFI 50 = 1			8TLTR (2W E+M) with APAD Setting		
ARTD PAD	Transmit PAD	Receive PAD	ARTD PAD 2	Transmit PAD	Receive PAD	APAD Setting	Transmit PAD	Receive PAD
0	0db	0db	0	ARTD	PAD	1	-3db	-3db
1	-3db	-3db	1	-3db	-3db	2	-6db	-6db
2	-6db	-6db	2	-6db	-6db	3	-6db	+6db
3	-6db	+6db	3	-6db	+6db	4	0db	+6db
4	0db	+6db	4	0db	+6db	5	Unused	Unused
5	0db	0db	5	0db	0db	15	Pad Off	Pad Off
6	Unused	Unused	6	Unused	Unused			
7	0db	0db	7	0db	0db			

8TLTR (4W E+M) with SFI 50 = 0			8TLTR (4W E+M) with SFI 50 = 1			8TLTR (4W E+M) with APAD Setting		
ARTD PAD	Transmit PAD	Receive PAD	ARTD PAD 2	Transmit PAD	Receive PAD	APAD Setting	Transmit PAD	Receive PAD
0	P0	P1	0	ARTD	PAD	1	-3db	-3db
1	-3db	-3db	1	-3db	-3db	2	-6db	-6db
2	-6db	-6db	2	-6db	-6db	3	-12db	-11db
3	-12db	-11db	3	-12db	-11db	4	-16db	-11db
4	-16db	-11db	4	-16db	-11db	5	P2	P3
5	P2	P3	5	P2	P3	15	Pad Off	Pad Off
6	Unused	Unused	6	Unused	Unused			
7	0db	0db	7	0db	0db			

## Operating Procedure

The following connections are performed:

- STATION-TO-STATION CONNECTION
- STATION-TO-ATT CONNECTION
- CONNECTION VIA ATT
- OUTGOING C.O. LINE CONNECTION FROM STATION
- OUTGOING C.O. LINE CONNECTION FROM ATT

## Service Conditions

1. RS-464A PAD control is performed for lines and external trunks.
2. ONS (general telephone) and OPS (long line telephone) are identified by the SFC of the station concerned.

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**Service Conditions (cont'd)**

3. An Attendant Console is regarded as an ONS. The Attendant Console will follow the PAD values assigned in ARTD.
4. If PAD data is assigned by APAD command, this data overrides other PAD data assigned by ARTD, except when switch settings on the 24DTR are set to ARTD fixed.
5. PAD settings for the 8TLTR can be set using ARTD/APAD or a combination of switch settings and ARTD/APAD.
6. This service is used for each of the following connections:
  - STATION-TO-STATION CONNECTION
  - STATION-TO-ATT CONNECTION
  - CONNECTION VIA ATT
  - OUTGOING C.O. LINE CONNECTION FROM STATION
  - OUTGOING C.O. LINE CONNECTION FROM ATT
7. If the impedance of the trunk does not match the impedance setting on the trunk, the PAD values will not match the values in the previous tables.

## R-49

# Ringer Mute

### General Description

This feature allows a user to stop ringing by pressing the associated feature key on the D<sup>term</sup>.

### Operating Procedure

1. The D<sup>term</sup> user presses the RINGER MUTE key; the ringing is muted and the LED of the key lights. RING OFF is displayed for three seconds.
2. The D<sup>term</sup> user presses the RINGER MUTE key again; the ringing is recovered and the LED of the key is turned off. RING ON is displayed for three seconds.

### Service Conditions

1. The feature key for Ringer Mute must be assigned to the D<sup>term</sup>.
2. Ringer Mute which has been set becomes ineffective upon system initialization, individual initialization of LP or initialization of PM.
3. While this service is activated, ringing for Call Back is not provided as well.
4. This service has no effect on the status of DO NOT DISTURB [D-11] service. For example:
  - a.) When Do Not Disturb is set, the station is in the Do Not Disturb status.
  - b.) When Ringer Mute is set, the station is in the Do Not Disturb and Ringer Mute status.
  - c.) When Do Not Disturb is reset, the station is in the Ringer Mute status.
5. When this service is activated, ringing for any call is muted.
6. If a user presses the RINGER MUTE key while a call is terminating, ringer for this call will be muted.



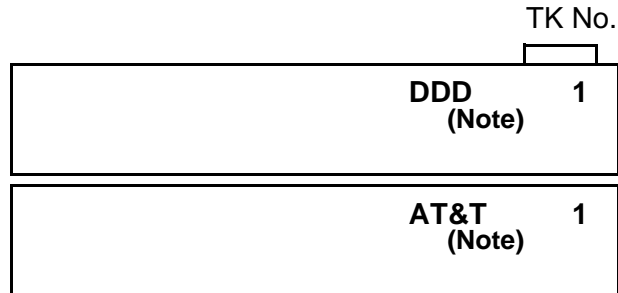
# R-51

# Route Name Display

## General Description

This feature allows a user to assign a desired trunk type for a route by the system data. The assigned trunk type (maximum of 4 or 8 digits) is displayed on the upper line of D<sup>term</sup> LCD.

- 4-digit display



- 8-digit display



**Note:** Trunk type, which can be changed by system data.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Trunk types are assigned a maximum of 4 or 8 digits (depending on system data) using ASCII characters.
2. The trunk type assigned by this feature is not displayed when a call terminates from the ISDN trunk or when a station is connected to the call from/to the ISDN trunk.
3. The trunk type assigned by this feature is displayed only when a call terminates to a station or when a station is connected to the call. In case of the call through a CCIS line, the assigned trunk type is not displayed. If a station is connected to the trunk user through the CCIS, ROM data corresponding to the Trunk Class of the route is displayed. If a station is connected to a station belonging to a different office within the CCIS network, the telephone number of the opposite station is displayed.
4. The trunk type assigned by this feature cannot be displayed at the I-terminal and PCS.
5. This feature is not applicable to the Attendant Console.
6. The current Caller ID services and Calling Party Number - Name Assignment and Display [C-157] service have priority over this feature.
7. When a call terminates from the trunk which has been assigned the C.O. line number, the LCD display is as shown below:

- 4-digit display

ABCD: trunk type assigned by this feature.  
123: trunk number preassigned.



**Service Conditions (cont'd)**

- 8-digit display

ABCDEFGH: trunk type assigned  
by this feature.



8. This feature is available when the D<sup>term</sup> user presses the call terminating sub line. This feature is also available when the user presses the held sub line after holding a call using the HOLD key.
9. For data assignment to each of NDM (Network Data Memory) and LDM (Local Data Memory), different commands can be used. However, the data in NDM has a priority. The logical route must be assigned to NDM, and the physical route must be assigned to LDM.

# S-1                      Single-Digit Station Calling

## General Description

This feature allows the assignment of single digits for station numbers.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the Single-digit (preprogrammed) telephone number.
3. The desired service station will be rung.

## Service Conditions

1. The single-digit number must be different from the first digit of trunk access codes, service feature access codes and other telephone numbers.
2. Timing start is not available with this feature.

## Interactions

For each station with single-digit access, an entire number level is eliminated. Do not plan to have more than one or two such phones in a system.

## S-2 Special Dial Tone

### General Description

This feature provides a distinctive dial tone to a user after the switch hook has been pressed, enabling the user to activate a specific service feature.

### Operating Procedure

1. While connected with the first party, user presses the switch hook; receives SPECIAL DIAL TONE.
2. User may activate a service feature, such as:

CALL HOLD	[C-6]
CALL TRANSFER-ALL CALLS	[C-11]

### Service Conditions

1. SPECIAL DIAL TONE rating is 350/440 Hz at 240 IPM.
2. If dialing is not initiated within 12 seconds after receiving SPECIAL DIAL TONE, reorder tone will be sent to the station. If the station has not gone back on hook or initiated dialing after 30 seconds of reorder tone, the station will be placed in the LINE LOCKOUT [L-3] mode.
3. If a user attempts CALL FORWARDING - ALL CALLS [C-5], - BUSY LINE [C-2] - DON'T ANSWER [C-3], etc., SPECIAL DIAL TONE will be sent to that station after access code dialing.

### Interactions

1. No other programming is required. This tone is generated for all momentary pressing of the Hooking feature applications.
2. LINE LOCKOUT [L-3]: SPECIAL DIAL TONE is sent for 12 seconds, reorder tone for 30 seconds, followed by Line Lockout.

## S-3 Speed Calling - System

### General Description

This feature allows a user or ATTENDANT CONSOLE [A-3] to call frequently dialed numbers using fewer digits (abbreviated call codes) than would normally be required.

### Operating Procedure

1. Lift handset; receive dial tone,
2. Dial SPEED CALLING - SYSTEM access code (maximum three digits), or press D<sup>term</sup> Speed Calling key.
3. Dial abbreviated call code (maximum four digits).
4. Call is completed.

### Service Conditions

1. SPEED CALLING - SYSTEM codes programmed into System Data are accessible by all stations with a CLASS OF SERVICE - INDIVIDUAL [C-15] permitting SPEED CALLING - SYSTEM.
2. Each abbreviated call code can store a maximum of 24 digits, including access codes and pauses.
3. SPEED CALLING - SYSTEM numbers are programmed via System Data entry from the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
4. Stations may be denied access to SPEED CALLING - SYSTEM via CLASS OF SERVICE [C-15] assignment in System Data. SPEED CALLING may also be allowed or denied on either a station or tenant-wide basis.
5. TOLL DENIAL/TOLL DIVERSION [T-6] and TOLL RESTRICTION-3/6-DIGIT [T-7] may or may not be applied to SPEED CALLING - SYSTEM, as desired.
6. LEAST-COST ROUTING-3/6-DIGIT [L-5] may be provided via SPEED CALLING - SYSTEM access.
7. If the station is restricted from dialing outside via programming, the station can still access SPEED CALLING - SYSTEM.
8. A maximum of 1,000 codes can be assigned per NEAX2400 IMX system.
9. The outgoing call using a trunk in the remote node is applied to this feature.

### Interactions

1. FORCED ACCOUNT CODES [F-7] and AUTHORIZATION CODES [A-20] cannot be programmed for use via the SPEED CALLING-SYSTEM.
2. Pauses are programmable from the MAT using the “P” key of the keyboard. Pauses consume one digit of the available 24 digits. A pause lasts for 2.8 seconds. A pause cannot be added directly after an LCR access code.
3. TOLL DIVERSION/TOLL DENIAL [T-6] and TOLL RESTRICTION 3/6 DIGIT [T-7] will interact with this feature if SPEED CALLING-SYSTEM is toll restricted.
4. Special dial tone may be returned after dialing SPEED CALLING-SYSTEM if AUTHORIZATION CODES [A-20] are operational in the system and Toll Restriction applies to SPEED CALLING-SYSTEM.
5. See SPEED CALLING OVERRIDE-SYSTEM [S-61].

# S-3D Speed Calling - System - D<sup>term</sup>

## General Description

This feature allows a D<sup>term</sup> user to call frequently dialed numbers using fewer digits (abbreviated call codes) than would normally be required.

## Operating Procedure

### Originating a call from a D<sup>term</sup>:

1. Press the SPEED CALLING-SYSTEM (SPEED-SYS) key.
2. Dial the abbreviated call code (maximum of four digits). The LCD displays:

<b>(Time Display)</b> <b>XXX</b>
----------------------------------

Abbreviated Call Code

3. The call is completed.
4. If the D<sup>term</sup> does not have the SPEED-SYS key, dial the SPEED CALLING-SYSTEM access code, then the abbreviated call code.

### To operate from a SPEED CALLING-ONE TOUCH key:

1. Press a FEATURE key, then a One Touch-Speed Calling key. The LCD displays previously stored digits.
2. Dial the SPEED CALLING-SYSTEM access code and the abbreviated call code.
3. Press the FEATURE key. The LCD displays:

<b>SPEED SET</b> <b>(Time Display)</b>
---

4. To access, press the SPEED CALLING-ONE TOUCH D<sup>term</sup> [S-26D] key.

## Service Conditions

1. SPEED CALLING-SYSTEM [S-3] codes programmed into System Data are accessible to all stations with a CLASS OF SERVICE-INDIVIDUAL [C-15] permitting speed calling.
2. Each abbreviated call code can store a maximum of 24 digits, including access codes and pauses.
3. The standard number of speed calling numbers stored in the NEAX2400 IMX is 1,000.
4. Speed calling numbers are programmed via System Data from the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
5. Stations may be denied access to SPEED CALLING-SYSTEM-D<sup>term</sup> via CLASS OF SERVICE-INDIVIDUAL [C-15] assignment in System Data. SPEED CALLING SYSTEM [S-3] may be allowed or denied on either a station or tenant-wide basis.
6. TOLL DENIAL/TOLL DIVERSION [T-6] and TOLL RESTRICTION-3/6-DIGIT [T-7] may or may not be applied to SPEED CALLING-SYSTEM-D<sup>term</sup>, depending on preference.
7. LEAST-COST ROUTING-3/6-DIGIT [L-5] may be provided via SPEED CALLING-SYSTEM access.

## S-4

# Splitting

### General Description

This feature allows the ATTENDANT CONSOLE [A-3] to speak privately with one party on an Attendant-handled connection without the other party overhearing.

### Operating Procedure

**To speak with the called party only:**

1. Dial the desired telephone number.
2. Station class/telephone number is displayed.
3. Wait for the party to answer.

**To speak with the calling party only:**

1. Press the SRC key.
2. Trunk group/number is displayed.
3. Proceed with the conversation.

**To return to the called party:**

1. Press the DEST key.
2. Station class/number displayed.

**To speak with both parties:**

1. Press the TALK key.

**To release from the ATTENDANT CONSOLE [A-3]:**

1. Press the RELEASE key.

**To disconnect all parties involved in a THREE-WAY CONFERENCE [T-2]:**

1. Press the DEST key.
2. Press the CANCEL key twice.

### Service Conditions

1. The ATTENDANT CONSOLE [A-3] may alternate between the called and calling parties, and THREE-WAY CONFERENCE [T-2], as desired.
2. If SERIAL CALL [S-15] is provided, the call is automatically split when the ATTENDANT presses the loop key to answer a recall initiated by a user.
3. The SPLITTING feature is a standard Attendant feature.
4. SPLITTING is automatic when the Attendant begins call completion or answers a recall.
5. SPLITTING is manual when the SRC, DEST, or TALK key is pressed on the ATTENDANT CONSOLE.
6. If a station is in a SERIAL CALL [S-15] with an outside party and LOCKOUT is not provided (optional), pressing the associated loop key will bridge on the existing connection, and SPLITTING is not provided.

### Interactions

1. The ATTENDANT CONSOLE [A-3] must first be provided.
2. If conference calling is required, THREE-WAY CALLING [T-2] must first be provided.

## S-4D

## Splitting - D<sup>term</sup>

### General Description

This feature allows a D<sup>term</sup> user to alternately converse between two separate parties while one party is connected and one party remains on hold. The user uses the TRANSFER button to alternate conversations between the two parties.

### Operating Procedure

#### While a conversation is in progress:

1. Press the TRANSFER key; hear special dial tone.
2. Dial the new number; the first party is held, the second party answers.
3. Press the TRANSFER key; return to the first party; the second party is held.
4. Repeat as often as needed.

### Service Conditions

THREE-WAY CALLING [T-2D] may be established at any time by pressing the CONF key.

### Interactions

1. SPLITTING is inherent to the system and is operated by using the TRANSFER key.
2. The conference trunk is only required when a three-way connection is desired.



# S-6 Station-Controlled Conference

## General Description

This feature allows any NEAX2400 IMX station to establish a conference. The conference may be any combination of stations and/or trunks (inside and outside parties).

## Operating Procedure

### Procedure 1 (MEET-ME CONFERENCE):

1. User wishing to establish the conference (conference leader) calls each party desired and advises them of the conference.
2. All stations then call the conference telephone number, and the conference leader calls the special conference number for the leader.
3. Conference connection is automatic.
4. The conference leader may dial "0" to lock out additional parties.
5. If the conference leader connected to the conference circuit dials digit "#", all conferees will be disconnected. Otherwise, the conference is terminated only after all parties have hung up.
6. To release from a conference circuit individually, a user hangs up. The remaining conferees may continue without interruption.

### Procedure 2:

1. Conference leader dials the conference telephone number on the conference; conference circuit automatically answers.
2. The conference leader makes a Switch Hook Flash (SHF).
3. The conference leader dials the telephone number of conferee; receive ringback tone.
4. The conferee answers.
5. The conference leader hangs up; the conferee is connected to the conference circuit (port 1).
6. The conference leader sequentially calls all desired parties (up to 7 parties) and connects them to the other conference circuits (port 2 to 7).
7. The conference leader may dial "0" to lock out additional parties.
8. If the conference leader connected to the conference circuit dials digit "#", all conferees will be disconnected. Otherwise, the conference is terminated only after all parties have hung up.
9. To release from a conference circuit individually, a user hangs up. The remaining conferees may continue without interruption.

## Service Conditions

1. The station connected to port 0 of the PA-CFTB becomes the conference leader.
2. While the conference unit provides for amplification, the condition of Central Office connections will affect conference transmission.
3. Each conference unit provides up to an 8-party conference.
4. Conference unit extension numbers should be placed in a STATION HUNTING [S-7, 8, 9] group with only the pilot numbers published.
5. Override services, such as, BUSY VERIFICATION [B-3], ATTENDANT OVERRIDE [A-7], or EXECUTIVE RIGHT-OF-WAY [E-1] are denied on a conference call.

# S-7 Station Hunting - Circular

## General Description

This feature permits a call to be processed automatically through a hunt group of busy extensions, in a programmed order.

## Operating Procedure

No manual operation is required.

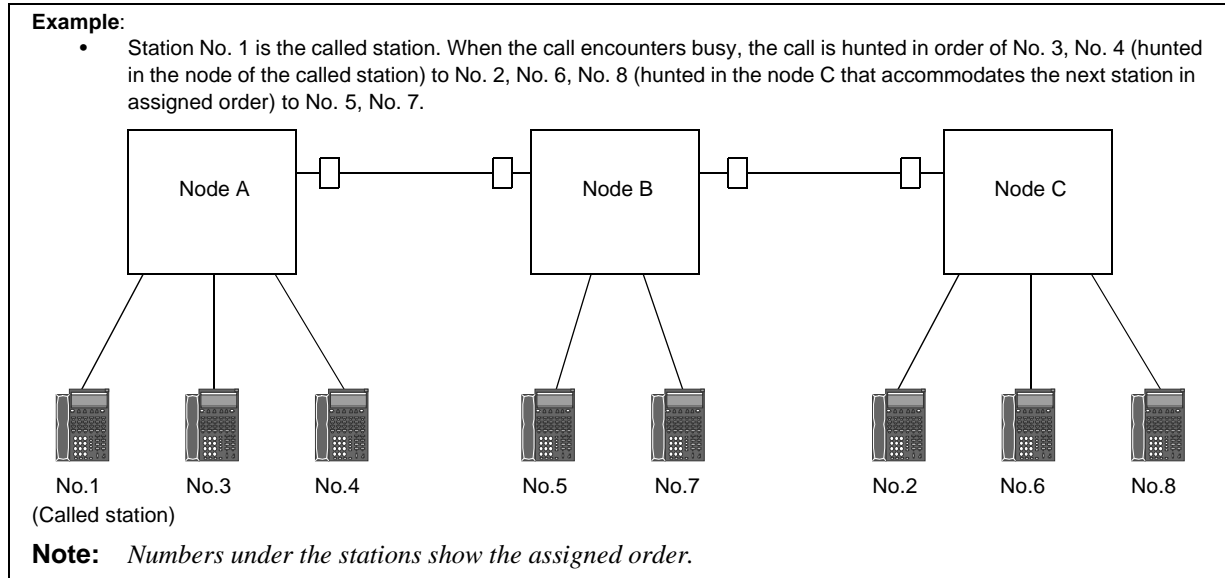
## Service Conditions

1. This feature can be activated via FCCS.
2. When all stations within a Circular Hunt Group are busy:
  - a.) If a call is terminated to a group does not have a Secretarial Station, the caller will receive a busy tone.
  - b.) If a call is directed to a group that has a Secretarial Station, the call will be shifted to the Secretarial Station. However, the caller will receive a busy tone when the Secretarial Station is also busy.
3. Assignment of telephone numbers to a Circular Hunt Group may be in any order.
4. This feature will be activated whenever the hunt group is dialed by the Attendant or another station within the system.
5. Calls to the first programmed station in a Circular Hunt Group will proceed through all other programmed stations in the order they were programmed upon encountering a busy station, until reaching the last.
6. Calls directed to any other number in the Circular Hunt Group will proceed in the same manner as calls to the first programmed number.
7. If a HUNT group station has set CALL FORWARDING-ALL CALLS [C-5], hunting will bypass that station and continue in the order of hunting.
8. The maximum number of stations per group is 100.
9. Within the FCCS network, there is no limit for the number of Circular Hunt Groups.
10. If a Phantom Number is assigned to the pilot number, hunting may or may not occur when the Phantom Number is dialed, depending on System Data.
11. In a Circular Hunt Group, one station can be designated as a secretarial station, thereby always being the last station in the hunting sequence.
12. CALL FORWARDING-BUSY LINE [C-2]/ALL CALLS [C-5] are activated first rather than STATION HUNTING-CIRCULAR, if the dialed station has set this feature.
13. The terminating sequence of service features to a station is as follows:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
STATION HUNTING	[S-7, 8, 9]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
14. Recall from CALL BACK [C-1], OUTGOING TRUNK QUEUING [O-2] and PAGING TRANSFER [P-10] will not hunt.
15. A station can belong to only one hunt group (either Circular or Terminal).

## Service Conditions (cont'd)

16. This feature will be activated whenever the hunt group is dialed or terminated under the following conditions:
  - a.) dialed from a station
  - b.) dialed from ATTENDANT CONSOLE [A-3]
  - c.) dialed from DID [D-8]
  - d.) dialed from TIE LINE [T-3]
  - e.) terminated by DIT [D-7]
  - f.) terminated by HOT LINE [H-1]
  - g.) terminated by OFF-HOOK ALARM [O-6]
  - h.) terminated by PRIORITY CALL [P-9]
17. A telephone number is allowable for the station assignment of this feature activated via FCCS link.
18. The station that has been assigned as the pilot station of a Hunt group-Terminal, a UCD controlling station, or a station of Circular Hunt Group cannot be assigned as a member of the other Circular Hunt Group.
19. All the calls terminated to a Circular Hunt station are hunted when encountering a busy station.
20. When using the FCH card:
  - a.) Stations in four different nodes can be assigned to a Circular Hunt Group.
  - b.) When stations belonging to different nodes are assigned to a Circular Hunt Group, the station hunt is not activated in assigned order if the stations are not assigned in continuous order within a node. First, the call is shifted to the station belonging to the node of the called station even though it is not in consecutive order (in the node, station hunting is activated in assigned order). After all the stations in the node are hunted, the station hunt is shifted to the next assigned station and the stations in the node are hunted in assigned order. The station hunt continues this way until the idle station is found. See the figure below.



21. When all the stations in a Circular Hunt Group are busy:
  - a.) If a call is terminated to a group that has no Secretarial Station, the caller will hear busy tone.
  - b.) If a call is directed to a group that has a Secretarial Station, the call will be shifted to the Secretarial Station. However, the caller will hear busy tone when the Secretarial Station is also busy.

**Service Conditions (cont'd)**

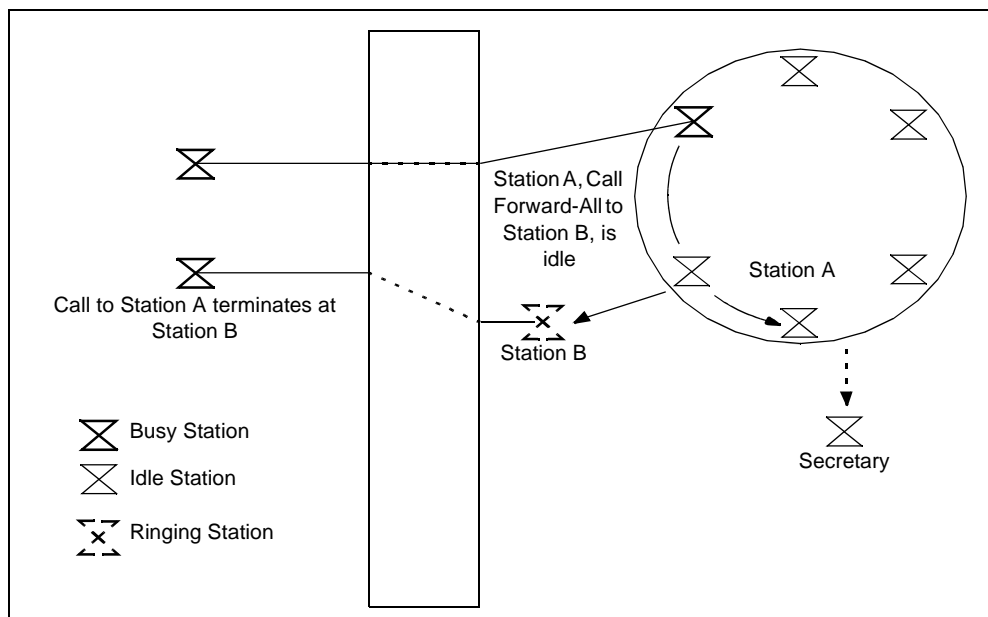
22. The incoming call terminated through FCCS link to the Station Hunt group, which is programmed by the Physical Station Number, is not hunted.
23. When a Physical Station Number and telephone number assigned to a Circular Hunt station are identical, priority is attached to STATION HUNTING - CIRCULAR via FCCS.
24. When using this feature within an FCCS network, when CALL FORWARDING - ALL CALLS [C-5] has been set to a Circular Hunt station, a call directed to the station is forwarded to the designated station.
25. When using this feature within an FCCS network, when a call to a Circular Hunt station is forwarded by CALL FORWARDING - BUSY LINE [C-2] and the forwarded party (also a member of another hunting group) is also busy, the resultant hunt target can be designated from the forwarding side group or the forwarded side group. This can be specified by the ASYDN command.
26. When using this feature within an FCCS network, calling back for CALL BACK [C-1] or CALL HOLD [C-6] is not hunted.
27. When using this feature within an FCCS network, Hot Line station (calling party) cannot be assigned to a Circular Hunt station activated via FCCS link.
28. A Station Hunting - Circular group may accommodate members from four different Fusion Point Codes.
29. This feature can be programmed on a node basis even with the use of telephone numbers. In other words, the feature became available via the data written on the Local Data Memory (LDM), not only on the Data Memory (DM) or the Network Data Memory (NDM). If this is the case, conditions are as follows:
  - a.) The feature is to be programmed by using the telephone number of each station.
  - b.) A Circular Hunt group can contain a maximum of 100 stations.
  - c.) There is no limitation to the number of Circular Hunt groups per node.
  - d.) A station can belong to one hunting group only, it cannot belong to another group including that for STATION HUNTING - TERMINAL [S-9] or UNIFORM CALL DISTRIBUTION (UCD) [U-1].
  - e.) Any station, if assigned as a Circular hunt group member, can be the pilot station by the telephone number.
  - f.) When all stations to be hunted are busy, the incoming call is forwarded to the Secretarial Station. However, when the station is not assigned or is also busy, busy tone is provided to the caller.
  - g.) Station Hunt groups via DM and groups via LDM cannot coexist in a system.
  - h.) The "feature via LDM" cannot be used via FCCS, even though telephone numbers are used.
  - i.) A Phantom Telephone Number assigned to the telephone number of a Circular Hunt station, can also be a pilot number via the APHNL command setting (see details in Interactions).
30. The Phantom Telephone Number can also be assigned to each telephone number (maximum of 16 Phantom Telephone Numbers per telephone number, telephone numbers + Phantom Telephone Numbers in total = 60,000 or less). The assigned Phantom Telephone Number may or may not be the pilot number by the APHNN command setting (see details in Interactions).
31. When using a Phantom Telephone Number for a Circular Hunt station via the FCCS, consider the following:
  - a.) Whether to use the Phantom Telephone Number to start the station hunt or not can be selected by system data.
  - b.) When the Phantom Telephone Number is assigned to be used: Station hunt starts by dialing either the Circular Hunt station number (telephone number) or its Phantom Telephone Number. Both numbers can be the pilot number.
  - c.) When the Phantom Telephone Number is assigned not to be used: Station hunt starts by dialing the Circular Hunt station number (telephone number) only. The feature is not provided when the Phantom Telephone Number is dialed.

