NEC

NDA-24158
ISSUE 2
STOCK # 151905

NEAX2000 IVS

Business / Hotel / Data Features and Specifications

JULY, 1995

NEC America, Inc.

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Table of Features

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Account Code	X	→	→	→	→	→	→	→	→
Add-On Module	—	X	→	→	→	→	→	→	→
Alarm Indication	X	→	→	→	→	→	→	→	→
Alpha Numeric Display	X	→	→	→	→	E	→	→	→
Analog Port Adapter	—	X	→	→	→	→	E	→	→
Announcement Service	X	→	→	→	→	→	→	→	→
Answer Key	X	→	→	→	→	→	→	→	→
Asynchronous Data Switching	X	→	→	→	→	→	→	→	→
Attendant Assisted Calling	X	→	→	→	→	→	→	→	→
Attendant Camp-On	X	E	→	→	→	→	→	→	→
Attendant Console (SN610 ATTCON)	X	→	→	→	→	→	→	→	→
Attendant Console (SN716 DESKCON)	—	—	—	—	—	—	X	→	→
Attendant Called/Calling Name Display	X	→	→	→	→	→	→	→	→
Attendant Called/Calling Number	X	→	→	→	→	→	→	→	→
Attendant Call Selection	X	→	→	→	→	→	→	→	→
Attendant Console Lockout-Password	X	→	→	→	→	→	→	→	→
Attendant Do Not Disturb Setup and Cancel	X	→	→	→	→	→	→	→	→
Attendant Interposition Calling/Transfer	X	→	→	→	→	→	→	→	→
Attendant Lamp Check	X	→	→	→	→	→	→	→	→
Attendant Listed Directory Number	X	→	→	→	→	→	→	→	→
Attendant Loop Release	X	E	→	→	→	→	→	→	→
Attendant Programming	X	→	→	→	→	→	→	→	→
Attendant Training Jacks	X	→	→	→	→	→	→	→	→
Audible Indication Control	X	→	→	→	→	→	→	→	→
Call Processing Indication	X	→	→	→	→	→	→	→	→
Call Queuing	X	→	→	→	→	→	→	→	→
Call Splitting	X	→	→	→	→	→	→	→	→
Call Waiting Display	X	→	→	→	→	→	→	→	→
Common Route Indial	X	→	→	→	→	→	→	→	→
Dialed Number Identification Service (DNIS)	—	—	X	→	→	→	→	→	→
Incoming Call Identification	X	→	→	→	→	→	→	→	→
Individual Trunk Access	X	→	→	→	→	→	→	→	→

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Multi-Function Key	X	→	→	→	→	→	→	→	→
Multiple Console Operation	X	→	→	→	→	→	→	→	→
Pushbutton Calling-Attendant Only	X	→	→	→	→	→	→	→	→
Serial Call	X	→	→	→	→	→	→	→	→
Time Display	X	→	→	→	→	→	→	→	→
Trunk Group Busy Display	X	→	→	→	→	→	→	→	→
Unsupervised Trunk-to-Trunk Transfer By Attendant	X	→	→	→	→	→	→	→	→
Attendant Delay Announcement	X	→	→	→	→	→	→	→	→
Attendant Lockout	X	→	→	→	→	→	→	→	→
Attendant Overflow	X	→	→	→	→	→	→	→	→
Attendant Override	X	→	→	→	→	→	→	→	→
Authorization Code	X	→	→	→	→	→	→	→	→
Automated Attendant	X	→	→	→	→	→	→	→	E
Automatic Call Distribution (ACD)	X	→	→	→	→	→	→	→	→
Busy In/Busy Out-ACD	X	E	→	→	→	→	→	→	→
Call Waiting Indication-ACD	X	→	→	→	→	→	→	→	→
Delay Announcement-ACD	X	→	→	→	→	→	→	→	→
Hunt Past No Answer-ACD	X	→	→	→	→	→	→	→	→
Immediate Overflow-ACD	X	→	→	→	→	→	→	→	→
Priority Queue-ACD	X	→	→	→	→	→	→	→	→
Queue Size Control-ACD	X	→	→	→	→	→	→	→	→
Silent Monitors-ACD	X	→	→	→	→	→	→	→	→
Automatic Call Distribution (ACD) and Management Information System (MIS)	X	→	→	→	→	→	→	→	→
Automatic Camp-On	X	→	→	→	→	→	→	→	→
Automatic Number Identification (ANI)	—	—	X	→	→	→	→	→	→
Automatic Recall	X	→	→	→	→	→	→	→	→
Automatic Wake Up	X	→	→	→	→	→	→	→	→
Back Up CPU	—	—	—	—	—	X	→	→	→
Background Music	X	E	→	→	→	→	→	→	→
Boss/Secretary Calling	X	→	→	→	→	→	→	→	→
Broker's Call	X	→	→	→	→	→	→	→	→

Table of Features (continued)

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Call Back	X	→	→	→	→	→	→	→	→
Call Forwarding	X	E	→	→	→	→	E	→	→
Attendant Call Forwarding Set Up and Cancel	X	→	→	→	→	→	→	→	→
Call Forwarding-All Calls	X	→	→	→	→	E	E	E	→
Call Forwarding-Busy Line	X	→	→	→	→	E	E	E	→
Call Forwarding-No Answer	X	→	→	→	→	E	E	E	→
Call Forwarding-Destination	X	→	→	→	→	→	→	→	→
Multiple Call Forwarding-All Calls	X	→	→	→	→	→	→	→	→
Multiple Call Forwarding-Busy Line	X	→	→	→	→	→	→	→	→
Multiple Call Forwarding-No Answer	X	→	→	→	→	→	→	→	→
Split Call Forwarding-All Calls	—	X	E	→	→	E	→	→	→
Split Call Forwarding-Busy Line	X	E	→	→	→	E	→	→	→
Split Call Forwarding-No Answer	—	X	→	→	→	E	→	→	→
Call Forwarding-Override	X	→	→	→	→	→	→	→	→
Group Diversion	X	→	→	→	→	→	→	→	→
Call Park	X	E	→	→	→	→	→	→	→
Call Park-System	X	E	→	→	→	→	→	→	→
Call Park-Tenant	X	→	→	→	→	→	→	→	→
Call Pickup	X	→	→	→	→	→	→	→	→
Call Pickup-Direct	X	→	→	→	→	→	→	→	→
Call Pickup-Group	X	→	→	→	→	→	→	→	→
Call Pickup-Designated Group	X	→	→	→	→	→	→	→	→
Call Redirect	—	—	—	—	—	—	X	→	→
Call Transfer	X	→	→	→	→	→	→	→	→
Call Transfer-All Calls	X	→	→	→	→	→	→	→	→
Call Transfer-Attendant	X	→	→	→	→	→	→	→	→
Caller ID Class	—	—	—	X	→	→	→	→	→
Caller ID Display	—	—	—	—	—	—	X	→	E
Camp-On	X	→	→	→	→	→	→	→	→
Centrex Compatibility	X	→	→	→	→	→	→	→	→
Check In/Check Out	X	→	→	→	→	→	→	→	→
Class of Service	X	→	→	→	→	→	→	→	→
Code Restriction	X	→	→	→	→	→	→	→	→
Conference (Three/Four Party)	X	→	→	→	→	→	→	→	→

Table of Features (continued)

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Conference (Six/Ten Party)	X	→	→	E	→	→	→	→	→
Consecutive Speed Dialing	X	→	→	→	→	→	→	→	→
Consultation Hold	X	→	→	→	→	→	→	→	→
Customer Administration Terminal (CAT)	X	→	→	→	→	→	→	→	→
Data Hotline	X	→	→	→	→	→	→	→	→
Data Hunting	X	→	→	→	→	→	→	→	→
Data Interface - Automatic Answer	X	→	→	→	→	→	→	→	→
Data Hot Line	X	→	→	→	→	→	→	→	→
Data Hunting	X	→	→	→	→	→	→	→	→
Data Interface Auto Answer	X	→	→	→	→	→	→	→	→
Data Line Security	X	→	→	→	→	→	→	→	→
Delayed Ringing	X	→	→	→	→	→	→	→	→
Diagnostics	X	→	→	→	→	→	→	→	→
Dial Conversion	X	→	→	→	→	→	→	→	→
Direct Data Entry	—	—	X	→	→	→	→	→	→
Direct Digital Interface (DDI)	X	→	E	→	→	→	→	E	→
Direct Inward Dialing (DID)	X	→	→	→	→	→	→	→	→
DID Call Waiting	X	→	→	→	→	→	→	→	→
DID Digit Conversion	X	→	→	→	→	→	→	→	→
Direct Inward System Access (DISA)	X	→	→	→	→	→	→	→	→
Direct Inward Termination (DIT)	X	→	→	→	→	→	→	→	→
Direct Outward Dialing (DOD)	X	→	→	→	→	→	→	→	→
Direct Station Selection/Busy Lamp Field (DSS/BLF) Console	X	→	→	→	→	→	→	→	→
Busy Out Status Console	X	→	→	→	→	→	→	→	→
Do Not Disturb Console	X	→	→	→	→	→	→	→	→
Message Waiting Console	X	→	→	→	→	→	→	→	→
Room Cut Off Console	X	→	→	→	→	→	→	→	→
Wake Up No Answer Console	X	→	→	→	→	→	→	→	→
Distinctive Ringing	X	→	→	→	→	→	→	→	→

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Do Not Disturb	X	→	E	→	→	→	→	→	→
Do Not Disturb-Hotel/Motel	X	→	→	→	→	→	→	→	→
Do Not Disturb-System	X	→	→	→	→	→	→	→	→
Do Not Disturb - Data Line	X	→	→	→	→	→	→	→	→
Elapsed Call Timer	X	→	→	→	→	→	→	→	→
Enhanced 911	—	—	—	—	X	→	→	→	→
Executive Calling	X	→	→	→	→	→	→	→	→
Executive Override	X	→	→	→	→	→	→	→	→
External Paging with Meet-Me	X	E	→	→	→	→	→	→	→
Fax Arrival Indicator	X	→	→	→	→	→	→	→	→
Feature Activation from Secondary Extension	X	E	→	→	→	→	→	→	→
Flexible Line Key Assignment	X	→	→	→	→	→	E	→	→
Flexible Numbering Plan	X	→	→	→	→	→	→	→	→
Flexible Ringing Assignment	X	→	→	→	→	→	→	→	→
Forced Account Code	X	→	→	→	→	→	→	→	→
Group Listening	X	→	→	→	→	→	→	→	→
Handsfree Answerback	X	→	→	→	→	→	→	→	→
Handsfree Dialing and Monitoring	X	→	→	→	→	→	→	→	→
Hold	X	→	→	→	→	→	→	→	→
Call Hold	X	→	→	→	→	→	→	→	→
Dual Hold	X	→	→	→	→	→	→	→	→
Exclusive Hold	X	→	→	→	→	→	→	→	→
Nonexclusive Hold	X	→	→	→	→	→	→	→	→
Hotel/Motel Attendant Console	X	→	→	→	→	→	→	→	→
Hotel/Motel Front Desk Instrument	X	→	→	→	→	→	→	→	→
Hotline-Inside/Outside	X	→	→	→	→	→	→	→	→
House Phone	X	→	→	→	→	→	→	→	→
Individual Attendant Access	X	→	→	→	→	→	→	→	→
Intercept Announcement	X	→	→	→	→	→	→	→	→
Intercom	X	→	→	→	→	→	→	→	→
Manual Intercom	X	→	→	→	→	→	→	→	→

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Dial Intercom	X	→	→	→	→	→	→	→	→
Automatic Intercom	X	→	→	→	→	→	→	→	→
Internal Tone/Voice Signaling	X	→	→	→	→	→	→	→	→
Internal Zone Paging with Meet-Me	X	→	→	→	→	→	→	→	→
Keyboard Dialing - Data Adapter	X	→	→	→	→	→	→	→	→
Last Number Redial	X	E	→	→	→	→	→	→	→
Least Cost Routing-3/6 Digit	X	→	→	→	→	→	→	E	→
Line Lockout	X	→	→	→	→	→	→	→	→
Line Preselection	X	→	→	→	→	→	→	→	→
Maid Status	X	→	→	→	→	→	→	→	→
Maintenance Administration Terminal (MAT)	X	→	→	→	→	→	→	→	→
Battery Release Control	X	→	→	→	→	→	→	→	→
Configuration Report	X	→	→	→	→	→	→	→	→
Fault Message	X	→	→	→	→	→	→	→	→
Listup	X	→	→	→	→	→	→	→	→
Maintenance Printout	X	→	→	→	→	→	→	→	→
Passwords	X	→	→	→	→	→	→	→	→
Peg Count	X	→	→	→	→	→	→	→	→
Remote Maintenance (on-board modem)	X	→	→	→	→	→	→	→	→
Remove and Restore Service	X	→	→	→	→	→	→	→	→
Station Line Status Display	X	→	→	→	→	→	→	→	→
Station/Trunk Status Display	X	→	→	→	→	→	→	→	→
Message Center Interface (MCI)	—	X	→	→	→	E	→	→	→
Message Registration	X	→	→	→	→	→	→	→	→
Message Reminder	X	→	→	→	→	→	→	→	→
Message Waiting (Single/Multiple)	X	→	E	→	→	→	→	→	E
Miscellaneous Trunk Access	X	→	→	→	→	→	→	→	→
CCSA Access	X	→	→	→	→	→	→	→	→
Code Calling Equipment Access	X	→	→	→	→	→	→	→	→
Dictation Equipment Access	X	→	→	→	→	→	→	→	→
Foreign Exchange Access	X	→	→	→	→	→	→	→	→

Table of Features (continued)

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Radio Paging Equipment Access	X	→	→	→	→	→	→	→	→
Wide Area Telephone Service (WATS) Access	X	→	→	→	→	→	→	→	→
Multiple Terminal Attendant Position	X	→	→	→	→	→	→	→	→
Music On Hold	X	E	→	→	→	→	→	→	→
Nailed - Down Connection - Data	X	→	→	→	→	→	→	→	→
Night Service	X	→	→	→	→	→	→	→	→
Attendant Night Transfer	X	→	→	→	→	→	→	→	→
Call Rerouting	X	→	→	→	→	→	→	→	→
Day/Night Mode Change by Attendant Console	X	→	→	→	→	→	→	→	→
Day/Night Mode Change by Station Dialing	X	→	→	→	→	→	→	→	→
Night Connection-Fixed	X	→	→	→	→	→	→	→	→
Night Connection-Flexible	X	→	→	→	→	→	→	→	→
Trunk Answer Any Station (TAS)	X	→	→	→	→	→	→	→	→
Off-Hook Alarm	X	→	→	→	→	→	→	→	→
Off-Premises Extensions	X	→	→	→	→	→	→	→	→
Open Application Interface (OAI)	X	→	E	→	→	→	→	→	E
Pad Lock	—	—	X	→	→	→	→	→	→
Periodic Time Indication Tone	X	→	→	→	→	→	→	→	→
Pooled Line Access	X	→	→	→	→	→	→	→	→
Power Failure Transfer	X	E	→	→	→	→	→	→	→
Priority Call	X	→	→	→	→	→	→	→	→
Privacy	X	→	→	→	→	→	→	→	→
Direct Privacy Release	X	→	→	→	→	→	→	→	→
Manual Privacy Release	X	→	→	→	→	→	→	→	→
Private Lines	X	→	→	→	→	→	→	→	→
Property Management System (PMS) Interface	X	→	E	→	→	→	→	→	→
Proprietary Multiline Terminal	X	→	→	→	→	→	→	→	→
Automatic Idle Return	X	→	→	→	→	→	→	→	→
Called Station Status Display	X	→	→	→	→	→	→	→	→
Calling Name and Number Display	X	→	→	→	→	→	→	→	→
Dynamic Dial Pad	—	—	—	—	—	—	—	X	→
Handsfree	X	→	→	→	→	→	→	→	→

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
I-Hold/I-Use Indication	X	→	→	→	→	→	→	→	→
Microphone Control	X	→	→	→	→	→	→	→	→
Multiple Line Operation	X	→	→	→	→	→	→	E	→
Mute Key	—	—	—	—	—	—	—	X	→
Off-Hook Voice Announcement	—	X	→	→	→	→	→	→	→
Prime Line Pickup	X	→	→	→	→	→	→	→	→
Recall Key	X	→	→	→	→	→	→	→	→
Relay Control Function Key	X	→	→	→	→	→	→	→	→
Ring Frequency Control	X	→	→	→	→	→	→	→	→
Ringing Line Pickup	X	→	→	→	→	→	→	→	→
Soft Key	—	—	—	—	—	X	→	→	E
Volume Control	X	→	→	→	→	→	→	→	→
Remote Hold	—	—	—	—	—	—	—	—	X
Remote PIM	—	—	—	—	—	X	→	→	→
Reserve Power	X	→	→	→	→	→	→	→	→
Resident System Program	X	→	→	E	→	→	→	→	→
Return Message Schedule Display	X	→	→	→	→	→	→	→	→
Room Cutoff	X	→	E	→	→	→	→	→	→
Room Status	X	→	→	→	→	→	→	→	→
Route Advance	X	→	→	→	→	→	→	→	→
Save and Repeat	X	→	→	→	→	→	→	→	→
Security Alarm	X	→	→	→	→	→	→	→	→
Simultaneous Voice and Data Transmission	X	→	→	→	→	→	→	→	→
Single Digit Dialing	X	→	→	→	→	→	→	→	→
Software Line Appearance (Virtual Extensions)	X	→	→	→	→	→	→	→	→
Stack Dial	X	E	→	→	→	→	→	→	→
Station Hunting	X	→	→	→	→	→	→	→	→
Station Hunting-Circular	X	→	→	→	→	→	→	→	→
Station Hunting-Terminal	X	→	→	→	→	→	→	→	→
Station Hunting-Secretarial	X	→	→	→	→	→	→	→	→
Station Message Detail Recording (SMDR)	X	→	E	E	→	→	→	→	→
Station Speed Dialing	X	→	→	E	E	→	→	→	→
Step Call	X	→	→	→	→	→	→	→	→

Table of Features (continued)

FEATURE	X = available — = not available E = enhanced or changed → = carried over to next level software								
	1000	1200	1300	1500	1600	1700	1800	1900	1900 R2
Supervisory Control of Peripheral Equipment	X	→	→	→	→	→	→	→	→
Synchronous Data Switching	X	→	→	→	→	→	→	→	→
System Speed Dialing	X	→	→	→	→	→	→	→	→
Tenant Service	X	→	→	→	→	→	→	→	→
Terminal Attribute Data Assignment	X	→	→	→	→	→	→	→	→
Tie Lines	X	→	→	→	→	→	→	→	→
Tie Line Tandem Switching	X	→	→	→	→	→	→	→	→
Timed Queue	X	→	→	→	→	→	→	→	→
Timed Reminder	X	→	→	→	→	→	→	→	→
Trunk-Direct Appearances	X	→	→	→	→	→	→	→	→
Trunk Queuing-Outgoing	X	→	→	→	→	→	→	→	→
Trunk to Trunk Connection	X	→	→	E	→	→	→	→	→
Uniform Call Distribution (UCD)	X	→	→	→	→	→	→	→	→
Busy In/Busy Out-UCD	X	E	→	→	→	→	→	→	→
Call Waiting Indication-UCD	X	→	→	→	→	→	→	→	→
Delay Announcement -UCD	X	→	→	→	→	→	→	→	→
Hunt Past No Answer-UCD	X	→	→	→	→	→	→	→	→
Immediate Overflow-UCD	X	→	→	→	→	→	→	→	→
Priority Queue-UCD	X	→	→	→	→	→	→	→	→
Queue Size Control-UCD	X	→	→	→	→	→	→	→	→
Silent Monitor-UCD	X	→	→	→	→	→	→	→	→
Uniform Numbering Plan (UNP) Voice and Data	X	→	→	→	→	→	→	→	→
Variable Timing Parameters	X	→	→	→	→	→	→	→	→
Voice Guide	—	—	—	—	—	—	—	X	→
Voice Mail Integration	X	→	→	E	E	→	E	→	→
Voice Mail Transfer	—	—	—	—	X	→	→	→	→
Whisper Page	—	—	—	—	X	→	→	→	E

Account Code

General Description

This feature, when used with *Station Message Detail Recording* (SMDR), allows station users and Attendants to enter a cost accounting or client billing code (up to 16 digits) into the system.