## Service Conditions (cont'd)

32. The following are the conditions when STATION HUNTING - CIRCULAR is programmed on LDM.
  - a.) When a call is directly placed to a Circular Hunt station, CALL FORWARDING - ALL CALLS [C-5] is normally activated (the call is forwarded to the designated station).
  - b.) When a call to a Circular Hunt Station is forwarded by CALL FORWARDING - BUSY LINE [C-2] and the forwarded party (also a member of another hunting group) is also busy, the resultant hunt target can be designated from the forwarding side group or the forwarded side group. This can be specified by the ASYD command.
  - c.) When the following occurs, a station not directly placed to an incoming call, is skipped from the hunting circulation process:
    - When the station is provided with CALL FORWARDING - ALL CALLS [C-5].
    - When the station is provided with CALL FORWARDING - BUSY LINE [C-2] and the station is busy.
  - d.) CALL FORWARDING - DON'T ANSWER [C-3] will respond to any call to any Circular Hunt station (after a certain period of no answer, the call is forwarded to the designated station).

## Interactions

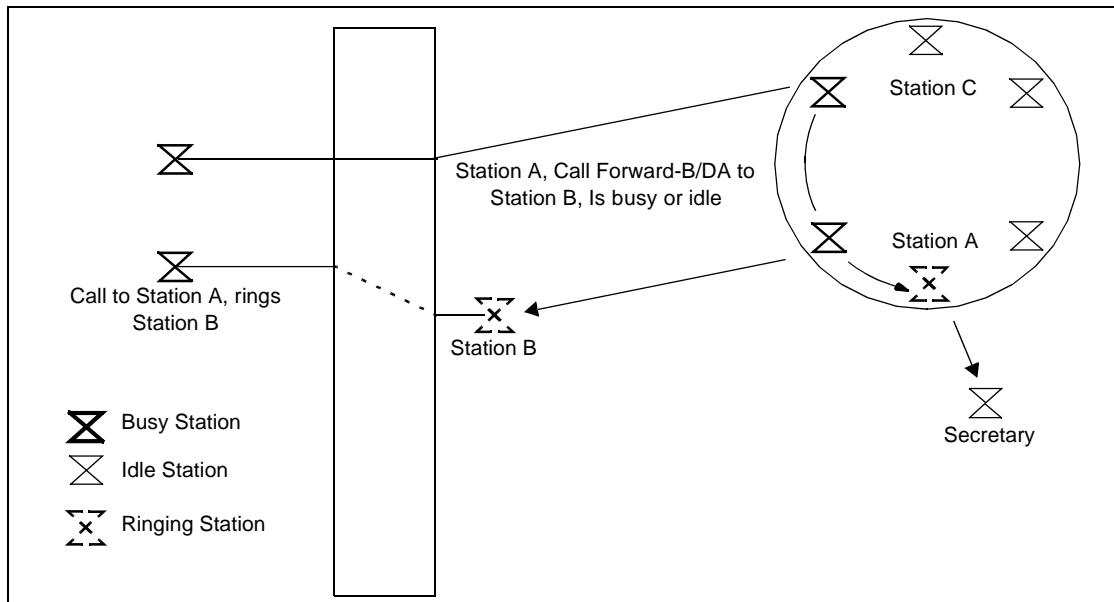
1. Secretaries are not counted as one of the 100 allowed stations per group.
2. The stations in the hunt group must first be programmed in the ASDT command. Stations placed into a Station Hunting-Circular Group must have a corresponding LEN.
3. CALL FORWARDING-ALL CALLS [C-5]: If Station A is assigned to a hunt group, CALL FORWARDING-ALL CALLS [C-5] is activated to Station B:
  - a.) Calls directly placed to Station A will be forwarded to Station B.
  - b.) Calls placed to the Station Hunting-Circular Group will bypass Station A.
  - c.) A call forwarding override call from Station B to Station A will hunt if Station A is busy.



4. CALL FORWARDING-BUSY LINE/DON'T ANSWER [C-2, 3]: If Station A is in a Station Hunting-Circular Group and activates CALL FORWARDING-BUSY LINE/DON'T ANSWER to Station B:
  - a.) Any call to Station A will respond to CALL FORWARDING-DON'T ANSWER [C-3].

## Interactions (cont'd)

- b.) A direct call to Station A will respond to CALL FORWARDING-BUSY LINE [C-2].
- c.) A call to the Station Hunting-Circular group will bypass Station A, if that station is both busy and has set CALL FORWARDING-BUSY LINE [C-2]. The next station in the group will ring.
- d.) A call forwarding-override call from Station B to Station A will hunt if Station A is busy.



5. STATION MESSAGE DETAIL RECORDING [S-10]: The number recorded is the telephone number where the call actually terminates.
6. ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] and CALL WAITING-TERMINATING [C-12] features are superseded by STATION HUNTING-CIRCULAR.
7. A station in a Station Hunting-Circular Group must have a Route Restriction Class that will allow incoming route connections. If the connection is not allowed, a busy tone is returned.
8. When using a Phantom Number for a Circular Hunt station, consider the following:
  - Whether to use the Phantom Number to start the station hunt or not can be selected by the APHN command. When using the Phantom Number, assign "1" in the "PH" parameter. If not, assign "0".
  - When Phantom Number is assigned to be used ("PH = 1"): Station hunt starts by dialing either the Circular Hunt station number or its Phantom Number. Both numbers can be the pilot number.
  - When Phantom Number is assigned not to be used ("PH = 0"): Station hunt starts by dialing the Circular Hunt station number only. The feature is not provided when the Phantom Number is dialed.
9. This feature is not available for a call in recall state by CALL BACK [C-1] or CALL HOLD [C-6].
10. When using a Phantom Telephone Number for a Circular Hunt station, consider the following:
  - Whether to use the Phantom Telephone Number (PHTELN) to start the station hunt or not can be selected by the APHNL command. When using the PHTELN, assign "1" in the "PH" parameter. If not, assign "0".
  - When the Phantom Telephone Number is assigned to be used (when "PH = 1"): Station hunt starts by dialing either the Circular Hunt station number (telephone number) or its Phantom Telephone Number. Both numbers can be the pilot number.
  - When the Phantom Telephone Number is assigned not to be used (when "PH = 0"): Station hunt starts by dialing the Circular Hunt station number (telephone number) only. The feature is not provided when the Phantom Telephone Number is dialed.

# S-8 Station Hunting - Secretarial

## General Description

This feature allows calls to a Hunt group to forward to a secretarial station when all the stations in the group are busy.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. When all stations within a Hunt group are busy, the incoming call is routed to the station programmed as the Secretarial Station.
2. If the Secretarial station is busy, the caller will hear a busy tone.
3. The maximum number of stations per Hunt group is 100.
4. A maximum of 255 Hunt groups can be overflowed to a Secretarial station.
5. There is no limit on the number of Hunt groups per system.
6. If a Hunt station has set CALL FORWARDING-ALL CALLS [C-5] or DO NOT DISTURB [D-21D], calls to the group will bypass the station.
7. Recalls from CALL BACK [C-1] and OUTGOING TRUNK QUEUING [O-2] will not hunt.
8. The terminating sequence of service features to a station is as follows:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
STATION HUNTING	[S-7, S-8, S-9]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
9. This feature can be set on a node basis even in the use of telephone number. In other words, a Secretarial position can be assigned to a group for STATION HUNTING - TERMINAL [S-9] or STATION HUNTING - CIRCULAR [S-7], that is available on the Local Data Memory (LDM). If this is the case, the conditions are as follows:
  - a.) A Secretarial Station for this feature must be assigned by the telephone number.
  - b.) A Hunt Group (both Terminal or Circular) can have one Secretarial Station only (2 or more cannot be assigned per group).
  - c.) Multiple Hunt Groups can share a common Secretarial Station.
  - d.) A maximum of 4,096 Hunt Groups can have a Secretarial Station respectively per node.
10. The maximum number of Secretarial Stations in the FCCS network is 4,000.
11. Only the telephone number is allowable for the station assignment of this feature when activating via FCCS link.
12. A Hunt Group (Terminal, Circular) may have one Secretarial Station.
13. The Secretarial Station can be shared with the multiple Hunt Groups.
14. A maximum of 4,096 Hunt Groups have a secretarial station.

## Interactions

1. Secretaries are not counted as one of the 100 allowed stations per group.
2. STATION MESSAGE DETAIL RECORDING [S-10]: The number recorded is the telephone number where the call actually terminates.

## S-9 Station Hunting - Terminal

### General Description

This feature enables calls placed to busy stations, other than Pilot stations of a Hunt group, to receive a busy tone rather than proceed through the normal hunting process. However, if the call is placed to the busy Pilot station of a Hunt group, station hunting will proceed as usual.

### Operating Procedure

No manual operation is required.

### Service Conditions

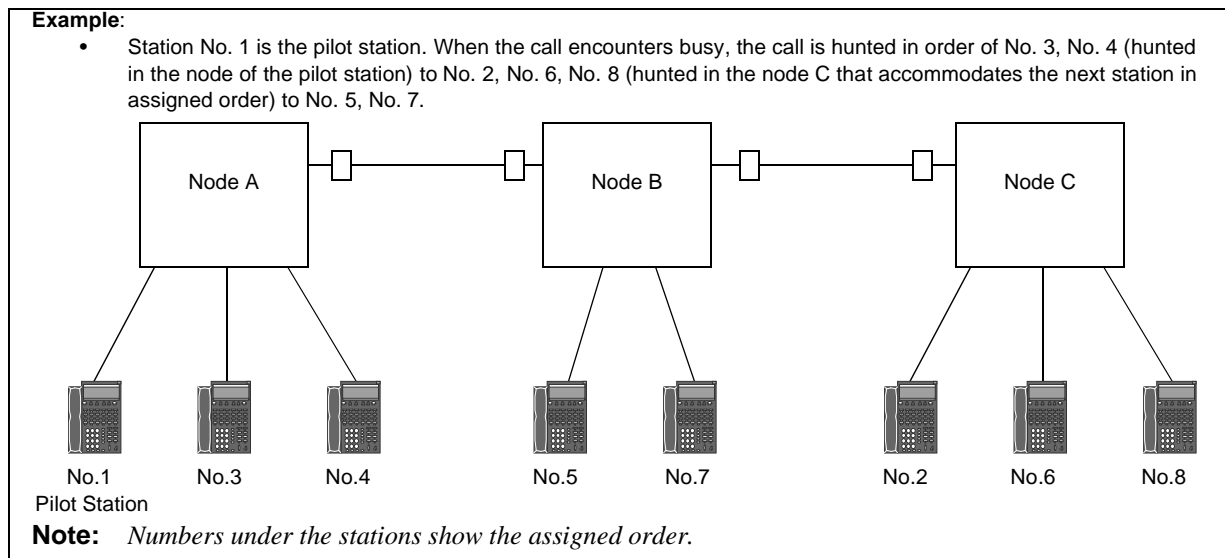
1. If all lines in a Hunt group are busy, the caller will receive a busy tone.
2. The maximum number of stations per group is 100.
3. If a station within the Hunt group has set CALL FORWARDING ALL CALLS [C-5], the system will bypass that station and continue in hunt order.
4. There is no limit to the number of groups per system.
5. CALL FORWARDING - BUSY LINE [C-2] and ALL CALLS [C-5] are activated first, rather than STATION HUNTING, if the pilot station has this feature set.
6. The terminating sequence of service features to a station is as follows:
 

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
STATION HUNTING	[S-7, S-8, S-9]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
7. Only calls to the pilot number will cause the hunting sequence to operate. Calls to busy stations, other than the pilot number, will receive a busy tone.
8. If a phantom number is assigned to the pilot number, hunting may or may not occur by the System Data setting, when the phantom number is dialed.
9. Recall from CALL BACK [C-1] and OUTGOING TRUNK QUEUING [O-2] will not hunt.
10. This feature will be activated whenever the pilot number is dialed or terminated under the following conditions:
  - a.) Dialed from a station,
  - b.) Dialed from ATTENDANT CONSOLE [A-3],
  - c.) Dialed from DID [D-8],
  - d.) Dialed from TIE LINE [T-3],
  - e.) Terminated by DIT [D-7],
  - f.) Terminated by HOT LINE [H-1],
  - g.) Terminated by OFF-HOOK ALARM [O-6],
  - h.) Terminated by PRIORITY CALL [P-9].
11. This feature can be programmed on a node basis even in the use of telephone numbers. In other words, the feature became available via the data written on the Local Data Memory (LDM), not only on the Data Memory (DM) or the Network Data Memory (NDM). If this is the case, the conditions are as follows:
  - a.) The feature is to be programmed by using the telephone number of each station.
  - b.) A hunting group can be configured by a maximum of 100 stations.
  - c.) There is no limitation to the number of Circular Hunt groups per node.



## Service Conditions (cont'd)

- d.) A station can belong to one hunting group only; it cannot belong to another group including that for STATION HUNTING - CIRCULAR [S-7] or UNIFORM CALL DISTRIBUTION (UCD) [U-1].
  - e.) When all stations to be hunted are busy, the incoming call is forwarded finally to the Secretarial Station. However, when the station is not assigned or is also busy, busy tone is provided to the caller.
  - f.) A station, which has already been a member of an existing hunting group by the Physical Station Number (referred to below as the “feature via DM”), can also be a member of the additional hunting group by the telephone number (referred to below as the “feature via LDM”).
  - g.) Station Hunt groups via DM and groups via LDM can not coexist in a system.
  - h.) The “feature via LDM” cannot be used via FCCS, even though telephone numbers are used.
  - i.) A Phantom Telephone Number assigned the telephone number for a pilot station, can also be a pilot number via the APHNL command setting (see Interactions).
12. This feature may be activated via FCCS.
  13. The maximum number of Secretarial Stations in the FCCS network is 4,096.
  14. When activating this feature via FCCS, the maximum number of stations per group is 100.
  15. When activating this feature via FCCS, only the telephone number is allowable for the station assignment of this feature.
  16. When activating this feature via FCCS, the station which has already been assigned as the pilot station of a Hunt Group-Terminal, the UCD controlling station, or a station of Circular Hunt Group cannot be assigned to the other Hunt Group-Terminal.
  17. When using the FCH card:
    - a.) Stations in four different nodes can be assigned to a Hunt Group.
    - b.) When stations belonging to different nodes are assigned to a Hunt group, the station hunt may not be activated in assigned order if the stations are not assigned in continuous order within a node. First, the call is shifted to the station within the node of the Pilot station even though it is not in consecutive order (in the node, station hunt is activated in assigned order). After all the stations in the node are hunted, the station hunt is shifted to the next assigned station and the stations in the node are hunted in assigned order. The station hunt continues in this way until the idle station is found. See the figure below.



**Service Conditions (cont'd)**

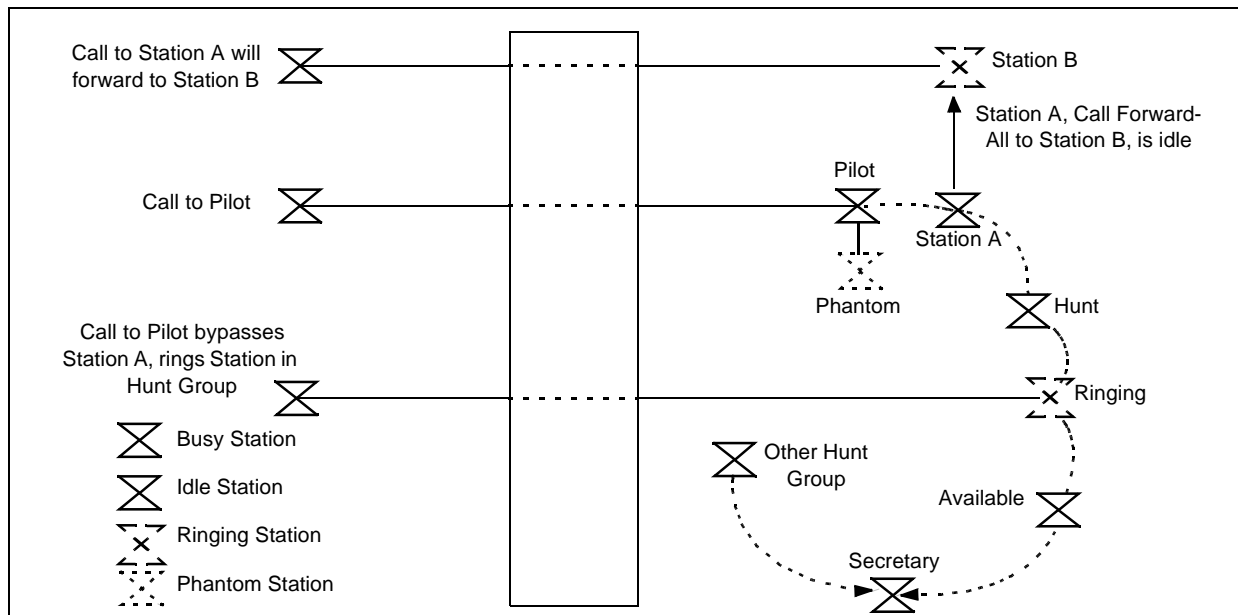
18. The number of the Hunt Group is unlimited.
19. When all the stations in a Hunt Group are busy:
  - a.) If a call is directed to a station belonging to a group that has no Secretarial Station, the caller will hear busy tone.
  - b.) If a call is directed to a station belonging to a group that has a Secretarial Station, the call will be forwarded to the Secretarial Station. However, the caller will hear busy tone when the Secretarial Station is also busy.
20. When the telephone number and Physical Station Number assigned to a pilot station are identical, priority is attached to STATION HUNTING - TERMINAL via FCCS.
21. The incoming call terminated through FCCS link to the Station Hunt group, which is programmed by the Physical Station Number, is not hunted.
22. When CALL FORWARDING - ALL CALLS [C-5] has been set to the pilot station, a call directed to the pilot station is forwarded to the designated station.
23. When activating this feature via the FCCS network, when an incoming call to a pilot station is forwarded by CALL FORWARDING - BUSY LINE [C-2] and the forwarded party (also a member of another hunting group) is also busy, the resultant hunt target can be designated from the forwarding side group or the forwarded side group. This can be specified by the ASYDN command. Refer to Programming for further information.
24. Phantom telephone number (PHTELN) can also be assigned to each telephone number (a maximum of 16 PHTELNs per TELN, TELNs + PHTELNs in total equal 60,000 or less). The assigned PHTELN may or may not be the pilot number by the APHNN command setting. See details in Interactions.
25. STATION HUNTING - TERMINAL can be programmed on a node basis even in the use of telephone numbers. In other words, the feature became available via the data written on the Local Data Memory (LDM), not only on the Data Memory (DM) or the Network Data Memory (NDM). If this is the case, conditions are as follows:
  - a.) The feature is to be programmed by using the telephone number (TELN) of each station.
  - b.) A hunting group can be configured by a maximum of 100 stations.
  - c.) There is no limitation to the number of hunting groups per node.
  - d.) A station can belong to one hunting group only. A station cannot belong to another group including that for STATION HUNTING - CIRCULAR [S-7] or UNIFORM CALL DISTRIBUTION (UCD) [U-1].
  - e.) When all stations to be hunted are busy, the incoming call is forwarded finally to the Secretarial Station. However, when the Station is not assigned or is also in the busy state, a busy tone is provided to the caller.
  - f.) A station, already a member of an existing hunting group by Physical Station Number (referred to below as the “feature via DM”), can also be a member of the additional hunting group by telephone number (referred to below as the “feature via LDM”).
  - g.) The “feature via LDM”, though using the telephone numbers, cannot be used together with that via FCCS.
  - h.) When Physical Station Number and telephone number assigned to a pilot station are identical, the “feature via LDM” takes priority over the “feature via DM”.
  - i.) A Phantom telephone number, assigned to the telephone number for a pilot station, can also be a pilot number via the APHNL command setting. See details in Interactions.
26. When activating this feature via the FCCS network, when CALL FORWARDING - BUSY LINE [C-2] has been set to the pilot station, the service priority (CALL FORWARDING - BUSY LINE or Station Hunting) can be determined by the ASFC command.

**Service Conditions (cont'd)**

27. When activating this feature via the FCCS network, when CALL FORWARDING - BUSY LINE [C-2] or CALL FORWARDING - ALL CALLS [C-5] has been set to a member station and the station is busy, the station is skipped.
28. When activating this feature via the FCCS network, CALL FORWARDING - DON'T ANSWER [C-3], will respond to both pilot and non-pilot stations.
29. When activating this feature via the FCCS network, calling back for CALL BACK [C-1] or CALL HOLD [C-6] is not hunted.
30. Hot Line station can be assigned to a station of the Hunting Group activated via FCCS link.
31. A Station Hunting - Terminal group may accommodate members from four different Fusion Point Codes.

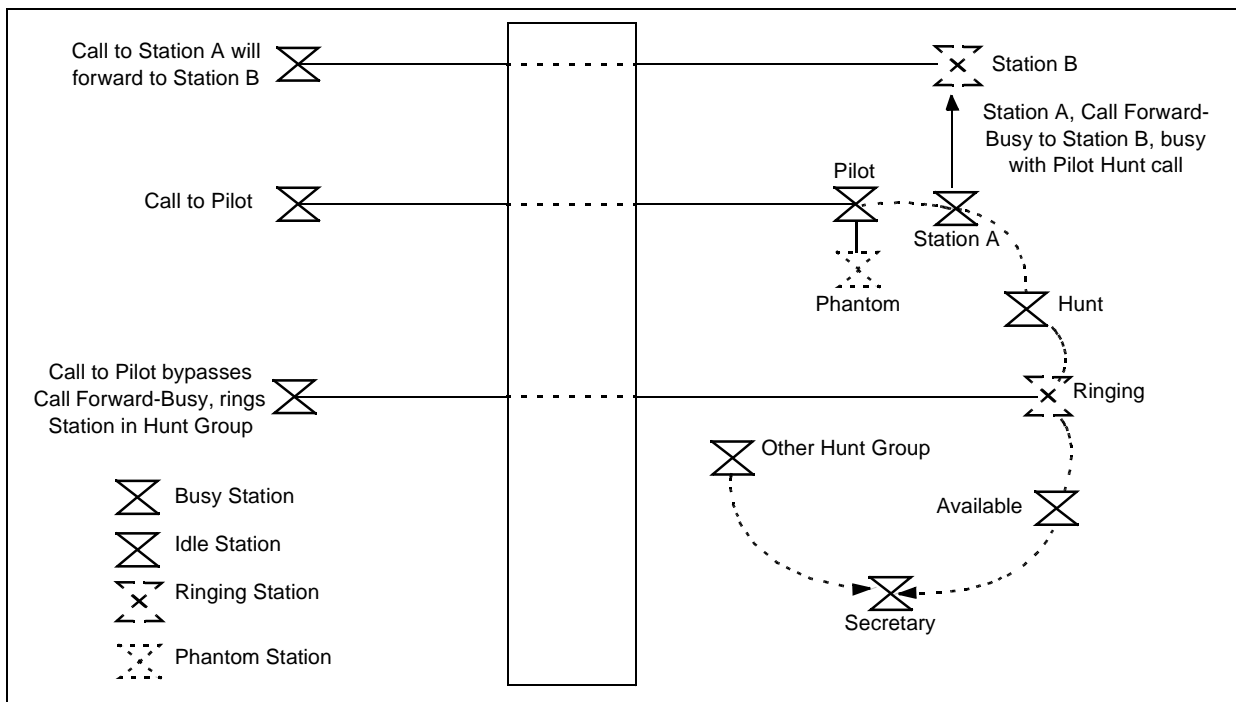
**Interactions**

1. 255 secretaries are allowed for the system. Each time a secretary is assigned to a group, one of the 255 secretarial positions is expended, regardless of whether or not it is one secretary for multiple groups or different secretaries for multiple groups.
2. Secretaries are not counted as one of the 100 allowed stations per group.
3. The stations in the Station Hunting group must first be programmed with the ASDT command.
4. CALL FORWARDING-ALL CALLS [C-5]: If Station A, assigned to a Hunt group and not the Pilot station, activates CALL FORWARDING-ALL CALLS to Station B:
  - a.) A direct call to Station A is forwarded to Station B.
  - b.) Calls placed to the STATION HUNTING-TERMINAL group will bypass Station A.
  - c.) When hunting occurs, if Station A is the only idle station in the hunting pattern, a busy tone is returned to the calling party.
  - d.) During a Call Forward-Override call from Station B to Station A, if station A is idle, Station A will ring. If Station A is busy, the call will not hunt.
  - e.) If the Pilot sets CALL FORWARDING-ALL CALLS [C-5] to Station B: During a Call Forward-Override call from Station B to the Pilot, if the Pilot station is idle, the Pilot will ring. If the Pilot station is busy, the call will hunt.



## Interactions (cont'd)

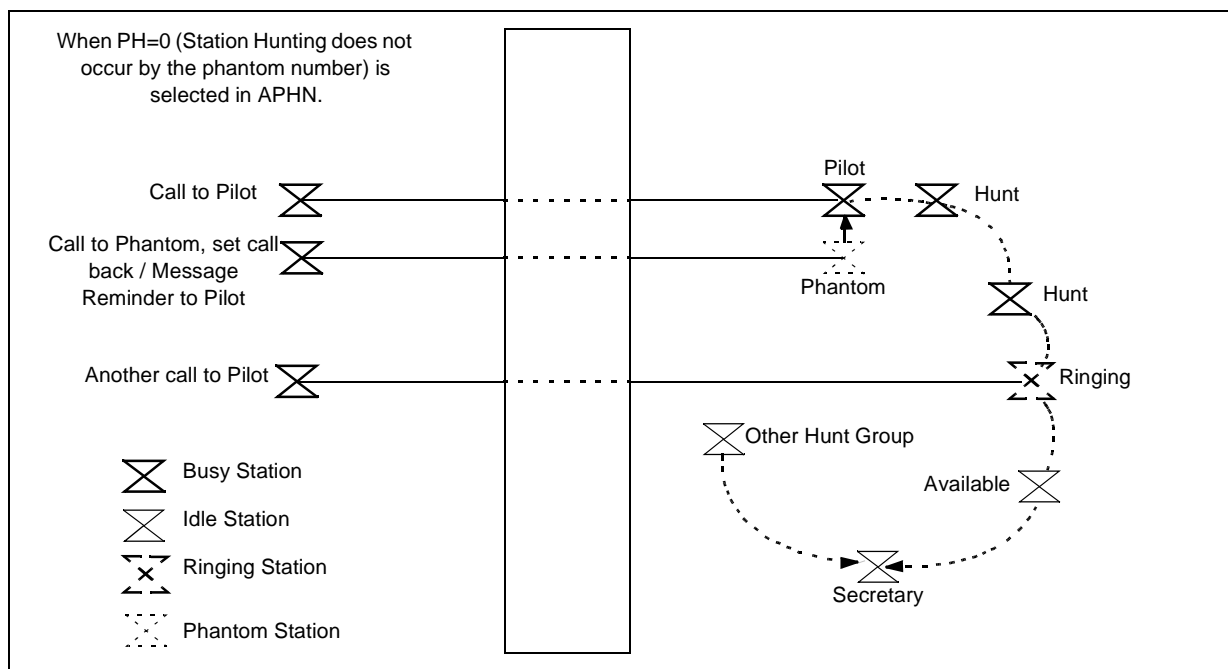
5. CALL FORWARDING-BUSY LINE/DON'T ANSWER [C-2, 3]: If Station A is in a STATION HUNTING-TERMINAL group and not the Pilot station, it will activate CALL FORWARDING-BUSY LINE/DON'T ANSWER to Station B:
  - a.) Any call to Station A will respond to CALL FORWARDING-DON'T ANSWER [C-3].
  - b.) A direct call to Station A will respond to CALL FORWARDING-BUSY LINE [C-2].
  - c.) A call to the STATION HUNTING-TERMINAL group will bypass Station A if that station is both busy and has set CALL FORWARDING-BUSY LINE [C-2]. The next station in the group will ring.
  - d.) A CALL FORWARDING-OVERRIDE call from Station B to Station A will not hunt if Station A is busy.
  - e.) If the Pilot sets CALL FORWARDING-BUSY LINE [C-2] to Station B: During a Call Forward-Override call from Station B to the Pilot, if the Pilot station is idle, the Pilot will ring. If the Pilot station is busy, the call will hunt.



6. STATION MESSAGE DETAIL RECORDING [S-10]: The number recorded is the telephone number where the call actually terminates.
7. STATION HUNTING-CIRCULAR supersedes the ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] and CALL WAITING-TERMINATING [C-12] features.
8. When using a Phantom Number for the pilot station, consider the following:
  - a.) Whether to use the Phantom Number to start the station hunt or not can be selected by the APHN command. When using the Phantom Number, assign "1" in the PH parameter. If not, assign "0".
  - b.) When PH = 1: Station hunt starts by dialing either the pilot station number or its Phantom Number. Both numbers can be the pilot number.

## Interactions (cont'd)

- c.) When PH = 0: Station hunt starts by dialing the pilot station number only. The feature is not provided when the Phantom Number is dialed.



9. The lead station is the first station programmed in the ASHP command.
10. When Programmed on LDM:
  - a.) When activating this feature via FCCS, when CALL FORWARDING - ALL CALLS [C-5] is in service at a pilot station, a call directed to the station is forwarded to the designated station.
  - b.) When activating this feature via FCCS, when an incoming call to a pilot station is forwarded by CALL FORWARDING - BUSY LINE [C-2] and the forwarded party (also a member of another hunting group) is also busy, the resultant hunt target can be designated from the forwarding side group or the forwarded side group. This can be specified by the ASYD command. For further information, refer to Programming.
  - c.) When activating this feature via FCCS, if the following occurs, a non-pilot station is skipped in the hunting circulation process:
    - When CALL FORWARDING - ALL CALLS [C-5] is set at the non-pilot station.
    - When CALL FORWARDING - BUSY LINE [C-2] is set at the non-pilot station and the station is actually in the busy state.
  - d.) When activating this feature via FCCS, CALL FORWARDING - DON'T ANSWER [C-3] will respond to any call (both pilot and non-pilot stations). After a certain period of no answer, the call is forwarded to the designated station.
  - e.) When activating this feature via FCCS, this feature is not available for a call in recall state by CALL BACK [C-1] or CALL HOLD [C-6].
  - f.) When activating this feature via FCCS, a Hot Line station cannot be assigned as a member of the hunting group.

**Interactions (cont'd)**

- g.) When using a Phantom Telephone Number (PHTELN) for the pilot station, consider the following:
- Whether to use the PHTELN to start the station hunt or not can be selected by the command APHNL. When using the PHTELN, assign "1" in the PH parameter. If not, assign "0".
  - When PH = 1: Station hunt starts by dialing either the pilot station number (telephone number) or its Phantom Telephone Number. Both numbers can be the pilot number.
  - When PH = 0: Station hunt starts by dialing the pilot station number (telephone number) only. The feature is not provided when the PHTELN is dialed.

# S-10 Station Message Detail Recording (SMDR)

## General Description

This feature provides a call record for all outgoing station to trunk calls and incoming trunk to station calls. When the system is equipped with this feature, an RS232C output port or a SOCKET interface (LAN) is provided, permitting interface with a customer-owned computer system. All output is in the ASCII format, and includes the following:

- Calling telephone number
- Dialed number (24 digits maximum)
- Route number
- Start of call time
- Disconnect time
- Year, month and date
- Condition (Attendant handled, transfer, etc.)
- ACCOUNT CODE [A-18] (10 digits maximum)
- AUTHORIZATION CODE [A-28] (10 digits maximum)
- FORCED ACCOUNT CODE [F-7]

## Additional FCCS Format

- Called Party Type (Attendant Console/station)
- Call Start/Call end time (millisecond)
- Call metering
- FPC/User Group/Telephone number (calling party)
- FPC/User Group/Telephone number (called party)
- FPC of the node providing the route for the call
- Logical Route Number
- FPC of the node providing the first-choice route
- First-choice Logical Route Number

## Operating Procedure

No manual operation is required. Call record outputs are produced automatically.

## Service Conditions

- RS232C Interface Conditions:
  1. SMDR information facilitates analysis of trunk traffic and can be readily applied for cost allocation or billing purposes.
  2. SMDR may be programmed to record either all outgoing calls or only toll calls, depending upon user requirements.
  3. Both incomplete and abandoned calls will be discarded by the SMDR.
  4. When ROUTE ADVANCE [R-6] or LEAST COST ROUTING (LCR) - 3/6-DIGIT [L-5] is provided with the system, SMDR will record the route number selected.
  5. The maximum number of digits dialed cannot exceed 24.
  6. When customer-owned computer equipment is connected via RS232C interface, SMDR information will be transmitted directly to the computer as each call record is completed.
  7. If the outgoing call is directed to a trunk that cannot give answer supervision from the Central Office, the start of call time is 18 seconds after the last digit is dialed. This timer value is set on the System Data.

**Service Conditions (cont'd)**

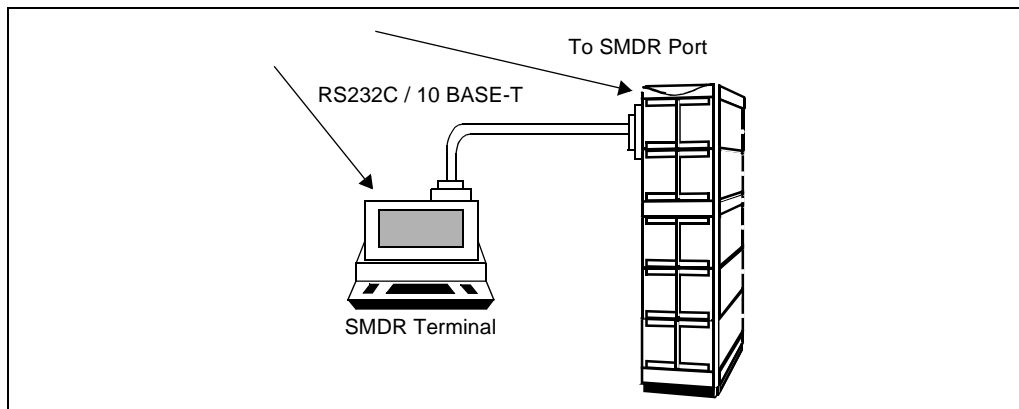
8. If the distance between the system and the processing computer exceeds 50 feet (15 meters), an asynchronous-type modem should be used.
9. RS232C Interface specifications:
 

Synchronization	Asynchronous
Data Speed	300, 600, 1200, 2400, 4800, 9600bps
Code	ASCII 7-Bit + parity Bit
Maximum Distance	50 ft. (15m) without modem
10. Supervision on the status of the external RS232C terminal is not performed.
11. FORCED ACCOUNT CODE [F-7] can be recorded on SMDR, for INWATS and CO incoming calls, when used in conjunction with the REMOTE ACCESS TO SYSTEM [R-2] service feature.
12. FORCED ACCOUNT CODE [F-7] cannot be registered on SMDR if the incoming REMOTE ACCESS TO SYSTEM [R-2] calls are terminated to stations via night service or DID [D-8].
13. For REMOTE ACCESS TO SYSTEM [R-2] tandem connections, the FORCED ACCOUNT CODE [F-7] is registered for outgoing trunks only.
14. The PBX can accommodate up to 7 active ports or 4 redundant ports. Additional hardware is required.
15. AUTHORIZATION CODE [A-20] can be recorded on SMDR.
16. The maximum number of simultaneous calls can be stored in the system memory (active calls) is 28,000. When a call is completed, the record is sent to the output device and is removed from memory.
17. If an overflow occurs, calls are allowed to complete and are not recorded.
18. ATTENDANT-CONTROLLED CONFERENCE [A-2]: If the Attendant adds a trunk to the conference, the Attendant conference line terminal is recorded.
19. LEAST COST ROUTING - 3/6-DIGIT [L-5]: The calling party can dial an ACCOUNT CODE [A-18] before the LCR access code. The called number is recorded (as modified for sending).
20. If an ACCOUNT CODE [A-18] is dialed, the maximum digits of the called number is 22.
21. CENTRALIZED ATTENDANT SERVICE (CAS) [C-20]: The SMDR record is provided for calls extended outward by a CAS Attendant.
22. DIRECT INWARD DIALING (DID) trunk calls [D-8]: If the call is to the Attendant, the Attendant can input an ACCOUNT CODE [A-18] before extending the call.
23. INDIVIDUAL TRUNK ACCESS [I-4]: The Attendant cannot dial in an SMDR account code before using direct trunk selection.
24. Incoming TIE trunk calls: If an incoming call to the Attendant is extended, the Attendant can input an ACCOUNT CODE [A-18].
25. SERIAL CALL [S-15]: The duration of the total call is recorded on the last station call.
26. STATION HUNTING [S-7, 8, 9]: The hunted-to station is recorded in the called number field.
27. TANDEM TIE TRUNK [T-1] Calls: The calling number is the incoming trunk route plus trunk number; the called number is the number dialed.
28. UNIFORM CALL DISTRIBUTION (UCD) [U-1]: The calling number is the incoming trunk route plus trunk number. If the call is to a station, the station answering the number is recorded as the dialed number.
29. On an incoming trunk call to the Attendant, the Attendant call record will start upon answering and complete when the Attendant releases. A station call record will start when the Attendant releases and complete when the station goes on-hook. If required, a station record will not be generated if the station does not answer.
30. A system option is available to allow or restrict call completion in the case where a failure occurs in transmitting SMDR data from the processor to the I/O port.



## Service Conditions (cont'd)

31. Additional hardware is required.



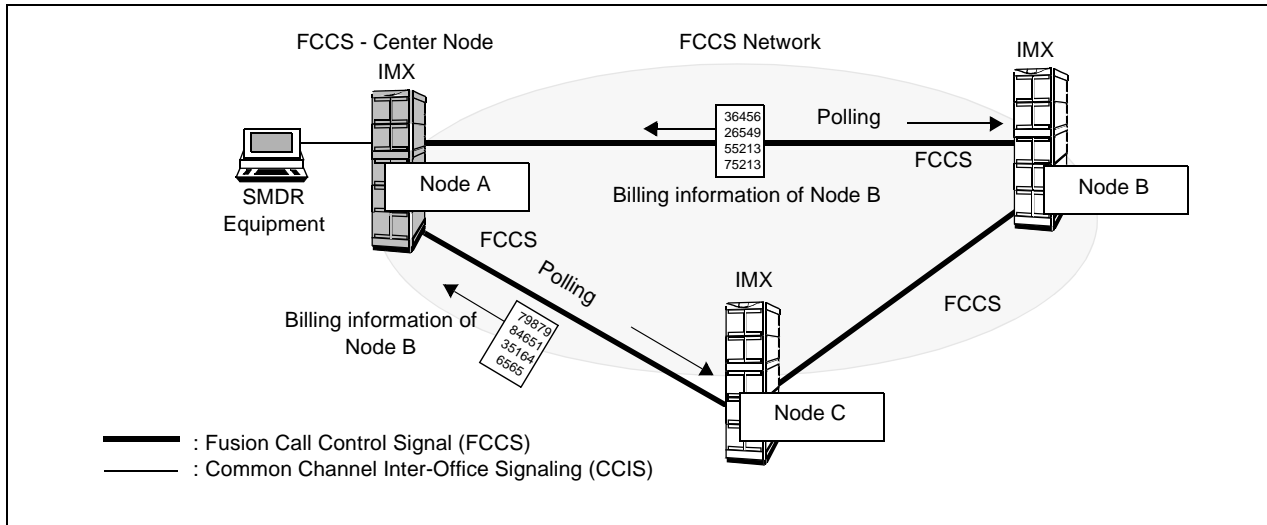
32. Call Time specification for the FCCS network:
- The base for Call Start Time and Call End Time is the time in the calling party-side node.
  - In case there is time difference between each node, related time difference data, based on the UCT (Universal Coordinated Time) standard, should be written in Network Data Memory (NDM) by using the ATDF command.
  - Because billing information gathering is performed in the called party-side node, the Call Start Time in the originating node is determined in a way the deduction of time between calling and called party nodes is added or subtracted to/from the called party-side time. (If there is no time difference data in any [both] of the nodes, the Call Start Time is specified automatically by that in the called party-side node.)
  - A counter, not the clock providing the current time, is used for Call End Time calculation. The calculation method is as follows:
    - a.) Call Start Time (by using the clock) and the current counter value are registered to the Call Base Table, soon after a line connection is established.
    - b.) Upon the call completion, the deduction between the counter value shown in a.) and that renewed during the call exchange is calculated.
    - c.) The deduction is transformed to a time (hour, minute, second, milli-second) format.
    - d.) The transformed time is added to the Call Start Time registered in a.)-End.
  - The counter-based time is renewed in every 16.384 msec.
33. Maximum number of active calls available for concurrent storage in the system memory is 28,000 per system. When a call is completed, the record is sent to the output device and is removed from the memory.
34. If an overflow occurs, calls are allowed to complete but are not recorded.
35. To output the FCCS-related billing data, the external SMDR terminal should be compatible also with the IMX text format patterns.
36. When a station originates an outgoing trunk call using a trunk in the remote node (the station and the trunk belong to an FCCS network), the billing information for the station to trunk connection is not recorded.
37. Because the FCCS service achieves a completely fused link between multiple distant nodes, intrastation connections and node-to-node connections are theoretically considered identical.
38. When a line connection is established on the FCCS link, the billing data concerned is collected fully in the called station-side node, not in the calling station side. The collected data is then transmitted to the SMDR terminal as the call finishes.
39. Multiple Center Nodes can be assigned on a FCCS network for centralized billing purposes.
40. Transmission of call base table with 220 bytes.

### Service Conditions (cont'd)

41. The figures on the following pages show the Service Conditions of Polling Method, focusing on when CCIS links are involved.

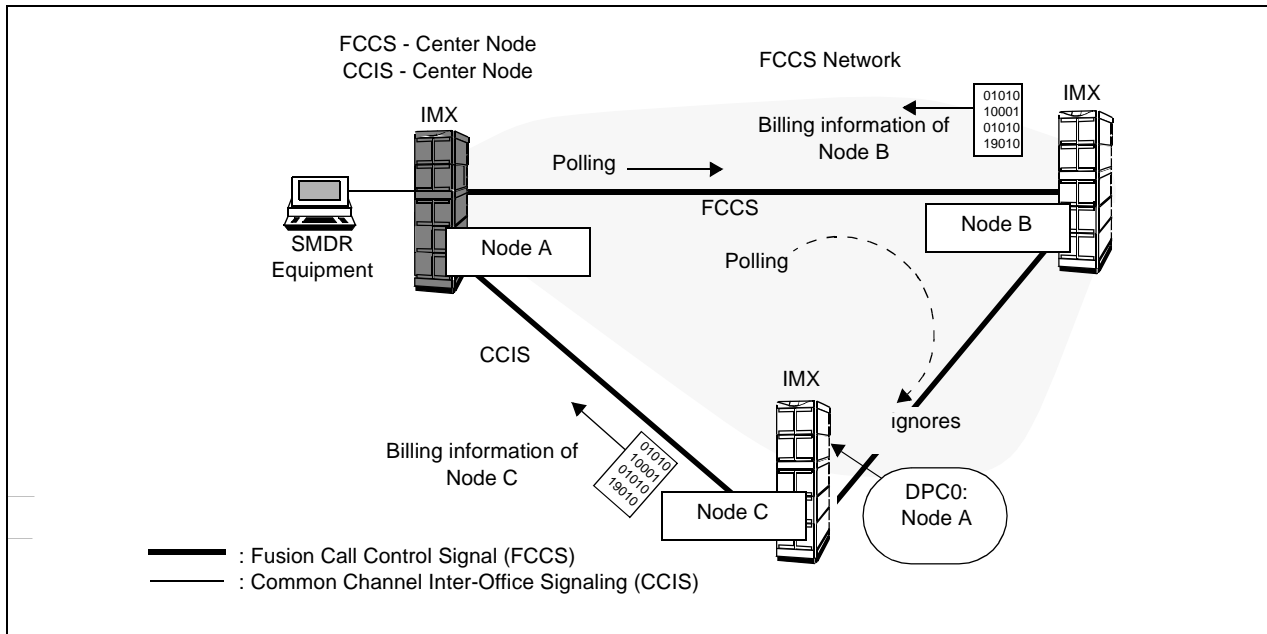
#### Example 1

- Node A (Fusion - Center Node) Collects the billing information of Nodes B and C via FCCS using the polling method.



#### Example 2

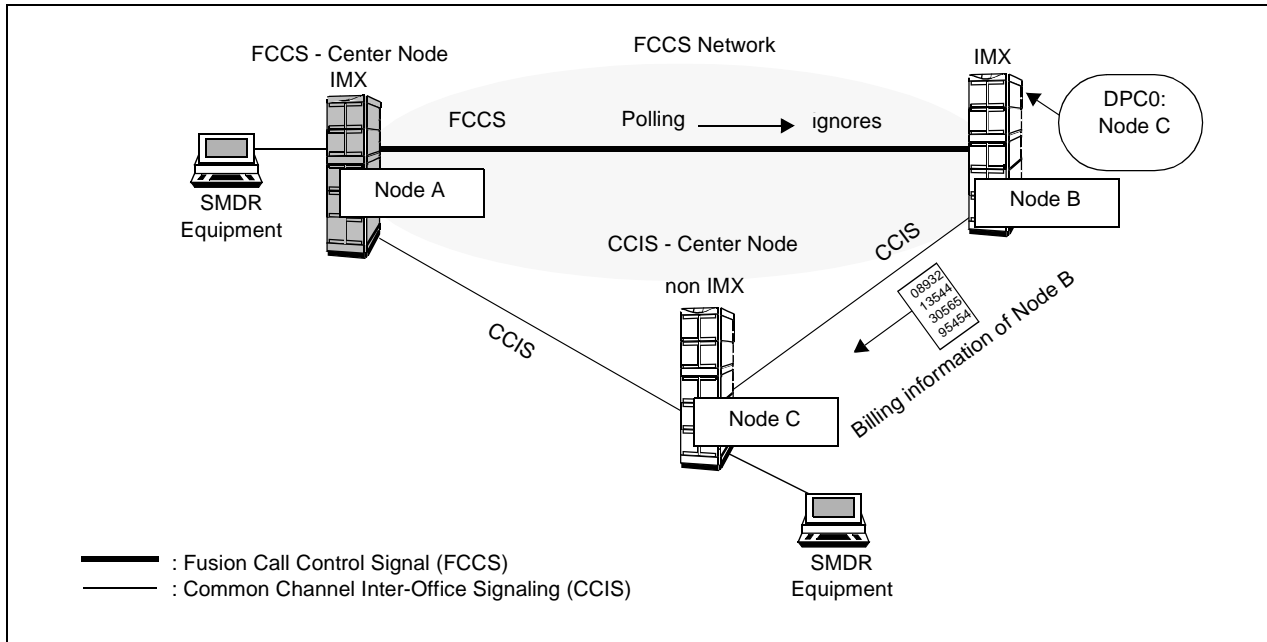
- Node A tries to collect the billing information of Node B and Node C via FCCS, using the polling method (Node A cannot collect the billing information of Node C via FCCS).
- Node C sends the billing information via CCIS, ignoring polling from Node A.
- Node C deletes the Point Code (CCIS) of Node A for centralized billing data when required to send billing information for polling from Node A.



**Service Conditions (cont'd)**

**Example 3**

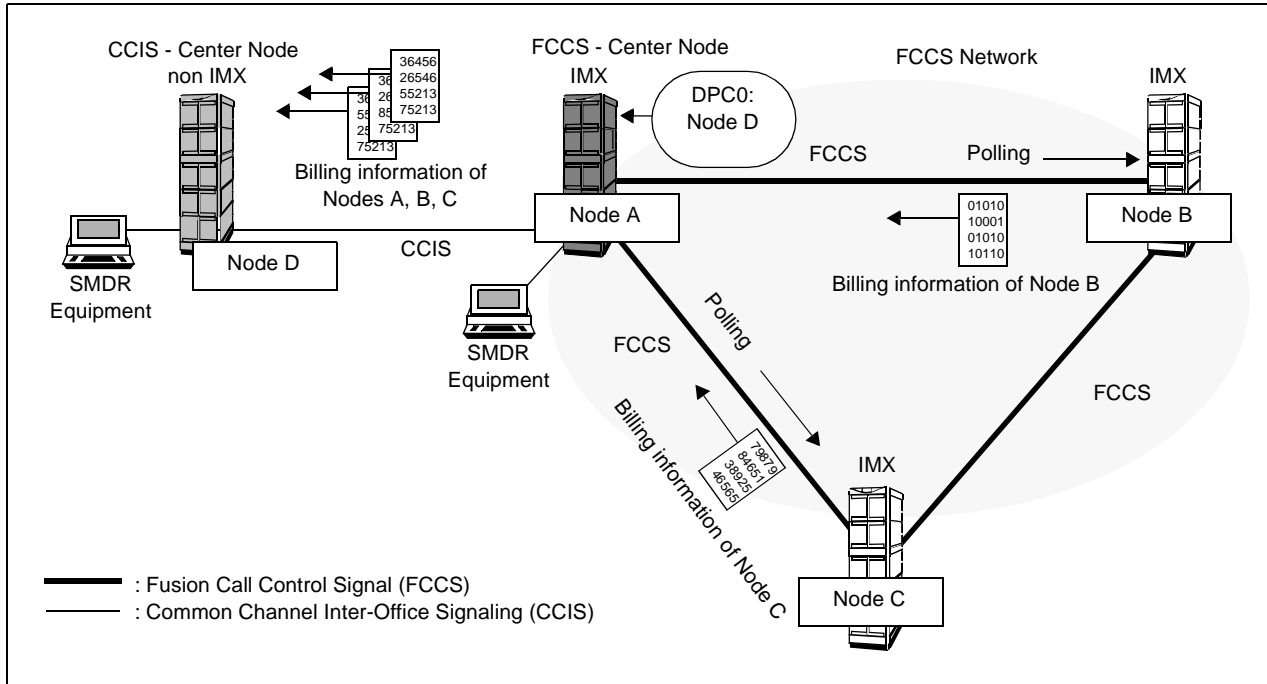
- Node A tries to collect the billing information of Node B via FCCS, using the polling method (Node A cannot collect the billing information of Node B via FCCS).
- Node B sends the billing information via CCIS, ignoring polling from Node A.
- Node B deletes the Point Code (CCIS) of Node C for centralized billing data when required to send billing information for polling from Node A.



Service Conditions (cont'd)

Example 4

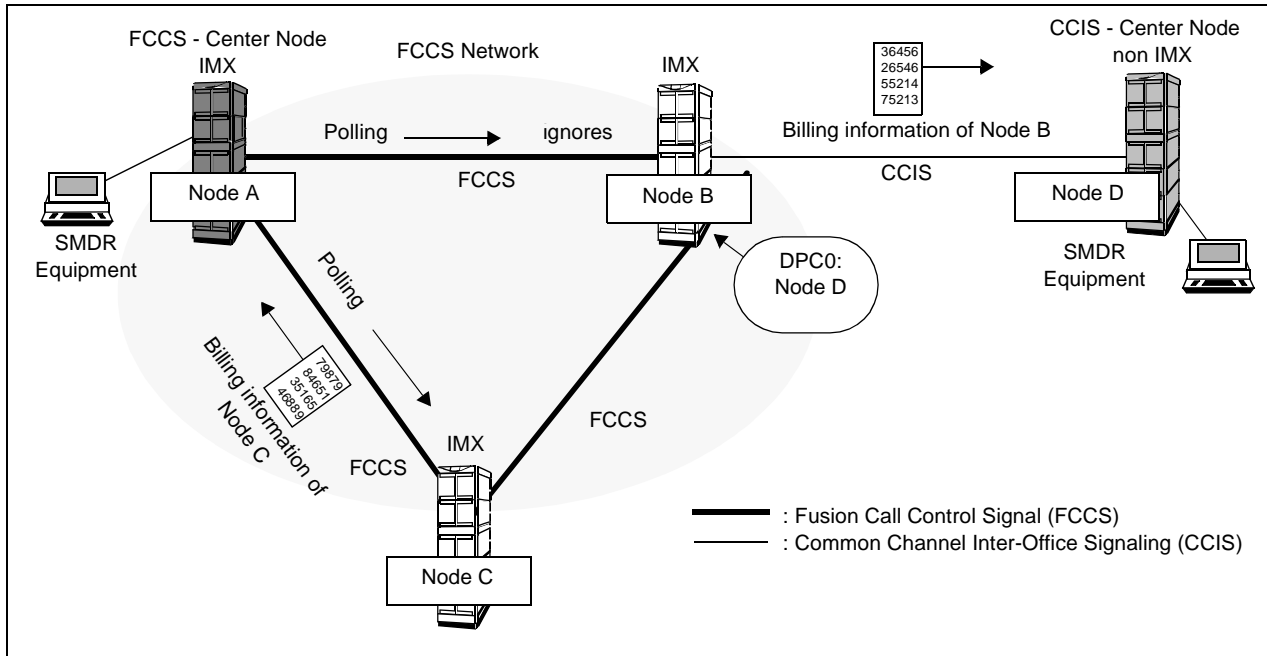
- Node A collects the billing information of Node B and Node C via FCCS, using the polling method.
- Node A sends the billing information of Node A, Node B and Node C.



**Service Conditions (cont'd)**

**Example 5**

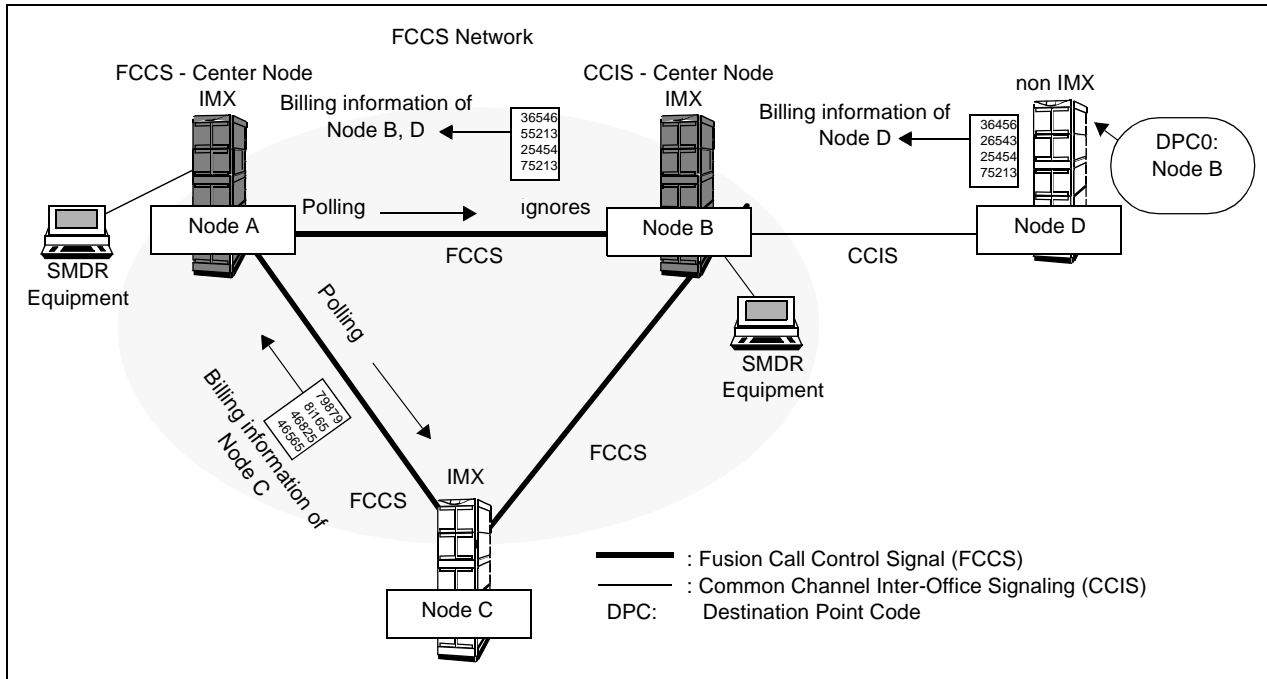
- Node A collects the billing information of Node B and Node C via FCCS, using the polling method (Billing information of Node B cannot be collected).
- Node B sends the billing information to Node D via CCIS, ignoring polling from Node A.
- Node B deletes the Point Code (CCIS) for Node D when Node B wants to send billing information for polling from Node A.