Station Application

All stations.

Operating Procedure

To enter an Account Code from a station before accessing an outside line

1. Lift the handset and receive dial tone.
2. Enter the Account Code feature access code or depress the Account Code feature access key.
3. Enter the Account Code.
4. Receive dial tone and dial the desired number (including outside line access code).

To enter an Account Code while connected to an outside line

■ From a Multiline Terminal

1. Depress Account Code feature access key and conversation continues.
2. Enter the Account Code.

■ From the Attendant Console

1. While connected to an outside line, depress the START key only if an outgoing call.
2. Enter the Account Code feature access code.
3. Enter the Account Code.
4. Dial the desired station number.

■ From a Single Line Telephone

1. Depress the FLASH key (or momentarily depress the hookswitch) and receive feature dial tone.
2. Enter the Account Code feature access code.
3. Enter the Account Code and receive feature dial tone again.
4. Return to the original outside line by depressing the FLASH key (or momentarily depressing the hookswitch).

   OR

   Dial a station number to transfer the call.

Service Conditions

1. The maximum number of digits in an Account Code is 10 when using the NEAX2400 SMDR format; otherwise, the maximum is 16. There is no limitation to the number of Account Codes used per system. The feature access code for Account Code entry can be one to three digits.

2. A station user can enter an Account Code consisting of fewer digits than the maximum length defined and indicate the end of the entry by depressing the # key. Therefore, the # key cannot be part of an Account Code.
3. Account Code entry can be performed with an outside party on Consultation Hold. In this case, feature dial tone is received instead of dial tone after entering the Account Code.
4. Stations are assigned this feature through Class of Service.
5. Account Codes can be output in the SMDR record for calls handled by Trunk Queuing – Outgoing during connection to the outside line.
6. When multiple Account Codes are entered for the same call, only the last code entered will be recorded by SMDR.
7. If the NEAX2000 IVS is set to comply with KF Registration, this feature only allows an Account Code to be input while the outside line is seized.

Add-On Module

General Description

This feature allows the Add-On Module to be combined with a Multiline Terminal when there are insufficient line or trunk keys provided at the Multiline Terminal.

When the EDW-48-2 unit keys are programmed as line/trunk keys, the additional 25 lines/trunks and the existing lines/trunks set for the Multiline Terminal can be accessed directly (maximum of 49 lines/ trunks).

The station speed dialing function can be assigned for all keys on the EDW-48-2 unit. Also, one of the last 3 keys can be used as a Day/ Night change key.

Station Application

All Multiline Terminals (D^{term} Series III).

Operating Procedure

If the EDW-48-2 unit is used as an Add-On Module, its operating procedure is the same as that of the Multiline Terminal.

If any key on the EDW-48-2 unit is used for station speed dialing, the operating procedure is the same as station speed dialing.

Service Conditions

1. The maximum number of EDW-48-2 units, used as an Add-On Module, per Firmware Processor (FP) is 32. The maximum number per system is 32.
2. Only one Add-On Module can be connected to a Multiline Terminal providing a maximum of up to 41 line/ trunk keys (16 line/trunk keys on D^{term} Series III and 25 line/trunk keys on Add-On Module).
3. A Multiline Terminal and an associated Add-On Module unit must be contained in the same PIM.
4. The total of Multiline Terminals and EDW-48-2 units used as Add- On Modules cannot exceed 256.
5. Trunks and lines (Prime Lines of other Multiline Terminals, virtual lines, and single lines) can be assigned to the Add-On Module unit lines and keys.
6. The following can also be set for line/trunk keys other than those mentioned in 5 above: house phones, Hotlines, Manual Intercoms, Automatic Intercoms, and Dial Intercoms.
7. Lamp indication on the Add-On Module unit is the same as that of Multiline Terminals.
8. Boss/Secretary Transfer and override functions are available for line keys on the Add-On Module.
9. If a line/trunk on the Add-On Module unit is called, the ringer of the connected Multiline Terminal rings. The Multiline Terminal volume is used to control the ringer volume.
10. Data lines cannot be set to any line/trunk keys on the Add-On Module.
11. If the resident system program is used to set system data, the EDW-48-2 unit will be assigned as 16 lines on the Multiline Terminal.
12. For details on any keys usable for the station speed dialing function, refer to the Station Speed Dialing feature. One of the last 3 keys can be used as Day/Night key.
13. A 2DLC or 4DLC Card must be provided when using the EDW-48-2. The EDW-48-2 unit uses one port of the card.

14. Up to 25 lines and trunks can be assigned for the Add-On Module. The delayed ringing function is only available for the first 16 lines and trunks assigned.
15. On ETJ-24DS-1 terminals, if keys 30 - 37 are programmed, an Add-on Module cannot be assigned.
16. For each ETJ-24DS-1 terminal, there will be one less Add-On Module available per FP.

Alarm Indications

General Description

Faults are indicated by the MJ/MN (Major/Minor) lamps located on the AC/DC Power Supply and, optionally, an external alarm display unit.

Station Application

Not applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. The following table shows a standard pattern of the faults that can be detected and their alarm indications. If required, the following alarm indications (Major (MJ), Minor (MN), or No indication) can be changed on an individual fault basis. Refer to the NEAX2000 IVS Maintenance Manual for more information.

Contents of fault	Alarm indications			
	AC-DC power (PZ-PW86)		External alarm display	
	MJ	MN	MJ	MN
System Initialization	X	X	X	X
Number of stack overflows was more than a fixed number	X	X	X	X
MP - FP/AP communication failure	X	X	X	X
FP/AP down	X	X	X	X
DTI line failure	X	X	X	X
DCH link failure	X	X	X	X
CCH link failure	X	X	X	X
Number of lockout stations was more than a fixed number	X	X	X	X
SMDR output buffer memory overflow	X	X	X	X
DLC failure	X	X	X	X
AC/DC power supply (PZ-PW86) **Note**				
• AC input down	X	X	X	X
• DC output down (+5V, –27V)	X	X	X	X
• Fuse blown (+5V, –27V)	X	X	X	X

Note: *MJ ALARM is always displayed for power failure regardless of programming.*

2. Normal operation of each Firmware Processor (FP) is indicated by a green flashing “run” LED located on the FP.
3. Normal operation of the Main Processor (MP) is indicated by a green flashing “run” LED located on the MP.
4. Normal operation of each AC-DC power supply is indicated by a steadily lit green LED located on the AC-DC power supply.

Alphanumeric Display

General Description

The ETJ-16DC-1 Multiline Terminals are each equipped with a 2-line, 20-character Liquid Crystal Display (LCD). These displays are used to provide alphanumeric information including clock/calendar and call processing information.

Station Application

All Multiline Terminals with an LCD display.

Operating Procedure

Displays are automatically provided by the system once programmed; however, a Multiline Terminal user's name can be changed as required from the associated Multiline Terminal.

To program a name at the Multiline Terminal to which the name applies:

1. Depress the SPKR key and receive internal dial tone.
2. Dial the Name Assignment access code and receive special dial tone.
3. Using the keypad, depress the key with the desired letter to display the first letter on the key. The display will indicate the numerical designation. Subsequent depressions will advance through the letters on that key. The following Table can be used as a guide to indicate the key and the number of depressions required to display numbers, letters, spaces, and periods.

		Dial pad keys											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	*****	**#**
DEPRESSIONS	1	1	2	3	4	5	6	7	8	9	0	*	#
	2	●	A	D	G	J	M	P	T	W	SPACE	*	#
	3	●	B	E	H	K	N	Q	U	X		*	#
	4	●	C	F	I	L	O	R	V	Y		*	#
	5	●	SPACE					S		Z		*	#

SPACE

4. When the desired letter is displayed, depression of the TRF key will change the letter to a lower case letter (default is upper case). Depress the HOLD key to enter that letter and advance to the next entry.
5. Repeat the previous two steps until the desired name is displayed and entered. A maximum of eight letters can be entered.
6. Depress the SPKR Key.

Service Conditions

1. The maximum number of stations that can be provided with a user's name display is 384. The maximum number of characters per name is eight, (including spaces). The Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT) can be used to register or change a name. A Multiline Terminal can register or change the name assignment of that individual Multiline Terminal.
2. User names can be assigned to stations that do not have an LCD display using the MAT or CAT.
3. The trunk route name display is provided on a trunk route basis. The maximum amount of characters in the trunk name display is four. The maximum number of trunk routes assignable is 63. Only the MAT or CAT can be used to register or change a trunk name display.
4. The clock/calendar displays the system clock and calendar on the bottom line of the LCD display, and is set using the MAT, CAT, or SN610 Attendant Console.
5. There are two ways to change a name that is currently programmed: overwriting with a new name, or by inserting a blank space as the first character to delete the programmed name.
6. The Attendant Console cannot be assigned a name. This feature applies only to Multiline Terminals and Single Line Telephones. A call from the Attendant Console will always show “OPR” on the top line of a Multiline Terminals LCD display.
7. Station name assignment data is retained when there is a system reset or a power failure.
8. LCD Displays are as follows:

LCD Displays (Sheet 1 of 2)

DISPLAY (ENGLISH)	LOCATION	DESCRIPTION
4:06PM TUE 14	All stations	Clock/Calendar display
00:0235 DDD1000	Calling/Called station	CO call duration
DDD 9700	Calling station	Trunk route name and number seized
FDA 3642	Calling station	Station 3621 forwarded all calls to station 3642 FDA = Call Forward – All Calls FDB = Call Forward – Busy FDN = Call Forward – No Answer XFR = Transfer
FDA 3621 3633	Called station	Station 3633 was forwarded from station 3621 FDA = Call Forward – All Calls FDB = Call Forward – Busy FDN = Call Forward – No Answer XFR = Transfer
PCK 3622 3615	Station answering via Call Pickup	Station 3615 called station 3622
PCK 3622 3619	Calling party	Station 3619 picked up call directed to station 3622
VCL 3630	Called/Calling party	Voice Call to/from station
HLD DDD 9700	Called Party	Trunk route name and trunk number on hold
CNF 3000 3001	Station during 3-party conference	3-party conference with station 3000 and 3001
CNF	Station during 4-party conference	4-party conference

LCD Displays (Sheet 2 of 2)

DISPLAY	LOCATION	DESCRIPTION
TIME	Called party that set Wake-Up call/timed reminder	Wake-Up call/Timed reminder
ICM 3000	Intercom calling party and called party	Call on intercom (automatic, manual, or dial intercom)
EHD 3000	Originator	Exclusive hold
PROGRAM 1	Originator	Background Music program number
SET DAY	Originator	Confirmation of day mode set
SET NIGHT	Originator	Confirmation of night mode set
PAGING	Originator	Internal zone paging/Group Call
MSG 3000	Originator	Confirmation of message reminder
D DTE 4000	Originator	Originating a data call
D DTE 4001	Receiving station	Receiving a data call
RDY DTE 4000	Originator/receiving station	Data connection starts
RCL 3000 2000	Transferring station	Recall for transferred call to station 3000 from station 2000
CB 3000	Originator	Recall for Call back when station 3000 goes idle
CAT MODE	Originator	Confirmation of CAT mode
TIMED – Q	Originator	Confirmation of Timed Queue

9. Refer also to the Proprietary Multiline Terminal Features and Specifications for details on Called Station Status Display and Calling Name and Number Display.

Analog Port Adapter

General Description

This feature allows an APR-J or APA-J unit combined with a Multiline Terminal to connect to an analog terminal such as an analog telephone, Modem, and PC with built-in Modem.

There are two communication modes for the terminal connected via the Analog Port Adapter as shown below:

1. Single Port Mode

   A Multiline Terminal and an analog terminal share the same port. In this mode, the Multiline Terminal and the analog terminal cannot be used simultaneously.

2. Dual Port Mode

   A Multiline Terminal and an analog terminal use different ports. In this mode, the Multiline Terminal and the analog terminal can be used simultaneously.

Station Application

Multiline Terminals (D^{term} Series III).

Operating Procedure

Single Port Mode

■ To originate a call from an analog terminal without keypad via the Analog Port Adapter

1. Lift the handset of a Multiline Terminal and receive dial tone.
2. Dial the desired station number and receive ringback tone. The LED of the Prime Line on the Multiline Terminal lights green.
3. After the called party answers, lift the handset of the analog terminal to switch over to the analog terminal.
4. Replace the handset of the Multiline Terminal.
5. Converse.

■ To originate a call from a single line telephone (PB) via the Analog Port Adapter

1. Lift the handset of a single line telephone and receive dial tone. The LED of the Prime Line on the Multiline Terminal lights green.
2. Dial the desired station number from the single line telephone and receive ringback tone.
3. The called party answers; converse.

■ To answer an incoming call to the Prime Line from an analog terminal via the Analog Port Adapter

1. An analog terminal rings when a call terminates to the Prime Line on the Multiline Terminal.
2. Lift the handset of the analog terminal. The LED of the Prime Line on the Multiline Terminal lights green.
3. Converse.

■ To answer an incoming call to the secondary extension from an analog terminal via the Analog Port Adapter

1. An analog terminal does not ring when a call terminates the secondary extension on the Multiline Terminal.

2. Depress the line key of the secondary extension on the Multi- line Terminal and lift the handset of the Multiline Terminal. The LED of the secondary extension on the Multiline Terminal lights green.
3. Lift the handset of the analog terminal to switch over to the analog terminal.
4. Replace the handset of the Multiline Terminal.
5. Converse.

Dual Port Mode

An analog terminal connected via the Analog Port Adapter can be used independently of the Multiline Terminal.

Refer to the User's Guide for each terminal for operating procedures.

Service Conditions

1. The following analog terminal can be connected to the APR unit:

Single Port Mode:	Single Line Telephone (PB only), Facsimile, Modem for PC Dialing Connection Unit.
Dual Port Mode:	Single Line Telephone (PB only), Facsimile, Voice Mail System with analog interface, Modem with NCU.

2. In Single Port Mode, the Multiline Terminal and the analog terminal cannot be used simultaneously. When the Multiline Terminal and the analog terminal go off hook simultaneously, the analog terminal has precedence.
3. In Dual Port Mode, the Multiline Terminal and the analog terminal can be used simultaneously.
4. The APR-J or APA-J unit cannot be installed in a Multiline Terminal equipped with an SN1152DTAM-A Data Adapter unit.
5. A Multiline terminal/analog terminal cannot be identified on the LED in Single Port Mode. The LED indication on the Multiline Terminal when the analog terminal is in use is as follows:

Single Port Mode:	The LED of the Prime Line lights green. **Note**
Dual Port Mode:	The LED of the secondary extension lights red.

   Note: *When answering the incoming call to the secondary extension on the Multiline Terminal and switching over to the analog terminal, the LED of the secondary extension lights green.*

6. A Multiline Terminal/analog terminal cannot be identified on the LCD on the Multiline Terminal in Single/Dual Port Mode.
7. The ringing pattern is fixed as 1 sec. ON - 2 sec. OFF. The distinctive ringing pattern cannot be provided for Single/Dual Port Mode.
8. In Dual Port Mode, the analog terminal cannot originate from the secondary extension and cannot answer the incoming call to the secondary extension.
9. In Dual Port Mode, the service feature with hooking operation is available from the analog terminal.
10. In Dual Port Mode, when a call is disconnected from the other party, a disconnect signal (momentary open) is sent from the APR to the analog terminal.

Announcement Service

General Description

This feature allows station users to record messages on Digital Announcement Trunk (DAT) cards. When a station user dials the feature access code for this feature, the user receives the corresponding message from the system.

Announcement Service can be used to provide a voice message in the following cases:

- An incoming C.O. line/Tie line call has been transferred and encounters a busy or no answer condition
- An incoming DID line/Tie line call has been terminated to a station and encounters a busy or no answer condition
- Internal Recorded Message in place of Music on Hold
- Night Announcement

Station Application

All stations.

Operating Procedure

To access

1. Lift the handset and receive dial tone.
2. Dial the applicable Announcement Service access code.
3. Receive the message.

To erase an announcement

1. Lift the handset and receive dial tone.
2. Dial the Announcement Service delete access code.
3. Receive feature dial tone.
4. Dial the Announcement Service group number.
5. Restore the handset.

To record

1. Lift the handset and receive dial tone.
2. Dial the Announcement Service record access code.
3. Dial the Announcement Service group number and the DAT card number.
4. Receive 3 seconds of service set tone.
5. Record a message.
6. Restore the handset.

To record/replay/delete for each Digital Announcement Trunk card

To record a message

1. Go off-hook and receive Dial Tone.
2. Dial the Digital Announcement Trunk record access code and Digital Announcement card number. Three seconds of tone will be supplied.
3. Record the message (maximum duration – 60 seconds).
4. Restore handset.

To replay a message

1. Go off-hook and receive Dial Tone.
2. Dial the Digital Announcement Trunk replay access code and Digital Announcement card number.
3. Receive a message.
4. Restore handset.

To delete a message

1. Go off-hook and receive Dial Tone.
2. Dial the Digital Announcement Trunk delete access code and Digital Announcement card number.
3. Receive Service Set Tone.
4. Restore handset.

Service Conditions

1. A maximum of 5 different access codes can be assigned. There is a limit of 10 announcement cards for each of the 5 different access codes. When recording an announcement, each announcement card must be recorded individually.
2. This feature is supported by an announcement card(s) (PN-2DATA) installed in the system.
3. Either single or multiple connection to each announcement can be made on a system-programming basis. In the case of multiple connections, the secondary station cannot be connected to the top of the message.
4. Tie lines can access the Announcement Service.
5. Each time a station is connected to an announcement card, the message will be from 60 to 64 seconds. The station will then be disconnected.
6. The duration of an announcement is limited to 60 seconds.
7. The system can be equipped with up to 64 Digital Announcement Trunk cards for all announcement features. There are 2 circuits on each PN-2DATA Card.
8. Announcement Service can be used to provide a voice message when an incoming C.O. line/Tie line call has been transferred by a station and encounter a busy or no answer condition. The busy condition results in disconnect after three repetitions of the message.
   - Only 1 message of up to 60 seconds can be recorded on each individual voice recording memory card.
   - In this application, a minimum of 2 circuits of Digital Announcement Trunk cards are needed: one for a busy condition and one for a no-answer condition.
   - More than 1 circuit of Digital Announcement Trunk Card can be used, depending on traffic conditions.
   - Call Forwarding, if set, has priority over this feature.