## Service Conditions (cont'd)

### Example 6

- Node A collects the billing information of Node B, Node C and Node D, which are stored in Node B by polling method.
- Node D sends the billing information to Node B.



- SOCKET Interface (LAN Interface) Conditions:
  42. SMDR data can be output via LAN cable.
  43. A maximum of four SMDR apparatuses per node are available.
  44. When providing this feature with LAN interface, IMX text format must be designated by the ASYDL command (SYS 1, Index 578-581, b0).
  45. SMDR apparatus with LAN interface and SMDR apparatus with RS232C interface cannot be connected to the same node.

## Interactions

1. If LCR(S) is provided, the LCR(S) access code is listed in ARNP. If an outgoing route is not used in LCR(S), then list the OGCA access code in ARNP.
2. To test SMDR output, it is recommended that a serial printer or breakout box be used to determine if the system is sending data.
3. CALL TRANSFER-ALL CALLS [C-11]: Either the first station, last station, or split billing is allowed with SMDR. Split billing provides a separate call record for both before and after a call transfer.
4. ATTENDANT CAMP-ON WITH TONE INDICATION [A-1]: The called station number is recorded for incoming C.O. calls via the Attendant Console (RRI 2 of ARSC). To record the time a destination station is on a call, split billing or last station billing is required. With split billing, the time the Attendant Console is on the call is separated from the time the destination station is on the call. For last station billing, the destination station is charged with the entire time of connection.

**Interactions (cont'd)**

5. LEAST-COST ROUTING-3/6-DIGIT [L-5]: SMDR will record the digits sent rather than the digits dialed.
6. The destination station is recorded on SMDR for the following features:

CALL FORWARDING	[C-2, 3, 5]
CALL PICKUP	[C-7, 30]
7. CALL FORWARDING-INTERCEPT [C-25]: An incoming trunk call responds to Call Forwarding-Intercept to the Attendant Console. SMDR records the call as if it is a direct call to the Attendant Console.
8. NIGHT CONNECTION-FIXED/FLEXIBLE: Calls terminated to these stations are recorded on SMDR.
9. OUTGOING TRUNK QUEUING [O-2]: SMDR records the outgoing call when the system recalls the user and the digits are sent, not when the trunk is queued.
10. REMOTE ACCESS TO SYSTEM [R-2]: The incoming route and trunk number is recorded as the calling party. If FORCED ACCOUNT CODE [F-7] is used, it will be recorded on SMDR. REMOTE ACCESS TO SYSTEM via a DID will not record FORCED ACCOUNT CODE on SMDR.
11. TRUNK-TO-TRUNK CONNECTION [T-10] and TIE LINE ACCESS [T-3]: SMDR records an incoming TIE Line that uses TRUNK-TO-TRUNK CONNECTION to make an outgoing call. The TIE Line route and trunk number is recorded as the calling party. The outgoing route is programmed for SMDR in ARTD, not the incoming TIE Line route.
12. CALL WAITING-TERMINATING [C-12]: SMDR will begin recording the call when the call is answered, not when a Call Waiting Tone is heard.
13. ADD ON CONFERENCE - 8 PARTY [A-121]: When output of the billing information for the C.O. call and station-to-station call is not restricted on either station or port for the calling/called party, the billing information for the station-to-station call is output to SMDR.

# S-11 Station-to-Station Calling

## General Description

This feature permits any user to directly dial another station within the NEAX2400 IMX system without operator assistance.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the desired telephone number.

## Service Conditions

1. If the called station is off-hook, the originating station receives a busy tone. Otherwise, the called station will ring and the caller will hear a ringback tone.
2. If the called station remains unanswered for longer than a preset interval, the call will not be transferred to the ATTENDANT CONSOLE [A-3], unless CALL FORWARDING-DON'T ANSWER [C-3] is provided.
3. If the called station is busy, the call will not be transferred to the Attendant Console, unless CALL FORWARDING-BUSY LINE [C-2] is provided.
4. Station-to-station calling between TENANTs [T-12], will not be restricted, unless programming for such restriction is entered in System Data.
5. The maximum number of digits per telephone number is 16.
6. The same telephone numbers cannot be duplicated in different TENANT [T-12] groups.
7. Calling Party Release/Called Party Release/Both Party Release/First Party Release can be selected on a system basis.
8. The following features, if activated, may result in the calling user to be connected to a station other than the dialed station:
 

CALL FORWARDING - ALL CALLS/BUSY/DON'T ANSWER	[C-5, 2, 3]
CALL PICKUP	[C-7, 30]
STATION HUNTING	[S-7, S-8, S-9]
UCD	[U-1]
9. When HOT LINE [H-1] service is provided, the calling user automatically connects to a preset number by going off-hook. The preset number may be another station, an Attendant, or an outside party.
10. When the calling user dials an unassigned telephone number, the call will be routed to reorder tone or Announcement (option).
11. An option per station line is available to eliminate the STATION 5dB PAD [S-62].

## Interactions

1. The ATNR command is required for all station-to-station calling.
2. The normal 5 dB PAD loss inserted for station-to-station calling may be eliminated on a per-station basis. For these stations, assign a Service Feature Class that allows SFI 50, Removal of 5dB pad for Off-Premises Extensions (OPX).



---

# S-12 Station-to-Station Calling - Operator Assistance

## General Description

This feature allows a user to call another station within the PBX, with the assistance of the ATTENDANT CONSOLE [A-3] operator.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the operator access code (normally "0").
3. Relay the desired telephone number to the Attendant.
4. The Attendant dials the telephone number.
5. Calling and called parties are connected when the Attendant presses the RELEASE key.

## Service Conditions

1. The Attendant may drop out of the connection before or after the called party has answered.
2. If the called station does not answer within 30 seconds, AUTOMATIC RECALL [A-8] will be activated. The Recall Timer length is set in System Data.
3. Using this feature, the Attendant may connect the calling party to a fully-restricted station.
4. STATION-TO-STATION CALLING-OPERATOR ASSISTANCE between TENANTs [T-2] will not be restricted, unless such a restriction is programmed in System Data.
5. The Fusion Point Code of the node which accommodates the called Attendant Console must be assigned after System Data assignment.

## Interactions

1. The ATNR command is required for all station-to-station calling.
2. The normal 5 dB PAD loss inserted for station-to-station calling may be eliminated on a per-station basis. For these stations, assign a Service Feature Class that allows SFI 50, Removal of 5dB pad for Off-Premises Extensions (OPX).
3. The Attendant Console must first be provided.
4. ATTENDANT CAMP-ON WITH TONE INDICATION [A-1]: The Attendant cannot camp-on a station-to-station call.

# S-13

# Step Call

## General Description

This feature allows the Attendant or user, upon calling a busy station, to call an idle station by dialing an additional digit. This feature will operate only if the number of the idle station is identical to that of the busy station in all respects, except the last digit.

## Operating Procedure

1. The dialed station (220) is busy.
2. Dial "5" (or any digit between 0 and 9).
3. If Station 225 is idle, the call will be connected there.

## Service Conditions

1. This feature can be provided for all stations and the Attendant Console(s).
2. STEP CALLING can be in any order, 0-9 or 9-0.
3. If the second selected station is also busy, STEP CALLING can continue until a station rings.
4. If a station is set for any type of CALL FORWARDING (ALL CALLS, BUSY LINE NO ANSWER [C-2, 3, 5]), the call forwarding will take effect.
5. CALL FORWARDING - ALL CALLS/BUSY LINE [C-2, 5]: The activation of a call forwarding feature by the called station can cause a STEP CALL to be completed to a station other than the dialed station.
6. CONSULTATION HOLD - ALL CALLS [C-17]: STEP CALL can be activated when a busy tone is returned on a Consultation Hold attempt.
7. The STEP CALL feature is not operational for trunk incoming calls to PBX stations.

**Note:** *STM:2 and STS:6 should be assigned as 1 by ASTD command, to restrict Step Call on DID.*

8. A STEP CALL to a station in LINE LOCKOUT [L-3] or maintenance busy state will result in a reorder tone.

## Interactions

1. A STEP CALL can search through an entire group to find an idle station.
2. CALL FORWARDING [C-2, 3, 5]: STEP CALL will respond according to the numbering scheme of the dialed station. Station A (7526) call forwards his phone to Station B (7128). Station B is busy. The calling station dials 7526 and receives busy tone. The calling station then dials 2. The call terminates at 7522.
3. CONSULTATION HOLD-ALL CALLS [C-17]: STEP CALL can be used when encountering a busy station via CONSULTATION HOLD.
4. LINE LOCKOUT [L-3]: A STEP CALL to a station in LINE LOCKOUT [L-3] results in reorder tone. Another digit can be dialed to reach an idle station.
5. When STEP CALL [S-13] is used after LAST NUMBER CALL [L-6, 6D] service with the access code, the destination of STEP CALL is changed depending on the access code of the LAST NUMBER CALLED [L-6, 6D] service because the PBX recognizes the access code of LAST NUMBER CALLED as the telephone number. In other words, the target number for STEP CALL is not the telephone number dialed before LAST NUMBER CALLED, but the number dialed as the LAST NUMBER CALLED access code. For example:
  - a.) Station A places a call to Station B (4000) by dialing "300", which is the access code of LAST NUMBER CALLED.

**Interactions (cont'd)**

- b.) Station A hears busy tone since Station B is busy.
- c.) Station A dials "1" using STEP CALL.
- d.) The PBX recognizes that "301" is dialed.

# S-15

# Serial Call

## General Description

This feature allows the Attendant to arrange for a recall from a station before releasing a Central Office call to that station. When the station subsequently disconnects from the call, the Central Office party automatically rings back to the Attendant.

## Operating Procedure

1. Answer the incoming Central Office call.
2. Extend the call to the desired station.
3. Press the SERIAL CALL (SC) key; the HOLD lamp corresponding to the loop will light.
4. The called station and incoming station are connected.
5. The called station hangs up; the HOLD lamp and the ATND lamp on the Attendant Console flash at 60 IPM. If the Attendant position is available, an audible indication will be provided.
6. Press the associated loop key to return to the incoming calling party.

## Service Conditions

1. This service feature is effective only for incoming calls from external trunks.
2. If the Attendant enters a loop that is already set up for SERIAL CALL, the service is automatically cancelled.
3. SERIAL CALL (SC) is not provided for station-to-station calling.
4. SERIAL CALL can be provided on a per-tenant basis.
5. SERIAL CALLING is allowed when a station is involved in an ATTENDANT CONTROLLED CONFERENCE [A-2].
6. STATION MESSAGE DETAIL RECORDING (SMDR) [S-10]: The duration of the total call is recorded on the last station call.
7. When the ATTENDANT LOCKOUT [A-5] feature is provided, the Attendant cannot reenter the connection without being recalled.
8. This feature is not applicable for tandem connections.
9. In the Loop Release system, once this service is set, the attendant position enters the idle state, and the established call is released from the loop, enabling all hooking services at the extension side. ASYD, System Data 1, Index 186, bit 4 = 1.
10. The Attendant sets this service by pressing the SC key when the extension user answers.
11. It is not possible to release this service once it is set.
12. If the operator presses the SC key before the called extension answers (Non-Delay mode service setting), the external calling party receives a ringback tone, and the Attendant position enters the idle state.
13. In the Non-Delay mode service, setting the extension loop release does not occur until the called extension answers, even though the Loop Release system is specified by the System Data setting (System Data 2 INDEX 2 b5 = 1). The operator is allowed to reenter the connection before the extension answers, though the SERIAL CALL service remains set.
14. CALL PICKUP GROUP [C-7] feature can be used for answering a call handled by the operator in the Non-Delay service setting mode.
15. CALL FORWARDING-DON'T ANSWER [C-3] feature cannot be used if SERIAL CALL is set.

## Service Conditions (cont'd)

16. SERIAL CALL termination is indicated to the Attendant by means of the HOLD or SC/RC lamp and buzzer indication. ringback tone is sent to the external calling party up to the time the Attendant answers the indicated serial call.
17. SC termination indication goes off if the external calling party is released before the Attendant answers the indicated serial call (in case of TIE Line connection).
18. Either the SC/RC key or the ANSWER key is used to answer a serial call if ASYD System Data 1, Index 186, Bit 4 is "1".
19. SERIAL CALL service is automatically released when the operator answers the indicated serial call.
20. The Day-To-Night mode change does not interrupt the indication of serial call termination.
21. Attendant supervision of a SERIAL CALL on the ATTENDANT CONSOLE [A-3] is provided via the loop status lamps. After an incoming trunk call is extended to a station and the called station goes on-hook, the Attendant is alerted by the flashing HOLD indicator lamp.
22. The following features are denied toward a line or trunk involved in a SERIAL CALL if ASYD, System Data 1, Index 186, bit 4 = 0:
 

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
ATTENDANT OVERRIDE	[A-7]
BUSY VERIFICATION	[B-3]
BOSS-SECRETARY OVERRIDE - D <sup>term</sup>	[B-6D]
CALL HOLD	[C-6, 6D]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
EXECUTIVE RIGHT-OF-WAY	[E-1, 1D]
23. When CALL WAITING - TERMINATING [C-12], CALL WAITING - ORIGINATING [C-31], Attendant Camp-On, or Attendant Camp-On - CCIS is set to the station already engaged in a SERIAL CALL, the following conditions occur:
  - a.) If the station answers the overriding call, the party formerly engaged in the SERIAL CALL is placed on hold. When the station releases and does not return to the held call, the Attendant is recalled.
  - b.) If the station does not answer the overriding call, Call Waiting or Attendant Camp-On is activated.

## Interactions

1. Features requiring the switch hook to be flashed are available. These include CALL TRANSFER-ALL CALLS [C-11], CALL PICKUP [C-7, 30], CONSULTATION HOLD [C-17], and CALL HOLD [C-6] if ASYD System Data 1, Index 186, Bit 4 is "1".
2. EXECUTIVE RIGHT-OF-WAY [E-1], BUSY VERIFICATION [B-3], and ATTENDANT OVERRIDE [A-7] are available towards a station/trunk involved in a Serial Call, if ASYD System Data 1, Index 186, Bit 4 is "1".
3. If a Serial Call is transferred to a second station, when the second station hangs up, the Serial Call will return to the Attendant Console if ASYD, System Data 1, Index 186, Bit 4 is "1".

**Note:** The SC (Serial Call) key is the key right of the DEST key. The SC/RC (Serial Call Recall) key replaces the CCSA key if ASYD System Data 1, Index 186, Bit 4 is "1".

# S-19

# Single-Digit Feature Code

## General Description

This feature allows the system to be programmed so that features used most frequently may be accessed by dialing a single digit.

## Operating Procedure

To access a desired feature, refer to the Operating Procedure section of that particular Feature Description.

## Service Conditions

1. When accessing SINGLE-DIGIT FEATURE CODES, consideration must be given to the overall numbering plan of the particular system, unless timing start has been provided.
2. Timing start is not available with this feature.

## Interactions

1. For each feature with one-digit access, an entire number level is eliminated. Do not plan to have more than one or two such features in a system.
2. The corresponding feature cancel code does not have to be a single digit.
3. TRUNK ANSWER ANY STATION [T-8], SPEED CALLING-SYSTEM [S-3], and DIAL ACCESS TO THE ATTENDANT [D-2] are three applications for SINGLE-DIGIT FEATURE CODE.
4. The digit "\*" or "#" can be used as the first digit of a trunk access code and can be used as a feature access code.

# S-21

# Speed Calling - Station

## General Description

This feature allows a user to dial certain frequently-called exchange network numbers using fewer digits (abbreviated call codes) than normally required. Using this feature, a user can establish his own abbreviated codes.

## Operating Procedure

1. Lift handset or press SPEAKER key; receive dial tone.
2. Dial SPEED CALLING; enter access code (one to three digits). **(Note)**
3. Dial the abbreviated call code (one to three digits); call is completed.

### To set using the Primary Station only:

1. Lift handset; receive dial tone.
2. Dial SPEED CALLING; enter feature access code (one or two digits). **(Note)**
3. Dial the abbreviated call code (one to three digits). At this point no tone is returned.
4. Dial the outgoing number, including the route access code. A brief pause will occur before receiving service set tone.

**Note:** *If one digit code is used, the format must be 00 to 99.*

### To operate from a D<sup>term</sup>:

1. Press the REDIAL key; receive dial tone. The LCD displays:

LNR [\*] / SPEED [ \_ \_ ]  
(Time Display)

2. Press the desired call code; the call is completed.

## Service Conditions

1. SPEED CALLING-STATION codes are programmed into RAM memory per Local Processor.
2. **(Series 7400 software enhancement)** Each abbreviated call code can store a maximum of 24 digits, including access codes and pauses. When using software prior to Series 7400, a maximum of 18 digits can be stored, including access codes and pauses.
3. A maximum of 100 stations per Module Group can be equipped with SPEED CALLING-STATION.
4. 100 memory blocks per Module Group are assigned for speed calling. A maximum of 10 numbers can be stored in each memory block. This allows for a total of 1,000 numbers per Module Group.
5. Each station can be assigned 10 memory blocks for speed calling; therefore, it can be programmed for 100 numbers maximum.
6. TOLL DENIAL/TOLL DIVERSION [T-6] and TOLL RESTRICTION-3/6-DIGIT [T-7] may or may not be applied to SPEED CALLING, as desired.
7. LEAST-COST ROUTING-3/6-DIGIT [L-5] may be provided via SPEED CALLING-STATION access.
8. Each user of an individual station equipped with this feature can program a personal speed calling numbers, via the single-line telephone.
9. If SPEED CALLING-STATION is assigned to a Local Processor, SPEED CALLING-GROUP [S-23] shares the same memory tables. Therefore, careful consideration should be given when programming.
10. SPEED CALLING-STATION data will be retained in memory, even if the system is reinitialized or in the event of a power failure, by means of a hard disk for a system.

**Service Conditions (cont'd)**

11. A pause may be programmed, using the “\*” key of a PB pad. This will take one of the 24 digits available. Rotary type phones cannot store a pause. A pause lasts 2.8 seconds.
12. It is not necessary to erase a stored number in order to store another number. The second number replaces the first.
13. When a caller places a call via Outgoing Call Alternative (OGCA), and when the first outgoing route and the station setting SPEED CALLING - STATION are restricted, this service cannot be set. In this case, the service can be set via the following procedure:
  - a.) assign a dummy route,
  - b.) clear the restriction between the dummy route and all the stations,
  - c.) assign the dummy route as the first route of OGCA.

**Interactions**

1. Blocks are not assigned sequentially (1-100), but are assigned as a quantity of blocks in the AISA command. These quantities will never exceed the value of 10.
2. If one block is assigned, the Abbreviated Call Code will be digits 0-9. If two blocks are assigned, the Abbreviated Call Code will be digits 00 - 19. If three blocks are assigned, the Abbreviated Call Code will be digits 00 - 29, and so on, to a maximum of 10 blocks with Abbreviated Call Codes 00 - 99.
3. Only the Primary Station will be allowed to use the SPEED CALLING-ASSIGN access code. When assigning the abbreviated SPEED CALLING access code and number, a delay of 6-8 seconds will occur until service set tone is returned.
4. Only those stations assigned as Secondary stations are considered to be members of the SPEED CALLING-GROUP.
5. Stations of a SPEED CALLING-GROUP (INDIVIDUAL) must be in the same Module Group (MG). Error 0238, “MG number of MY-Line/Primary station mismatch” is displayed.
6. SPEED CALLING-INDIVIDUAL requires the assignment of senders, route 905. See UNIVERSAL SENDER [\[U-3\]](#).
7. OUTGOING TRUNK QUEUING [O-2]. This feature may be used with SPEED CALLING-INDIVIDUAL (GROUP) if all trunks are busy.
8. ROUTE ADVANCE [R-6] and LEAST-COST ROUTING-3/6 DIGIT [L-5] may be used with this feature. The ASPA access code to either ROUTE ADVANCE [R-6] or LEAST-COST ROUTING-3/6 DIGIT [L-5] will be stored in the memory of the SPEED CALLING-GROUP number.



## S-23

# Speed Calling - Group

### General Description

This feature allows a user to share a set of common Speed Calling numbers with other users in the group.

### Operating Procedure

#### To record:

1. Lift handset or press SPEAKER key; receive dial tone.
2. Dial the SPEED CALLING access code (one to three digits).
3. Dial the abbreviated call code (one to three digits) and the called exchange network numbers; receive service set tone. **(Note)**

**Note:** *If one digit code is used, the format must be 00 to 99.*

#### To operate:

1. Lift handset; receive dial tone.
2. Dial the SPEED CALLING feature access code.
3. Dial the abbreviated call code (one or two digits).
4. Call is completed.

#### To operate from a D<sup>term</sup>:

1. Press the REDIAL key; receive dial tone. The LCD displays:

LNR [\*] / SPEED [\_ \_]  
(Time Display)

2. Press the desired call code; the call is completed.

### Service Conditions

1. A maximum of 100 memory blocks per Module Group can be equipped for SPEED CALLING-GROUP. A maximum of ten Speed Calling numbers per memory block can be assigned. This allows for a total of 1,000 numbers per Module Group.
2. A Primary station will be assigned memory blocks, and associate stations in that group are assigned as Secondary stations. The Primary station will have the capability to program 10 memory blocks commonly used as Speed Calling numbers for that group; therefore, a group can consist of 100 Speed Calling numbers maximum.
3. **(Series 7400 software enhancement)** Each abbreviated call code can store a maximum of 24 digits, including access codes and pauses. When using software prior to Series 7400, a maximum of 18 digits can be stored, including access codes and pauses.
4. A station can be assigned as a Primary station for only one group.
5. There is no limit to the number of Secondary stations that may be assigned to one group.
6. Secondary stations and their associated Primary station must belong to the same Module Group.
7. A Secondary station can only be assigned to one Primary group.
8. TOLL DENIAL/TOLL DIVERSION [T-6] and TOLL RESTRICTION-3/6-DIGIT [T-7] may or may not be applied to Speed Calling, as desired.
9. LEAST-COST ROUTING-3/6-DIGIT [L-5] may be provided via Speed Calling access.

**Service Conditions (cont'd)**

10. SPEED CALLING-GROUP and SPEED CALLING-STATION [S-21] use the same block of memory tables.
11. SPEED CALLING-GROUP data remains, even if the system is re-initialized or there is a power failure.
12. A pause may be programmed using the “\*” button of a PB pad. This will take one of the 24 digits available. Rotary type phones cannot store a pause. A pause lasts 2.8 seconds.
13. Stations can be added or removed from a group only via MAINTENANCE ADMINISTRATION TERMINALS (MAT) - [M-18].
14. When a caller places a call via Outgoing Call Alternative (OGCA), and when the first outgoing route and the station setting SPEED CALLING - GROUP are restricted, this service cannot be set. In this case, the service can be set via the following procedure:
  - a.) Assign a dummy route.
  - b.) Clear the restriction between the dummy route and all the stations.
  - c.) Assign the dummy route as the first route of OGCA.

**Interactions**

1. Blocks are not assigned sequentially (1-100), but are assigned as a quantity of blocks in the AISA command. These quantities will never exceed the value of 10.
2. If one block is assigned, the Abbreviated Call Code will be digits 0-9. If two blocks are assigned, the Abbreviated Call Code will be digits 00-19. If three blocks are assigned, the Abbreviated Call Code will be digits 00-29, and so on, to a maximum of 10 blocks with Abbreviated Call Codes 00-99.
3. Only the Primary station will be allowed access to the SPEED CALLING-ASSIGN access code.
4. Only those stations assigned as Secondary stations are considered to be members of the SPEED CALLING-GROUP.
5. Stations of a SPEED CALLING-GROUP must be in the same Module Group (MG).
6. SPEED CALLING-GROUP requires the assignment of senders, route 905. See UNIVERSAL SENDER [U-3].
7. OUTGOING TRUNK QUEUING [O-2]: This feature may be used with SPEED CALLING GROUP if all trunks are busy.
8. ROUTE ADVANCE [R-6] and LEAST-COST ROUTING-3/6 DIGIT [L-5] may be used with this feature. The ASPA access code to either ROUTE ADVANCE [R-6] or LEAST-COST ROUTING-3/6 DIGIT [L-5] will be stored in the memory of the SPEED CALLING-GROUP number.

# S-24D Save And Repeat - D<sup>term</sup>

## General Description

This feature allows for a D<sup>term</sup> set to save a specific dialed number and then redial that number later.

## Operating Procedure

1. Go off-hook, seize any idle line, and dial a number.
2. When the number has been dialed, press the SAVE AND REPEAT (S&R) feature key. The dialed number is stored for future use. The associated LED lights. The LCD displays:

Example: Saved Local Number

<b>S&amp;R</b>	<b>9-NXX-XXXX</b>
<b>(Time Display)</b>	

**Note:** *Dialed number displays only 16 digits (16DC, 24DS) when monitoring. However, 24 digits can actually be stored in memory.*

3. To access this number later, go off-hook, receive dial tone, press the S&R key; the saved number is dialed.

## Service Conditions

1. One number per station can be saved.
2. The save function may be set at any time after the number has been dialed and before going on-hook.
3. It is not necessary to erase a saved number in order to save another. The second number replaces the first.
4. A D<sup>term</sup> user may save the number of an incoming call, if the call originates at a station in the system. A call from an outside trunk cannot be saved.
5. If necessary, dialing can be added after a repeat operation.
6. To monitor the saved digits, press the S&R key while idle. The saved digits will be displayed on the LCD.
7. If the LED associated with S&R goes out, the memory is erased. The S&R key must be pressed again, using the above procedure, to retain the original memory.
8. To memorize the telephone number of the calling station, assign SYS1, Index 641, b0=1 (Telephone Number is available) by the ASYDL command.
9. When activating this feature via FCCS using a D<sup>term</sup> Series E, the following circuit cards are recommended:

Function Name	Circuit Card
16ELC	PA-16ELCJ
DAI	PA-DAIG, PA-DAIH, PA-DAIJ
2DAI	PA-2DAIK

**Note:** *If the above mentioned card is not used, the Caller ID Service is not provided and the telephone number and more than six digits of the calling station number cannot be saved.*

10. When activating this feature via FCCS, the calling number from an outside trunk can be saved, when the calling number information was received.

## Interactions

AKYD is assigned after ASDT is assigned. Assign a LEN as TEC 12.

# S-25D Service Display - D<sup>term</sup>

## General Description

This feature generates LCD displays corresponding to the various features as they are initiated.

## Operating Procedure

Each display is automatically generated when a feature is initiated.

## Service Conditions

- Each display is controlled by System Data and is produced accordingly. The service display may be allowed or denied in System Data on a per-system basis.
- The contrast on the LCD Display Panel is controlled by two buttons on the top front of the D<sup>term</sup>. Press the right (UP) button for a darker image or the left (DOWN) button for a lighter image.
- The LCD will display one of the features being used.

TRANSFER - CALL TRANSFER	[C-11]
PICKUP - CALL PICKUP	[C-7]
CF ALL - CALL FORWARDING - ALL CALLS	[C-5]
CF BUSY - CALL FORWARDING - BUSY LINE	[C-2]
CF NANS - CALL FORWARDING- DON'T ANSWER	[C-3]
HUNTING - STATION HUNTING	[S-7,8,9]
UCD UNIFORM CALL DISTRIBUTION	[U-1]

- For a transferred call, the LCD displays:

	Transferring Station	Transferred Station
<b>TRANSFER</b>	<b>XXXX</b>	<b>XXXX</b>
	<b>(Time Display)</b>	

**Note:** When the telephone number of the transferring/transferred station exceeds 8 digits, the last 8 digits are displayed. However, a maximum of a 16-digit transferred telephone number can be displayed on the middle line of the LCD, depending on system data.

# S-26D Speed Calling - One Touch - D<sup>term</sup>

## General Description

This feature allows D<sup>term</sup> users to dial telephone numbers by pressing a single key. Up to 12/24 numbers may be programmed by the D<sup>term</sup> user.

## Operating Procedure

### To program:

1. Press the FEATURE key.
2. Press the SPEED CALLING-ONE TOUCH button.
3. Dial the desired number.
4. Press the FEATURE key again.
5. Display will show SPEED SET.

**Note:** *The page-change function works as follows: If the Page button is not lit, Page 0 Speed Dial memory is being programmed. (This is the same memory that would be used if the Page feature were not being used.) To program Page 1, press the FEATURE, the SPEED CALLING-ONE TOUCH button, the desired number, and the FEATURE key again. Use of the Page feature allows twice the number of equipped speed buttons to be used.*

### To verify:

1. Press the FEATURE button and the desired SPEED CALLING - ONE TOUCH button: The first 16 characters will be displayed.

### To use:

1. Press the SPEED CALLING-ONE TOUCH button, the call will complete.

## Service Conditions

1. A maximum of 16 SPEED CALLING - ONE TOUCH keys can be programmed to any key number (KYN) in consecutive order, when using the appropriate firmware.

**Note:** *32 keys are available for the D<sup>term</sup> with a PAGE key (FKY = 55).*

2. A stored number may have up to 32 digits, including access codes and pauses.
3. Only the first 16 digits are displayed on the LCD.
4. SPEED CALLING-ONE TOUCH numbers may only be stored while the D<sup>term</sup> is idle.
5. Storing a SPEED CALLING-ONE TOUCH number erases the previously stored number.
6. After dialing the new number, the user must press the SPEED CALLING-ONE TOUCH key before the LCD displays the time. If the LCD displays the time before the user presses the key, the number has not been stored. The LCD displays SPEED SET when the number has been stored.
7. Pressing the RECALL key while programming a SPEED CALLING-ONE TOUCH number inserts a pause. A dash (“-”) is displayed on the LCD.
8. Pressing the RECALL key as the first digit of a SPEED CALLING-ONE TOUCH numbers inserts a flash entry. A “!” is displayed on the LCD.
9. If a VOICE CALL-D<sup>term</sup> (V-2D) feature is programmed, VOICE CALL initiation can be programmed onto a SPEED CALLING-ONE TOUCH key. The user dials the number and then presses the TRANSFER key when programming SPEED CALLING. The LCD will display “V” after the number. Pressing the SPEED CALLING-ONE TOUCH key initiates an automatic Voice Call to the programmed station.

**Service Conditions (cont'd)**

10. FLASH ENTRY and VOICE CALL features may be combined on a SPEED CALLING-ONE TOUCH key to activate an automatic voice-announce transfer. To program, press the SPEED CALLING-ONE TOUCH key, press the RECALL key, dial the number, press the TRANSFER key, then press the SPEED CALLING-ONE TOUCH key.
11. A PAGE CHANGEOVER key must be assigned to a programmable Line/Feature key to activate the second page of SPEED CALLING-ONE TOUCH numbers.

**Interactions**

1. The PAGE CHANGEOVER key is useful for changing the page of feature keys programmed as SPEED CALLING - ONE TOUCH (AKYD, FKY = 49) or the feature key programmed as Call Forwarding/Split Call Forwarding.
2. The Page Changeover function can be activated from any condition (idle, busy, conference, etc.).
3. When assigning SPEED CALLING-ONE TOUCH numbers to D<sup>term</sup>, if a previous number was not assigned to a particular SPEED CALLING-ONE TOUCH button, the display will not change when that particular button is pressed for programming (it will appear that nothing has happened; the middle portion of the LCD display will continue to display the date and time). Once a number is entered, it will be displayed on the upper portion of the LCD display.
4. The same SPEED CALLING-ONE TOUCH buttons are used for Page 0 and Page 1 numbers. The PAGE CHANGE-OVER key determines which page is selected.
5. There is no deletion of SPEED CALLING-ONE TOUCH numbers. Previously assigned numbers can only be overwritten.
6. SPEED CALLING-ONE TOUCH may be used to store FORCED ACCOUNT CODES [F-7] and AUTHORIZATION CODES [A-20]. Other forms of Speed Calling may not be used for FORCED ACCOUNT CODES [F-7] and AUTHORIZATION CODES [A-20].
7. When SPEED CALLING-ONE TOUCH is used on a programmable Line/Feature key, only eight digits may be stored.
8. When using a D<sup>term</sup> Series E, SPEED CALLING - ONE TOUCH can be programmed to any keys in consecutive order. A maximum of 16 one touch keys per LEN are allowable.
9. No more than three pauses can be entered in a row.

# S-27 Service Feature Peg Count

## General Description

This feature provides a statistical usage report on various features, generated at the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18]. This report will provide the Communications Manager with detailed users' habits and planning data for the communications system.

## Operating Procedure

Refer to NEAX2400 IMX System Operations and Maintenance Manual.

## Service Conditions

**The number of attempts to invoke the following features will be reported through the MAT:**

1. CALL HOLD [C-6] count: Number of times CALL HOLD code is dialed by stations for which the feature is allowed.
2. CALL BACK [C-1] count: Number of times CALL BACK set code is dialed by stations for which the feature is allowed.
3. CALL BACK [C-1] cancel count: Number of times CALL BACK is cancelled by stations that have set the feature.
4. EXECUTIVE RIGHT-OF-WAY [E-1] count: Number of times the EXECUTIVE RIGHT-OF-WAY code is dialed by stations for which the feature is allowed.
5. CALL WAITING-ORIGINATING [C-31] count: Number of times the access code for CALL WAITING-ORIGINATING is dialed by stations for which the service is allowed.
6. CALL WAITING-TERMINATING [C-12] count: Number of times CALL WAITING-TERMINATING is set to stations for which the feature is allowed.
7. CALL PICKUP-GROUP [C-7] count: Number of times the CALL PICKUP-GROUP code is dialed by stations for which the feature is allowed.
8. CALL PICKUP-DIRECT [C-30] count: Number of times the CALL PICKUP-DIRECT code is dialed by stations for which the feature is allowed.
9. CALL FORWARDING-ALL CALLS [C-5] entry count: Number of times a destination number is entered for CALL FORWARDING-ALL CALLS by stations for which the feature is allowed.
10. CALL FORWARDING-ALL CALLS [C-5] cancel count: Number of times the CALL FORWARDING-ALL CALLS cancel code is dialed by stations for which the feature is allowed.
11. CALL FORWARDING-BUSY LINE [C-2] entry count: Number of times a destination number is entered for CALL FORWARDING-BUSY LINE by stations for which the feature is allowed.
12. CALL FORWARDING-BUSY LINE [C-2] cancel count: Number of times the CALL FORWARDING-BUSY LINE cancel code is dialed by stations for which the feature is allowed.
13. CALL FORWARDING-DON'T ANSWER [C-3] entry count: Number of times a destination number is entered for CALL FORWARDING-DON'T ANSWER by stations for which the feature is allowed.
14. CALL FORWARDING-DON'T ANSWER [C-3] cancel count: Number of times the CALL FORWARDING-DON'T ANSWER cancel code is dialed by stations for which the feature is allowed.
15. SPEED CALLING ACCESS-SYSTEM [S-3] count: Number of times a fixed abbreviated number is dialed by stations for which the feature is allowed.
16. SPEED CALLING ACCESS-STATION [S-21] count: Number of times a variable abbreviated number is dialed by the stations for which the feature is allowed.

**Service Conditions (cont'd)**

17. SPEED CALLING ACCESS-GROUP [S-23] count: Number of times a variable abbreviated number is registered by stations for which the feature is allowed.
18. TRUNK ANSWER FROM ANY STATION (TAS) [T-8] count: Number of times the TAS Answer code is dialed by stations for which the feature is allowed.
19. OFF-HOOK QUEUING [O-7] count: Number of times an extension accesses an outgoing trunk via OFF-HOOK QUEUING after initially encountering a condition where all outgoing trunks are busy. The extension must actually access a trunk in order for the count to be incremented.
20. ON-HOOK OUTGOING QUEUING-ENTRY [O-2] count: Number of times an extension accesses the ON-HOOK OUTGOING QUEUING feature by dialing access or going on-hook (if automatic queuing is provided) after initially encountering a condition where all outgoing trunks are busy. The count will be incremented each time the feature is accessed, even if the queuing request is cancelled before a trunk is accessed.
21. ON-HOOK OUTGOING QUEUING [O-2] cancel count: Number of times ON-HOOK QUEUING is cancelled by dialing the cancel code.
22. CONSULTATION HOLD-ALL CALLS [C-17] count: Number of times CONSULTATION HOLD is executed.
23. CALL TRANSFER-ALL CALLS [C-11] count: Number of times a call is transferred to another extension before the called party answers, without Attendant involvement. A call originated internally or from the outside will be registered in the count.
24. THREE-WAY CALLING [T-2] count: Number of times THREE-WAY CALLING occurs without Attendant assistance.
25. The maximum Tenant Number Counting SERVICE FEATURE PEG COUNT is 63 tenants.

**Note:** *Additional hardware is required.*



## S-33 Software Line Appearance

### General Description

This feature permits ports that do not physically exist to be used as sub-lines on D<sup>term</sup> stations. Ports normally reserved on a D<sup>term</sup> for data stations only, can be assigned as a SOFTWARE LINE APPEARANCE. Additionally, 64 software ports have been added to a Port Interface Module. The 64 software-assigned ports can be assigned as virtual line appearances on D<sup>term</sup> stations. The use of the data ports and the 64 software-assigned ports conserve valuable hardware for stations and trunks.

### Operating Procedure

#### Call Origination via a SOFTWARE LINE APPEARANCE on a D<sup>term</sup>:

1. Press the Software Line Appearance key, then either press the SPEAKER key or lift the handset.
2. Upon hearing dial tone, dial the desired number.

#### Calling a SOFTWARE LINE APPEARANCE from a station/trunk/Attendant Console:

1. The calling party dials the telephone number of the SOFTWARE LINE APPEARANCE.
2. Any D<sup>term</sup> accommodating the SOFTWARE LINE APPEARANCE will receive ringing and have an incoming lamp display. The D<sup>term</sup> user presses the LINE key and goes off-hook to answer the incoming call.

### Service Conditions

1. When using a SOFTWARE LINE APPEARANCE assigned to a data port (TEC:12), call origination from that line appearance can be made if the card is mounted in that slot.
2. A mix of data ports and sub-lines can be assigned on a D<sup>term</sup> package.
3. All sub-lines of D<sup>term</sup>s must be located in the same Local Processor as the MY-Line of that D<sup>term</sup>.
4. A SOFTWARE LINE APPEARANCE cannot be assigned as a Hotline Station, but can be assigned as a BROKERAGE HOTLINE [B-12] station.
5. A SOFTWARE LINE APPEARANCE cannot activate:
 

CALL BACK	[C-1]
OUTGOING TRUNK QUEUING	[O-2]
NAILED-DOWN CONNECTION	[N-9]
6. When activating CALL PICKUP-GROUP [C-7], the sub-line will pick up calls assigned to the CALL PICKUP-GROUP of the MY-Line of the D<sup>term</sup> on which the sub-line appears.
7. When accessing or entering SPEED CALLING [S-2] group/station data, a SOFTWARE LINE APPEARANCE will enter or access the SPEED CALLING [S-2] group/station data of the MY-Line of the D<sup>term</sup> on which the sub-line appears.
8. The STATION MESSAGE DETAIL RECORDING (SMDR) [S-10] of the SOFTWARE LINE APPEARANCE call activity will be recorded as the MY-Line call activity.
9. The SOFTWARE LINE APPEARANCE cannot be the called station of the following features:
 

VOICE CALL	[V-2D]
MESSAGE REMINDER	[M-22D]
BOSS-SECRETARY OVERRIDE	[B-5]
10. Station PEG COUNT [P-7] data will be recorded for SOFTWARE LINE APPEARANCES as a MY-Line of the D<sup>term</sup>.
11. If the DO NOT DISTURB - D<sup>term</sup> [D-11D] key is activated by the SOFTWARE LINE APPEARANCE, ringing will not be sent to the port of the MY-Line of the D<sup>term</sup>.

# S-61 Speed Calling Override - System

## General Description

This feature allows numbers programmed for SPEED CALLING to be available to stations on a system-wide basis, determined by Service Feature Class (SFC). For example, SPEED CALLING-SYSTEM [S-3] numbers, available to stations that are not restricted, can be made available to stations that are restricted.

## Operating Procedure

### To operate:

1. Lift the handset (includes SPEAKER key operation on D<sup>term</sup>). Listen for dial tone.
2. Dial the SPEED CALLING-SYSTEM [S-3] access code (maximum three digits).
3. Dial the abbreviated code (maximum four digits).
4. If the station is allowed this call, the call is completed; if not, the station will hear a reorder tone.

### To operate from a D<sup>term</sup>:

1. Press the REDIAL key; receive dial tone. The LCD displays:

**LNR [\*] / SPD [ \_ ]**  
**(Time Display)**

2. Press the desired call code.
3. If the station is allowed this call, the call is completed; if not, the station will hear a reorder tone.

## Service Conditions

1. This feature cannot be used on an outgoing call which uses OUTGOING TRUNK QUEUING [O-2].
2. This service can be used in combination with CONSECUTIVE SPEED CALLING - SYSTEM [C-62].
3. This feature cannot be used in MFC signaling.
4. This feature cannot be used if the calling station is holding another line.
5. This Attendant Console cannot use this feature.
6. SPEED CALLING-SYSTEM [S-3] must first be provided.

## Interactions

1. SPEED CALLING-SYSTEM [S-3] must first be provided.
2. FORCED ACCOUNT CODES [F-7] and AUTHORIZATION CODES [A-20] cannot be programmed for use via SPEED CALLING-SYSTEM [S-3].
3. Pauses are programmable from the MAT, using the “P” key. Pauses consume one digit of the 24 digits available. A pause lasts for 2.8 seconds.
4. TOLL DIVERSION/TOLL DENIAL [T-6] and TOLL RESTRICTION 3/6 DIGIT [T-7] will not interact with this feature if a station is allowed access to an ADC via Service Feature Class.
5. AUTHORIZATION CODES [A-20] are never required to complete a call.

# S-62

# Station 5db PAD

## General Description

This feature allows a single-line user to be affected by the 5db loss through the system on station-to-station calls.

## Operating Procedure

No manual operation is required for this software control feature.

## Service Conditions

1. STATION 5db PAD [S-62] is inserted only for intra-office, two-way, station-to-station connections.
2. STATION 5db PAD is inserted into the called party of the station.
3. STATION 5db PAD (both stations) is not inserted by the Class of Service feature class and/or telephone class when a station is talking to an Off-Premises Station (OPX).

# S-64 Serial Call - Loop Release

## General Description

This feature allows an ATTENDANT CONSOLE loop key to become available after setting SERIAL CALL [S-15].

## Operating Procedure

1. The Attendant answers an incoming Central Office call.
2. The Attendant extends the call to the desired station, and the desired station answers.
3. The Attendant presses the SC key. The loop is now available for another call.
4. The called station and the incoming call are connected.
5. The called station hangs up. The SC/RC lamp on the ATTENDANT CONSOLE flashes, indicating INCOMING CALL IDENTIFICATION. If the Attendant position is available, an audible indication will be provided.
6. The Attendant presses the SC/RC key or ANSWER key to return to the incoming calling party.

## Service Conditions

1. This feature is available only for incoming Central Office trunk calls.
2. The Attendant can set SC/RC by pressing the SC key after answering the station.
3. The station can switch hook flash after setting SERIAL CALL-LOOP RELEASE.
4. It is not permitted to cancel SERIAL CALL-LOOP RELEASE before recall.
5. The Attendant loop will be maintained until the station is answered, even if the SC key is pressed. In this case, the following features are not available:

CALL PICK-UP	[C-7, 30]
CALL FORWARDING-DON'T ANSWER	[C-3]
6. SERIAL CALL [S-15] recalling indication continues, even if the system status is changed from Day Mode to Night Mode.
7. When this service is available, the ATTENDANT CONSOLE [A-3] cannot have a CCSA key.
8. When CALL WAITING-TERMINATING, CALL WAITING-ORIGINATING, ATTENDANT CAMP-ON WITH TONE INDICATION or ATTENDANT CAMP-ON - CCIS is set to the station already engaged in SERIAL CALL, the following conditions occur:
  - a.) If the station answers the overriding call, the previous party engaged in SC is placed on hold. If the station releases and does not return to the held call, the Attendant is recalled.
  - b.) If the station does not answer the overriding call, Call Waiting or Attendant Camp-On is activated.
9. When using the CCSA key on the DESK CONSOLE, an additional module is required.

## S-99

# Split Call Forwarding

### General Description

This feature allows a station to set two different target stations for CALL FORWARDING-ALL CALLS (FORWARD)/BUSY LINE (FORWARD-BY)/DON'T ANSWER (FORWARD-DA), depending on whether the incoming call is from an internal station or an outside party (C.O. TIE, DID, etc.).

### Operating Procedure

1. Station A sets or is set for CALL FORWARDING-ALL CALLS/BUSY LINE/DON'T ANSWER. Station B is set as the transfer destination for an incoming call from a station. Station C is set as the transfer destination for an incoming call from an outside party.
2. An incoming call from a station terminates to Station A. The call is transferred to Station B. **(Note 1)**
3. An incoming call from an outside party terminates to Station A. **(Note 2)**
4. The call is transferred to Station C. **(Note 1)**

**Note 1:** For the transfer procedure, refer to the Operation Procedure of CALL FORWARDING-ALL CALLS [C-5], CALL FORWARDING-BUSY LINE [C-2], or CALL FORWARDING-DON'T ANSWER [C-3].

**Note 2:** The call may be transferred to Station B (transfer destination for an incoming call from a station), depending on the route class data [ARTD, CDN 68:SCF] of the trunk involved.

#### To set SPLIT CALL FORWARDING using an access code:

##### To set Call Forwarding from an individual station (Single-line Telephone):

1. Setting Call Forwarding for an incoming call from a station:
  - a.) Lift the handset; receive dial tone.
  - b.) Dial the access code for FORWARD, FORWARD-BY, or FORWARD-DA for an incoming call from a station; receive special dial tone.
  - c.) Dial the number of the desired target station; receive service set tone.
  - d.) Replace the handset.
2. Setting Call Forwarding for an incoming call from an outside party:
  - a.) Lift the handset; receive dial tone.
  - b.) Dial the access code for FORWARD, FORWARD-BY, or FORWARD-DA for an incoming call from an outside party; receive special dial tone.
  - c.) Dial the number of the desired target station; receive service set tone.
  - d.) Replace the handset.

##### To cancel Call Forwarding from an individual station (Single-line Telephone):

1. Cancelling Call Forwarding for an incoming call from a station:
  - a.) Lift the handset; receive dial tone.
  - b.) Dial the cancel code for FORWARD, FORWARD-BY, or FORWARD-DA for an incoming call from a station; receive special set dial tone.
  - c.) Replace the handset.
2. Cancelling Call Forwarding for an incoming call from an outside party:
  - a.) Lift the handset; receive dial tone.
  - b.) Dial the cancel code for FORWARD, FORWARD-BY, or FORWARD-DA for an incoming call from an outside party; receive special set tone.
  - c.) Replace the handset.

## Operating Procedure (cont'd)

To set **SPLIT CALL FORWARDING** using **D<sup>term</sup>** feature key:

To set **Call Forwarding from an individual station (D<sup>term</sup>)**:

1. Setting Call Forwarding for an incoming call from a station:
  - a.) Confirm that the **PAGE\*** (One-touch changeover) lamp is on; if the lamp is off, turn the lamp on by pressing the **PAGE** key.
  - b.) Lift the handset or press the **SPEAKER** key; receive dial tone.
  - c.) Press the **FORWARD**, **FORWARD-BY**, or **FORWARD-DA** key; receive special dial tone.
  - d.) Dial the number of the desired target station; receive service set tone. The following is displayed on the LCD, when the destination is a station:

<b>FORWARD SET</b>	<b>XXXXX</b>
<b>(Time Display)</b>	

When the destination is an **ATTENDANT CONSOLE**, the **D<sup>term</sup>** displays:

<b>FWD SET OPR</b>
<b>(Time Display)</b>

When the destination is an outside trunk, The **D<sup>term</sup>** displays:

<b>FORWARD SET</b>
<b>(Time Display)</b>

The **FORWARD**, **FORWARD-BY**, or **FORWARD-DA** lamp turns on.

- e.) Replace the handset or press the **SPEAKER** key. **\*PAGE** feature key is a paging button for **SPEED DIALING - One-Touch - D<sup>term</sup>** [S-26D], (FKY = 55).
2. To set Call Forwarding for an incoming call from an outside party:
  - a.) Confirm that the **PAGE** (One-Touch Changeover) lamp is off; if the lamp is on, turn the lamp off by pressing the **PAGE** key.
  - b.) Lift the handset or press the **SPEAKER** key; receive dial tone.
  - c.) Press the **FORWARD**, **FORWARD-BY**, or **FORWARD-DA** key; receive special dial tone.
  - d.) Dial the number of the desired target station; receive service set tone. The following is displayed on the LCD when the destination is a station:

<b>FORWARD SET</b>	<b>XXXXX</b>
<b>(Time Display)</b>	

When the destination is an **Attendant Console**, the LCD displays:

<b>FWD SET OPR</b>
<b>(Time Display)</b>

## Operating Procedure (cont'd)

When the destination is an outside trunk, the D<sup>term</sup> displays:

<b>FORWARD SET      XXXXX</b> <b>(Time Display)</b>
--

### To cancel Call Forwarding from an individual station (D<sup>term</sup>):

1. Cancelling Call Forwarding for an incoming call from a station:
  - a.) Confirm that the PAGE (One-Touch Changeover) lamp is on; if the lamp is off, turn the lamp on by pressing the PAGE key.
  - b.) Lift the handset or press the SPEAKER key; receive service set tone.
  - c.) Press the FORWARD, FORWARD-BY, or FORWARD-DA key; receive service set tone. The LCD displays:

<b>FORWARD CANCEL</b> <b>(Time Display)</b>
--

The FORWARD, FORWARD-BY, or FORWARD-DA lamp turns off.

- d.) Replace the handset or press the SPEAKER key.
2. Cancelling Call forwarding for an incoming call from an outside party:
  - a.) Confirm that the PAGE lamp is off; if the lamp is on, turn the lamp off by pressing the PAGE key.
  - b.) Lift the handset or press the SPEAKER key; receive dial tone.
  - c.) Press the FORWARD, FORWARD-BY, or FORWARD-DA key; receive service set tone. The LCD displays:

<b>FORWARD CANCEL</b> <b>(Time Display)</b>
--

Also, the FORWARD, FORWARD-BY, or FORWARD-DA lamp turns off.

- d.) Replace the handset or press the SPEAKER key.

### To monitor the assigned data using the D<sup>term</sup> feature key:

1. To monitor the assigned data for calls from incoming trunks (outside):
  - a.) Confirm that the LED of the PAGE feature key on the D<sup>term</sup> is not illuminated. (If it is illuminated, press PAGE key to turn it off.)
  - b.) While the D<sup>term</sup> is in the idle state (on-hook), press the CALL FORWARDING - ALL CALLS/ BUSY LINE or DON'T ANSWER feature key.

When the destination is a station, the D<sup>term</sup> displays:

<b>FORWARD          XXXXX</b> <b>(Time Display)</b>
--

## Operating Procedure (cont'd)

When the destination is an ATTENDANT CONSOLE, the D<sup>term</sup> displays:

<b>FWD SET OPR</b> <b>(Time Display)</b>
---

When the destination is an outside trunk, the D<sup>term</sup> displays:

<b>FORWARD          XXXXX</b> <b>(Time Display)</b>
--

2. To monitor the assigned data for station-to-station calls:
  - a.) Confirm that the PAGE key LED on the D<sup>term</sup> is illuminated. (If it is not illuminated, press the PAGE key to turn it on.)
  - b.) While the D<sup>term</sup> is in the idle state (on-hook), press the CALL FORWARDING - ALL CALLS/ BUSY LINE or DON'T ANSWER feature key.

When the destination is a station, the D<sup>term</sup> displays:

<b>FORWARD          XXXXX</b> <b>(Time Display)</b>
--

When the destination is an ATTENDANT CONSOLE, the D<sup>term</sup> displays:

<b>FWD SET OPR</b> <b>(Time Display)</b>
---

### To set Call Forwarding from the Attendant Console:

1. Setting Call Forwarding for an incoming call from a station:
  - a.) Press an idle Loop key and dial the FORWARD, FORWARD-BY, or FORWARD-DA access code for an incoming call from a station; receive special dial tone.
  - b.) Dial the Tenant Number (2 digits) of the originating station, the originating telephone number, and the desired target telephone number, receive service set tone.
  - c.) Press the RELEASE key.
2. Setting Call Forwarding for an incoming call from an outside party:
  - a.) Press an idle Loop key and dial the FORWARD, FORWARD-BY, or FORWARD-DA access code for an incoming call from an outside party; receive special dial tone.
  - b.) Dial the Tenant Number (2 digits) of the originating station, the originating telephone number, and the desired target telephone number; receive service set tone.
  - c.) Press the RELEASE key.

### To cancel Call Forwarding from the Attendant Console:

1. Cancelling Call Forwarding for an incoming call from a station:
  - a.) Press an idle loop key and dial the cancel code for FORWARD, FORWARD-BY, or FORWARD-DA for an incoming call from a station; receive special dial tone.

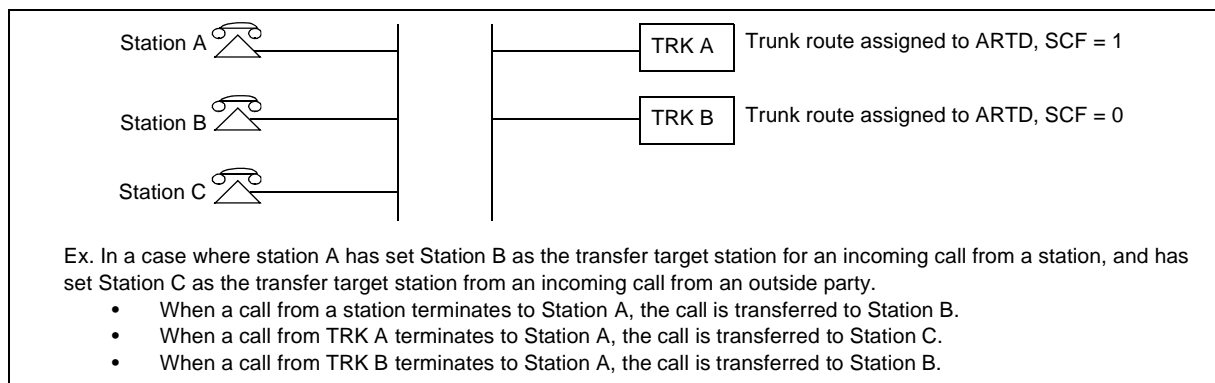


## Operating Procedure (cont'd)

- b.) Dial the Tenant Number (2 digits) of the originating station and the originating telephone number.
  - c.) Press the RELEASE key; receive service set tone.
2. Cancelling Call Forwarding for an incoming call from an outside party:
  - a.) Press an idle loop key and dial the FORWARD, FORWARD-BY, or FORWARD-DA access code for an incoming call from an outside party; receive special dial tone.
  - b.) Dial the Tenant Number (2 digits) of the originating station and the originating telephone number; receive service set tone.
  - c.) Press the RELEASE key.

## Service Conditions

1. The same station can be set as the transfer target station for an incoming call from an outside party and/or from a station.
2. For an incoming call from a trunk, whether Call Forwarding destination for an incoming call from a station or for an incoming call from an outside party is to be used can be designated on each incoming route basis. (According to ARTD command, CDN 68:SCF, data.)
3. When an incoming call from a trunk is handled via the Attendant/station, the destination of Call Forwarding is selected according to the route data of the incoming trunk (as assigned by ARTD command, CDN 68:SCF).
4. This service is invalid on Call Forwarding by the system. (Call Forwarding by the ACFO command.)
5. Multiple Call Forwarding is available for those stations where SPLIT CALL FORWARDING has been set.
6. This service can be set from the Attendant Console.



7. Indication of SPLIT CALL FORWARDING (ALL CALLS/BUSY LINE/DON'T ANSWER) feature can be accomplished only if the Service Feature Restriction Class and access codes are assigned properly.
8. This feature is available for stations where CALL FORWARDING services are available by CLASS OF SERVICE.
9. Multiple Call Forwarding is available for those stations where SPLIT CALL FORWARDING has been set.
10. In the UCD procedure, if SPLIT CALL FORWARDING - ALL CALLS (either for station-to-station or incoming trunk) is set on a station in the group, that station is skipped.