- Digital Announcement Trunk cards can be shared among tenants. Each announcement is assigned on a per tenant basis.
- This feature does not function on Attendant transferred calls.

9. A voice message in place of Music-On-Hold can be provided when a call has been placed on hold.
   - Different messages can be programmed on a tenant basis.
   - Different messages can be programmed depending on the type of line (CO line, Tie line or station) on Hold.
   - More than one connection can be made to a Digital Announcement Trunk Card circuit for this purpose. Secondary connections are made to the message, even if the message is in the middle of a cycle.
   - The announcement is repeated until the call is removed from hold.
10. A voice message can be sent to incoming CO calls during day or night mode.
    - Different messages can be programmed on each CO line.
    - Different messages can be programmed for day/night.
    - More than one connection can be made to a Digital Announcement Trunk Card circuit. Secondary connections can be made in the middle of a message.
    - Announcements may be programmed to be repeated after an interval of from 4 to 120 seconds (in 4 second increments.)

Answer Key

General Description

An Answer Key is provided on all Multiline Terminals. The Answer Key can be used to answer incoming calls on outside lines, and primary or secondary extensions. When the Answer Key is used to answer an incoming call with a call in progress, the first party is placed on hold and the second party is connected. If the Answer Key is depressed while in a three-party call, the user can alternate between each party and a Broker's Call is established.

Station Application

All Multiline Terminals.

Operating Procedure

To answer an incoming ringing call with a call in progress

1. Receive incoming indication.
2. Depress the ANSWER key. The original call is placed on Non-Exclusive Hold.
3. Converse with the connected party.
4. To return to the call on hold after the second call is completed, depress the line key associated with the call on hold.

To answer a Camp-On call (with a call in progress)

1. Receive Camp-On tone.
2. Depress the ANSWER key. The original call is placed on Hold.
3. Subsequent depressions of the ANSWER key alternates the active and holding parties.
4. Converse with the Camped-On party.
5. When one conversation is complete, go on-hook.
6. The party on Hold will recall immediately.

Service Conditions

1. The ANSWER key's LED will flash for Camped-On calls.
2. The priority of Ringing Line Pickup and Ringing Assignment calls using the ANSWER key is as follows:
   1) Voice Call
   2) Incoming external call and recall to the primary extension.
   3) Incoming external call and recall to the trunk line appearance.
   4) Incoming internal call to the primary extension.
   5) Incoming calls to the secondary extension.
3. When a Multiline Terminal user is monitoring tones provided by the system (extension dial tone, busy tone, etc.) and uses the ANSWER key to answer an incoming call, the first call will not be placed on hold (the tone connection will be abandoned).

4. When a Broker's Call is in progress, the ANSWER key cannot be used to answer incoming calls, but will alternate between the existing calls when depressed.
5. When a three-party Conference is in progress, depressing the ANSWER key splits the Conference and establishes a Broker's Call. The ANSWER key has no effect on a 4-party conference.
6. Camped-on calls are answered by the ANSWER key prior to incoming ringing calls.

Asynchronous Data Switching

General Description

This feature allows Asynchronous Data Terminal Equipment (DTE) connected to a Data Adapter to communicate with other DTEs.

Station Application

All Multiline Terminals with LCD equipped for Data Communications.

Operating Procedure

To make a data call:

1. Press key assigned as DATA key. **DTE XXXX** (Originating Data Station) is displayed on the LCD and the associated LED lights.
2. Dial the desired number. **RDYD DTE XXXX** (Answering Data Station) is displayed on the LCD when the called DTE answers.
3. Data communication can begin.
4. Press the DATA key again to cancel data communication.

Service Conditions

1. The following shows the maximum data speed in asynchronous transmission.

PROTIMS (NEC)	300bps ~ 9600bps (300, 600, 1200, 2400, 4,800, 9600)
V.110 (CCITT)	300bps ~ 19.2Kbps (300, 600, 1200, 2400, 4800, 9600, 19.2K)

2. A DATA key must be assigned as one of the keys on the Multiline Terminal, and a Data Adapter must be installed in the Multiline Terminal (8-button Multiline Terminal cannot provide Data Adapter capability).
3. Refer to associated data features for more information on Data Communications.

Attendant Assisted Calling

General Description

This feature allows a station user to ask an Attendant for assistance in originating a call. Three methods are available: non-delay, delay, and passing dial tone.

Station Application

All stations.

Operating Procedure

Non-delay operation

1. The Attendant answers an operator call by depressing the ANSWER or ATND key.
2. The caller provides a call request.
3. The Attendant dials the trunk access code.
4. The Attendant dials the desired telephone number.
5. The Attendant depresses the RELEASE (or START) key.
6. The parties are connected.

Delay operation

1. The Attendant answers an operator call by depressing the ANSWER or ATND key.
2. The caller provides a call request.
3. The Attendant depresses the RELEASE key.
4. The station user receives reorder tone.
5. The station user then restores the handset and waits for a recall from the Attendant.
6. The Attendant depresses the LOOP key.
7. The Attendant dials the trunk access code.
8. The Attendant dials the desired telephone number.
9. The Attendant depresses the ANSWER (or START) key.
10. The Attendant dials the station user's number.
11. The station user answers the call.
12. The Attendant depresses the RELEASE key.
13. The parties are connected.

Passing dial tone

1. The Attendant answers an operator call by depressing the ANSWER or ATND key.
2. The caller provides a call request.
3. The Attendant dials the trunk access code.
4. The Attendant depresses the RELEASE key.
5. Dial tone is supplied to the caller.

Service Conditions

1. During delay operation the Attendant may release the connection either before or after the called station answers.
2. If the call was processed using non-delay or passing dial tone operation, there will not be an Automatic Recall for station-to-trunk calls when the called party does not answer.
3. If the call was processed using non-delay or passing dial tone operation, an Automatic Recall will be initiated for station-to-tie line and trunk-to-tie line calls when answer supervision is provided on the tie line and the called party does not answer.
4. Fully restricted station users cannot be connected by the Attendant to an outside line using this feature. Attempts are routed to reorder tone.
5. Non-delay operation allows the Attendant to place an outgoing call for a station user who reached the Attendant by dialing 0, without requiring the station user to hang up. Delay operation requires that the station hang up.
6. When an Attendant attempts to set up a Trunk-to-Trunk Connection between trunks that do not provide answer supervision, the connection is denied and the RELEASE key has no effect.
7. The Attendant can dial the called number for the station user or, using the passing dial tone method, allow the station user to dial.
8. When Least Cost Routing (LCR) is programmed, the Attendant cannot pass dial tone. The call must be completed using delay or non-delay operation.
9. The Attendant cannot pass dial tone to a station whose route restriction class prevents the station from receiving incoming calls on the trunk route selected.

Attendant Camp-on

General Description

This feature permits the Attendant to hold an incoming call in a special mode when the desired station for the transfer is busy. The Attendant sends a Camp-On tone to the busy station. When that station becomes idle, it is automatically alerted and connected to the waiting party.

Station Application

Attendant Consoles

Operating Procedure

To activate a Camp-On from the Attendant Console

1. Dial the desired station and receive busy tone.
2. Depress the RELEASE key.
3. Camp-On tone is sent to the station and Camp-On is set.

To cancel a Camp-On from the Attendant Console

1. Depress the LOOP key corresponding to held call.
2. Depress the DEST key and receive busy tone.
3. Depress the CANCL key and automatically return to the held party.

To re-enter the call that has been Camped-On from the Attendant Console before being recalled

1. Depress the LOOP key corresponding to held call.
2. The busy station number and name are displayed for six seconds in the left side of the console's display (if provided by System Data).
3. Converse with the held party.

OR

1. Dial the Call Pickup-Direct feature access code and receive feature dial tone.
2. Dial the extension number of desired busy station.
3. Converse with the held party.

To answer an Attendant Camp-On

■ **From a Single Line telephone**

1. Receive a Camp-On tone.
2. Hang up and receive incoming ring (existing call is abandoned).
3. Lift the handset and converse.

OR

1. Receive a Camp-On tone.
2. Depress the FLASH key (or momentarily depress the hookswitch). The call in progress is placed on Consultation Hold.

3. Dial the Call Hold feature access code. The original call is placed on Call Hold and the station user is automatically connected to the Camp-On call.

■ From a Multiline Terminal

1. Receive a Camp-On tone.
2. Hang up and receive incoming ring.
3. Lift the handset and converse.

   OR

1. Receive a Camp-On tone.
2. Depress the ANSWER key. The call in progress is placed on Call Hold and the Camp-On call is connected.

Service Conditions

1. Attendant Camp-On can be set when the busy station is connected to another station or trunk in a two-party connection.
2. Attendant Camp-On is denied if the busy station is dialing, in Line Lockout, receiving a system generated tone, a Data Station protected against any override by DND key, currently has a Camped On call, or any of the following features are activated on the busy station:
   - Attendant Override
   - Call Transfer
   - Camp-On
   - Conference
   - Privacy
   - Voice Call
   - Consultation Hold
   - Data Line Security
   - Executive Override
   - Hold
   - Paging

   When Camp-On is denied, the Attendant will receive reorder tone.
3. The maximum number of simultaneous Camp-Ons per Attendant without loop release is the same as the number of loop keys assigned (SN610 Attendant Console). When Attendant loop release is provided, the maximum number is 12.
4. The station receiving the Camp-On can answer using the Call Hold feature or Answer Key feature. Repeated use of these features allows the station to alternate between the calls (Broker's Call).
5. Calls that remain Camped-On for longer than a predetermined time will initiate an Automatic Recall to the Attendant that set the Camp-On.

Attendant Console (SN610 ATTCON)

General Description

The Attendant Console (SN610 ATTCON) operates on a switched-loop basis with a maximum of 6 Attendant loops terminating at each console on the associated interface card. The Attendant uses these loops for answering, originating, holding, extending, and re-entering calls. When Attendant loop release is used, the number of loops is effectively increased to a maximum of 12 for each console. The following pages describe the features associated with the Attendant Console.

An alternate Attendant Position is described under Multiline Terminal Attendant Position.

Station Application

Attendant Console (SN610 ATTCON)

Operating Procedure

Detailed operating procedures are provided in NEAX2000 IVS Attendant Console User Guide.

Service Conditions

1. Each Firmware Processor (FP) can support up to 8 Attendant Consoles (SN610 ATTCON/SN716 DESKCON). A maximum of 8 Attendant Consoles (SN610 ATTCON/SN716 DESKCON) can be supported per system.
2. Each Attendant Console requires a 2-pair cable. This cable cannot be longer than 4000 feet (1200 meters).

Attendant Console (SN716 DESKCON)

General Description

The Attendant Console (SN716 DESKCON) operates on a switched-loop basis with a maximum of 6 Attendant loops terminating at each console on the associated Interface card. The Attendant uses these loops for answering, originating, holding, extending, and re-entering calls. When Attendant loop release is used, the number of loops is effectively increased to a maximum of 12 for each console.
For the applicable features and specifications associated with the SN716 DESKCON, refer to the following pages which describe the SN610 ATTCON features and specifications.

Station Application

Attendant Console (SN716 DESKCON)

Operating Procedure

The operating procedure for the SN716 is similar to the SN610 consoles. Some minor differences can be noticed with key placement and LED operation.

Service Conditions

1. Each Firmware Processor (FP) can support up to 8 Attendant Consoles (SN610 ATTCON/SN716 DESKCON). A maximum of 8 Attendant Consoles (SN610 ATTCON/SN716 DESKCON) can be supported per system.
2. Each SN716 Attendant Console uses a 3-pair cable. This cable cannot be longer than 4000 feet (1200 meters).
3. The SN716 is equipped with an Alarm LED. This LED will flash for Minor Alarms and light steadily for Major Alarms. Refer to Maintenance Administration Terminal, Fault Messages for more information.
4. Refer to the following chart for cable distances.
5. The SN716 does not support the Lockout feature. Position Busy replaces the Lockout feature.

	With PW00	With AC/DC Adapter
4 port DLC card and 2DLCC	1000 feet (350 meters)	4000 feet (1200 meters)
8 port DLC	1000 feet (350 meters)	1000 feet (350 meters)

Note: *The SN716 uses the PW00 card mounted in the PBX, or the D^{term} Series E AC/DC Adapter, not both.*

Attendant Called/Calling Name Display

General Description

This feature provides a display of the calling/called party's name on the SN610 Attendant Console LCD for Attendant Called/Calling Name Display. On attendant-to-station calls, the LCD display the name assigned to the primary extension of the station. On attendant-to-trunk calls, the LCD displays the name assigned to the trunk route of the trunk.

Station Application

Attendant Console.

Operating Procedure

Displays are automatically provided by the system, once programmed.

Service Conditions

1. A maximum of 384 stations can be provided with a user's name display. The maximum number of characters per name is eight (including spaces). The Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT) can be used to register or change a name. Multiline Terminal users can record or change the name assignment for their own individual Multiline Terminal.
2. User names can be assigned to stations that do not have an LCD display (including Single Line Stations).
3. The trunk name display is provided on a trunk route basis. The maximum amount of characters in the trunk name display is four. The maximum number of trunk names assignable is 63. Only the MAT or CAT can be used to record or change a trunk name.
4. There are two ways to change a name that is currently programmed: Overwriting with a new name or erasing it by inserting a blank space as the first character.
5. The Attendant Console cannot be assigned a name. This feature applies only to Multiline Terminals, Single Line Telephones and trunk routes.
6. Station and trunk name assignment data is retained in case of a system reset or power failure.
7. Refer to the Alphanumeric Display Features and Specifications for the details of programming a name from a Multiline Terminal.

Attendant Called/Calling Number

General Description

This feature provides a display of the station number and station name on the Attendant Console during an Attendant-to-station connection. During an Attendant-to-trunk connection, the same display shows the trunk route designation and a trunk identification code (4 digits).

Operating Procedure

Display is automatically provided during Attendant-to-station connections and Attendant-to-trunk connections.

Service Conditions

1. The station number is displayed on the top line of the console's digital display during an Attendant-to-station connection.
2. When Call Forwarding has rerouted an Attendant-to-station call, the number of the station where the call has been rerouted is displayed, rather than the station number the Attendant dialed.
3. When Station Hunting has rerouted an Attendant-to-station call, the number of the station where the call has been rerouted is displayed, rather than the station (or pilot) number the Attendant dialed.
4. The trunk route designation and the trunk identification code are shown on the top line of the console's digital display during an Attendant-to-trunk connection.
5. All trunk routes will appear in the digital display with a designation (DDD, WATS, FX, TIE, CCSA, etc.). The trunk identification code (4 digits) is programmable.
6. Tenant information is not supplied in the digital display.
7. By pressing the LOOP key of a call which has been camped on by the Attendant and then using the DEST key, an Attendant can determine the trunk, the station number, and the station name (if assigned) to which the call is Camped-On.
8. When a trunk call has been rerouted by Call Forwarding – All Calls, Call Forwarding – Busy, Call Forwarding – No Answer or intercept to the Attendant Console, and the Attendant answers the call, the trunk number and the called station number (intermediate station number) will be displayed and the SRC key LED will light.
9. While the called station number is displayed, the Attendant can transfer the call to a station, hold the call, or park the call. Once any of these steps are taken, the original called station number display cannot be redisplayed.

Attendant Call Selection

General Description

This feature allows assignment of keys on the Attendant Console to particular types of trunk routes (such as WATS or FX) and particular types of service calls (such as Attendant recalls, intercept calls, etc.). LEDs indicate the type of incoming call and pressing the associated key allows the Attendant to answer the calls in any order.

Operating Procedure

1. The Attendant presses a key that has a flashing lamp according to the desired priority (this allows override of priorities assigned to the use of the ANSWER key).
2. The Attendant identifies the incoming call by trunk route or service type.
3. Normal call handling procedures are used.

Service Conditions

1. The six keys located on the left side of the console can be assigned for Attendant Call Selection. In addition, the upper 12 keys can also be assigned for Attendant Call Selection instead of loops and function keys. A flashing LED on these keys means a call waiting to be answered and a steadily lit LED indicates an existing connection.
2. Trunk routes and services can be assigned for Attendant Call Selection as follows:
   - CO Incoming Calls
   - FX Incoming Calls
   - WATS Incoming Calls
   - Tie Line Incoming Calls
   - Call Forward – Busy Calls
   - Operator Calls
   - Attendant Recalls
   - Intercept Calls
   - Call Forward – No Answer Calls
   - Special Operator Calls
   - Priority Calls
   - Emergency Calls
   - Serial Calls
   - Off-Hook Alarm
   - Interposition Calling/Transfer
3. Multiple Attendant Call Selection keys can be flashing at the same time. The Attendant can select any incoming call by pressing the associated key, or can answer on a first in, first out (FIFO) basis using the ANSWER key.

Attendant Console Lockout – Password

General Description

This feature allows the Attendant Console to be set into a lockout mode. This disables the console from originating or receiving calls and setting or resetting service features. To return the Console to its manual operating condition a password is required.

Station Application

Not Applicable.

Operating Procedure

To set Attendant Console Lockout

1. Press an idle LOOP key. The associated green LED lights.

2. Dial the feature access code or press the MODE key. The associated red LED lights. The LCD displays "ACTIVE" during normal mode and the green LED of the ACTIVE key lights.
3. Press the LKOUT key. The associated red LED lights. The LCD display changes from "ACTIVE" to "LK-OUT".
4. Press the ANSWER key and receive service set tone. The LCD displays "SET LKOUT". The mode of the console is changed from the normal to the lockout condition.
5. press the RELEASE key.

To cancel Attendant Console Lockout

1. Press the MODE key. The associated red LED lights.
2. Dial a predetermined password number.
3. Press the ACTIVE key. The associated green LED lights. The LCD display changes from "LKOUT" to "ACTIVE".
4. Press the ANSWER key and receive service set tone. The LCD displays "SET ACTIVE". The mode of the console is now changed from the lockout to the normal condition.
5. Press the RELEASE KEY.

Service Conditions

1. The length of the password can be up to 8 digits.
2. The password is assigned by the MAT or CAT.
3. When the console is set to the lockout condition, one of the following two types of indications can be selected (on a system basis) by system data.
   a) Audible ringing applied at any time.
   b) No audible indications except recall are produced.
4. When the console is set to lockout condition, only the following operation can be executed:
   a) Cancellation of lockout condition
   b) These types of remaining calls on the loop keys can be handled:
      - Unanswered calls
      - Camped-on calls
      - Automatic Recalls
      - Held Call on LOOP key.
5. If there is a call park which has been set by the ATT, the console cannot be set to lockout condition. In this case, the operator hears ROT and the LCD shows "call park".
6. When the console is put into the lockout condition, if there are any uncompleted calls in loops (with the Attendant Loop Release feature), those uncompleted calls can appear on loops as automatic recalls.