**Service Conditions (cont'd)**

11. If SPLIT CALL FORWARDING is set on a station in the hunting group (STATION HUNTING - CIRCULAR [C-7], - TERMINAL [S-9]), that station is skipped in hunting. However, if the station has set SPLIT CALL FORWARDING for station-to-station calls only, the station is hunted for incoming calls from outside. If the station has set SPLIT CALL FORWARDING for outside calls only, the station is hunted for station calls.
12. This service cannot be activated concurrently with CALL FORWARDING - I'M HERE [C-81].
13. A user (via a station or an attendant console) can assign a maximum of 24-digit forwarding station number including the trunk access code.
14. A D<sup>term</sup> can display only the first 8 digits of forwarding number on the LCD, even though 24-digit number is assigned.

# S-106 Slumber Time - Do Not Disturb

## General Description

This service allows a slumber time for up to four times per day on a Station group basis. During the slumber time, all stations in the group concerned are placed into Do Not Disturb mode, and incoming calls (Station/DID/DIT) will be routed to the Attendant or an announcement machine.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The stations for which this feature is set are determined by the telephone number of the group preassigned by the MAINTENANCE ADMINISTRATION TERMINAL (MAT) and Slumber Time data, not by the Service Restriction Class.
2. This feature cannot be set for data terminals.
3. This feature cannot be set for Night stations. (NIGHT CONNECTION [N-1] [N-2] take precedence over SLUMBER TIME - DO NOT DISTURB.)
4. There can be up to seven Slumber Time Groups per system. There is no limitation to the number of stations that can be assigned to one group.
5. A maximum of four Slumber Time assignments can be made for one Slumber Time Group. When setting more than one assignment, assure that the Times do not overlap each other. Also, a transfer destination can be assigned on each Slumber Time Data basis.
6. A station cannot be assigned to more than one Slumber Time Group.
7. A Night Transfer Station cannot be assigned to a Slumber Time Group.
8. During Slumber Time, incoming calls (station/DID/DIT) are routed to an Attendant Console or announcement machine. When an Attendant Console is designated as the transfer destination, the transfer call is terminated to the ICPT key on the Attendant Console. When an announcement machine is designated as the transfer destination but is not assigned in data by AAED command, the caller receives a busy tone (BT).
9. An announcement machine with one channel can be connected to each station group. When connecting several station groups to an announcement machine, all groups must be assigned to the same single route and trunk.
10. A station in Slumber Time mode can place an outgoing call.
11. Call transfer to a station in Slumber time mode after holding the call by CONSULTATION HOLD [C-17] is possible only when an Attendant Console is designated as the transfer destination. (The call is transferred to the Attendant Console.) If the announcement machine is designated as the transfer destination, the transfer call is routed to reorder tone (ROT) connection.
12. The caller is not always connected to the announcement from its beginning.
13. Call origination is available during Slumber Time.
14. Station group or time is changed, assigned, or cancelled by MAT command.
15. There is no external indication showing Slumber Time set.
16. Any of the following services take precedence over the Slumber Time service:
 

CALL FORWARDING-ALL CALLS	[C-5]
CALL FORWARDING-BUSY LINE	[C-2]

**Service Conditions (cont'd)**

- |  |                           |          |
|--|---------------------------|----------|
|  | STATION HUNTING           | [S-7, 9] |
|  | UNIFORM CALL DISTRIBUTION | [U-1]    |
17. CALL BACK [C-1] and CALL WAITING-ORIGINATING [C-31] can be set from a Slumber Time station.
  18. Each of the following services is restricted to a Slumber Time station:
 

CALL WAITING-ORIGINATING	[C-31]
CALL BACK	[C-1]
EXECUTIVE RIGHT-OF-WAY	[E-1]
  19. Each of the following terminals can access to a Slumber Time station during a Slumber Time. (Slumber Time Override Service):
    - Attendant Console
    - Station having the SFC that allows Slumber Time Override (ASFC SFI = 107)
    - Trunk in the trunk route assigned to ARTD SLOV = 1
  20. DAT card is used as the announcement machine.
  21. For the FCCS network, by assigning the Physical Station Number in System Data, this feature is available for both the Physical Number and the telephone number.
  22. To provide this service in the FCCS network, all the nodes in the network must be assigned the same group number.

# S-127

# Serial Call - D<sup>term</sup>

## General Description

This feature allows the D<sup>term</sup> user to set SERIAL CALL to the central office line/tie line call and extend the call to the desired station/trunk. When the communication with the desired party ends, the announcement instructing the caller to dial the next desired party number is sent out. The caller, by following the instructions, can be connected to a number of destinations without hanging up.

## Operating Procedure

1. The D<sup>term</sup> user answers the incoming central office line/tie line call.
2. The caller requests SERIAL CALL, and the D<sup>term</sup> user presses the SERIAL CALL key.
3. The caller tells the desired station/trunk number to the D<sup>term</sup> user; the D<sup>term</sup> user extends the call to the desired station/trunk using Consultation Hold.
4. When the conversation ends, the caller receives the announcement requesting the caller to dial the next telephone/trunk number.
5. The caller dials the desired station/trunk number. When the called party answers, communication begins.
6. When the conversation ends, the caller receives the announcement requesting the caller to dial the next telephone/trunk number. The caller may successively dial the desired telephone/trunk number.

**Note:** For the D<sup>term</sup> equipped with a 24-digit LCD, the 16 digits on the left side of the LCD is used for the service set/cancel indication. The 8-digit space on the right side is blank.

## Service Conditions

1. Whether to activate this service can be determined on a system basis, but not on a tenant or incoming route basis. Therefore, it is not available to activate this service for each incoming route.
2. SERIAL CALL can be set only for the incoming central office line, tie line, and ISDN line. It cannot be set for the station or the outgoing trunk.
3. The station that can set/cancel SERIAL CALL is the D<sup>term</sup> with the SERIAL CALL key. In case of the incoming call from a ringdown trunk, the call has to be transferred from the Attendant to the D<sup>term</sup>, or the D<sup>term</sup> should be previously designated as the Direct-In Termination station.
4. The D<sup>term</sup> may set/cancel SERIAL CALL by pressing the SERIAL CALL key any time while engaged in a call with the incoming trunk party. (The LCD indicates set (SERIAL SET)/cancel (SERIAL CANCEL) for 5 seconds for every attempt, and the SERIAL CALL key lights red while SERIAL CALL is set.) However, the D<sup>term</sup> user must not have any other calls when using this service (i.e. this service cannot be used together with CALL TRANSFER-ALL CALLS-D<sup>term</sup> [C-11D], CONSULTATION HOLD-ALL CALLS-D<sup>term</sup> [C-17D], CALL WAITING-TERMINATING [C-12], etc.).
5. The caller can call the station, central office line, tie line, or the Attendant successively by activating SERIAL CALL.
6. When the call terminates on the central office line/tie line in the multi-line and the called station answers, the SERIAL CALL key lights red. However, in case the D<sup>term</sup> user answers by CALL PICKUP - GROUP [C-7]/CALL PICKUP - DIRECT [C-30], it does not light.
7. If SERIAL CALL is not set to the incoming trunk, the caller is not connected to the announcement when the conversation with the first party ends (after being put on Consultation Hold), but receives reorder tone.
8. This service is available to the incoming route where AUTOMATED ATTENDANT [A-82] or REMOTE ACCESS TO SYSTEM [R-2] are set.
9. When the registers are all busy when Serial Call is attempted, the caller receives reorder tone.

## Service Conditions (cont'd)

10. Whether to send the announcement can be determined on a system basis. If the announcement is not sent, the caller receives dial tone. Both the first and the second announcement is connected in single connection, and the caller receives no tone until the announcement is sent.
11. When Serial Call is attempted, and the caller encounters all announcement trunks busy or when there is no announcement trunk, the caller receives dial tone.
12. The caller can dial the desired telephone/trunk number during the announcement.
13. This service is provided only when the caller uses the DTMF telephone.
14. The caller is connected to the announcement when the caller is engaged in a two party connection with the station, central office line, tie line, or the Attendant and then the station, central office line, tie line or the Attendant releases.
15. If the caller does not dial any number after the announcement, the caller receives no tone until the register prepause timer expires.
16. In case the register prepause timer expires after the announcement, whether to recall to the operator D<sup>term</sup> user or to release the call automatically can be selected on a system basis.
17. When recalling to the D<sup>term</sup>, whether to end or continue this setting can be selected by system data. However, in case the central office trunk works with Loop Start system (route data LSG=0), release cannot be detected; therefore, when recall to the D<sup>term</sup>, this setting is ended. If this setting is ended, the D<sup>term</sup> user can press the SERIAL CALL key again and reset.
18. Recall to the D<sup>term</sup> selected at item 17 is activated with the following steps and ringing is according to the ringer pattern 5 ASYD Sys Data 3 INDEX 7.
  - a.) In case the D<sup>term</sup> setting SERIAL CALL is free, the destination is the set line and only the D<sup>term</sup> is called. If the set line is accommodated in the other D<sup>term</sup> multi-line, the other D<sup>term</sup> becomes busy status (lights in red) and CALL FORWARDING – ALL CALLS [C-5] and FORWARDING - DON'T ANSWER [C-3] is not available. When the set line is the my line of the D<sup>term</sup>, the LCD displays RECALL. (Ordinary transaction for recall to the D<sup>term</sup> user)
  - b.) In case the D<sup>term</sup> setting SERIAL CALL is busy, another free line among the D<sup>term</sup>s is selected by the same transaction as ordinary serial calling. Therefore, CALL FORWARDING - ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2] and STATION HUNTING - CIRCULAR [S-7] are available, and the LCD on the D<sup>term</sup> which is selected as a Prime Line indicates RECALL. CALL FORWARDING - DON'T ANSWER [C-3] is not available. In case to end the setting is selected at item 18, the central office line/tie line is released. (reorder tone is sent out); in case to continue is selected, dialing of the next number is allowed. (Dial tone is sent out.)
19. Conditions for restriction are as follows:
  - a.) When the dead number or the dead level is dialed (even if the dead number announcement data is assigned, the call is not connected to this announcement, but it is recognized as a redial call. If the second announcement data is assigned [AAED EQP = 35], this announcement has priority).
  - b.) In case of inter digit timer timeout while the telephone number is dialed.
  - c.) When the called station does not answer for 30 seconds (if CALL FORWARDING - DON'T ANSWER [C-3] is set, the call is forwarded).
  - d.) When the called station is busy (if CALL FORWARDING - BUSY LINE [C-2] is set, the call is forwarded).
  - e.) The connection is restricted:
    - when the telephone number where the connection with the central office line/tie line is restricted is dialed.
    - when the access code dialing for trunk call origination is restricted.

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**Service Conditions (cont'd)**

- when the access code is dialed for trunk call origination, and inter digit timer expires before the call originating route is determined, resulting in restriction.
  - when the outgoing trunks are all busy (if Tandem Trunk Queuing service is set, the service is activated).
20. After the second announcement is sent out, whether to allow dialing of the next number or to release the call automatically can be selected on a system basis.
  21. The announcement can be either 16, 32, or 60 seconds, depending on the key setting of the announcement trunk (PA-4DATA). The announcement trunk should always be connected in single connection.
  22. When the caller attempts trunk call origination by this service and encounters restriction, the class change service via authorization code dialing is not available.
  23. The following services are denied toward a line or trunk involved in Serial Call:

CALL FORWARDING - ALL CALLS	[C-5]
CALL FORWARDING - BUSY LINE	[C-2]
CALL FORWARDING - DON'T ANSWER	[C-3]
CALL PICKUP - DIRECT	[C-30]
CALL PICKUP - GROUP	[C-7]
CALL WAITING - ORIGINATING	[C-31]
CALL WAITING - TERMINATING	[C-12]
STATION HUNTING - CIRCULAR	[S-7]
STATION HUNTING - SECRETARIAL	[S-8]
STATION HUNTING - TERMINAL	[S-9]
  24. When the called station via Serial Call is busy, STEP CALL [S-13] is not available.
  25. When the call is extended to a trunk, the call is charged to the incoming trunk (the caller).

# S-129 SMDR Output Expansion - ANI/CPN

## General Description

This feature expands SMDR information output, by which calling numbers from Central Office may be output to the expanded area.

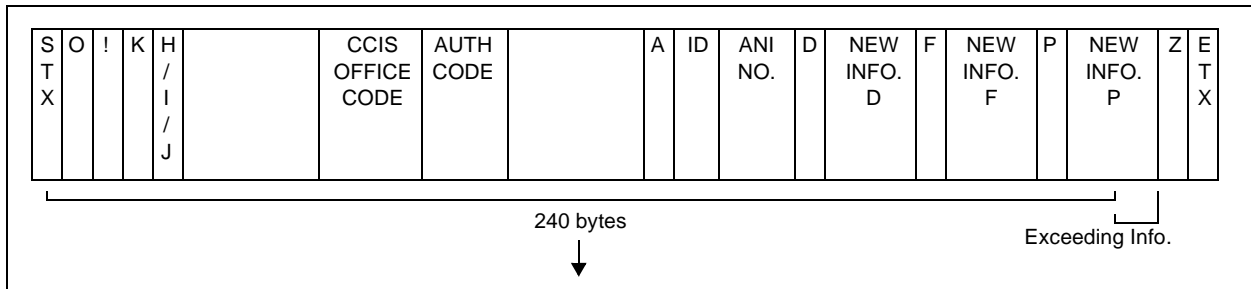
## Operating Procedure

No manual operation is required.

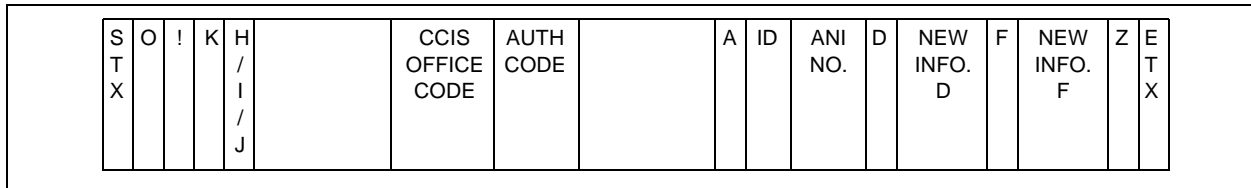
## Service Conditions

1. When the expanded area information is used, SMDR equipment must corresponds to the expanded output format.
2. Users may assign 24 kinds of output information (maximum 240 bytes) combined as they like. Information exceeding 240 bytes is not output from its head.

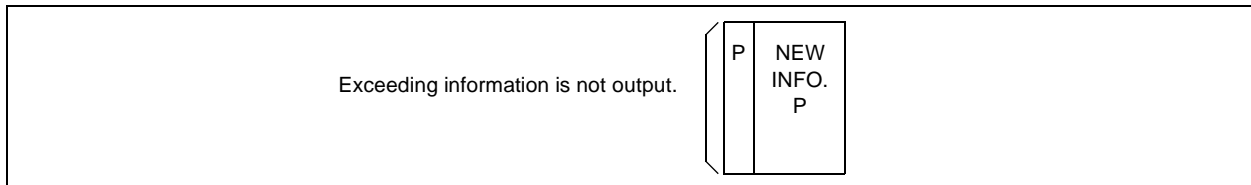
When current information + ANI information (A) + new information D + F + P:



Output information:



No output information:



3. Multi output and dual output are available. (If dual output is assigned, it is possible that the formats are different at each port depending on system data [e.g. expanded output is available/not available]).
4. Regarding the ANI information identifier, the numbers 0, 2, 3, 4 and 5 are output only when the information is sent from Central Office.



## Service Conditions (cont'd)

**Note:** *Meanings of ANI information identifier numbers:*

*0 = Not output*

*1 = Display*

*2 = Not display*

*3 = Not provide service*

*4 = Outgoing C.O. call*

*5 = Service Condition*

5. When an office receiving a calling number from Central Office extends the call to another office through CCIS and charging is performed at the extended office, the maximum calling number is 16 digits. However, only when ANI information identifier sent from Central Office is 1 (Display), the calling number is output.
6. This service is available when using CENTRALIZED BILLING – CCIS [C-55]. (A main office receives charging information from its remote office as it received. However, if the main office makes this service invalid, the information in the expanded area is not output but transferred by using current identifiers (outgoing: KA, incoming: KE, both station: KB).

The following is the table showing relationship between a main office and a remote office when remote charging is established.

Transfer Format From A Remote Office / Output Format From A Main Office	Current Transfer Format	Expanded Transfer Format By Activating This Service
This service is activated.	Expanded area information ID is output only. Information is output in space.	Information is output in the expanded format according to system data of the main office. In case information required to be output at a main office is not in the transfer format from a remote office, information is output same as the current transfer format.
This service is not activated.	Information is output in the current format.	Information in the expanded area is not output but transferred in the current format.

7. This service is not supported in offices performing remote charging.

# T-1 Tandem Switching of TIE Trunks - 2/4-Wire

## General Description

This feature allows trunk-to-trunk connections through the switching system, without the need for any Attendant assistance or control. The major use of this feature is in association with the Dial Tandem TIE Line Network to allow TIE Line connections and incoming TIE Line calls automatic access to, and completion of, local Central Office calls.

## Operating Procedure

1. Lift the handset; receive dial tone from the distant office.
2. Dial the TIE trunk access code; receive dial tone from the PBX.
3. Dial another TIE trunk access code.

**Or**

1. Dial the Central Office access code; receive dial tone from the other distant PBX or local Central Office.
2. Dial an extension number of the distant PBX.

**Or**

1. Dial the Central Office exchange number (local or toll).

## Service Conditions

1. When using a 2-wire application, there may be an appreciable decrease in transmission decibel levels.
2. When using a 4-wire application, a TLT circuit card is required for every four TIE Lines. This circuit card provides amplification/attenuation so that the desired transmitting and receiving levels can be maintained, providing the overall Tandem system with transparency.
3. When TIE trunks are busy, the calling station will receive busy tone.
4. Each incoming TIE trunk may have various restrictions for TIE-to-Central Office calling.
5. Careful consideration should be given to access code numbering plans to avoid unnecessary loss of access codes and code duplication within the same system.
6. Tandem switching can also be accomplished via the ATTENDANT CONSOLE [A-3].
7. There is no limitation to the allowable number of Tandem Switching connections.
8. This feature can also be activated when using a trunk in the remote node via FCCS link. For more detailed information, see the NEAX2400 IMX Fusion Network System Manual.

## Interactions

1. The connection described is a user outside the system connected to an incoming TIE Line to an outgoing TIE Line. TRUNK-TO-TRUNK CONNECTION [T-10] is established by either the Attendant Console or a user and is connected to two outgoing trunks.
2. TOLL DENIAL [T-6]: If TOLL DENIAL is applied to an incoming TIE Trunk group, the calling user is routed to reorder tone if an attempt is made to dial-access a toll call.
3. Incoming dial repeating TIE trunks (second dial tone) can connect to the following types of outgoing trunks:
  - a.) Dial repeating TIE trunk (second dial tone)
  - b.) Senderized TIE trunk
  - c.) CO trunk
  - d.) FX trunk
  - e.) WATS trunk

**Interactions (cont'd)**

- f.) CCSA trunk
- 4. STATION MESSAGE DETAIL RECORDING (SMDR) [S-10]: On Tandem Connections, the incoming TIE Trunk group route number and outgoing trunk number are recorded.
- 5. Two outgoing trunk group restriction tables are provided per system. The Direct Dial Access table is indexed when a distant user dials the trunk group access code, and the ATTENDANT CONSOLE [A-3] table is indexed on Attendant completed calls.

# T-2 Three-Way Calling

## General Description

This feature enables any user to add another party to an existing connection, establishing a three-way conference. Even if the additional D<sup>term</sup> user holds the call, THREE-WAY CALLING may be established. (This service is called Consultation Hold.)

## Operating Procedure

### Procedure 1:

1. Press switch hook; first party is placed on Consultation Hold; receive special dial tone.
2. Dial the desired number; receive answer.
3. Announce the conference and press switch hook again.
4. The THREE-WAY CALLING is now established.

### Procedure 2:

1. While connected with the first party, press the switch hook; receive special dial tone. The first party is placed on hold.
2. Dial the second party (D<sup>term</sup>); receive ring back tone.
3. The second party answers; the CONSULTATION HOLD - ALL CALLS state has been entered.
4. The second party presses the HOLD key and the call in progress is held.
5. Press the switch hook and return to the original call.
6. The second party or another D<sup>term</sup> station in the same Multi Line group answers the held call.
7. THREE-WAY CALLING is established.

## Service Conditions

1. The originating party may hang up at any time. The remaining two parties will not be disconnected.
2. This feature may be activated during any call.
3. Any combination of parties (internal or external) may be included in a three-way call.
4. The maximum number of simultaneous three-way calls depends on the quantity of digital conference trunks within the system. One digital conference trunk circuit card can handle 8 simultaneous three-way calls.
5. The THREE-WAY CALLING feature is not restricted by the line class of service assigned to the user's line; thus, a fully restricted station can transfer a call to another station or the Attendant

### When the Consultation Hold service is used:

1. Service restriction class of stations may be assigned at each station.
2. This service is not available when THREE-WAY CALLING has been established.
3. After the originating party presses the switch hook, the station can only go on-hook and press the switch hook. The party in conversation can only operate on-hook.
4. This service is not available when the transferred call is held by CALL HOLD and so on.
5. When the additional station answers the held call, whether to send Override Tone or not depends on the originating station service restriction class.
6. The Conference Trunk (CFT) function is required for the node which accommodates the station operating a three-way conference within the FCCS network.
7. Three-Way Calling can also be established when using the trunk belonging to the remote node within the FCCS network.

**Interactions**

1. A station in an established three-way connection cannot flash the switch hook to activate a feature. The flash disconnects the last party connected.
2. All three-way calls are protected by privacy. No more than three ports can be bridged together at one time, unless **PRIVACY RELEASE [P-18]** is being used.
3. If a three-way call includes two trunks and the station hangs up, the trunks will release, unless the trunks are allowed **TRUNK-TO-TRUNK CONNECTION [T-10]** via the **ARRC** command, **ARI-D-RES**.

# T-2D Three-Way Calling - D<sup>term</sup>

## General Description

This feature enables a D<sup>term</sup> user to establish a three-way conference by connecting an additional party to an already existing conversation.

Even if the additional D<sup>term</sup> user holds the call (Consultation Hold), THREE-WAY CALLING may be established.

## Operating Procedure

### Procedure 1:

1. Press the TRANSFER key; receive special dial tone; the original party is placed on hold.
2. Dial the desired number; receive answer.
3. Announce the conference and press the CONF key.
4. THREE-WAY CALLING is now established. The LCD displays:

<b>CONF</b> <b>(Time Display)</b>
--------------------------------------

### Procedure 2: (Hold on Consultation Hold.)

1. While connected with the first party, press the TRANSFER key (D<sup>term</sup>); receive special dial tone. The first party is placed on hold.
2. Dial the second party (D<sup>term</sup>); receive ringback tone.
3. The second party answers; the CONSULTATION HOLD - ALL CALLS state has been entered.
4. The second party presses the HOLD key (D<sup>term</sup>) and the call in progress is held.
5. Press the CONF key and return to the original call.
6. The second party or another D<sup>term</sup> station in the same Multi Line group answers the held call.
7. THREE-WAY CALLING is established.

## Service Conditions

1. The originating party may hang up at any time. The other two parties will not be disconnected if assigned as such in system programming.
2. This feature may be activated during any call that does not include the Attendant Console.
3. Any combination of parties (internal or external) may be included in a three-way call.
4. The maximum number of simultaneous three-way calls is dependent on the quantity of Digital Conference Trunks within the system. (Conference function is included in the TSW and MUX circuit card.) One Digital Conference Trunk circuit card can handle eight simultaneous three-way calls.
5. The THREE-WAY CALLING feature is not restricted by the line class of service assigned to the user's line; thus, a fully restricted station can transfer a call to another station or the Attendant.

### When the Consultation Hold service is used:

1. Service restriction class of stations may be assigned at each station.
2. This service is not available when THREE-WAY CALLING has been established.
3. After the originating party presses the CONF key, the station can only go on-hook and press the TRANSFER key. The party in conversation can only operate on-hook.
4. This service is not available when the transferred call is held by CALL HOLD and so on.

**Service Conditions (cont'd)**

5. When the additional station answers the held call, the decision to send Override Tone depends on the originating station service restriction class.
6. The Conference Trunk (CFT) function is required for the node which accommodates the station operating a three-way conference within the FCCS network.
7. Three-Way Calling can also be established when using the trunk belonging to the remote node within the FCCS network.

# T-3 TIE Line Access

## General Description

This feature allows any user dial access to a TIE Line.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the TIE LINE ACCESS code; receive dial tone from the distant PBX.
3. Dial the desired extension number.

## Operating Procedure

1. TIE LINE ACCESS may be denied to individual stations via CLASS OF SERVICE-INDIVIDUAL [C-15].
2. The PBX system is equipped with either automatic or dial-repeating TIE trunks.
3. When a power failure occurs at the local NEAX2400 IMX (without reserve power backup), all TIE trunk connections are lost.
4. Each TIE Line group can be arranged for DP or DTMF address signaling incoming and/or outgoing.
5. TOLL DENIAL [T-6]: The calling user is routed to reorder tone if an attempt is made to dial-access a call.
6. The NEAX2400 IMX can be equipped with senderized TIE trunks. Immediate start, delay, or wink start signaling is available.
7. When a trunk group access code is dialed by a user, the TIE trunk group is used to index a trunk group restriction table to determine if the call attempt is allowed. For each outgoing trunk group, the following restriction options can be assigned per RSC:
  - a.) Indicates the TIE trunk is not allowed access to the trunk group dialed.
  - b.) Indicates the TIE trunk is allowed access (unrestricted).
  - c.) Indicates the station is allowed access but is restricted from making 0/1 toll calls or is code (3-digit, 6-digit) restricted.
8. Two outgoing trunk group restriction tables are provided per system. The Direct Dial Access table is indexed when a user dials the trunk group access code and the ATTENDANT CONSOLE [A-3] table is indexed on Attendant completed calls. The restriction options per RSC can differ per table, allowing Attendant completion of outgoing calls for restricted stations.
9. DTMF cannot be received on an incoming TIE Line call when the Signal Interface for Incoming route data is set for Immediate Start.

## Interactions

1. For senderized TIE Lines, see UNIVERSAL SENDER [U-3]. The ANND command must be programmed for Senderized TIE Lines (normally for 4(OGC)).
2. If other services, such as STATION MESSAGE DETAIL RECORDING [S-10] and LEAST-COST ROUTING-3/6 DIGIT [L-5] are to be used in conjunction with this feature, the AMND command must be programmed. Go to the ASTP and AOSP command, if digit translation is required.
3. MISCELLANEOUS TRUNK RESTRICTION [M-3]: Restrictions to TIE trunks are determined by the Route Service Class (RSC) assigned to the station.



---

# T-5 TIE Line Connection With Pad Control

## General Description

This feature provides a switchable transmission pad on TIE trunks that allows tandem connections. Necessary pad control is activated to protect against echo.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. Pad Control (2dB) will automatically be switched in for the following connections:
  - a.) TIE Line-to-Station
  - b.) Station-to-TIE Trunk/CCSA
  - c.) CCSA-to-Station
  - d.) TIE Line-to-Attendant
  - e.) CCSA-to-Attendant
  - f.) Attendant-to-TIE Trunk/CCSA
2. Pad Control (2dB) will not be switched in for the following connections:
  - a.) TIE Line-to-C.O.Trunk/TIE/CCSA
  - b.) CCSA-to-C.O.Trunk/TIE/CCSA
  - c.) C.O.Trunk-to-TIE/CCSA
  - d.) THREE-WAY CALLING [T-2] used in conjunction with TRUNK-TO-TRUNK CONNECTION [T-10]
3. The 4W E&M Trunk/DTI [D-16] provides Pad Control (0, 2, 4, 8, 12, 16dB) so the desired transmitting and receiving levels can be maintained, providing the overall tandem system with transparency.

## Interactions

1. If volume on the DTI is too loud, assign CDN 30:Pad (ARTD) as data "2".
2. The 8TLT card provides four 2-wire DID, CCSA, and TIE Line circuit access. These circuits may be set for loop or E&M signaling. The card contains switchable transmission pads that are switched in or out via software command.
3. The 8TLT card provides four 4-wire TIE Line circuits. These circuits may be set for E&M signaling. The card contains switchable transmission pads that are switched in or out via software. The 8TLT cards are located in the Port Interface Module (PIM) carrier. A maximum of eleven 8TLT can be equipped per PIM.