Attendant Do Not Disturb Setup And Cancel

General Description

The Attendant has the ability to enter and remove individual stations from Do Not Disturb (DND). Additionally, the Attendant can set one preassigned group of stations into, or out of, Do Not Disturb.

Operating Procedure

To set an individual station in DND

1. Dial the station number without pressing the LOOP key.
2. Press the DD key and the associated LED flashes.
3. Press the ANS key (or START key). The DD LED lights steady and service set tone is received.
4. Press the RELEASE key.

To cancel an individual station in DND

1. Dial the station number without pressing the LOOP key.
2. Press the DD key and the associated LED flashes.
3. Press the RESET key and the DD LED goes out.

To set the group of stations in DND

1. Press the DD key and the associated LED flashes.
2. Press the ANS key (or START key) and the DD LED lights steady.
3. The designated group is now in DND.

To cancel DND set to the group of stations

1. Press the DD key and the associated LED flashes.
2. Press the RESET key and the DD LED goes out.
3. The designated group is no longer in DND.

To call a station that set DND

1. Press an idle LOOP key.
2. Dial the desired station number. The DD LED flashes and reorder tone is received.
3. Press the DDOVR key.
4. The desired station will ring.

Service Conditions

1. Refer to the Do Not Disturb feature for more details.
2. Stations are assigned to the DND group in station Class of Service either from the CAT or MAT.
3. The Attendant Console is able to verify and change the status of stations with respect to Do Not Disturb.
4. DND Override allows the Attendant to call stations in DND without changing their status.

Attendant Interposition Calling / Transfer

General Description

This feature allows any Attendant to directly converse with another Attendant and also allows Attendants to transfer calls from their console to another Attendant's console in systems where Multiple Console Operation has been provided.

Operating Procedure

To call from console A to console B

1. Attendant A presses an idle loop key.
2. Attendant A dials the Interposition Calling/Transfer access code and Attendant B's identification number.
3. The call is indicated at console B (on the ANS key or TF key).
4. Attendant B presses the ANS key or TF key.
5. Attendant A converses with Attendant B.
6. Attendant A and B press the RLS key.

To transfer from console A to console B with a call in progress

1. Attendant A dials the Interposition Calling/Transfer access code and Attendant B's identification number.
2. The call is indicated at Console B (on the ANS key or TF key).
3. Attendant B presses the ANS key.
4. Attendant A presses the RLS key to transfer, or may consult before release.

Service Conditions

1. Each console is assigned an identification number to allow Interposition Calling or Transfers.
2. An Attendant can receive one Interposition Call or Transfer at a time.
3. After receiving an Interposition Transfer, the Attendant has full capabilities for redirecting the call.
4. When Attendant Console Lockout (at the called console) or Night Service is in effect, Interposition Calling and Transfers result in reorder tone.

Attendant Lamp Check

General Description

This function is used to check the status of keys, lamps, and LCDs mounted on the Attendant Console to verify that various operations of the Attendant Console are functioning normally. The check is done by a preset procedure.

Station Application

Not Applicable.

Operating Procedure

To set the Attendant Console into the Lamp Check Mode

1. Press the NIGHT key to set the Attendant Console in Night Mode.
2. Disconnect the line cord modular plug from jack in the bottom of the Attendant Console.
3. Reconnect the modular plug while pressing “0” on the dial of the Attendant Console.

4. The following message is displayed on the LCD of the Attendant Console, and the console is placed into the Lamp Check Mode.

```
**DIAL 0**
ATT SELF TEST MODE
```

   To check the status of all the keys, the buzzer sound, and the LEDs, press each key in turn to check the key itself, as well as to check the corresponding LED, buzzer sound, and LCD on the console. For details on the procedures, refer to the "NEAX2000 IVS Maintenance Manual".

To return the Attendant Console to the normal state

1. Press both the * and # keys together.
2. The Check Mode displayed on the LCD will be changed to the Menu Screen.
3. Press the NIGHT key to release the Night Mode of the console and return to the Day Mode.

Service Conditions

If the Attendant Console is placed into Lamp Check Mode without entering the Night Mode, all received calls will have RBT sent to them.

Attendant Listed Directory Number

General Description

This feature provides a display of the Listed Directory Number on the Attendant Console when the operator has answered a Listed Directory Number call.

Operating Procedure

1. The operator at an Attendant Console answers an incoming call.
2. The DEST lamp lights.
3. The Listed Directory Number, Trunk Number and Trunk Identification Code are displayed.

Service Conditions

1. This service is effective when the operator at an Attendant Console has answered a Listed Directory Number call terminated to the Attendant Console.
2. While the Listed Directory Number is displayed, the operator can transfer the call to a desired station by keying the destination number on the key pad. In this case, the Listed Directory Number of the call cannot be displayed again.
3. While the Listed Directory Number is displayed, the operator can place the present call on Hold by pressing the HOLD button. In this case, the Listed Directory Number cannot be displayed again when the operator returns to the call on Hold.
4. While the Listed Directory Number is displayed, the operator can set Call Park. In this case, the Listed Directory Number of the call placed on Call Park cannot be displayed again. If the call recalls from Call Park, the trunk route and trunk identification code are displayed.

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

To operate

1. The Attendant Console indicates incoming calls.
2. Press the ANSWER or appropriate Attendant Call Selection key.
3. Dial the desired station number and receive ringback tone.
4. Before the station answers, press the RELEASE key.
5. The loop is now available for another call.

To re-enter the call that has been released from a loop, before being recalled

1. Dial the Call Pickup - Direct feature access code and receive feature dial tone.
2. Dial the extension number of the ringing desired station.
3. Converse with the held party.

Service Conditions

1. Unanswered calls will be routed to the Attendant within the predetermined timing using Automatic Recall. Refer to the Variable Timing Parameters Features and Specifications for more information.
2. If all Attendant loop circuits are busy when Automatic Recall is activated, unanswered calls will be routed to the Attendant when idle loops become available. **CW** (Call Waiting) shows on the LCD to indicate a call is waiting to be answered.
3. A maximum of six calls (one per loop) may be released simultaneously from any single Attendant Console.
4. This feature provides each Attendant with the equivalent of twelve switching loops.
5. In a Multiple Console Operation, the attendant who initiated the loop release will be recalled.
6. Attendant Loop Release is only applicable to trunk calls and station calls extended to an unanswered station/ busy station (Camp-On: Trunk Calls only).
7. Calls which are held by the Attendant, using the HOLD key, cannot be released from the console. These calls remain on the switched loop until they are either extended by the Attendant or abandoned by the calling party.
8. When Attendant Camp-On is activated, the Attendant can Camp-On to a busy called station. Upon Camp-On, the Attendant may release the call from the console.
9. Release is denied when the Attendant attempts to transfer a trunk to a fully restricted station or to a station which already has a trunk camped onto it. In this case, the RELEASE key is ineffective.

Attendant Programming

General Description

This function is allowed only for the Attendant Console (SN610) and is used to execute DISA code set up, speed dial programming, and system clock set up operations.

Station Application

Not Applicable.

Operating Procedure

The following operations are common for DISA code set up, speed dial programming, and system clock set up operations.

1. Press an Idle LOOP key.
2. Press the PROG key.

   The PROG key LED (red) lights.

   PASSWORD is displayed on the LCD as prompt information.
3. Dial the password (1~8 digits).

   The dialed password is displayed on the LCD.

   When password dialing is completed, the following message is displayed on the LCD. The PROG key LED (red) blinks at this time.

   ```
   PROGRAM
   DISA SPD CLOCK TONE
   ```

   If the RLS key is pressed in this status, the Attendant Console will return to the idle status. At this time, both CANCEL and ANS keys are disabled.

   After the above operation, select: DISA code set up, speed dial programming, or system clock set up operations.

To set up the DISA code

1. Press the DISA key.

   The DISA key LED (red) lights.
2. Dial the block # (00~07).

   The selected block number is displayed as follows on the LCD along with the currently registered DISA code, trunk restriction class.

   ```
   12345. . . . .55
   05: 1–15/15/15
   DISA
   ```
3. If there is no change, skip to step 4, otherwise dial the new DISA code.
4. Press the ANS key.

5. If there is no change skip to step 6, otherwise dial the new trunk restriction class (1 digit).
6. Press the ANS key.
   The new code and classes are set up.
7. Press the CNCL key.
   To set up another block number, return to step 2.
8. Press the CNCL key.
   The system goes back to the status assumed after the password was set up.

To program system speed dialing

1. Press the SPD key.
   The SPD key LED (red) comes on.
2. Dial the speed dial block # (5 digits).
   The selected block number is displayed as follows along with the currently registered trunk access code and telephone number.

```
00012  9–
12345. . . . .56
SPD
```

3. If there is no change skip to step 4, otherwise dial the new trunk access code to register.
4. Press the ANS key.
5. If there is no change skip to step 6, otherwise dial the new telephone number.
6. Press the ANS key.
   The new access code and the telephone number are set up.
7. Press the CNCL key.
   To program another speed dial block number, return to step 2.
8. Press the CNCL key.
   The system goes back to the status assumed after the password was set.

To set up the system clock

1. Press the CLOCK key.
   The CLOCK key LED (red) comes on.
2. Dial the new date and time (12 digits).
   Dial the date and time in the following order.
   MT DY DW HH MM SS

MT:	Month (01~12)
DY:	Day
DW:	Day of week (00~06: SUN~SAT)
HH:	Hour (00~23)
MM:	Minute (00~59)

SS: Second (00~59)

```
012301010203
CLOCK
```

3. Press the ANS key.
   The new date and time are set up.
4. Press the CNCL key.
   The system goes back to the status assumed after the password was entered.

Service Conditions

1. A feature access code can be assigned and dialed instead of using the PROG key.
2. The PROG key must be assigned to any of the upper 6 keys of the new Attendant Console.
3. 8 DISA Codes can be set up and changed by the Attendant Console.
4. 300 Speed Dial Codes can be set up and changed by the Attendant Console.

Attendant Training Jacks

General Description

The Attendant Console can be equipped with two headset/handset jacks using an optional adaptor. Two jacks are equipped on the adaptor and can be used for training new operators.

Operating Procedure

Normal call handling procedures apply.

Service Conditions

When the jacks are used for training, both handsets can be used for listening and talking.

Audible Indication Control

General Description

This feature allows the Attendant to adjust the volume of audible indications received at the Attendant Console.

Operating Procedure

Adjusting the volume control allows control of audible signaling at the Attendant Console.

Service Conditions

The audible indication volume control does not affect the volume of the Attendants' handset or headset.

Call Processing Indication

General Description

This feature provides visual indications of all calls being processed or awaiting processing at the Attendant Console.

Operating Procedure

No manual operation is required.

Service Conditions

1. Each Attendant Console is provided with 6 dedicated switching loop keys. Each loop key is associated with an LED to display the status of the call on that loop. The indicators may be on, off, or flashing, and green or red.
2. When the Attendant Loop Release feature is activated, the status of the call is removed from the console until recalled by the Automatic Recall feature.
3. When the Attendant Console is calling a station, the LCD display shows the called stations status (BSY, RST, PCK, FDA, FDN, FDB).

Call Queuing

General Description

This feature provides the Attendant the ability to handle a series of exchange network calls in the order of their arrival, (first in, first out) thereby eliminating unnecessary delays.

Operating Procedure

Press the Attendant Console ANSWER key to receive calls in the order of their queue position.

Service Conditions

1. Incoming calls arriving at the console will show “CW” on the LCD display. Additionally, the “CW” will flash when a predetermined number of calls are in queue. This number is programmable from 1 to 48 on a system basis (the default is 6).
2. When an incoming call lights an Incoming Call Identification (LDN, ATND, RCL, WATS, FX, CCSA, etc.) LED, the Attendant may answer it out of the queuing sequence by pressing the indicated key.
3. Automatic Call Distribution is not used in Multiple Console Operation. All incoming call indications appear at each console within the same tenant group so that the call can be answered by any console. Each console shares the same queue.
4. An incoming call cannot be answered simultaneously by more than one Attendant. Only the Attendant that pressed the ANSWER key first is connected to the call. The other Attendant's ANSWER key will pick up the next call or be ineffective (no queue) when pressed.
5. If a power failure occurs, calls in queue which have the power failure transfer feature associated with their trunk will be connected to power failure stations. Other calls in queue will not be connected to power failure stations.

6. When the system is changed from day to night mode, calls already waiting in the queue will remain in the same queue and can be answered by the Attendant Console.
7. Calls in queue can overflow to Night Service. Refer to Attendant Overflow Features and Specifications for more information.

Call Splitting

General Description

This feature allows the Attendant to confer 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 station number.
2. The Station class/number is displayed.
3. Wait for the party to answer.

To speak with calling party only

1. Press the SRC key.
2. The Trunk kind/number displayed.
3. Proceed with the conversation.

To return to called party

1. Press the DEST key.
2. The Station class/number displayed.

To speak with both parties

- Press the TALK key.

To release from the Attendant Console

- Press the RLS key.

To disconnect all parties involved in a three-way Conference

1. Press the DEST key.
2. Press the CANCL key twice.

Service Conditions

1. The Attendant may alternate between the called and calling station parties, and three-party Conference, as desired.
2. The Call Splitting feature is a standard Attendant feature.
3. Call Splitting is automatic when the Attendant begins call completion or answers a recall.

4. Call Splitting is manual when the SRC, DEST, or TALK key is pressed on the Attendant Console.

Call Waiting Display

General Description

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

Operating Procedure

No manual operation is required.

Service Conditions

1. When there are any incoming calls to the Attendant Console that have not yet been answered, the “CW” (Call Waiting) will show on the LCD display (without flashing). A value of from 1 to 48 (the default is 6) waiting calls can be set to start the “CW” flashing, on a per-system basis.

   The number of waiting calls (1 to 96 calls) will show besides 'CW' on the LCD.
2. When multiple consoles are installed, the “CW” will show on all consoles' display which are assigned to the same tenant group. Other tenant group consoles will reflect the call waiting status for their tenant group only.
3. The following types of unanswered incoming calls to an Attendant Console are counted as calls waiting:
   - LDN (Listed Directory Number Calls)
   - ATND (Attendant Dial 0 Calls)
   - RCL (Attendant Recall Calls)
   - FX (Foreign Exchange Calls)
   - WATS (Wide Area Telephone Service Calls)
   - TIE (Tie Line Calls)
   - BUSY (Call Forwarding – Busy Calls to Attendant)
   - NANS (Call Forwarding – No Answer Calls to Attendant)
   - TF (Interposition Transfer/Calling Calls between Attendants)
   - ICPT (Call Forwarding – Intercept Calls)
   - ALL (Call Forwarding – All Calls to Attendant)
   - CCSA (Common Channel Signaling Arrangement Calls)
4. An audible indication will be provided when the “CW” is shown, unless the Attendant is already on a loop or unless the volume control is used to silence the buzzer. Off-hook ringing is available on a per-console basis.

Common Route Indial

General Description

This feature allows assignment of incoming DID calls to different Attendant Call Selection keys based on the last 4 digits dialed into the system. Up to eight individual Listed Directory Numbers can be assigned in system

programming. When an incoming call to any of these trunks is received, an Attendant Call Selection key will flash and the LCD display will indicate the Listed Directory Number associated with that trunk route.

Operating Procedure

Refer to Attendant Call Selection Features and Specifications.

Service Conditions

1. A maximum of one Listed Directory Number can be specified for each Attendant Call Selection key. Up to eight LDN keys may be assigned.
2. This feature can help identify calls to particular tenants who are sharing Attendant(s). In this case, service conditions for Tenant Service would apply to the system.
3. If the system or tenant group is in night mode, the Common Route Indial lines would follow the established night rerouting.

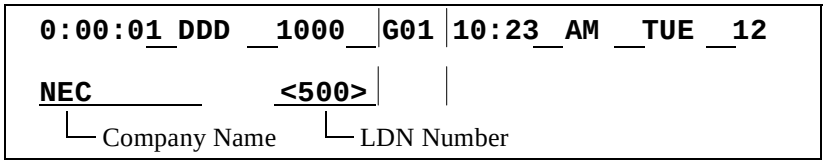
Dialed Number Identification Service (DNIS)

General Description

This feature provides a display of the company name on the Attendant Console when the Attendant has answered a Listed Directory Number or a Tie Line call.

Operating Procedure

1. The Attendant answers an incoming call.
2. SRC, LDN (or TIE), and ANS lamp lights.
3. Company Name, Listed Directory Number, Trunk Number, and Trunk Identification Code are displayed as follows:



Service Conditions

1. This feature is effective when the Attendant has answered a Listed Directory number call or a Tie Line call.
2. The maximum number of characters per company name is eight.
3. The maximum number of company names assigned per system is 16 (maximum 8 for LDN calls and Tie Line calls, respectively). The company name can be assigned per system programming.
4. The company name can be assigned by character code from the CAT or MAT.
5. While the company name is displayed, the Attendant can transfer the call to a desired station by dialing the destination number. In this case, the company name of the call cannot be displayed again.
6. While the company name is displayed, the Attendant can place the present call on hold by pressing the HOLD key. In this case, the company name of the call cannot be displayed again when the Attendant returns to call on hold.

7. The company name can be displayed when the Attendant has answered the Listed Directory Number call or Tie Line call forwarded from the station. If the name display feature is assigned for that station, the station name is displayed (the station name display has priority over the company name display).
8. If using ANI or ISDN, some of the characters of the name will be cut off, depending on the number of digits of the ANI or ISDN calling party number.
9. With ANI or CPN, the LDN number will be overwritten by ANI or CPN.

Incoming Call Identification

General Description

Incoming calls are identified by various means. Refer to Attendant Called/Calling Number, Attendant Call Selection, Attendant Source Key, Attendant Listed Directory Number and Common Route Indial Features and Specifications.

Operating Procedure

Normal operating procedures are applied for each feature.

Service Conditions

Refer to the applicable Features and Specifications.

Individual Trunk Access

General Description

The Attendant Console is provided with the ability to access each individual trunk by dialing an associated identification code. This allows detection of faulty trunks during regular testing or after complaints. The Customer Administration Terminal (CAT) or Maintenance Administration Terminal (MAT) has the capability to then busy out the trunk until repair is effected.

Operating Procedure

1. The Attendant presses an idle LOOP key.
2. The Attendant dials the Individual Trunk access code.
3. The Attendant dials the Individual Trunk identification code.
4. If the trunk was idle, testing can follow.

Service Conditions

1. The Attendant Console LCD display will show the individual trunk identification code.
2. If the trunk is busy, the attendant receives busy tone.
3. If the trunk has been set to busy out status by the CAT or MAT, the Attendant can still access the trunk.
4. Individual Trunk Access is not available for ISDN PRI lines.

Multi-function Key

General Description

This feature allows the top row of keys on the Attendant Console to perform and display multiple functions in accordance with the status of call processing.

Operating Procedure

No manual operation is required.