# T-6 Toll Denial/Toll Diversion

## General Description

This feature prohibits users from placing long distance calls over a specific group of trunks. Restricted calls are routed to either an ATTENDANT CONSOLE [A-3] (diversion) or to an intercept tone (denial).

## Operating Procedure

No manual operation is required after this feature is programmed into system data.

## Service Conditions

1. TOLL DENIAL/TOLL DIVERSION is the industry-standard 0/1 type.
2. Immediately after dialing any area code with a second digit of “0” or “1”, the user is restricted.
3. Restriction may be programmed to give the user a busy signal or to divert the user to the Attendant Console.
4. This feature may be applied to all types of trunks (DDD, FX, WATS), provided the same restrictions apply to all trunks of the same type.
5. This feature is applied to individual stations on a route-restriction basis.
6. TOLL DENIAL/TOLL DIVERSION is set on a per-TENANT [T-12] basis.
7. The 0/1 Toll Denial and Toll Diversion feature cannot be used together for the same tenant.
8. The 0/1 Toll Denial and Toll Diversion feature is assigned on a per-line (RSC) Class of Service and/or per-incoming TIE Trunk group basis. The feature, when provided, is applicable on a per-trunk group basis.

## Interactions

1. TOLL DENIAL/DIVERSION is applicable only to RES 2 when assigning routes via Route Restriction Index (RRI) 3.
2. LEAST-COST ROUTING-3/6 DIGIT [L-5]: For LCR(S) applications, allow the LCR Flag Route. The route chosen via AOPR will then be governed by the RSC of the station. If the station is toll-restricted from the route, TOLL DENIAL/DIVERSION will apply
3. TOLL DENIAL and TOLL DIVERSION cannot be used simultaneously in the same tenant.
4. ROUTE ADVANCE [R-6]: Station A dials a toll call by accessing route 1. Route 1 is busy and advances to route 2. Station A is restricted from making this call on route 2.
5. PASSING DIAL TONE [P-2]: The Attendant Console cannot use the PASSING DIAL TONE [P-2] feature to allow a toll restricted station to dial a restricted number.
6. In System Data 1, Index 135, a seizure guard timer exists to protect the system from individuals who attempt to defeat TOLL RESTRICTION/TOLL DIVERSION with rapid dialing. Leave as data “00” for a default value of 1 second (RAM data is 1FH).
7. A station uses the OGC direct dial access to a route. The station is restricted via RES 0: Connection Restricted. The station receives reorder tone.

# T-7 Toll Restriction - 3/6-Digit

## General Description

This feature allows the NEAX2400 IMX to be programmed to restrict outgoing calls according to specific area and/or central office codes. This restriction is controlled on the basis of a three-digit area code or a six-digit combination area and office code numbering plan.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The programmed restriction pattern may consist of either codes to be allowed or codes that are to be denied.
2. This feature is assigned on a CLASS OF SERVICE-INDIVIDUAL [C-15] basis.
3. When a toll call is denied, reorder tone will be returned to the calling party. If desired, the calling party can be routed to the Attendant Console. See TOLL DENIAL/TOLL DIVERSION [T-6] for further details.
4. The outgoing call using a trunk in the remote node via FCCS link is available. Therefore, Route Restriction class data must be identical in the FCCS network. For more detailed information, see the NEAX2400 IMX Fusion Network System Manual.

## Interactions

1. When Toll Restriction is specified in ARRC, all the possible dialing-patterns must be assigned in ATDP. If office codes within an Area Code do not need to be restricted, allow the Area Code only. Always provide the system with the most economical configuration of digits when constructing TOLL RESTRICTION tables.
2. In the ARRC command, ARI-A-RES must be programmed to allow two trunks and a station in a conference. ARI-D-RES is programmed if the two trunks are to remain connected after the station drops off, or if TOLL RESTRICTION applies to a direct trunk-to-trunk connection, such as TIE Line to DDD.
3. ROUTE ADVANCE [R-6]: Station A dials a toll call by accessing route 1. Route 1 is busy and advances to route 2. Station A is restricted from making this call on route 2. The call will be restricted.
4. PASSING DIAL TONE [P-2]: The Attendant cannot use PASSING DIAL TONE [P-2] to allow a toll-restricted station from using a restricted route.
5. OUTGOING TRUNK QUEUING [O-2]: When a station is restricted from all other routes, a user may queue a trunk to complete a call over unrestricted routes.
6. LEAST-COST ROUTING-3/6-DIGIT [L-5]: Translations in AFRS must be such that the digits dialed in the trunk-to-trunk connection would be recognizable in terms of choosing a route. If a route cannot be chosen, TOLL RESTRICTION 3/6 DIGIT cannot be applied.
7. When using the FCCS network, the outgoing call using a trunk in the remote node is available. Therefore, Route Restriction class data must be identical in the FCCS network. For more detailed information, see the NEAX2400 IMX Fusion Network System Manual.

# T-8 Trunk Answer from Any Station (TAS)

## General Description

This feature allows any station (except one with incoming restrictions) to answer incoming calls when the system is in Night Mode. Incoming exchange network calls will activate a common alert (TAS) signal at the customer's premises. By dialing a specified code, any station may answer the call and then extend it to any other station using CALL TRANSFER-ALL CALLS [C-11].

## Operating Procedure

1. TAS signal (bell, buzzer, etc.) sounds.
2. Lift the handset, receive dial tone.
3. Dial the specified TAS access code.
4. Connection to incoming call is completed.

## Service Conditions

1. An incoming call that terminates in the Night mode will have the following priority:
  - a.) NIGHT CONNECTION-FLEXIBLE [N-2]
  - b.) NIGHT CONNECTION-FIXED [N-1]
  - c.) TRUNK ANSWER FROM ANY STATION (TAS) [T-8]
2. TAS indication will be activated for the following incoming calls:
  - a.) Listed Directory Number
  - b.) Foreign Exchange
  - c.) WATS
  - d.) CCSA
3. All consoles assigned to handle calls for a particular group of stations (whether or not they belong to the same TENANT [T-12]) must have NIGHT CONNECTION [N-1,2] set before this feature will be activated.
4. The TAS indicator can be provided on a per-tenant basis.
5. The TAS indicator must be locally-provided.
6. This feature is sometimes referred to as Universal Night Answer (UNA).
7. Individual stations may be denied access to this feature via CLASS OF SERVICE-INDIVIDUAL [C-15].
8. If the system has changed to Day mode while a TAS call is being indicated, the ATTENDANT CONSOLE [A-3] can be connected to this call.
9. Only one TAS per Tenant can be assigned as the TAS signalling port.

## Interactions

1. For TAS to operate, an ATI circuit card is required, and the system must be in the Night mode, depending on the type of Attendant Console system that is in service. Exercise care when setting the resistance value via switch settings on the ATI circuit card.
2. TENANT SERVICE [T-12]: Only one TAS circuit may be assigned per tenant.
3. NIGHT CONNECTION-FIXED/FLEXIBLE [N-1, 2]: TAS can be used in conjunction with NIGHT CONNECTION-FIXED/FLEXIBLE [N-1, 2]. When the Night Connection station(s) is busy, incoming calls are directed to TAS.

---

**Interactions (cont'd)**

4. CALL TRANSFER-ALL CALLS [C-11]: A station answering a call via the TAS feature will have access to the transfer feature.
5. CENTRALIZED ATTENDANT SERVICE (CAS) [C-20]: TAS may be installed at either the Main site only or at both the Main and Satellite sites. Operations at either site are the same as TAS installed in a non-CAS system. The Satellite system must have a means of placing the system into Night mode. This would require an ATI circuit card connected to a Night switch.
6. CALL FORWARDING - ALL CALLS [C-5] / BUSY LINE [C-2]: When a Direct Inward Dialing (DID) call terminates to a station setting CALL FORWARDING - ALL CALLS [C-5] or BUSY LINE [C-2] to the Attendant, the call can be answered using the TAS feature.
7. CLASS OF SERVICE-INDIVIDUAL [C-15]: Stations must be allowed access to TAS via Service Feature Class. The station Route Restriction Class will either allow or deny connection to incoming C.O. calls via TAS.
8. DAY/NIGHT CLASS OF SERVICE [D-15]: A CLASS OF SERVICE-INDIVIDUAL [C-15] change that occurs when the system goes into Night mode may allow a station to answer incoming trunk calls that are restricted to that station in Day mode.
9. HOUSE PHONE [H-2], INDIVIDUAL ATTENDANT ACCESS [I-6], STATION-TO-STATION CALLING-OPERATOR ASSISTANCE [S-12], and ATTENDANT NIGHT TRANSFER [A-19]: These calls will not be directed to TAS when the system is in Night mode.
10. CONSULTATION HOLD [C-17]: TAS cannot be accessed via CONSULTATION HOLD.
11. TRUNK ANSWER ANY STATION will not default if other provisions are not made to answer incoming calls when the system is in Night mode. See the ACFR command.
12. The type of Attendant Console system used determines how the system will enter into the Night mode. See System Data 2, Index 2, Bits 2 & 3.
13. A user receives a reorder tone after dialing the TAS access code if one or more of the following applies:
  - a.) Station line is inward restricted.
  - b.) Station line is fully restricted.
  - c.) Station is restricted from the TAS access code.
  - d.) Station has a party on Hold.
  - e.) Another station has answered the TAS call and no other calls are in the TAS queue.
14. Incoming calls remain in the TAS queue until answered from a station or until abandoned by the far end.

# T-9 Trunk Group Busy Lamp

## General Description

This feature provides the ATTENDANT CONSOLE [A-3] with a visual indication when all trunks in a particular trunk group are busy (LDN, WATS, FX, DOD, CCSA, TIE or Special Trunks). Assignment of the TGBLs is made using the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The ATTENDANT CONSOLE [A-3] must have a designated TRUNK GROUP BUSY LAMP (TGBL) section.
2. This feature may be used on trunk groups consisting of WATS, TIE, FX, and special trunks.
3. Ten TGBLs are available on each Attendant Console.
4. Trunk Group Warning to indicate when a preset number of trunks in a group is busy is not provided.
5. Trunk groups cannot be combined to light a common TGBL.
6. A maximum of 10 trunks including LD and TIE are displayed on an Attendant Console.
7. Desk Console cannot be used to activate this feature.

## Interactions

1. ATTENDANT CONSOLE [A-3] number is the equivalent to the trunk number when assigning the Attendant Console Route 901 in ATRK.
2. The ATRK command must be assigned before the ATGL command. If ATRK is not assigned first, ERROR: 0245, "ATTENDANT CONSOLE [A-3] not assigned yet", will be indicated.

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# T-10 Trunk-to-Trunk Connection

## General Description

This feature provides any user with the ability to conference together either two Central Office calls or a Central Office and TIE Line call.

## Operating Procedure

1. Place incoming caller on hold.
2. Receive special dial tone.
3. Dial the desired Central Office or TIE access code.
4. Receive second dial tone.
5. Dial the desired number; receive answer.
6. Announce the conference and momentarily press the switch hook again.
7. The original party is now included in connection.

## Service Conditions

1. The originating party may hang up at any time. The additional two parties will not be disconnected.
2. This feature may be restricted to individual stations via System Data.
3. In the case of outgoing calls on trunks with no answer supervision, this feature may be activated only after 18 seconds have elapsed since the last digit was dialed. This timer is programmable in System Data.
4. In the case of outgoing calls on trunks with answer supervision, this feature may be activated as soon as the called party answers.
5. A user may hang up after completing a TRUNK-TO-TRUNK CONNECTION without affecting the connection of the two outside parties, provided that:
  - a.) One trunk is incoming and the other is outgoing.
  - b.) Both trunks are ground start.
  - c.) Users wait a programmed time interval after dialing an outside line before hanging up.
6. If the originating party encounters a no-answer or busy signal when trying to conference a third party, the originating party switch hook flashes and is reconnected to the held call.
7. This feature is inoperative when release signal is not provided from the distant end.

## Interactions

1. For direct trunk-to-trunk connection, see TANDEM SWITCHING OF TIE TRUNKS-2/4-WIRE [\[T-1\]](#).
2. If a THREE-WAY CALLING [\[T-2\]](#) connection includes two trunks, then when the station hangs up, the trunk will release, unless the trunks are allowed TRUNK-TO-TRUNK CONNECTION via the ARRC command, ARI-D-RES.

# T-12

# Tenant Service

## General Description

This feature provides for more than one organization (tenant) to share the same PBX. Through system programming, each organization may be restricted to its own Central Office trunks, ATTENDANT CONSOLES [A-3], and extension links. In addition, incoming calls are directed to the specific organization (tenant).

## Operating Procedure

No manual operation is required.

## Service Conditions

1. An Attendant Console is normally provided for each tenant. However, when required, a single common console may be shared by two or more tenants.
2. Inter-office calling between tenants may or may not be restricted, depending on System Data.
3. Different tenants may share a common group of trunks, where required.
4. When a tenant station dials "0" (Operator Call Code), it will be connected to that tenant's console.
5. Different tenants cannot use the same numbering plan.
6. The same telephone numbers cannot be assigned among different Tenants (for example, stations numbered 2XXX can be associated with only one Tenant).
7. STATION-TO-STATION [S-11], CALL TRANSFER [C-11] THREE-WAY CALLING [T-2], TAS [T-8] and CALL FORWARDING [C-2, 3, 5] calls between Tenants can be restricted or allowed.
8. SMDR [S-10] includes Tenant identification.
9. The same access code can be assigned among Tenants for service features (for example, CALL HOLD [C-6], CALL BACK [C-1], CALL PICKUP - GROUP [C-7], CALL FORWARDING - ALL CALLS - D<sup>term</sup> [C-5D], SPEED CALLING [S-3], TAS [T-8], etc.).
10. The NEAX2400 IMX can provide TENANT SERVICE [T-12] to a maximum of 63 tenants.
11. Tenant numbers should be allocated on a network basis for the FCCS network.

## Interactions

1. To provide TENANT SERVICE, features need not be separated. Whenever possible, keep features common to use data memory as economically as possible. When commands are separated, they must be programmed for each tenant accommodated in System Data 2.
2. FORCED ACCOUNT CODES [F-7] and AUTHORIZATION CODES [A-20] do not require separate tenant service for AMND, System Data 1, Index 93, Bit 6.
3. Each tenant may have its own Attendant Console(s), unless that number exceeds system capacity; for example, five tenants in a two-PIM configuration. The number of consoles per tenant is not limited by programming but is limited by the system configuration.
4. Different tenants may or may not share the same CO trunks. Termination of a trunk is a function of the ARSC command. DID trunks can be assigned to any tenant. However, the Listed Directory Number, as assigned in the ALDN command, determines where the call terminates. If the incoming LDN digits are assigned against Tenant 2, the call terminates to the Tenant 2 Attendant Console, even if the digits come on a Tenant 1 trunk.



**Interactions (cont'd)**

5. CALL FORWARDING [C-2, 3, 5]: When a station call forwards to the Attendant Console, the call will go to the originating station's Attendant Console, as assigned via the Tenant parameter of the ATRK command.
6. CLASS OF SERVICE-INDIVIDUAL [C-15]: Refer to the programming section. This feature affects the construction of all classes of service.

# T-18D

# Time Display - D<sup>term</sup>

## General Description

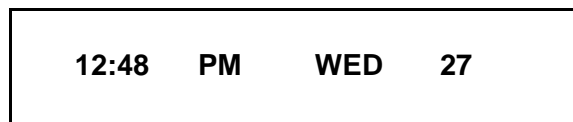
This feature provides a digital time display on a D<sup>term</sup>'s LCD.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. The time is displayed according to the clock in the PBX and is set via the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
2. Time is displayed automatically:



3. Time is constantly displayed on the center line of the LCD.
4. The time will not be displayed when a D<sup>term</sup> station is set for a second line MESSAGE WAITING INDICATION -D<sup>term</sup> [M-85D] and MW/VMM is displayed.
5. While NAME DISPLAY - SYSTEM [N-28], NAME DISPLAY - SYSTEM - CCIS [N-37], or NAME DISPLAY WITHOUT - OAI - CCIS [N-37] 16-digit display is activated on the D<sup>term</sup> with 2-line LCD display, the time is not displayed. When both the calling/called station are released from a station-to-station call, the LCD of the calling/called station returns to the TIME DISPLAY.

## Interactions

1. Only the D<sup>term</sup> with display has the TIME DISPLAY feature capability.
2. The calendar and time must be set via ATIM command.

# T-23 Trunk Line Appearance

## General Description

This feature allows a D<sup>term</sup> user to directly access a Central Office trunk or TIE Line without dialing an access code. Incoming calls can also be answered at the TRUNK LINE APPEARANCE [T-23].

## Operating Procedure

### To access an outgoing trunk:

1. Press the TRUNK LINE APPEARANCE line/feature key.
2. Lift the handset or press the SPEAKER key. Central Office or distant PBX dial tone will be heard.
3. Dial the destination number.

### To answer an incoming call from the TRUNK LINE APPEARANCE:

1. Ringing and an LED indication alert the D<sup>term</sup> user of the incoming call.
2. Press the TRUNK LINE APPEARANCE line/feature key.
3. Lift the handset or press the SPEAKER key.
4. Answer the incoming call.

## Service Conditions

1. A TRUNK LINE APPEARANCE can be accommodated on D<sup>term</sup>s, and 24/40-button Add-On Modules.
2. A TRUNK LINE APPEARANCE can be assigned as a SOFTWARE LINE APPEARANCE [S-33].
3. A TRUNK LINE APPEARANCE can be assigned in a Circular or Pilot Hunt Group.
4. A TRUNK LINE APPEARANCE is available for destination offices that can receive DP/PB signals.
5. CALL FORWARDING (all types) can be set at the Attendant Console for a TRUNK LINE APPEARANCE assigned to a Virtual Line Appearance or an unused data port.
6. With this feature, a user can receive incoming calls from internal stations, DID, DIT, or TIE Line trunks.
7. When a call is originated with the RECALL key and the trunk is busy, the call is in the queue waiting to seize the idle trunk. If no dial tone has been found for two seconds, the calling party hears a busy tone (if the idle trunk is found within two seconds, the station is connected to the idle trunk).
8. When this feature is used for the DP line, program two seconds or less for outgoing inhibit timing after trunk release (ARTD CND 34: GUARD = 1-3).

## Interactions

1. For incoming calls, the trunk must be assigned as a DIRECT-IN TERMINATION [D-7] trunk.
2. The trunk may still be seized by other stations or the ATTENDANT CONSOLE if the route is not isolated from other features such as LEAST-COST ROUTING-3/6 DIGIT [L-6] or ROUTE ADVANCE [R-6].
3. The trunk may be selected by INDIVIDUAL TRUNK ACCESS [I-4]. If accessed, the D<sup>term</sup> will not have a lit LED for busy condition, as would occur when a trunk is seized in a 1A2 key system. If the user of TRUNK LINE APPEARANCE goes off hook to seize the trunk, busy tone is returned. The LCD displays:

**BUSY**  
(Time Display)

4. TRUNK LINE APPEARANCE and HOTLINE-OUTSIDE [H-9] are mutually exclusive. Both features require the AHLS command, and the same station cannot be provided with two Hotline features.

## T-28 Trunk-to-Trunk Third-Party Cancellation

### General Description

This feature allows a station to cancel an active trunk-to-trunk connection (during a three-way-connection) and return to the original call.

### Operating Procedure

**If a station is presently engaged in a call with another station or with a trunk party:**

1. Switch hook flash; receive special dial tone.
2. Dial a trunk access code and the number for the desired third party; the called party is rung.
3. Switch hook flash to establish a three-way connection.
4. Switch hook flash to release the trunk; the station returns to the original call.

### Service Conditions

1. The third party that can be cancelled by this feature is an outgoing trunk seized by an outgoing access from CONSULTATION HOLD-ALL CALLS [C-17].
2. If a Broker's Call has been activated by a D<sup>term</sup>, the following restrictions apply:
  - a.) In the case of CONSULTATION HOLD-ALL CALLS [C-17] outgoing (station hold), the third party can be cancelled as follows: Engaged in station-to-station call → Three-Way Connection → Switch hook.
  - b.) The third party cannot be cancelled by the following sequence: Engaged in station-to-trunk call → Three-Way Connection → Switch hook.
  - c.) This restriction does not apply to CONSULTATION HOLD-ALL CALLS [C-17] outgoing (trunk hold).

# T-62

# Timed Reminder

## General Description

This feature allows a user to set a Timed Reminder call from the station. The system calls up the station at the designated time. When the station answers the call, the user hears a message or Music-On-Hold.

## Operating Procedure

### To set a Timed Reminder call:

1. Lift a handset; receive dial tone.
2. Dial the Timed Reminder (SET) access code.
3. Designate your desired time by dialing 4 digits. (Ex. 16:30 → 1630)
4. Hear service set tone or a recorded message which indicates the Timed Reminder call has been set.
5. Hang up.

### To cancel a preset Timed Reminder call:

1. Lift the hand set; receive dial tone.
2. Dial the Timed Reminder (CANCEL) access code.
3. Hear service set tone or a recorded message which indicates the Timed Reminder call has been cancelled.
4. Hang up.

### To answer a Timed Reminder call:

1. A station which has been set Timed Reminder starts ringing at the predetermined time.
2. Lift the handset.
3. Hear Music-On-Hold or a recorded message which indicates this call is a Timed Reminder call.
4. Hang up.

## Service Conditions

1. In the following cases, the user attempting to set/cancel this service receives reorder tone:
  - a.) when the SFI = 41 of the service class is 0,
  - b.) when CALL FORWARDING - ALL CALLS [C-5] is set.
2. The wake-up times are to be set at five-minute intervals. For example, if the user dials 1004, the wake-up time will be set at 10:00 a.m.
3. 500 stations per local processor can be set for a single wake-up period. If the 500 stations limit is exceeded, the system will automatically set the wake-up time five minutes earlier (to the maximum of 75 minutes).
4. The wake-up time entered latest has the priority over the ones entered previously.
5. The no answer timer for the wake-up call is 30 seconds. After the no answer timer expires, no retry is performed.
6. If the link block, etc. occurs while being recalled, no retry is performed.
7. When the station is busy or lockout while being recalled, the station is recalled three minutes after. This retry is repeated three times.
8. When CALL FORWARDING - BUSY LINE is set to the station setting wake-up, the destination is recalled (except when the destination is not the station line, the station setting wake-up is recalled). When the destination is busy, no retry is performed.
9. When the announcement trunk is blocked, the user receives music.
10. When the Timed Reminder cancel code is dialed, the user hears Service Set Tone or the announcement even when the service is not set.

# T-63

# Tone Block

## General Description

This feature allows the user of a station (via analog adapter) or an analog station (PB) to restrict any call. This prevents interruption of data transmission, before the connection.

## Operating Procedure

### To set the service:

1. Lift the handset: receive the dial tone.
2. Dial the access code of “Data Privacy on Demand; Entry”.
3. Hear the special dial tone or the dial tone (depending on the system data).
4. Dial the desired phone number.
5. The called party answers.

**Note:** *This service may also be set during communication by performing a switch hook flash.*

### To cancel the service:

#### When the operating user cancels this service during the communication in progress:

1. Perform a switch hook flash (the called party is held).
2. Hear the special dial tone.
3. Dial the access code of DATA PRIVACY ON DEMAND [D-17] cancel.
4. Hear the service set tone.
5. Press the switch hook button to reconnect the held party.
6. Tone Block is cancelled.

## Service Conditions

1. This service is available for the analog station or the D<sup>term</sup> with analog adapter.
2. If the user stops to transfer a call in the middle of the operation, this service is not cancelled.
3. This service is cancelled when the station, which has been set Tone Block, is released from the connection.
4. Services to be restricted by setting Tone Block service are shown below.

ATTENDANT CAMP-ON WITH TONE INDICATION	[A-1]
BUSY VERIFICATION	[B-3]
EXECUTIVE RIGHT-OF- WAY	[E-1, 1D]
CALL WAITING TERMINATING	[C-12]
CALL WAITING - ORIGINATING	[C-31]

## Interactions

1. When TONE BLOCK is set to the D<sup>term</sup> which is assigned the DO NOT DISTURB (DND) key, the lamp of the DND key flashes. When the DND key is pressed, the lamp goes off and the TONE BLOCK service is cancelled.
2. A user can activate the current service for restricting a call (Data Privacy On Demand) as usual by:
  - a.) dialing the access code for entry or cancel the service during communication, or
  - b.) pressing the DND key for entry or cancel the service.

# U-1 Uniform Call Distribution (UCD)

## General Description

This feature distributes incoming calls to a UCD group of up to 100 stations. Calls are distributed to idle stations in a circular pattern, in the order in which they arrive.

## Operating Procedure

### To transfer a call to a busy UCD group:

1. All the stations in a UCD group are busy.
2. A user not in the group answers an incoming call (trunk or station).
3. The user dial the UCD primary number after pressing the switch hook or the TRANSFER key:
  - a.) The user hears busy tone.
  - b.) The calling party is held.
4. The station goes on-hook.
  - a.) The calling party hears Ring Back Tone (during queuing).
5. The UCD group becomes idle:
  - a.) The call terminates to an idle station in the UCD group.
  - b.) The calling party hears Ring Back Tone. (during ringing)
6. The idle station answers the call:
  - a.) The calling party is connected to the UCD station.

## Service Conditions

1. The maximum number of UCD groups is 63.
2. A UCD group may have 100 stations.
3. UCD groups are assigned through the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18].
4. Stations are arranged in a circular-type hunt group. A call to the group starts at the first idle station, after the last station that received a call.
5. If all of the group's stations are busy, the call waits in a queue. The caller hears ringback tone. The first call in the queue will be answered.
6. CALL WAITING LAMP-UCD [C-76] will light (if programmed) after calls are in queue and will flash when the threshold value for that UCD group is reached.
7. A user can block UCD calls by dialing a Busy Out (BYO) code (1 to 3 digits), or if it is a D<sup>term</sup>, by pressing the DND or BYO key. The user can still originate calls from and receive calls to its own telephone number. The user can dial the BYO code from a normal dial tone connection or from a CONSULTATION HOLD-ALL CALLS [C-17] condition.
8. Each UCD group is assigned a UCD group number, allowing DIRECT INWARD DIALING (DID) [D-8] calls to be routed to selected groups.
9. If the Attendant or the user transfers a call to a busy UCD group, the call will wait in queue until a station in the group becomes idle.
10. Incoming calls to individual stations in the group are not distributed by UCD hunting. Only calls to the UCD group number follow the circular distribution.
11. Each UCD group has a controlling station. Only the controlling station or the Attendant can activate or deactivate CALL FORWARDING-ALL CALLS [C-5] when the UCD group number is not a phantom number.