Service Conditions

1. Multi-Function Keys can be assigned to key numbers 01-06 located directly below the LCD.
2. The lowest line of the LCD displays the function of the associated Multi-Function key under the following conditions:
   - Idle state
   - When an attendant-called station answers or the attendant seizes an originating trunk
   - When the called station is busy
   - When the called station is in Do Not Disturb
   - When dialing a station number without pressing the LOOP key: Hotel/Motel features will be activated
3. A maximum of 5 status functions per Multi-Function Key can be assigned.
4. The LEDs associated with the Multi-Function keys indicates the status of the functions displayed on the liquid crystal displays (LCD).
5. The Incoming Call Identification (ICI) and LOOP keys should not be assigned as Multi-Function keys.

Multiple Console Operation

General Description

This feature allows more than one Attendant Console to operate within the same system.

Operating Procedure

Normal operating procedures are applied for each console installed.

Service Conditions

1. The maximum number of consoles per Firmware Processor (FP) is eight.
2. The maximum number of consoles allowable per system is eight.
3. Each incoming call is displayed on all consoles within a tenant group whether idle or busy. If all Attendants are involved in processing calls when another Central Office call arrives, the “CW” (Call Waiting) will show on all console LCDs.
4. 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 party attempting multiple loop connection.
5. Attendant Interposition Transfer is used to transfer calls between Attendant Consoles.

6. The NEAX2000 IVS operates only on a switched-loop basis. Fixed-loop operation is not available.
7. To place a multiple console system (or a multiple console tenant group) into Night Service, a preprogrammed master console must press the MODE, NITE and ANS key. If one of the other consoles enters Night Service, all calls addressed to that console will be directed to the other console(s).
8. When a console has entered Night Service, all calls already connected to its loop must be processed from that console. Recalls and serial recalls are routed to the night transfer station, if assigned.

Pushbutton Calling – Attendant Only

General Description

This feature permits an operator to place all calls over Dual-Tone, Multi-Frequency (DTMF) lines from the push-button keypad on the Attendant Console.

Operating Procedure

The operator presses the push-button keypad to dial.

Service Conditions

1. This feature requires that all Central Office trunks or tie trunks accept push-button signaling (DTMF).
2. Push-button Calling- Attendant Only may be added to the system without providing push-button calling capability to other stations.

Serial Call

General Description

This feature is activated by the Attendant when an incoming calling party wishes to speak with more than one internal party. When the internal station subsequently disconnects from the Central Office line call, the Central Office party automatically rings back to the same Attendant.

Operating Procedure

1. The Attendant answers an incoming Central Office call.
2. The Attendant extends the call to the desired station.
3. The Attendant presses the SERIAL CALL SET (SC) key.
4. The called station and incoming caller are connected.
5. The called station hangs up. The Serial Call Termination (SRL) LED on the Attendant Console flashes at 60 IPM. If the Attendant is available, an audible indication is provided.
6. The Attendant presses the ANS or SRL key to return to the original incoming calling party.

Service Conditions

1. Serial Calling is not provided for station-to-station calling.
2. Serial Calling can be enabled or disabled on a per-console basis.
3. This feature is not available for tandem connections.

4. Serial Calling is allowed when a station is involved in an Attendant Conference.
5. No features are denied toward a line or trunk involved in a Serial Call.

Time Display

General Description

This feature provides a digital time display on the Attendant Console (SN610) LCD.

Operating Procedure

Time is constantly displayed on the Attendant Console LCD.

Service Conditions

The clock display of the Attendant Console is synchronized with the clock in the NEAX2000 IVS System.

Trunk Group Busy Display

General Description

A visual indication is supplied to the Attendant when all trunks in a particular trunk group are busy.

Operating Procedure

No manual operation is required.

Service Conditions

1. The Attendant Console must be programmed to have a designated Trunk Group Busy LED on a function key.
2. This feature may be used on trunk groups consisting of either DDD, DID, WATS, Tie, FX, or special trunks.
3. Besides Trunk Group Busy LEDs on the Attendant Console, Trunk Group Busy status can be displayed on the following LEDs:
   a) Function key LEDs on Multiline Terminals.
   b) External LEDs (PN-DK00 card must be installed.)
4. A total of 62 Trunk Group Busy LEDs are available for Attendant Consoles, Multiline Terminals or External LEDs.

Unsupervised Trunk-to-trunk Transfer By Attendant

General Description

This feature allows an Attendant to transfer an incoming or outgoing call on one trunk to an outgoing trunk and exit the connection before the called party answers.

Operating Procedure

1. An incoming call is received and answered in the normal manner. The trunk number is displayed.
2. The Attendant dials the access code of the outgoing route, then the destination number. The dialed digits are displayed.
3. If the feature is allowed, the display will change to show the selected outgoing trunk number.
4. The call is extended (by operation of the RELEASE key). The Attendant Console will be recalled. On answer, the Attendant will be connected to the original trunk party. If the call is answered, the trunk-to-trunk connection is maintained.
5. After recall to the Attendant Console, the called party may answer which would result in an initial three-way conversation before the call is extended. Alternately, the Attendant can re-extend the call (from above) to the same destination or extend it to another.

Service Conditions

1. The feature is dependent on trunk supervision and other conditions being met.
2. The trunk associated with at least one side of the call must be programmed for answer and/or release supervision to ensure that the trunks do not lock up or this feature will be disallowed.

Attendant Delay Announcement

General Description

This feature provides an announcement, via a Digital Announcement Trunk Card, to external calls that are not answered by the attendant within a predetermined time.

Station Application

Not applicable.

Operating Procedure

No manual operation required.

Service Conditions

1. Up to eight calls can be connected to one circuit of a Digital Announcement Trunk Card at one time.
2. This feature is provided on a trunk-route basis (C.O./TIE/DID).
3. A maximum of 32 Digital Announcement Trunk Cards can be assigned on a tenant/system-basis.
4. The announcement can be supplied to a call once or several times, periodically. (This is selectable).
5. Calls remain queued to the attendant until answered or until remote-disconnect signalling occurs.

Attendant Lockout

General Description

This feature denies an Attendant the ability to re-enter an established trunk or station connection without being recalled by that station after the call is put in consultation hold.

Station Application

Attendant Consoles.

Operating Procedure

No manual operation is required.

Service Conditions

1. This feature is mutually exclusive with the Attendant Override feature.
2. The Attendant Override feature must be disabled to enable this feature.

Attendant Overflow

General Description

When an incoming call, which has terminated from a trunk to the Attendant Console, remains unanswered after a predetermined time period, this feature provides a change to Night Service for that particular trunk.

Station Application

Attendant Consoles.

Operating Procedure

No manual operation is required.

Service Conditions

1. The Night Service assignment applied to the unanswered call is the same that applies to that trunk when the system is placed in night mode.
2. This feature only applies to incoming calls on Loop Start or Ground Start trunks, and is provided on a per system basis.
3. The activation timing for this feature is, by default, from 32 to 36 seconds after the call status has changed from trunk incoming call to Attendant call, and can be programmed from 4 seconds to 120 seconds in increments of 4 seconds.
4. When the destination of the Night Service is specified as a Direct Inward Termination (DIT), the incoming call processing is changed to Trunk Answer Any Station (TAS) when the called DIT station fails to answer the rerouted call within a predetermined time period.
5. The next incoming trunk call will ring at the Attendant Console as normal.

Attendant Override

General Description

This feature permits an Attendant to enter a busy connection (station or trunk) using the Attendant Console. When this feature is activated, a warning tone is sent to the connected parties after which, they are connected with the Attendant in a three-way bridge.

Station Application

Attendant Consoles.

Operating Procedure

To activate Attendant Override

1. Depress an idle LOOP key.
2. Dial the desired station number or dial the feature access code for individual trunk access and the desired trunk number.
3. Depress the BV key when busy tone is heard.
4. A double burst tone is sent to the connected parties.
5. The Attendant may now monitor or join the conversation.

   OR

   Depress the RELEASE key to disengage.

Service Conditions

1. This feature may be used to enter trunk-to-trunk, station-to-station, or station-to-trunk connections.
2. Each tone burst is 0.08 seconds in duration, and is provided to both parties connected.
3. Attendant Override of a busy station is denied if the busy station is dialing, talking to another Attendant, receiving a system generated tone, protected against any override by DND key, or if any of the following features are in progress:
   - Attendant Camp-On
   - Call Forwarding
   - Call Transfer
   - Conference
   - Data Communications
   - Data Line Security
   - Executive Override
   - Hold
   - Paging
   - Privacy
   - Station Hunting
   - Voice Call
4. The Attendant can override a station that is part of an Automatic/Uniform Call Distribution group.

Authorization Code

General Description

An Authorization Code is a numerical code which will temporarily change a stations' Class of Service to a Class of Service assigned to that Authorization Code. This new Class of Service allows access to trunks, dialing patterns, and/or features which would otherwise be restricted.

Item No.	Service feature	Max. number of codes per max. digit number						
		10	9	8	7	6	5	4
1	Authorization Code	680	770	890	1050	1280	1646	2300

Station Application

All stations.

Operating Procedure

1. Lift handset and receive dial tone.
2. Enter the feature access code for Authorization Code.
3. Enter the Authorization Code.
4. Receive dial tone.
5. Enter the number to be called or access the desired feature.

Service Conditions

1. The feature access code for Authorization Code can be one to three digits.
2. Authorization Code Limitations

   Without Application Processor AP-01 (standard):

   Number of digits: up to 8 digits

   Number of Codes: up to 100 combined with Forced Account Codes.

   With Application Processor AP-01 (optional):

   Number of digits: up to 10 digits

   Number of Codes: up to 1000 combined with Forced Account Codes and Direct Inward System Access (DISA) Codes.

Note: *Capacity varies depending on the numbering scheme. For details, refer to above table.*

3. Station Message Detail Recording will print an Authorization Code; however, masking of the Authorization Codes is available if desired.
4. Authorization Codes are assigned in system data from the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT).
5. Authorization Code changes the Class of Service for that call only.
6. If the NEAX2000 IVS is designated as KF Registration, this feature will not be available.
7. An Authorization Code can be assigned per a station number so that one code is used only on the specific station. Application Processor AP01 is required.

Automated Attendant

General Description

This feature allows the system to answer incoming trunk calls. The system will supply a message and/or dial tone to the caller. The caller can then dial the desired extension number and be directed to that station.

Station Application

Not applicable.

Operating Procedure

To record a message

1. Go off-hook and receive internal dial tone.
2. Dial the Digital Announcement Trunk record access code and the Digital Announcement Trunk card number.
   Three seconds of tone will be supplied.
3. Record the message (maximum duration - 60 seconds).
4. Restore handset.

To replay a message

1. Go off-hook and receive Dial tone.
2. Dial the Digital Announcement Trunk replay access code and Digital Announcement card number.
3. Receive a message.
4. Restore handset.

To delete a message

1. Go off-hook and receive Dial Tone.
2. Dial the Digital Announcement Trunk delete access code and Digital Announcement card number.
3. Receive Service Set Tone.
4. Restore handset.

Service Conditions

1. If the called station is busy or does not answer, or the number dialed is a Feature Access code or Trunk Access code, any one of the following operations can be set:
   - The incoming trunk call can be released.
   - A dial tone or a second message and dial tone can be supplied.
   - An alternate call terminating destination (Attendant, Trunk Answer Any Station, Direct Inward Termination) can be provided.
2. If Dual-Tone, Multi-Frequency (DTMF) digits have not arrived within a predetermined time interval (15 seconds), after the message is supplied, the system will transfer, as per programming, to an alternate call terminating destination (Attendant Console, Trunk Answer Any Station, Direct Inward Termination).

3. Call Forwarding, Station Hunting, Call Pickup and Automatic/Uniform Call Distribution features are all effective after the call has been directed.
4. This feature uses the DTMF receivers of the system. Therefore, the total number of DTMF receivers available in the system is reduced proportionately by Automated Attendant usage. There is a maximum of 16 DTMF receivers per Firmware Processor (FP), and a maximum of 32 DTMF receivers per system.
5. A DTMF receiver must be available before the Automated Attendant can answer. When there is an incoming call and all DTMF receivers are busy, the connection to the Automated Attendant is attempted every 4 seconds until an idle DTMF receiver is found. Ringback tone from the CO is supplied to the calling party until the Automated Attendant answers.
6. Automated Attendant is assigned to trunks on a per tenant and per trunk basis.
7. When the calling party cannot send DTMF digits, any one of the following operations can be selected in programming:
   - The trunk can be released.
   - An alternate call terminating destination (Attendant, Trunk Answer Any Station, Direct-In Termination) can be provided.
8. When the called party is busy or does not answer, and all DTMF receivers are busy, the following operations can be selected in programming:
   - The trunk can be released.
   - An alternate call terminating destination (Attendant or Trunk Answer Any Station) can be provided.
9. Automated Attendant cannot call out of the system. It can only answer incoming calls to the PBX for which it is programmed.
10. Automated Attendant cannot call transfer calls over CCIS to another NEAX PBX.
11. A different message can be activated for DAY/NIGHT mode.

Automatic Call Distribution (ACD)

General Description

The Automatic Call Distribution (ACD) feature permits incoming calls to terminate to a prearranged group of stations. Calls are distributed in the order of arrival to idle terminals within the group, based on which terminal has been idle the longest period of time. Stations may log on/log off from the ACD group. Supervisor stations may monitor conversations of agents.

Station Application

Multiline and single-line stations.

Operating Procedure

Refer to individual ACD sub-features for details on station operating procedures.

Service Conditions

1. A maximum of 16 ACD groups can be assigned per system. Each ACD group is assigned a pilot number. Calls directed to the pilot number are directed to that ACD group.
2. The maximum number of stations in an ACD group is 60. THe maximum number of ACD groups in the system is 16. The total number of ACD stations may not exceed the system limits of 256 D^{term}s and 512 ports. If ACD-MIS is used, the maximum number of ACD stations is 60.
3. Assignment of ACD groups is performed from the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
4. ACD groups consist of a pilot station and one or more member stations. Hunting is initiated in a circular fashion, and then based on which member has been idle the longest period of time.
5. If all stations within the ACD group are busy, incoming calls may be serviced in the following ways:
   - remain in queue until an agent becomes available (Ringback Tone provided)
   - immediately overflow to another group, to a station, or to the Attendant
   - remain in queue until an agent becomes available (Delay Announcement or Music on Hold provided)
   - remain in queue for a preset time (Ringback Tone, Delay Announcement, or Music on Hold provided), then overflow to another group, to a station, or to the Attendant.
6. When the pilot station has set Call Forwarding – All Calls, incoming calls to the ACD group will be transferred to the destination of that Call Forwarding – All Calls setting.
7. An ACD group number can be used as the destination station of Direct Inward Termination (DIT), or as a designated Night Service station.
8. An ACD group number can be assigned as the destination station of Off-Hook Alarms, Priority Calls, and Attendant Night Transfer.
9. ACD group pilot numbers should not be placed in Station Hunting groups. The Station Hunting feature would take priority over the ACD function.
10. Two types of traffic measurements can be provided for ACD:
    a) ACD group Peg Count
       - Count of incoming calls
       - Count of answered calls

- Count of abandoned calls
- Count of waiting calls
- Count of all busy calls

b) ACD station Peg count

- Count of answered calls

11. Upon initial installation, or after a system initialization (reset), each agent must lift and restore handset (of their station) to begin receiving calls for the ACD group.

Busy In/Busy Out – ACD

General Description

This feature allows an agent in an ACD group to log their station onto or off of the group. This allows the system to control whether a call directed to the pilot number of the ACD group goes to that station or not. This prevents incoming calls from being directed to stations at which no agent is available.

Station Application

Multiline Terminals and Single Line Stations.

Operating Procedure

To log off (busy out) an ACD station

1. Lift the handset and receive extension dial tone.
2. Dial the log off (busy out – set) feature access code, or depress the LOG OFF key.
3. Restore the handset.

To log on (cancel busy out) an ACD station

1. Lift the handset and receive extension dial tone.
2. Dial the log on (busy out – cancel) feature access code, or depress the LOG ON key.
3. Restore the handset.

Service Conditions

1. Any agent may log on/off. When an agent has activated log off, any call targeted at the ACD group will bypass that agent. Calls directed to the specific station number will ring at the agent position.
2. The agent may originate calls while in log off mode.
3. The agent can log off their station while idle, or while on an incoming outside call. When that call is completed, the station is logged off.
4. The agent can log on/off from the secondary extension by dialing the log on/off feature access code. The LOG ON/LOG OFF key is not available for the secondary extension.

Call Waiting Indication – ACD

General Description

This feature provides a visual indication when an incoming call to an ACD group is placed in queue, due to an "all agents busy" condition. On external relay controlled indicator or an LED on a Multiline Terminal can be used to provide Call Waiting Indication.

Station Application

Multiline Terminals assigned with a Call Waiting (CW) Lamp

Operating Procedure

No operating procedure is necessary. Indication is automatic, once it is assigned.

Service Conditions

1. A PN-DK00 is required to provide the external relay control when an external indicator is used.
2. There is no limit to the number of appearances of a CW lamp assigned to Multiline Terminals. One CW lamp per group is available.
3. On a per system basis, the option is available to select how many calls in queue causes the CW lamp to flash. Default setting is one. The LED lights steady until the set threshold count is reached, at which time it begins to flash.)
4. Provision of ringing on a CW key is controlled on a per station basis.
5. The interruption rate of the external relay control is programmable, on a per system basis, as follows:
   - 30 IPM
   - 60 IPM
   - 120 IPM
   - Steady

   This interruption rate is the same as the rate used for TAS (Trunk Answer Any Station).

Delay Announcement – ACD

General Description

This feature allows the system to provide a recorded announcement to an incoming caller placed in queue to an ACD group. A single announcement, or two separate announcements, can be provided.

Station Application

None

Operating Procedure

Operation is automatic, once system programming is assigned.

Service Conditions

1. A Delay Announcement service can be provided for DIT, DID or a trunk call transferred by a station user or the Attendant to an ACD Group. Internal calls or station-to-station transferred calls to the ACD Group can go into the ACD queue but do not receive the Delay Announcement.
2. The following configurations are available when using Delay Announcement:
   a) After being in queue for a predetermined time, the caller receives a Delay Announcement, followed by Music-on-Hold (if provided), until an agent is available or the caller hangs up.
   b) After being in queue for a predetermined time, the caller receives a Delay Announcement, followed by Music-on-Hold (if provided) for a programmed interval, then followed by repetition of the Delay Announcement. This process repeats until an agent in the ACD group is available on the caller hangs up.
   c) After being in queue for a predetermined time, the caller receives a first Delay Announcement, followed by Music-on-Hold (if provided). After a preprogrammed interval, the caller then hears a second Delay Announcement, followed again by Music-on-Hold. The second Delay Announcement and Music-on-Hold are then repeated at the preprogrammed interval time until an agent becomes available or the caller hangs up.
   d) After being in queue for a predetermined time, the caller receives a first Delay Announcement followed by Music-on-Hold (if provided). After a pre-determined interval time, the system checks to see if an overflow destination has been assigned for the incoming trunk route. If assigned, and the destination is available (idle), the call overflows to the destination. If not assigned, or the destination is busy, the call remains in queue for the predetermined interval time and the system then checks again for overflow assignment. For the latter case, if repetition of first announcement is set, or second announcement is made available, that announcement will be played.