**Service Conditions (cont'd)**

12. If CALL FORWARDING-ALL CALLS [C-5] is set on a controlling station and the destination station is idle, a call to the UCD group is transferred. If the designated station is busy, the user will hear busy tone.
13. If CALL FORWARDING-ALL CALLS [C-5] is set on a non-controlling station, that station is skipped in any UCD hunt.
14. The Attendant can use BUSY VERIFICATION [B-3] to check the busy/idle condition of the UCD stations. If the BYO code or key has been used, the Attendant will receive a reorder tone.
15. CALL WAITING-ORIGINATING [C-31] can be activated by an individual UCD user towards another station within the system. Also, another user can activate this feature towards an individual UCD group station. CALL WAITING-ORIGINATING [C-31] can be activated toward a UCD group number when all the stations and the queue are busy. Waiting is set to the controlling station.
16. CALL WAITING-TERMINATING [C-12], when assigned to an individual UCD group station, allows the calling user to wait on the called station's line when it is busy. The group user can be connected to the waiting call by hanging up. The station rings and the call is connected when the caller goes off-hook. These calls have priority over UCD calls in the queue.
17. CALL BACK [C-1] can be activated by an individual UCD group user towards another station. Also, another user can activate this feature towards an individual UCD station. CALL BACK [C-1] can be activated toward a UCD group number when all the stations and UCD queue are busy. CALL BACK [C-1] is set to the controlling station.
18. A UCD group number can be used as the destination station of DIRECT-IN TERMINATION [D-7] or of NIGHT CONNECTION-FIXED/FLEXIBLE [N-1/N-2].
19. A UCD group number can be assigned as the destination station of OFF-HOOK ALARM [O-6], PRIORITY CALL [P-9], ATTENDANT NIGHT TRANSFER [A-19], and LDN NIGHT CONNECTION [L-28, 29].
20. If a Phantom Number is assigned to a controlling station, UCD hunting may or may not occur (depending on the APHN command setting), when the Phantom Number is dialed.
21. Three types of traffic measurements can be provided for the UCD feature:
  - a.) UCD route peg count:
    - Count of incoming calls from each route to each UCD group
    - Count of calls answered by UCD
    - Count of other calls (abandoned, restricted, blocked)
 Example:

From 07/24 08:00 to 07/24 09:00				
Route	UCD Group	Incoming	Answer	Abandon
10	1	9	7	2
	2	15	15	0
<b>Route Total</b>	24	22	2	

- b.) UCD Group peg count:
  - Count of incoming calls to each UCD group
  - Count of answered calls
  - Count of other calls (abandoned, restricted, blocked)



## Service Conditions (cont'd)

Example:

From 07/24 09:00 to 07/24 10:00			
UCD Group	Incoming	Answer	Abandon
1	12	6	6
2	11	8	3
<b>Total</b>	23	14	9

c.) UCD station peg count:

- Count of incoming calls to each station in each group
- Count of answered calls
- Count of other calls (abandoned, restricted, blocked)

Example:

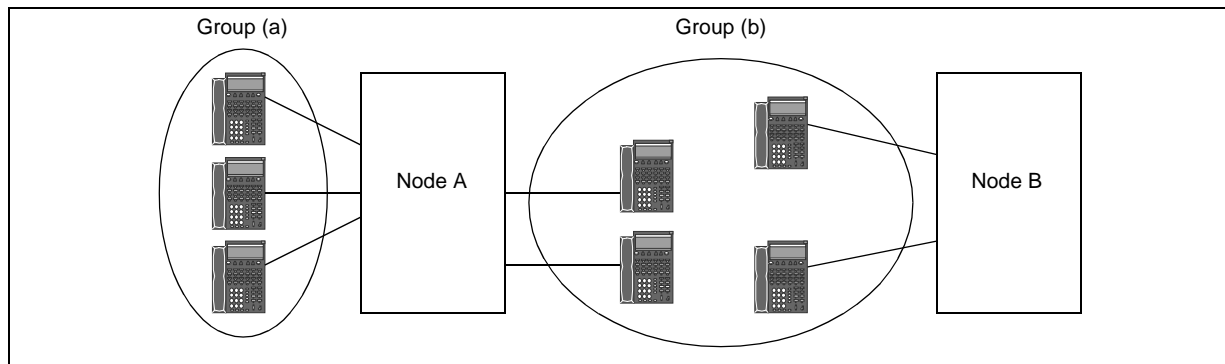
From 07/24 9:00 to 07/24 10:00					
UCD Group	TN	STN	Ringing	Answer	Abandon
1	1	1000	4	4	0
		1001	3	2	1
<b>Group Total</b>			7	6	1

- UCD Peg counts are available for calls transferred to the UCD group by the Attendant and for calls transferred to the UCD group from a station.
- The total numbers of incoming calls for which the UCD queueing feature is available, and other incoming calls such as intra-office, tie line, etc., are as follows:
  - 1 IMG, 4 IMG system      384 calls/system maximum
  - IMX-U (16 IMG) system    640 calls/system
 Calls above this limit are terminated by a busy tone connection.
- During queueing block, the ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] is valid. The attendant hears reorder tone when the ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] is restricted.
- OVERFLOW-UCD [O-13] is available.
- When a UCD controlling station transfers the in-progress station call or trunk call to a station which has been set CALL FORWARDING-ALL CALLS [C-5] or CALL FORWARDING-BUSY LINE [C-2] whose forwarding destination is the UCD controlling station, these features are valid.
- When UCD queueing is not available and the system data ASYD SYS 1 INDEX 60 bit 3 = 1 assigned, UCD peg count is not activated.
- When the controlling station transfers the station/trunk to another station that has set CALL FORWARDING - ALL CALLS [C-5] or CALL FORWARDING - BUSY LINE [C-2] (to the same controlling station), call forwarding is activated and the MCI message is sent out.
- Whether UCD incoming call information is to be sent to a Message Center Interface (MCI) or not can be specified on a UCD group basis using the AUCD command. This feature can be assigned to each UCD Group. In the case of UCD incoming calls overflowing to a UCD Group, the judgement whether the information is to be sent to MCI or not depends on the terminated UCD Group.
- When OVERFLOW - UCD [O-13] is activated, the transferred destination's data decide whether UCD incoming call information is sent to MCI or not.

**Service Conditions (cont'd)**

31. This feature is available via FCCS link.
32. A UCD Group for FCCS service is not available for the destination of the dead level or the dead number.
33. The following number is assignable to a station of the UCD group.
  - a.) Physical Station Number (Physical Station Number, Phantom Number, Monitored Number [Pilot No.], DTE station)
  - b.) Telephone number
34. When activating this feature via the FCCS network, only the telephone number is available for FCCS service.
35. When activating this feature via the FCCS network, the maximum number of the UCD groups in a node is 63.
36. When activating this feature via the FCCS network, the station assigned by using the Physical Station Number and the station assigned by using the telephone number cannot be accommodated in the same group and the same node.
37. When activating this feature via the FCCS network, the maximum number of stations per group are as shown below:
 

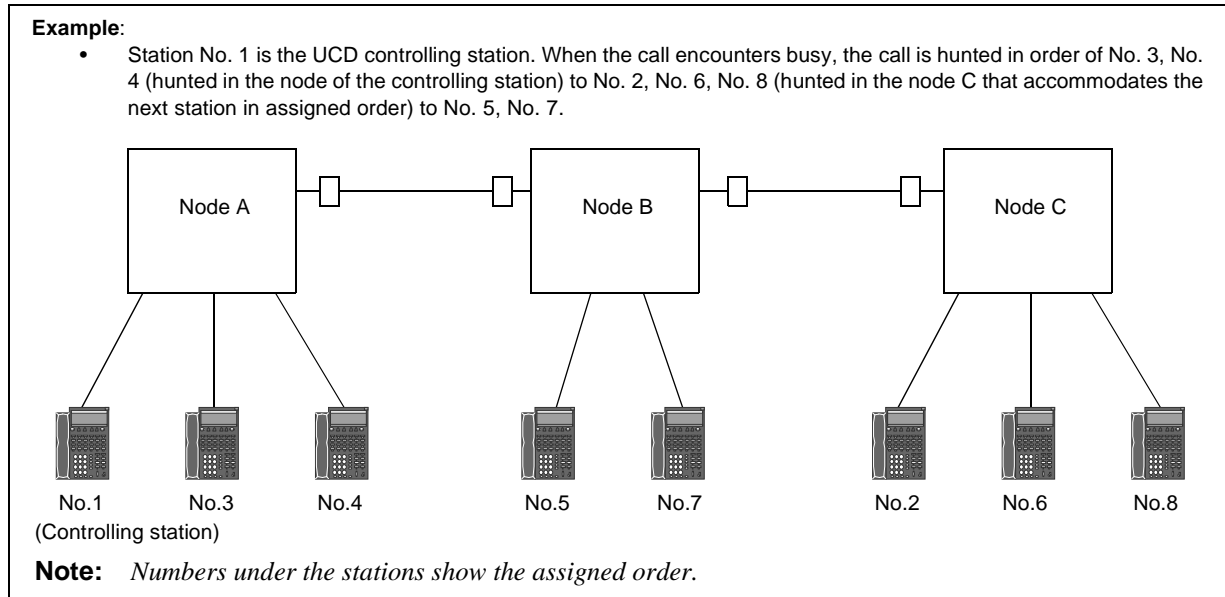
Physical Station Number:	100 stations
Telephone Number:	100 stations
38. When activating this feature via the FCCS network, two types of UCD groups are available:
  - Group (a): All the stations belonging to one group are accommodated in the same node.
  - Group (b): Stations belonging to one group are accommodated in different nodes.
 Group (a) and Group (b) can be used together within a FCCS network.



39. When using the FCH card in conjunction with FCCS link:
  - a.) Stations in four different nodes can be assigned in a UCD group.

## Service Conditions (cont'd)

- b.) When stations belonging to different nodes are assigned to a UCD group, the station hunt is not activated in assigned order if the stations are not assigned in continuous order within a node. First, the call is shifted to the stations within the node of the UCD controlling station, even though it is not in consecutive order (in the node, station hunt is activated in assigned order). After all the stations in the node are hunted, the station hunt is shifted to the next assigned station and the stations in the node are hunted in assigned order. See the figure below.



40. Phantom Telephone Number (PHTELN) can also be assigned to each telephone number (a maximum of 16 PHTELNs per TELN, TELNs + PHTELNs in total = 60,000 or less). The assigned PHTELN may or may not be the UCD group number by the APHNN command setting (see Interactions).
41. When activating this feature via the FCCS network, BUSY OUT is available for the station assigned by the telephone number.
42. When a call terminates to the UCD station through FCCS link, MCI data can be output. MCI text format is designated via the ASYDL command.
43. When activating this feature via the FCCS network, when PEG COUNT [P-7] service is provided, UCD Route Peg Count/UCD Group Peg Count/UCD Station Peg Count is available.
44. When activating this feature via the FCCS network, in regard to CALL WAITING LAMP - UCD [C-76] service, if a UCD incoming call is terminated when the queue slot is full, the lamps of the stations in the same node that accommodates the controlling station, start to flash.
45. When activating this feature via the FCCS network, a UCD station assigned by the telephone number cannot be a destination station for DIRECT-IN TERMINATION (DIT) [D-7] or NIGHT CONNECTION FIXED/FLEXIBLE [N-1/2].
46. A UCD group may accommodate members from four different Fusion Point Codes.
47. When all FCCS links are busy:
  - a.) UCD member stations belonging to the node where the UCD controlling station is not accommodated are not hunted.
  - b.) when all UCD stations in a hunt group are busy, incoming calls routed to the group are not queued. The calling party hears busy tone.

**Service Conditions (cont'd)**

- c.) When the CCIS line is used as the alternative routing, SERVICE DISPLAY is not activated and the hunting function is completed at the terminated station.
48. When using a Phantom Telephone Number (PHTELN) for a UCD controlling station via FCCS, consider the following:
  - a.) Whether to use the PHTELN to start the UCD hunt or not can be selected by the command APHNN. When using the PHTELN, assign "1" in the "PH" parameter. If not, assign "0".
  - b.) When "PH = 1": UCD hunt starts by dialing either the Telephone Number of the controlling station or its Phantom Telephone Number. Both numbers can be the UCD group number.
  - c.) When "PH = 0": UCD hunt starts by dialing the Telephone Number of the controlling station only. The feature is not provided when the PHTELN is dialed.

**Interactions**

1. UCD PEG COUNT information is available using Traffic commands. Refer to PEG COUNT [P-7] for more information.
2. CALL FORWARDING-ALL CALLS [C-5]: Only the controlling station or the Attendant Console can activate this feature. When activated, calls to the UCD group will be diverted. If the destination station is busy, busy tone is returned to the calling party. If the UCD group number is a Phantom Number, CALL FORWARDING-ALL CALLS [C-5] cannot be activated.
3. CALL FORWARDING ALL CALLS/BUSY LINE [C-2, 5]: When a member station in a UCD group activates CALL FORWARDING-ALL CALLS [C-5] or CALL FORWARDING-BUSY LINE [C-2], only calls directed to that station are forwarded. UCD group calls are not affected. UCD calls will bypass the call forwarded station.
4. CALL FORWARDING-DON'T ANSWER [C-3]: All calls terminating at a UCD station will forward if the call is not answered before the Call Forwarding timer expires.
5. There is no peg count for calls directed to a UCD group which terminate to a station outside the UCD group due to CALL FORWARDING [C-2, 3, 5].
6. ATTENDANT CAMP-ON WITH TONE INDICATION [A-1]: UCD calls extended by the Attendant to the controlling station will not camp-on unless all of the non-controlling stations are either busy or in the Busy Out state, and the controlling station is engaged in a two-way conversation. Then the call will camp-on to the controlling station and will terminate at the first available station.
7. In the event of a non-UCD call extended to a member station of a UCD Group, ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] will operate normally.
8. If the UCD controlling station answers an ATTENDANT CAMP-ON WITH TONE INDICATION [A-1] call using CONSULTATION HOLD-ALL CALLS [C17], there is no peg count.
9. BUSY VERIFICATION [B-3]: This feature can be used by the Attendant to check the busy/idle condition of an individual station assigned to a UCD group. When this feature is used against an individual station that is idle but has set Busy Out, the Attendant will receive reorder tone.
10. BUSY VERIFICATION [B-3] will activate the normal hunting sequence, and the next station in the UCD group scheduled to receive the call will be rung. BUSY VERIFICATION [B-3] will operate only when all the stations in the group are busy, and only if the station is engaged in an actual call.
11. A D<sup>term</sup> user can set or cancel Busy Out at any time and from any condition (idle, busy, three-way conference, PRIVACY RELEASE [P-18]), simply by pressing the BUSY OUT key.
12. Single-line users can set Busy Out by going off-hook and dialing the BUSY OUT access code, or from the switch hook flash, by dialing the BUSY OUT access code when engaged in a normal two-way conversation.

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**Interactions (cont'd)**

13. The DND key functions in the same manner as the BUSY OUT key for UCD calls. However, while the BUSY OUT key allows non-controlling UCD stations to receive calls dialed directly, use of the DND key restricts all incoming calls.
14. If OVERFLOW-UCD [O-13] is in service, overflow will take place if all the stations in the first group are busy or in the Busy Out state.
15. If the OVERFLOW-UCD [O-13] group is also busy, queuing to the first group takes place.
16. Once BUSY OUT cancel code is activated, any UCD call in queue will automatically be directed to and ring the cancelling UCD station.
17. BUSY OUT set/cancel cannot be activated by a D<sup>term</sup> user from the idle (on-hook) condition if the My-line is in use by another D<sup>term</sup> user. The D<sup>term</sup> user must first go off-hook or press the SPEAKER key (even though no line will actually be seized), before pressing the BUSY OUT set/cancel key.
18. If the system is reset, traffic measurement requests are no longer in service.
19. When using a Phantom Number for a UCD controlling station, consider the following:
  - a.) Whether to use the Phantom Number to start the UCD hunt or not can be selected by the command APHN. When using the Phantom Number, assign "1" in the "PH" parameter. If not, assign "0".
  - b.) When "PH = 1": UCD hunt starts by dialing either the station number of the controlling station or its Phantom No. Both numbers can be the UCD group number.
  - c.) When "PH = 0": UCD hunt starts by dialing the station number of the controlling station only. The feature is not provided when the Phantom Number is dialed.

# U-3 Universal Sender

## General Description

This feature permits dialed numbers to be transmitted via a sender, a device that will automatically add or delete the necessary number of digits or perform any necessary conversions.

## Operating Procedure

No manual operation is required.

## Service Conditions

1. For incoming connections, digits may be deleted according to the route involved. A maximum of 4 digits may be added (including the access code).
2. For outgoing connections, digits may be added/deleted according to the route involved. A maximum of 24 digits may be deleted, and a maximum of 4 may be added (including the access code).
3. LEAST-COST ROUTING [L-5]: Digits may be added/deleted according to the route involved and the dialed digits. A maximum of 24 digits may be deleted, and a maximum of 24 may be added, consisting of either digits or 2.8 second pauses.

## Interactions

1. For features requiring digit translation, refer to the specific feature programming description.
2. The ASTP, AOSP, and AISP commands operate to translate incoming TIE Line digits that are received by the register and then sent to the opposite PBX via UNIVERSAL SENDER. The ANND command is used like the AMND command. It tells the system how many digits the register is to expect for a specific route. The UNIVERSAL SENDER then sends the digits to the opposite PBX.

Features requiring the UNIVERSAL SENDER are:

ATTENDANT CONSOLE	[A-3]
ATTENDANT KEY PAD	[A-4]
AUTOMATIC TRUNK TEST	[A-21]
CALL FORWARDING-OUTSIDE	[C-28]
LEAST-COST ROUTING-3/6 DIGIT	[L-5]
OUTGOING TRUNK QUEUING	[O-2]
OFF-HOOK QUEUING	[O-7]
PUSHBUTTON CALLING	[P-4]
PUSHBUTTON-TO-ROTARY CONVERSION	[P-6]
SPEED CALLING	[S-3, 21, 23]
TOLL RESTRICTION-3/6-DIGIT	[T-7]

# V-1 Variable Timing Parameters

## General Description

The Variable Timing Parameters feature gives the PBX the versatility to change timing parameters, using the MAINTENANCE ADMINISTRATION TERMINAL (MAT) [M-18]. All timing parameters for a specific timing sequence are set initially within the generic program. These timing parameters can be changed to accommodate user requirements.

## Operating Procedure

No manual operations required. Refer to the NEAX2400 IMX Office Data Specification.

## General Description

The following list describes the major VARIABLE TIMING PARAMETERS:

1. Automatic Recall Timer: AUTOMATIC RECALL [A-8]:
  - a.) standard timing: 30 seconds
  - b.) variable timing: 2-30 seconds (two-second increments)
2. No Answer Timer for station call: CALL FORWARDING-DON'T ANSWER [C-3]:
  - a.) standard timing: 30 seconds
  - b.) variable timing: 2-30 seconds (two-second increments)
3. No Answer Timer for station call via an Attendant Console: CALL FORWARDING-DON'T ANSWER [C-3]:
  - a.) standard timing: 10 seconds
  - b.) variable timing: 2-30 seconds (two-second increments)
4. No Answer Timer for Call Transfer: CALL TRANSFER-ALL CALLS [C-11]:
  - a.) standard timing: 30 seconds
  - b.) variable timing: 2-30 seconds (two-second increments)
5. Periodic Time Indication Tone Timer: PERIODIC TIME INDICATION TONE [P-11]:
  - a.) standard timing: first period - 3 minutes; other periods - 3 minutes
  - b.) variable timing: first period - 0.5 to 12.5 minutes (0.5-minute increments), other periods - 0.5 to 12.5 minutes (0.5-minute increments)
6. Recall Timer for unanswered paging: PAGING TRANSFER [P-10] and RADIO PAGING [R-16]:
  - a.) standard timing: 30 seconds
  - b.) variable timing: 30 to 480 seconds (30-second increments).

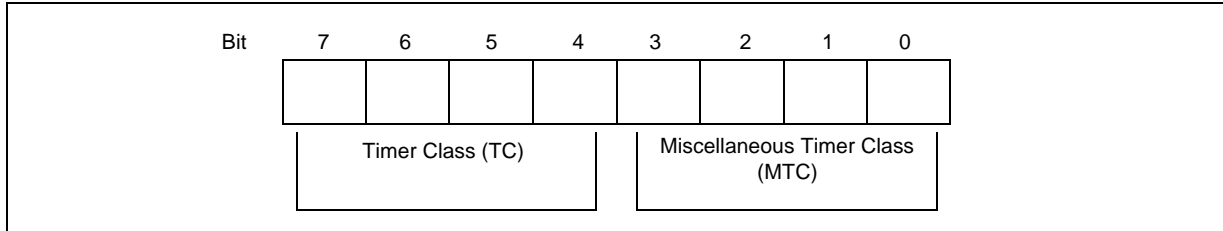
All other timers are variable (e.g., Register pre-pause timer, Sender pre-pause timer, and switch hook timer).

**Note:** *If no data is entered, the system operates properly using default data (RAM data). ASYD indexes are not usually reprogrammed, with the possible exception of System Data 1, Indexes 156 and 157. All the hexadecimal data mentioned is default data.*

**Interactions**

- To calculate VARIABLE TIMING PARAMETERS, multiply the Timer Class by the Miscellaneous Timer Class,  $TC \times MTC = \text{VARIABLE TIMING PARAMETER}$ . TC is a set value. MTC is any value from 1-15, assigned in hexadecimal. For the PERIODIC TIME INDICATION TONE Timer, a TC of 3 equaling 2 seconds is not available, but a TC of 4 equaling 30 seconds is available.

Timer Index:



TC values for Indexes 136, 147, 150, 155, 156, 157, 158

TC 0 = -

1 = -

2 = -

3 = 2 seconds.

TC values for Indexes 134, 139, 140, 141, 152

TC 0 = -

1 = -

2 = -

3 = 2 seconds

7 = 8 seconds.

TC values for Indexes 137, 146

TC 0 = -

1 = 64 milliseconds

2 = -

3 = 2 seconds

4 = 30 seconds.

TC values for Indexes 138

TC 0 = -

1 = 64 milliseconds

2 = -

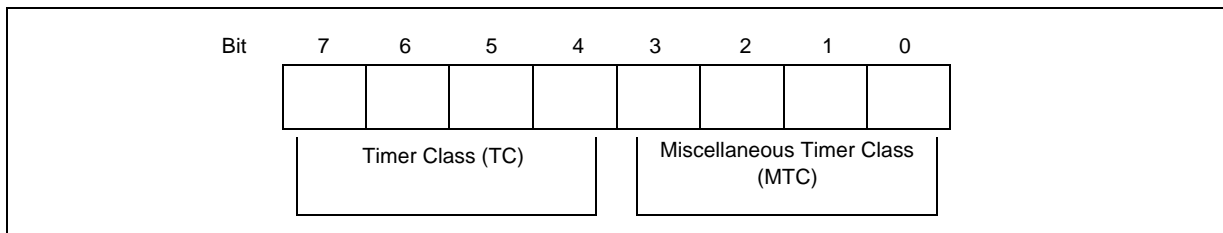
3 = 2 seconds

4 = 30 seconds

5 = 5 minutes

6 = 1 second.

Timer Index:





**Interactions (cont'd)**

TC values for Indexes 142, 143, 144

TC 0 = -

1 = -

2 = -

3 = 2 seconds

4 = 30 seconds

7 = 8 seconds.

TC values for Indexes 135

TC 0 = -

1 = 64 msec.

TC values for Indexes 149

TC 0 = -

1 = -

2 = -

3 = 2 seconds

4 = 30 seconds.

TC values for Indexes 145

TC 0 = -

1 = 2 seconds.

## V-2

## Voice Call

### General Description

This feature enables a single line telephone to make a VOICE CALL [V-2] when the called party is a D<sup>term</sup> set. This path exists from the calling party to the called party's built-in speaker. If the called party's MIC is on, the called party can converse hands-free.

### Operating Procedure

#### From a single line station to a D<sup>term</sup>:

1. Dial the telephone number of the desired D<sup>term</sup> station and receive ringback tone.
2. Perform a switch hook flash.
3. Dial the VOICE CALL access code. A signal tone (two bursts) is transmitted over the called party's speaker.
4. Called D<sup>term</sup> displays:

<b>VOICE</b>	<b>XXXX</b>
<b>(Time Display)</b>	

5. Announce the call over the built-in speaker.

### Service Conditions

1. When the called station is not a D<sup>term</sup>, reorder tone will be sent to the calling party for a pre-determined time, followed by ringback tone.
2. Once a VOICE CALL has been activated, the called station will appear busy on multi-line sets displaying the called station.
3. VOICE CALL will follow CALL FORWARDING - ALL CALLS [C-5] and CALL FORWARDING - BUSY/DON'T ANSWER [C-2, 3].
4. VOICE CALL will terminate at the station whose my line is the same as the extension called.
5. Only the called station can respond HANDS-FREE [H-5D].
6. STATION MESSAGE DETAIL RECORDING SYSTEM [S-10] is not available for this service.

## V-2D

# Voice Call - D<sup>term</sup>

### General Description

This feature provides a voice path between two D<sup>term</sup> sets. This path exits from the calling party to the called party's built-in speaker. If the called party's MIC key is on, the called party can converse hands-free.

### Operating Procedure

#### From one D<sup>term</sup> to another D<sup>term</sup>:

1. The originating D<sup>term</sup> user dials the desired telephone number and receives a ringback tone.
2. The calling party presses the VOICE CALL feature key. A signal tone (two bursts) is transmitted over the called party's speaker. The calling party's LCD displays:

Called Number
<b>VOICE</b> <span style="float: right;"><b>XXXX</b></span> <b>(Time Display)</b>

#### From a single-line set to a D<sup>term</sup>:

1. The single-line set user dials the desired D<sup>term</sup> number and receives a ringback tone.
2. The calling party presses the switch hook, and dials VOICE CALL access code. A signal tone is transmitted over the called party's speaker.
3. The calling party announces the call over the built-in speaker.

### Service Conditions

1. After a voice call has been activated, the called station will appear busy on multi-line sets displaying the called station.
2. A voice call will follow CALL FORWARDING-ALL CALLS [C-5] and CALL FORWARDING-BUSY LINE/DON'T ANSWER [C-2, C-3].
3. A voice call will terminate at the station MY-LINE [M-23D].
4. When a called station is not a D<sup>term</sup>, reorder tone will be sent to the calling party followed by ringback tone.
5. Only the called station can respond using HANDS-FREE ANSWER BACK-D<sup>term</sup> [H-4D].
6. If the called station is restricted from VOICE CALL SERVICE by Class of Service, status of the calling/called party is as follows:
  - a.) Calling party
    - Single Line: Receives ringback tone after hearing reorder tone for up to 30 seconds or by pressing the switch hook during reorder tone.
    - D<sup>term</sup>: When using VOICE key: Receives ringback tone, and LCD displays VOICE REST for 5 seconds.  
When using an access code: Hear reorder tone, and LCD displays VOICE REST for 5 seconds. After hearing reorder tone for 30 seconds or after pressing switch hook, receives ringback tone.
  - b.) Called party's D<sup>term</sup> continues to ring.
7. STATION MESSAGE DETAIL RECORDING [S-10] is not available for this service.

### Interactions

A Voice Call cannot be sent to a single-line station.

## V-3D Volume Control - D<sup>term</sup>

### General Description

This feature is used for controlling the volume of a D<sup>term</sup> set's built-in speaker and receiver.

### Operating Procedure

1. The D<sup>term</sup> set is equipped with a sliding volume control knob located in the front, beneath the dial pad. Volume can be increased by moving the control to the right, and decreased by moving it to the left.
2. The ringing volume is controlled by a switch on the underside of the D<sup>term</sup>. It is marked RING and located directly below the LCD Display Panel. The ringing volume is increased by moving the switch to the right and decreased by moving the switch to the left.
3. The ringing tone can be set to one of three distinct tones, using switch settings "1", "2", or "3", depending on user preference. Each switch setting produces a separate distinct ringing tone.
  - Setting "1" produces the lowest.
  - Setting "2" produces a medium.
  - Setting "3" produces the highest.

To control the ringing tone, there is a switch located underneath the D<sup>term</sup>. It is opposite the Transfer Key, and is labeled RINGING TONE. It has switch settings marked 1, 2 and 3.

#### For D<sup>term</sup> Series E:

1. The D<sup>term</sup> is equipped with two control buttons located on the top front of the phone. Volume can be increased by pushing the right control button while off-hook. Volume can be decreased by pushing the left control button while off-hook.
2. The ringing volume is also adjusted by the same two control buttons. Ringing volume by pushing the right control button while the D<sup>term</sup> is ringing. Decrease the ringing volume by pushing the left control button while the D<sup>term</sup> is ringing.
3. The ringing tone can be set to one of four distinct ringing tones by performing the following: Press the feature key + 3. Each time this is performed, one of the four patterns is selected.

### Service Conditions

Ringing, Recall Ringing, and Voice Call Signal Tone are not controlled by VOLUME CONTROL.

# W-1

# WATS Access

## General Description

This feature permits any user direct-dial access to outgoing WATS lines.

## Operating Procedure

1. Lift the handset; receive dial tone.
2. Dial the WATS ACCESS code.
3. Receive second dial tone.
4. Dial the desired number.

## Service Conditions

Access to WATS lines may be denied to individual stations via CLASS OF SERVICE-INDIVIDUAL [C-15].

## Interactions

1. WATS ACCESS will operate in conjunction with the following features:

LEAST-COST ROUTING-3/6-DIGIT	[L-5]
MISCELLANEOUS TRUNK ACCESS	[M-1]
MISCELLANEOUS TRUNK RESTRICTION	[M-2]
INDIVIDUAL TRUNK ACCESS	[I-4]
OUTGOING TRUNK QUEUING	[O-2]
OFF-HOOK QUEUING	[O-7]
ROUTE ADVANCE	[R-6]
DIRECT-IN TERMINATION	[D-7]
2. A WATS Access trunk can be used with any system feature that can be used with any other trunk. There are no unique characteristics of a WATS trunk of note in relation to the implementation of other features.

This page is for your notes.