Note: *Repeat of the first announcement or receipt of second announcement is only available when the overflow destination for the trunk route is busy (not available).*

3. Overflow out of queue causes the caller to be removed from the queue. This means that if the overflow destination (out of queue) is another ACD group, the caller is placed at the end of that queue (if all agents are busy) and is no longer in queue for the first group.
4. One PN-2DATA (Digital Announcement Trunk) circuit (two per card) is required for each Delay Announcement.
5. Delay Announcements cannot be shared between groups. Each group must have their own set of Delay Announcements.
6. Multiple PN-2DATA circuits may be assigned for 1st or 2nd Delay Announcement function to the same ACD group, when warranted by high traffic rates into the group.
7. When an ACD station becomes available, the caller is immediately connected to the station, even if the recorded announcement is in progress.
8. Incoming call billing to the outside party starts when the first recorded announcement begins.

Hunt Past No Answer – ACD

General Description

This feature allows calls targeted at an ACD group to hunt past an agents station, after a no answer condition, if the agent forgets to log off of the group and the agent is unable (or not available) to answer the call.

Station Application

Multiline Terminals and Single Line Stations.

Operating Procedure

Refer to the Call-Forwarding – No Answer Features and Specifications for details on setting the No Answer forwarding condition.

Service Conditions

1. This feature uses Call Forwarding – No Answer (to another ACD member) to enable a call to an agent that fails to answer, to hunt past that agent, to the next agent.
2. Calls directed to the agents primary extension number will also forward (on a no-answer condition) to the next agent.
3. It is recommended, when this feature is used, that the Call Forward – No Answer and the Call Forward – Busy features be separately assigned (use different access codes and keys).

Immediate Overflow – ACD

General Description

This feature allows a call directed to an ACD group to immediately overflow to another ACD group, upon encountering an “all agents busy” condition.

Station Application

All ACD Pilot Stations.

Operating Procedure

Refer to the Call Forwarding – Busy feature and specification for details on setting the forwarding when busy condition.

Service Conditions

1. This feature uses the Call Forwarding – Busy feature (set on the ACD pilot extension) to immediately forward the call to another ACD group, upon encountering an all busy condition in the first group.
2. The overflow destination must be an ACD pilot number.
3. When a call has terminated to ACD group A, and all station in group A are busy, and group B is assigned as the overflow destination (using Call Forward – Busy), the call is transferred to group B. When all the stations are busy in group B, the call queues onto ACD group A.
4. One overflow group can be provided for each ACD group.
5. Overflow is performed only once.

Priority Queueing – ACD

General Description

This feature allows the system to prioritize incoming calls by trunk route and on a per station basis, when the call enters an ACD queue. When a call is a considered as priority it is placed at the beginning of the queue.

Station Application

Not Applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. Priority queuing is available on incoming trunk calls. Queue priority is determined on a trunk route, or for DID Calls, on a station number, basis.
2. If two (or more) priority type calls occur at the same time, the system will place them in queue in a First-In/ First-out order.

Queue Size Control – ACD

General Description

On incoming DID/Tie line calls, the system can be assigned a threshold which limits the number of calls in queue. When the queue size threshold is exceeded, incoming callers are connected to busy tone.

Station Application

Not Applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. The maximum number of queuing in each ACD group (hereinafter called Queue Size) can be specified by the system data. When the number of queuing calls reaches the preassigned queue size, new calls receive Busy Tone. Depending on the queue size, the Overflowed ACD call indication on a Multiline Terminal or on the external indicator is provided as shown below:

   Queue Size assigned by system data = S

   Number of queuing calls = N

CONDITIONS	LAMP INDICATION	
	Multiline Terminal	External Indicator
S=1	Steady on red	Lamp on
$1 \leq N < S$ ($S \neq 1$)	Steady on red	Lamp off
$S \leq N$ ($S \neq 1$)	Flashing red	Lamp on

Silent Monitor – ACD

General Description

This feature provides the ACD group supervisor with the ability to monitor a call to an ACD agent. The silent monitor function gives no indication (as an option) to either the agent or the calling party.

Station Application

All ACD group agents can be monitored.

All ACD group supervisors can monitor.

Operating Procedure

To monitor a conversation/to cancel monitoring (Supervisor only)

1. Lift the handset, or depress the SPKR key, and receive extension dial tone.
2. Dial the monitor feature access code, or depress the MONITOR key.
3. Dial the extension number to be monitored.
4. Monitor the conversation via the handset or the speaker.
5. Restore the handset, or depress the SPKR key to cancel monitoring.

Note: *Monitoring telephone conversations may be illegal under certain circumstances and laws. Consult a legal advisor before implementing the monitoring of telephone conversations. Some federal and state laws require a party monitoring a telephone conversation to use beep-tone (s), to notify all parties to the telephone conversation, and/or obtain consent from all parties to the telephone conversation. Some of these laws provide strict penalties for illegal monitoring of telephone conversations.*

Service Conditions

1. Service feature class is used to control which stations are agents and which are supervisors.

2. The default setting in system programming is that one tone is sent to both parties when the monitoring feature is used. As an option, this tone may be disabled on a per system basis.
3. Silent Monitor feature uses a three-party conference circuit. Therefore, a maximum of 16 monitors can occur simultaneously in conjunction with any normal Conference (Three/Four party) in progress.
4. Silent Monitor cannot be used on stations currently in a Three/Four party conference.
5. Silent Monitor is denied if the busy station is dialing in Line Lockout mode, receiving a system generated tone, protected against monitoring in Class of Service, any override by DND key, or when any of the following features are in progress:
    - Attendant Override
    - Call Back
    - Call Transfer
    - Camp-On
    - Conference
    - Consultation Hold
    - Data Line Security
    - Executive Override
    - Hold
    - Paging
    - Privacy
    - Trunk Queuing - Outgoing
    - Voice Call
6. Silent Monitor can only be set when the busy station is connected to another station or a trunk in a two-party conversation.

CAUTION: *The use of a monitoring, recording or listening devices to eavesdrop, monitor, retrieve, or record telephone conversations or other sound activities, whether or not contemporaneous with its transmission, may be illegal in certain circumstances under federal or state laws. Legal advice should be sought prior to implementing any practice that monitors or records any telephone conversation. Some federal and state laws require some form of notification to all parties to the telephone conversation, such as using a beep tone or other notification methods or require the consent of all parties to the telephone conversation, prior to monitoring or recording a telephone conversation. Some of these laws incorporate strict penalties.*

Automatic Call Distribution (ACD) with Management Information System (MIS)

General Description

The Automatic Call Distribution (ACD) with MIS feature provides a management information system to be used in conjunction with the built-in ACD features of the NEAX2000 IVS system. The MIS incorporates a supervisor's terminal for real-time monitoring of agent activity, amber and red alarms, and hard-copy summary reports.

Station Application

Not Applicable.

Operating Procedure

Refer to the NEAX2000 ACD/MIS System Manual.

Service Conditions

1. ACD/MIS requires the ACD/MIS software, application processor, personal computer, and a parallel printer. The personal computer and parallel printer are user-provided.
2. Only one supervisor terminal is normally allowed per ACD system. The use of an external 1 to 8 RS-232 Expansion unit can allow up to 8 supervisor terminals. Refer to the NEAX2000 ACD/MIS System Manual for details on the external expansion unit.
3. Refer to the ACD Features and Specifications for further SERVICE CONDITIONS.
4. The tenant number for the ACD-MIS pilot and agent stations must always be 0 in both the ACD Group set in the NEAX2000 IVS and the PC MIS Agent assignment.

Automatic Camp-on

General Description

An incoming Direct Inward Termination (DIT) call which has been terminated to a busy station can be Camped-On automatically. When the busy station becomes idle, the station is automatically called and connected to the camped on incoming trunk call.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. Two *Camp-On* tone patterns are available: one to send a repeated tone at intervals of 4 seconds, and the other is to send the tone once at the time the call is Camped-On. Either one of these patterns can be selected on a system basis during initial programming.
2. The incoming trunk caller receives Ringback tone from the C.O. until answered by the station in the NEAX2000 IVS system.
3. Only a single *Camp-On* from any source to a station is allowed at one time.
4. When Direct In Termination (DIT) calls are directed to a busy station, they can be preprogrammed on a trunk basis to be sent to an Attendant, Trunk Answer any Station (TAS) or automatically Camped-On to the busy station.
5. *Camp-On* can be set to a station which has set Call Back. Call Back can be set to a party to which *Camp-On* service has been set. In both of the above cases, *Camp-On* has priority over Call Back.
6. *Camp-On* can be set to a station which has set Trunk Queuing – Outgoing. *Camp-On* has priority over Trunk Queuing – Outgoing.
7. *Camp-On* can be set to a station which has placed a call on Hold. When the station becomes idle, *Camp-On* takes priority over the Hold. Hold can be set to a party to which *Camp-On* has been set.
8. *Camp-On* service cannot be set to a data line.
9. If a station is busy and already has a *Camp-on* set to it, the station user must finish their call, receive ringing and then answer the first *Camp-on* call, prior to receiving *Camp-On* tone for the incoming DIT call.

Automatic Number Identification (ANI)

General Description

This feature receives the calling subscriber's number automatically sent from T1 network using MF signaling and displays the calling number on the LCD of a Multiline Terminal and an Attendant Console.

Station Application

All Multiline Terminals with LCD and Attendant Consoles.

Operating Procedure

No manual operation is required.

Service Conditions

1. Up to 16 digits of the calling subscriber's number for ANI can be displayed on the LCD of the Multiline Terminal or the Attendant Console.
2. Up to 16 digits of the calling subscriber's number can be recorded in the SMDR by system programming.
3. Up to 24 digits of the calling subscriber's number can be sent out to the OAI computer by system programming.
4. ANI information can not be transmitted to a tie line or a C.O. line through tandem connection.
5. The 4RST-B card is required for the MF receiver of ANI information.
6. Two signaling formats are supported for ANI: ANI format and Feature Group D (most common). Selection of format is system-wide (one format per system).
7. Feature group D format and ANI format are described below:

Signal Pattern	Called Number	ANI
FGD Format	MF signal	MF signal
ANI Format	DP signal	MF signal

8. If using DNIS on the Attendant Console, some of the characters of the displayed name will be cut off depending on the number of digits of ANI.

Automatic Recall

General Description

This feature works as a timed reminder. When a call remains on Hold, Camp-On or ringing unanswered for a fixed interval after being transferred, the station that initiated the hold, transfer, or Camp-On is automatically alerted.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. Automatic Recall timing is flexible in system programming. Automatic Recall timing is as follows:

   All stations:

   Nonexclusive Hold – 4 to 396 seconds (Default: 60-64 seconds)

   Exclusive Hold – 4 to 396 seconds (Default: 236-240 seconds)

   Transfer Recall – 4 to 120 seconds (Default: 24-28 seconds)

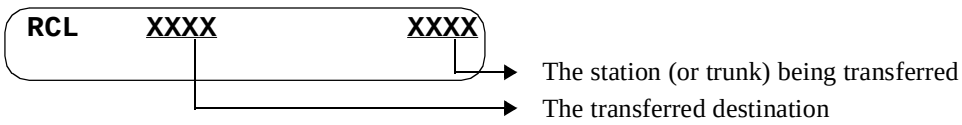
   Camp-On Recall – 8 to 128 seconds (Default: 24-32 seconds)

   Attendant Consoles:

   Attendant Recall (Camp-On/No Answer) – 2.4 to 124.8 seconds (Default: 31.2-33.6 seconds)

   Attendant-Held calls – 2.4 to 124.8 seconds (Default: 31.2-33.6 seconds)

2. When a Multiline Terminal user reenters a held or transferred call, the recall timing is reset. If the call is returned to a Hold or Transfer condition, the recall timer restarts.
3. When an Attendant reenters a held or Camped-On trunk, the recall timing is reset. If the trunk is returned to a Hold or Transfer condition, the recall timer restarts.
4. When a held call recalls to a Multiline Terminal, a continuous ring of 0.5 seconds on, 0.5 seconds off and an LED flash of 240 IPM occurs until the call is answered. The signal occurs whether the Multiline Terminal is on-hook or off-hook, and regardless of whether the Multiline Terminal is ring assigned on that line key.
5. Before an unattended transfer recalls to the originating station of the transfer, the called station will ring normally for a programmable period of 4 to 120 seconds. When the Automatic Recall begins, the LCD of the originating station displays:



6. When a recall occurs on the Attendant Console, a buzzer sounds (provided no other calls are being processed) in addition to the LED indication. The called station continues to ring. If the called party answers after the Attendant reseizes the line, a three-party conference is established.

7. This feature is not activated when a Multiline Terminal holds the call on Nonexclusive or Exclusive Hold during a three or four-party Conference. The conference members do not receive hold music, but can continue talking.
8. Automatic Recall will follow any Call Forwarding assignment.

Automatic Wake-up

General Description

This feature allows the system to be programmed to automatically call guest rooms or administration stations at specified times. Upon answering, the guest is connected to a recorded announcement or music source. A printout of unanswered or blocked Automatic Wake-Up attempts for each guest room is provided using the Hotel/Motel printer.

Station Application

All stations.

Operating Procedure

To set Automatic Wake-Up from the Hotel/Motel Front Desk Instrument

1. Depress the WK UP key.
2. Dial the desired wake-up time in military format (in one minute increments).
3. Depress the WK UP key.
4. Dial the station number.
5. Depress the SET key. The above two steps can be repeated for additional stations.
6. Depress the RLS key.

OR

1. Depress the WK UP key.
2. Dial the station number.
3. Depress the SET key.
4. Dial the desired wake-up time in military format (in one minute increments).
5. Depress the SET key. Repeat steps 2~5 for additional stations.
6. Depress the RLS key.

To cancel Automatic Wake-Up from the Hotel/Motel Front Desk Instrument

1. Depress the WK UP key.
2. Dial the station number.
3. Depress the RESET key. The above two steps can be repeated for additional stations.
4. Depress the RLS key.

To set Automatic Wake-Up from the Hotel/Motel Front Desk Instrument while engaged in conversation with the station

1. Depress the WK UP key.
2. Dial the wake-up time in military format (in one minute increments).
3. Depress the SET key.
4. Depress the RLS key.

To cancel Automatic Wake-Up from the Hotel/ Motel Front Desk Instrument wile engaged in conversation with station

1. Depress the WK UP key.
2. Depress the RESET key.
3. Depress the RLS key.

To set Automatic Wake-Up from a guest room station or administrative station

1. Go off-hook and receive dial tone.
2. Dial the Wake-Up access code and receive feature dial tone.
3. Dial the desired Wake-Up time in military format (in one minute increments).
4. Receive service set tone.
5. Restore the handset.

To cancel Automatic Wake-Up from a guest room station or station or administrative station

1. Go off-hook and receive dial tone.
2. Dial the Automatic Wake-Up cancellation code.
3. Receive service set tone.
4. Restore the handset.

Service Conditions

1. Setting and canceling can be initiated from the following:
   - Attendant Console.
   - Hotel/Motel Front Desk Instrument.
   - Guest Station.
   - Administrative Station.
   - Property Management System (PMS) terminal.
2. The time is entered on a 24-hour system in one minute increments.
3. A maximum of 32 stations can be set for the same Automatic Wake-Up time. When the setting exceeds 32, the excess stations will be set to an earlier time in 5 minute intervals.
4. Wake-Up attempts, whether successful or not, can be printed out at a locally provided printer. The results of execution of Automatic Wake-Up set and cancel are also printed.
5. The ringing signal is the same as station-to-station calls, and its time can be assigned from 4 sec. to 32 sec. (programmable on a system basis).
6. The Automatic Wake-Up call will ring a station in Do Not Disturb.
7. When setting or canceling has been completed, service set tone is heard as confirmation.
8. When Automatic Wake-Up call is received, the station receives music or an announcement. A DAT or COT card (with locally provided music or announcement source) is required. As an option, a PN-DK00 card can be programmed to provide a contact closure for starting the external announcement or music source when used with a COT card. When providing the internal announcement via a DAT card, multiple connections can be made to the announcement card. Secondary station users may be connected to the middle of the message.
9. Data for Automatic Wake-Up programming is canceled by Check Out operation.

10. The number of Automatic Wake-Up call attempts is programmable from 1 to 5 times.
11. If the station does not answer, is busy, in Line Lockout, or ringing, recalling is initiated one minute later. Recalling is repeated up to 5 times. Each call which fails is printed. When the final attempt results in failure, a buzzer is sounded at the printer and a flashing LED on the DSS/BLF Console is available to indicate which station does not answer.
12. An AP00 card is required for connection to a printer.
13. After Automatic Wake-Up is set, the Hotel/Motel Front Desk Instrument is able to verify the setting on request. The Automatic Wake-Up set procedure is followed, but a new wake-up time setting need not be entered.
14. Automatic Wake-Up calls will not be rerouted by Call Forwarding or other features.

Back Up CPU

General Description

NEAX2000 IVS can provide two MP cards (MP0/MP1). One of these MP cards (MP0) functions as the active MP card and another (MP1) as the standby; however, if MP0 becomes out of order for any reason, MP1 starts up automatically.

Station Application

All stations

Operating Procedure

The same operating procedures as the regular NEAX2000 IVS apply for each service feature.

Service Conditions

1. Two CP02 cards are required.
2. When the changeover from the active MP(MP0) to the standby MP(MP1) occurs due to the MP fault, the system is initialized, it takes approximately 1 minute to start normal operation.
3. All system data is copied from the active MP to the standby MP automatically once a day at 12:00 am. During system data copy, the MP will operate normally and process calls.
4. Call processing stops when the active/standby change occurs. Calls in progress will disconnect.
5. Station features such as DND, Call Forwarding, and Message Waiting, are copied to the standby MP when system data copy is done (at 12:00 am).

Background Music

General Description

Background Music can be provided on a dial-up basis over Multiline Terminal speakers. Incoming voice announcements, ringing and recalls override Background Music. Up to 10 music programs can be offered.

Station Application

All Multiline Terminals.

Operating Procedure

To set Background Music

1. Depress the SPKR key.
2. Dial the Background Music feature access code.
3. Dial the Background Music program number (0-9).
4. Depress the SPKR key.

To Cancel

1. Depress the SPKR key.
2. Dial the Background Music feature access code.
3. Depress the # key.
4. Depress the SPKR key.

Service Conditions

1. Up to 10 music programs can be offered. Only one per station can be selected at a time.
2. This feature is allowed or denied in Class Of Service.
3. A COT or TNT circuit is required for each music program.
4. The music source(s) must be locally provided. The input source is -10 to 0 dBm, 600 ohms (COT), or –8dBm or less, 10K ohms (TNT).
5. When a terminal goes off-hook, the music is automatically stopped. When the terminal goes on-hook, the music starts again, until the feature is canceled.

Boss / Secretary Calling

General Description

A secretary with a Multiline Terminal can use an appearance of the boss' extension to screen calls for that extension, and announce and/or transfer calls to that extension. Additionally, the secretary can call the boss during a busy condition and can send a Message Waiting Indication to the boss' station.

Station Application

Any type of station as boss extension and Multiline Terminal with appearance of boss extension at Secretary position.

Operating Procedure

For a Boss/Secretary transfer of an incoming call to the boss' Multiline Terminal

1. Secretary answers the incoming call by pressing boss' line key appearance and lifting the handset. Secretary converses with the calling party. Boss' line key appearance is steady green on secretary's station and steady red at other appearances.
2. Secretary presses boss' line key appearance again. Incoming call is placed on Consultation Hold and receives Music On Hold, if provided. Boss' line key appearance is steady green at secretary's station, steady green at boss' Multiline Terminal and steady red elsewhere.
3. At boss' Multiline Terminal a tone burst is heard followed by a voice call from the secretary (using the boss' primary extension) over the speaker. Secretary announces the call.
4. The secretary can now go on-hook. The boss' primary extension hears a chime tone and flashes on hold, red; the secretary's appearance of the Boss' extension flashes on hold, green, and all other line key appearances of the boss' extension provide busy indication.
5. The boss lifts the handset or presses the primary extension line button and is connected to the calling party.

   OR

   The boss can lift the handset to answer the voice call and talk to the secretary privately using the handset. Boss' line key appearance is steady green at secretary and boss' Multiline Terminal, and is steady red elsewhere.The secretary then goes on-hook and the calling party is connected to the boss. Boss' line key appearance is steady green at boss' terminal, and steady red elsewhere.

   OR

   The boss goes on-hook and the secretary presses the transfer key to return to the original call.

For Boss/Secretary transfer of an incoming call to the boss' Single Line Telephone

1. Secretary answers incoming call by pressing boss' line key appearance and lifting the handset. Secretary converses with calling party. Boss' line key appearance is steady green on secretary's station and steady red elsewhere.
2. Secretary presses boss' line key appearance again. Incoming call is placed on Consultation Hold and receives Music On Hold, if provided. Boss' line key appearance is steady green at secretary's station and steady red at other appearances.
3. At boss' Single Line Telephone, internal ringing is heard.

4. The secretary can now go on hook. The boss' Single Line Telephone continues to ring (incoming ring rate reflects whether the calling party is internal or external) and all line key appearances of the boss' extension provide incoming ring indication.
5. The boss lifts the handset and is connected to the calling party.

   OR

   The boss can lift the handset while receiving internal ring to talk to the secretary. Boss' line key appearance is steady green at the secretary's station and steady red elsewhere.
6. The secretary then goes on-hook, whereby the calling party is connected to the boss. Boss' line key appearance is steady red at all appearances.

   OR

   The boss goes on-hook and the secretary presses the TRF key to return to the original call.

To set/cancel Message Waiting Indication to the boss from the secretary station

1. Lift handset and receive dial tone.
2. Dial the boss' extension number.
3. Press the Message Waiting set/cancel key (Boss' Message Wait Lamp is lit if set, goes off if canceled).

For a Boss/Secretary Override when the boss is busy on the primary extension of a Multiline Terminal and the secretary has a call on the primary extension of the secretary's Multiline Terminal

1. The secretary presses boss' line key appearance on the secretary's Multiline Terminal. The party that was connected to the secretary is placed on Hold and receives Music On Hold, if provided. Additionally, the secretary hears special ringback tone and the boss hears one burst of tone through the handset to indicate a call is waiting. (If the secretary presses the TRF key before the boss answers, the secretary is reconnected to the calling party. The secretary's ANS key is ineffective in this situation.)
2. The boss presses the ANS key. The party originally connected to the boss is now placed on Consultation Hold and the boss and secretary can converse.
3. The secretary goes on-hook. The boss is connected to the caller originally connected to the secretary. The caller originally connected to the boss is placed on Call Hold.
4. If the boss presses the TRF key, the boss receives Special Dial Tone, allowing transfer of the new call.
5. When the boss goes on-hook, the original call recalls to the boss' station.
6. The boss goes off-hook and is connected to the original party.

For a Boss/Secretary override when the boss is busy on a Single Line Telephone, and the secretary has a call on the primary extension of the secretary's Multiline Terminal

1. The secretary presses the boss' line key appearance on the secretary's Multiline Terminal. The party that was connected to the secretary is placed on Hold and receives Music On Hold, if provided. Additionally, the secretary hears special ringback tone and the boss hears one burst of tone through the handset to indicate a call is waiting.
2. The boss presses the FLASH key (or momentarily presses the hookswitch). At this time, the secretary and boss are connected and the other two parties are on Hold.
3. The secretary goes on hook. The boss is connected to the caller originally connected to the secretary. The boss' original party remains on Call Hold.
4. The boss may now alternate between callers (Broker's Call) using the FLASH key.

5. When finished conversing with either party, the boss goes on hook. The other party will automatically recall to the boss' station.
6. The boss goes off hook and is convected to the other party.

Service Conditions

1. During Boss/Secretary transfer operation, if the secretary hangs up before the boss answers to complete an unsupervised ring transfer and the boss still does not answer, the call will recall to the secretary's primary extension after a predetermined time-out (default value is 24-28 seconds).
2. After the boss and secretary converse during a Boss/Secretary transfer operation, the secretary is automatically reconnected to the original caller if the boss hangs up.
3. After the boss and secretary converse during a Boss/Secretary transfer operation, the secretary can use the TRF or ANS key to alternate conversation between the original caller and the boss (Broker's Call) after the boss has answered using the handset.
4. After the boss and secretary converse during a Boss/Secretary transfer operation using the handsets, the secretary can press the RECALL key to disconnect the boss and receive feature dial tone, allowing a transfer to another station (the boss receives reorder tone). The secretary can also press either the TRF or ANS key to return to the original caller.
5. While a secretary is originating a voice call during the Boss/Secretary transfer or Boss/Secretary Override operation, the secretary can press the TRF key to return to the calling party and the voice call is abandoned.
6. During a Boss/Secretary transfer operation, once the boss has answered and is conversing with the secretary, Privacy Release is not available and use of the HOLD button will be disregarded at this time.
7. Setting or canceling of Message Waiting can be executed by the secretary, regardless of the boss' extension status (busy or idle).
8. After the boss and secretary converse during a Boss/Secretary transfer or Boss/Secretary Override operation using the handsets, the secretary can use the ANS key to alternate conversations between the original calling party and the boss (Brokers Call). The secretary can also press the TRF key, sending the secretary back to the original calling party and the boss back to the party on Consultation Hold.
9. During a Boss/Secretary Override operation, the boss can use the ANS key to answer the Override Call. The boss can then use the ANS key to alternate between the secretary and the party on Consultation Hold.
10. During a Boss/Secretary Override operation, once the boss has answered and the secretary has gone on-hook, the boss can use the ANS key to alternate between the two parties. The boss can also use the TRF key to receive Special Dial Tone (SPDT).

Broker's Call

General Description

This feature allows a Multiline Terminal or Single Line Telephone user to alternate between two parties, talking to one party while the other party remains on Hold on the same line. The Multiline Terminal user utilizes the TRF or ANS key to alternate between the two parties. The Single Line Telephone user uses the Hold feature to alternate between the two parties.

Station Application

All stations.

Operating Procedure

To activate Broker's Call from a Multiline Terminal with a call in progress

1. Depress the TRF key and receive feature dial tone. The first party is placed on hold.
2. Dial the new number and wait for the second party to answer.
3. Depress the TRF or ANS key and return to the first party. The second party is placed on hold.
4. Repeat as often as needed.

To activate a Broker's Call from a Single Line Telephone with a call in progress

1. Depress the FLASH key (or momentarily depress hookswitch) and receive feature dial tone. The first party is placed on Consultation Hold.
2. Dial the Call Hold feature access code and receive extension dial tone.
3. Dial the new number and the second party answers.
4. Depress the FLASH key (or momentarily depress the hookswitch). The second party is placed on Consultation Hold.
5. Dial the Call Hold feature access code and the second party is placed on Call Hold. The first party is reconnected.
6. Repeat the last two steps, as necessary.

Service Conditions

1. A three-way call may be established any time during a Broker's Call by depressing the CNF key on a Multiline Terminal.
2. Once a Single Line Telephone has set up a Broker's Call, a Conference cannot be established.
3. The party on hold during a Broker's Call will receive Music on Hold, if provided.
4. If the RECALL key is depressed with a Broker's Call in progress, the currently connected party is dropped. The party on Consultation Hold remains on Consultation Hold and new feature dial tone is provided. Restoring the handset allows the Consultation Hold call to recall.
5. A Broker's call can also be initiated after receiving a Camp-On call. See Camp-on.
6. When a Multiline Terminal has a Broker's Call in progress, the ANS key alternates between the calls and will not answer additional incoming calls.

Call Back

General Description

This feature allows a calling party to set an automatic Call Back when a busy or no answer condition is encountered. When the busy station becomes idle, the station that set the Call Back will be called. In case of Call Back no answer, the Call Back to the setting station is initiated immediately after the called station goes on hook after making a call or accessing a feature.

Station Application

All stations.

Operating Procedure

To set Call Back from a Dial Pulse Single Line Telephone

1. Dial the desired station number and receive busy tone or ringback tone.
2. Dial "2" and receive service set tone (if single digit feature access codes are enabled),

   OR

   Depress the FLASH key (or momentarily depress the hookswitch) and receive feature dial tone. Dial the Call Back feature access code if busy tone, dial 2 if ringback tone (if single feature access codes are enabled), and receive service set tone.
3. Restore the handset.
4. When the busy station becomes idle, or the station that did not answer first initiates or answers a call or accesses a feature and then becomes idle, the station that set the Call Back will ring.
5. Upon the originator answering, the originally called station will ring.

To set Call Back from a DTMF Telephone

1. Dial the desired station number and receive busy tone or ringback tone.
2. Dial "2" and receive service set tone (if single digit access feature access codes are enabled) for busy tone only.

   OR

   Depress the FLASH key (or momentarily depress the hookswitch) and receive feature dial tone. Dial the Call Back feature access code if busy tone, dial 2 if ringback tone and receive service set tone.
3. Restore the handset.
4. When the busy station becomes idle, or the station that did not answer first initiates or answers a call or accesses a feature and then becomes idle, the station that set the Call Back will ring.
5. Upon answering, the originally called station will ring.

Note: *Multiple Call Backs can be set by repeating the procedure above.*

To set Call Back from a Multiline Terminal

1. Dial desired station number and receive busy tone or ringback tone.
2. Depress the CALL BACK key or dial "2" and receive service set tone.
3. Restore handset.

4. When the busy station becomes idle or the station that did not answer first initiates or answers a call or accesses a feature and then becomes idle, the station that set the Call Back will ring.

Note: *Multiple Call Backs can be set by repeating the procedure above.*

To cancel Call Back from a Single Line Telephone

1. Lift the handset and receive dial tone.
2. Dial the Call Back cancellation code and receive service set tone.

To cancel Call Back from a Multiline Terminal

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the CALL BACK key and receive service set tone.

Service Conditions

1. If a Call Back is not answered by the originator within 30 seconds, the Call Back is automatically cancelled.
2. A Call Back to a station in Line Lockout is denied.
3. Dial pulse Single Line Telephones can omit depressing the FLASH key (or momentarily depressing the hookswitch) to set call back while receiving ringback tone.
4. If the station depresses the FLASH key while receiving feature dial tone before setting the Call Back, the station returns to receiving ringback tone.
5. When the called party is an Attendant Console, Call Back can not be set.
6. When the setting station is called back, Station Hunting and Call Pickup will not apply.
7. When the call is placed in UCD queue, Call Back can not be set.
8. A maximum of 128 stations can access this feature simultaneously.
9. This feature can be allowed or denied in Class of Service assignment.

Call Forwarding

General Description

Call Forwarding allows calls directed to a station to be routed to another station, an Attendant, an outside number or voice mail equipment. The types of Call Forwarding provided are:

- Call Forwarding – All Calls*
- Call Forwarding – Busy Line*
- Call Forwarding – No Answer*
- Call Forwarding – Destination
- Multiple Call Forwarding – All Calls
- Multiple Call Forwarding – Busy Line
- Multiple Call Forwarding – No Answer
- Split Call Forwarding – All Calls*
- Split Call Forwarding – Busy Line*
- Split Call Forwarding – No Answer*

Additional Call Forwarding features include:

- Attendant Call Forwarding Setup and Cancel
- Call Forwarding – Override
- Group Diversion

These features can be set/canceled from each station. The features marked by "*" can be set/canceled from a MAT/CAT.

When the features marked by "*" are set/canceled from a MAT/CAT, the lamp indication of the Multiline Terminal changes as it would if the features were set/canceled from the Multiline Terminal.

A MAT/CAT can overwrite or cancel these features marked by "*" which are set by each station, and vice versa.

A maximum of 240 Call Forwarding to outside number can be set simultaneously per system.

Attendant Call Forwarding Set-up and Cancel

General Description

All of the various types of Call Forwarding can be set up or cancelled from the Attendant Console.

Station Application

All stations.

Operating Procedure

To set Call Forwarding – All Calls from the Attendant Console

1. Depress an idle LOOP key.
2. Dial the Call Forwarding – All Calls feature access code and receive feature dial tone.
3. Dial the originating station number.
4. Dial the desired target station number and receive service set tone.

To cancel Call Forwarding – All Calls from the Attendant Console

1. Depress an idle LOOP key.
2. Dial the Call Forwarding – All Calls feature cancellation code and receive feature dial tone.
3. Dial the originating station number and receive service set tone.

To set Call Forwarding – Busy Line from the Attendant Console

1. Depress an idle LOOP key.
2. Dial the Call Forwarding – Busy Line feature access code and receive feature dial tone.
3. Dial the originating station number.
4. Dial the desired target station number and receive service set tone.

To cancel Call Forwarding – Busy Line from the Attendant Console

1. Depress an idle LOOP key.
2. Dial the Call Forwarding – Busy Line cancellation code and receive feature dial tone.
3. Dial the originating station number and receive service set tone.

To set Call Forwarding – No Answer from the Attendant Console

1. Depress an idle LOOP key.
2. Dial the Call Forwarding – No Answer feature access code and receive feature dial tone.
3. Dial the originating station number.
4. Dial the desired target station number and receive service set tone.

To cancel Call Forwarding – No Answer from the Attendant Console

1. Depress an idle LOOP key.
2. Dial the Call Forwarding – No Answer cancellation code and receive feature dial tone.
3. Dial the originating station number and receive service set tone.

Service Conditions

The Attendant can cancel any type of Call Forwarding set by an internal station.

Call Forwarding – All Calls

General Description

This feature allows all calls directed to a particular extension to be rerouted to an alternate destination, regardless of the busy or idle status of the extension. Call Forwarding – All Calls can be set by an Attendant Console, the individual station user, a Multiline Terminal with a secondary appearance of the station's extension, or from another station (which can program itself to be the destination of the rerouting).

Station Application

All stations.

Operating Procedure

From a Multiline Terminal with LCD

■ **To set Call Forwarding – All Calls**

1. Lift the handset or depress the SPKR key and receive dial tone.

2. Depress the Call Forwarding – All Calls feature access key and receive feature dial tone.
3. Dial the desired target station number and receive service set tone. The associated LED lights and the LCD displays:

   SET XXXX (Target Station) or **SET OPR** (Operator)

4. Replace the handset or depress the SPKR key.

■ **To set Call Forwarding – All Calls – Outside**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – All Calls feature access key and receive feature dial tone.
3. Dial the trunk access code and the desired telephone number.
4. Wait till service set tone is received, unless programming CM08-222=0.
5. Replace the handset or depress the SPKR key.

■ **To monitor Call Forwarding – All Calls**

1. Lift the handset or depress the SPKR key and receive dial tone or special dial tone (when lifting the handset).
2. Depress the Call Forwarding – All Calls feature access key. The LCD displays:

   FDA XXXX
   (Target Station)

3. Replace the handset or depress the SPKR key.

■ **To cancel Call Forwarding – All Calls**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding All Calls feature access key and receive special dial tone. The LCD displays:

   FDA XXXX
   (Target Station)

3. Depress the * key and receive service set tone. The LED of the associated feature key will go out. The LCD displays **CNCL**.
4. Replace the handset or depress the SPKR key.

From a Single Line Telephone

■ **To set Call Forwarding – All Calls**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – All Calls feature access code and receive feature dial tone.
3. Dial the desired target station number and receive service set tone.

■ **To set Call Forwarding – All Calls – Outside**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – All Calls feature access code and receive feature dial tone.
3. Dial the trunk access code and desired telephone number.
4. Wait until service set tone is received, unless programming CM08-222=0.
5. Replace the handset.

■ To monitor Call Forwarding - All Calls

1. Lift the handset.
2. When Call Forwarding - All Calls has been set, special dial tone is heard.
3. Replace the handset.

■ To cancel Call Forwarding – All Calls

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – All Calls cancellation code and receive service set tone.

Service Conditions

1. There is no limit to the number of stations that can set Call Forwarding – All Calls at one time.
2. Extensions can be allowed or disallowed this feature by Class of Service in system programming. A separate Class of Service Assignment controls access to Call Forwarding – All Calls to outside numbers.
3. When Call Forwarding – All Calls is rerouted to another destination, one burst of ringing is sent to the forwarded station to indicate that it is call forwarded (Single Line Telephone only).
4. When a call is forwarded to a Multiline Terminal with LCD, the display shows the initially called station's number as well as the calling station's number.
5. Call Forwarding – All Calls assignments are retained in system memory when the system is re-initialized or when there is a power failure.
6. A maximum of 26 digits (without access code) can be stored for Call Forwarding – All Calls to an outside number.
7. Call Forwarding – All Calls to an outside number can be routed by the Least Cost Routing feature and restricted by the Code Restriction feature.
8. More than one Call Forward can occur in the progress of a call. See Multiple Call Forwarding – All Calls, Multiple Call Forwarding – Busy Line, and Multiple Call Forwarding – No Answer.
9. Direct Inward Dial (DID) lines, DIT calls, tie lines, ring transfer and internal incoming calls will follow the Call Forward setting.
10. Only the destination station can call the station that is Call Forwarded.
11. If the Call Forward is rerouted to a hunt group and all members of the hunt group are busy, the forwarded caller will receive busy tone.
12. If the Call Forward is rerouted to the pilot number of an Automatic/Uniform Call Distribution (UCD) group and that pilot station has set Call Forward, the call will be forwarded.
13. When Call Forwarding – All Calls – Outside is set, the system can be programmed to allow or deny the setting of the Call Forward with only a trunk access code. This can be set on a system-wide basis.
14. In the SMDR call record, the station that set Call Forwarding – All Calls – Outside will appear as the originator of the call.
15. SMDR only records if the Tandem Connection receives answer supervision.
16. The setting station's trunk restriction class is used to allow or deny the tandem connection on a Call Forwarding – All Calls – Outside.
17. Checking of the setting station's trunk restriction class can be allowed or denied on a system-wide basis.
18. A Direct Inward System Access (DISA) call to a station set for Call Forwarding – All Calls Outside will be allowed or denied based on the forwarded station's trunk restriction class.

19. An internal station call to a station that has set Call Forwarding – All Calls Outside will follow the restriction class of the station that has set Call Forwarding.
    When Call Forwarding to outside is executed, an object of the billing is as follows.

Station set Call Forwarding	Billing Object
Single Line Telephone, Multiline Terminal	Station set Call Forwarding
Virtual station	Originating station/trunk

20. When the station user that has set Call Forwarding lifts the handset, the station can receive special dial tone by system programming.
21. A maximum of 240 Call Forwarding setting to outside number is allowed per system, including Call Forwarding – All Calls, Busy Line, No Answer.

Call Forwarding – Busy Line

General Description

This feature permits a call to a busy extension to be routed to a predesignated station, Attendant Console, or voice mail equipment. Call Forwarding – Busy Line can be set or cancelled by an Attendant Console, the individual station user, or a Multiline Terminal with a secondary appearance of the station's extension.

Station Application

All stations.

Operating Procedure

From a Multiline Terminal with LCD

■ To set Call Forwarding – Busy Line

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – Busy Line feature access key and receive feature dial tone.
3. Dial the desired target station number and receive service set tone. The LCD displays:

   SET XXXX (Target Station) or **SET 0PR** (Operator)
4. The LED of the associated feature button lights.
5. Restore the handset or depress the SPKR key.

■ To monitor Call Forwarding – Busy Line

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – Busy Line feature access key. The LCD displays:

   FD B XXXX
   (Target Station)
3. Replace the handset or depress the SPKR key.

■ **To set Call Forwarding – Busy Line – Outside**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – Busy Line feature access key and receive feature dial tone.
3. Dial the trunk access code and desired telephone number.
4. Wait till service set tone is received (unless programming CM08-222=0).
5. Replace the handset or depress the SPKR key.

■ **To cancel Call Forwarding – Busy Line**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – Busy Line feature access key and receive special dial tone. Depress the * key and receive service set tone. The LCD displays **CNCL** and the associated LED goes out.
3. Restore the handset or depress the SPKR key.

From a Single Line Telephone

■ **To set Call Forwarding – Busy Line**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – Busy Line feature access code and receive feature dial tone.
3. Dial the desired target station number and receive service set tone.

■ **To set Call Forwarding – Busy Line – Outside**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – Busy Line feature access code and receive feature dial tone.
3. Dial the trunk access code and the desired telephone number.
4. Wait until the service set tone is received.
5. Replace the handset.

■ **To cancel Call Forwarding – Busy Line**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – Busy Line cancellation code and receive service set tone.

Service Conditions

1. There is no limit to the number of stations that can set Call Forwarding – Busy Line at one time (internal - station to station).
2. Extensions can be allowed or denied this feature by Class of Service in system programming.
3. Call Forwarding – Busy Line can be provided on a system or an individual basis.
4. Call Forwarding – Busy Line on a system basis allows any incoming Direct Inward Dial (DID), Direct Inward Termination (DIT), Tie line, Transfer, and internal calls which encounter a busy condition to be forwarded to a predetermined location (Attendant Console, another station, or voice mail equipment).
5. Individually set Call Forwarding – Busy Line settings take precedence over system basis Call Forwarding – Busy Line settings.
6. If the Call Forwarding – Busy Line is rerouted to a hunt group and all members of the hunt group are busy, the forwarded caller will receive busy tone.

7. When a call is directed to the pilot number of an ACD/UCD group and that pilot station has set Call Forwarding – Busy Line, the call will be forwarded if all stations within the ACD/UCD group are busy.
8. When a calling station or Attendant Console receives busy tone after being call forwarded because of Call Forwarding – Busy Line, the caller can activate Executive Override, Camp On, Attendant Override, Call Back, Message Reminder, or other service features available on busy tone to the initially called station.
9. When a call is forwarded to a Multiline Terminal with LCD, the display shows the original called station's number as well as the calling station's number.
10. Call Forwarding – No Answer can be set simultaneously with this feature to result in Call Forwarding – Busy Line/No Answer. Call Forwarding – Busy Line and Call Forwarding – No Answer can be set to the same or different extensions.
11. When Call Forwarding – Busy Line – Outside is set, the system can be programmed to allow or deny the setting of the Call Forward with only a trunk access code. This can be set on a system-wide basis.
12. In the SMDR call record, the station that set Call Forwarding – Busy Line – Outside will appear as the originator of the call.
13. SMDR only records if the Tandem Connection receives answer supervision.
14. The setting station's trunk restriction class is used to allow or deny the tandem connection on a Call Forwarding – Busy Line Outside.
15. Checking of the setting station's trunk restriction class can be allowed or denied on a system-wide basis.
16. A Direct Inward System Access (DISA) call to a station that has set Call Forwarding – Busy Line Outside will be allowed or denied based on the forwarded station's trunk restriction class.
17. An internal station call to a station that has set Call Forwarding – Busy Line Outside will follow the restriction class of the station that has set Call Forwarding.
    When Call Forwarding to outside is executed, an object of the billing is as follows.

Station set Call Forwarding	Billing Object
Single Line Telephone, Multiline Terminal	Station set Call Forwarding
Virtual station	Originating station/trunk

18. A maximum of 240 Call Forwarding setting to outside number is allowed per system, including Call Forwarding – All Calls, Busy Line, No Answer.

Call Forwarding – No Answer

General Description

This feature reroutes calls, to extensions which do not answer, to another station, an Attendant Console or voice mail equipment. Call Forwarding – No Answer can be set by the individual station user, an Attendant Console, or by a Multiline Terminal with a secondary appearance of the station's extension.

Station Application

All stations.

Operating Procedure

From a Multiline Terminal with LCD

■ **To set Call Forwarding – No Answer**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – No Answer feature access key and receive feature dial tone.
3. Dial the desired target station number and receive service set tone. The LCD displays:

   SET XXXX (Target Station)

■ **To set Call Forwarding – No Answer – Outside**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – No Answer feature access key and receive feature dial tone.
3. Dial the trunk access code and the desired telephone number.
4. Wait until service set tone is received.
5. Replace the handset or depress the SPKR key.

■ **To cancel Call Forwarding – No Answer**

1. Lift handset or depress SPKR key and receive dial tone.
2. Depress the Call Forwarding – No Answer feature access key and receive special dial tone. Depress the ***** key, the associated LED goes out and service set tone is received. The LCD displays **CNCL**.

From a Single Line Telephone

■ **To set Call Forwarding – No Answer**

1. Lift handset and receive dial tone.
2. Dial Call Forwarding – No Answer feature access code and receive feature dial tone.
3. Dial the desired target station number and receive service set tone.

■ **To set Call Forwarding – No Answer – Outside**

1. Lift the handset and receive Dial Tone.
2. Dial Call Forwarding – No Answer feature access code and receive feature dial tone.
3. Dial the trunk access code and the desired telephone number.
4. Wait until service set tone is received.
5. Replace the handset.

■ **To cancel Call Forwarding – No Answer**

1. Lift handset and receive dial tone.
2. Dial specific Call Forwarding – No Answer cancellation code and receive service set tone.

Service Conditions

1. An unlimited number of stations can set Call Forwarding – No Answer at one time (internal - station to station).
2. Stations are allowed/disallowed this feature by Class Of Service in system programming.
3. Call Forwarding – No Answer can be provided on a system and an individual basis.

4. Call Forwarding on a system basis allows Direct Inward Dial (DID) calls or Tie Line calls which encounter a no-answer condition to be forwarded to a predetermined location (Attendant Console, another station, or voice mail equipment).
5. Individual Call Forwarding – No Answer settings take precedence over system Call Forwarding – No Answer settings.
6. Call Forwarding – No Answer timing, flexible in system programming, is as follows:
   - For direct incoming calls (DID, DIT, TIE) – 4 to 120 seconds (Default: 32-36 seconds).
   - For internal calls and transferred incoming calls – 4 to 120 seconds (Default: 32-36 seconds).
7. More than one call forward can occur in the progress of a call. See Multiple Call Forwarding – All Calls, Multiple Call Forwarding – Busy Line and Multiple Call Forwarding – No Answer.
8. Call Forwarding – Busy Line can be set simultaneously with this feature to result in Call Forwarding Busy/ No Answer. Call Forwarding Busy Line and Call Forwarding – No Answer can be set to the same or different extensions.
9. When Call Forwarding – No Answer – Outside is set, the system can be programmed to allow or deny the setting of the Call Forward with only a trunk access code. This can be set on a system-wide basis.
10. In the SMDR call record, the station that set Call Forwarding – No Answer – Outside will appear as the originator of the call.
11. SMDR only records if the Tandem Connection receives answer supervision.
12. The setting station's trunk restriction class is used to allow or deny the tandem connection on a Call Forwarding – No Answer – Outside.
13. Checking of the setting station's trunk restriction class can be allowed or denied on a system-wide basis.
14. A Direct Inward System Access (DISA) call to a station set for Call Forwarding – No Answer Outside will be allowed or denied based on the forwarded station's trunk restriction class.
15. An internal station call to a station that has set Call Forwarding – No Answer Outside will follow the restriction class of the station that has set Call Forwarding.
    When Call Forwarding to outside is executed, an object of the billing is as follows.

Station set Call Forwarding	Billing Object
Single Line Telephone, Multiline Terminal	Station set Call Forwarding
Virtual station	Originating station/trunk

16. A maximum of 240 Call Forwarding setting to outside number is allowed per system, including Call Forwarding – All Calls, Busy Line, No Answer.

Call Forwarding – Destination

General Description

This feature allows a station (A) user to set Call Forwarding – All Calls from another station (B) within the system, to the user's station (A).

Station Application

All stations.

Operating Procedure

From a Multiline Terminal with LCD

■ To set Call Forwarding – Destination from destination station

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – Destination set key or dial the Call Forwarding – Destination feature access code and receive feature dial tone.
3. Dial the station number to be forwarded and receive service set tone. The LCD displays:

   SET XXXX
   (Forwarded Station)
4. Replace the handset or depress SPKR key.

■ To cancel Call Forwarding – Destination from destination station

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – Destination Cancel key or dial the Call Forwarding – Destination Cancellation code and receive feature dial tone.
3. Dial the user's station number (forwarded station) and receive set tone.
4. Replace the handset or depress the SPKR key.

From a Single Line Telephone

■ **To set Call Forwarding – Destination from destination station**

1. Lift the handset and receive dial tone.
2. Dial the specific Call Forwarding – Destination feature access code and receive Dial Tone.
3. Dial the station number to be forwarded and receive service set tone.

■ **To cancel Call Forwarding – Destination from destination station**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – Destination cancellation code and receive feature dial tone.
3. Dial the user's station number (forwarded station) and receive service set tone.

■ **To cancel Call Forwarding – Destination from Call Forwarded station**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – All Calls cancellation code and receive service set tone.

Service Conditions

1. There is no limit to the number of stations which can set Call Forwarding – Destination.
2. Stations can be allowed or denied this feature by Class Of Service in system programming.
3. There is no limit to the number of Call Forwarding – Destinations which can be set to forward to a station simultaneously.

Multiple Call Forwarding – All Calls

General Description

When a forwarded call is rerouted to a station which has also set a Call Forward, the call can be forwarded to another station. A call can be forwarded up to a maximum of five times, as specified in system programming.

Station Application

All stations.

Operating Procedure

The same operating procedures for Call Forwarding – All Calls apply.

Service Conditions

1. Multiple Call Forwarding – All Calls can forward a maximum of five times when the called station sets Call Forwarding – All Calls to a station that has set Call Forwarding – All Calls or Call Forwarding – Busy Line.
2. Multiple Call Forwarding – All Calls cannot be performed for data calls.
3. If a calling station has been set to Call Forwarding – All Calls five times and encounters a sixth Call Forwarding – All Calls, the calling station is not forwarded, but receives busy tone if the destination station is busy, or ringback tone if the destination station is idle.

4. If the destination of Call Forwarding – All Calls is set for Call Forwarding – Busy Line and is busy, forwarding occurs.
5. When combining Call Forwarding – All Calls and Call Forwarding – Busy Line, and the fifth destination station is busy, the calling party will hear busy tone.
6. If a destination in a Multiple Call Forwarding – All Calls situation is busy, and has not set Call Forwarding – Busy Line or All Calls, the calling party will receive busy tone.
7. If a destination station is busy, the calling station can activate Call Back, Camp On, Message Reminder, or Executive Override to that destination station.
8. When Multiple Call Forwarding – All Calls occurs, the display of the calling party's Multiline Terminal with LCD will show the station number to which the call was forwarded. The display of the answering Multiline Terminal with LCD will show the calling party (station or trunk) and the called number.
9. If the destination station in a combined Multiple Call Forwarding – All Calls and Call Forwarding – Busy Line situation is Call Forwarding – No Answer, Multiple Call Forwarding – No Answer will be put into effect. If the destination station of Call Forwarding – No Answer is set to Call Forwarding – Busy Line, Call Forwarding – All Calls forwarding will be restricted.
10. If two stations have set Call Forwarding – All Calls to each other, an incoming call to either of these stations will not be forwarded; therefore, an infinite loop cannot occur.
11. If the incoming call returns to a station that has already taken part in a Multiple Call Forwarding (Busy or All Calls) of that call, Call Forwarding – All Calls service from that station is not be performed again.
12. If an incoming call encounters Multiple Call Forwarding – All Calls and the final destination of the call forward is the Attendant Console, the incoming call will appear on the ATND key.
13. If a station has set Call Forwarding – All Calls to another station in a different tenant and that station is set to Call Forwarding – Busy Line or All Calls to the Attendant Console, the calling station will be connected to the first station's Attendant Console.
14. A Direct In Termination call to a station which has set Call Forwarding – All Calls will be forwarded. The call can be forwarded to another station or to an Attendant Console.
15. If the destination station of Multiple Call Forwarding – All Calls is in a hunt group and is set to Call Forwarding – Busy Line to a station in another hunt group, it can be determined through system data whether the calling party hunts to the called party's hunt group or the terminating party's hunt group when the forwarded to stations are busy.
16. If the destination of Multiple Call Forwarding – All Calls is the pilot of an Automatic/Uniform Call Distribution (ACD/UCD) group, ACD/UCD is executed.
17. If a member of an ACD/UCD group is a member of a Multiple Call Forwarding – All Calls sequence, that station is skipped in ACD/UCD hunting.

Multiple Call Forwarding – Busy Line

General Description

This feature permits a call to a busy station to be forwarded, multiple times, to a predesignated idle station.

Station Application

All stations.

Operating Procedure

The same operating procedures for Call Forwarding – All Calls apply.

Service Conditions

1. Multiple Call Forwarding – Busy Line can not be performed for data calls.
2. Multiple Call Forwarding – Busy Line can route a call up to five times when the called station sets Call Forwarding – Busy to a station that is busy that has set Call Forwarding – Busy and so on.
3. If the calling station is set as the forwarded destination of its own call in a multiple call forwarding scheme, Call Forwarding – Busy at that point will not take place.
4. If the incoming call returns to one of the stations that has taken party in the process of multiple call forwarding, the Call Forwarding – Busy from that station will not be performed.
5. If all the stations are busy in a multiple call forwarding sequence, a calling internal station may then activate Call Back, Message Reminder, Camp On, or Executive Override to the called station.
6. If the station is a Direct In Termination call, Call Forwarding – Busy is not activated. The calling party may be forwarded to the Attendant Console, to Trunk Answer any Station, put in Automatic Camp-On, or can receive ringback until the station becomes idle.
7. If the called station is set as the forwarded destination in a multiple call forwarding scheme, Call Forwarding – Busy at that point will not take place.
8. If the called station is set to Call Forwarding – Busy Line to another station in a different tenant and that station is set to Call Forwarding – Busy to the Attendant Console, the calling station will be connected to the calling station's Attendant Console.
9. For Multiple Call Forwarding – Busy Line, the display of a Multiline Terminal with LCD will show the called station number and the final forwarded station number for the calling party. For the final forwarded-to station, the display of the Multiline Terminal with LCD will show the called number and the calling party (station or trunk).

Multiple Call Forwarding – No Answer

General Description

This feature permits a call to an unanswered station, the ability to be forwarded multiple times to a predesignated station that does not have Call Forwarding – No Answer set or to the Attendant Console.

Station Application

All stations.

Operating Procedure

The same operating procedures for Call Forwarding – All Calls apply.

Service Conditions

1. Multiple Call Forwarding – No Answer can only be performed for non-data calls.

2. Multiple Call Forwarding – No Answer can be forwarded as many times as desired. The call will stop forwarding when it terminates to the Attendant Console or to a station not assigned with Call Forwarding – No Answer.
3. When a station encounters a Call Forwarding – No Answer condition and the station it is forwarded to is busy, the system will check the status of the forwarded busy station at intervals pre-assigned in system programming.
4. Multiple Call Forwarding – No Answer service can be utilized by the following incoming calls:
   - Intra-office
   - Direct Inward Dialing
   - Direct In Termination
   - Night Service
   - Hot Line
5. If a station transfers a call to another station that set Call Forwarding – No Answer and releases from the connection, recalls will override Call Forwarding – No Answer if the call is unanswered after a pre-determined time.
6. Multiple Call Forwarding – No Answer will not be activated if the calling party encounters a busy station that has activated Call Forwarding – Busy Line.
7. If a station sets Call Forwarding – No Answer to another station in a different tenant and that station is set to Call Forwarding – No Answer to the Attendant, the calling station will be connected to the calling station's Attendant Console.
8. For Multiple Call Forwarding – No Answer, the display of a Multiline Terminal with LCD will show the final forwarded-to station number for the calling party. If the final forwarded-to station is a multiline terminal with LCD, the forwarded-from station number and the calling party number (station on trunk) will be displayed.

Split Call Forwarding – All Calls

General Description

This feature allows all internal and external calls to a busy extension to be rerouted to different destinations individually, regardless of the busy or idle status of the extension.

Station Application

All stations.

Operating Procedure

To activate Split Call Forwarding, both Split Call Forwarding and Call Forwarding settings are required. For Call Forwarding settings, refer to the description of Call Forwarding – All Calls.

From a Multiline Terminal with LCD

■ **To set split Call Forwarding – All Calls**

1. Lift the handset or depress SPKR key and receive dial tone.
2. Depress the Split Call Forwarding – All Calls feature access key and receive feature dial tone.

3. Dial the desired destination number (0-9) and receive service set tone.

Number	Destination
0	Target station for Split Call Forwarding – All Calls (Block 0)
1	Target station for Split Call Forwarding – All Calls (Block 1)
2	Target station for Split Call Forwarding – All Calls (Block 2)
3	Target station for Split Call Forwarding – All Calls (Block 3)
4	Target station for Split Call Forwarding – All Calls (Block 4)
5	Target station for Split Call Forwarding – All Calls (Block 5)
6	Target station for Split Call Forwarding – All Calls (Block 6)
7	Target station for Split Call Forwarding – All Calls (Block 7)
8	Target station for Call Forwarding – All Calls
9	Station Speed Dialing

The associated LED lights and the LCD displays:

SET XXXX or **SET OPR**
(Target Station) (Operator)

The LED of the associated feature button lights.

4. Replace the handset or depress the SPKR key.

■ To monitor Split Call Forwarding – All Calls

1. Lift the handset or depress the SPKR key and receive dial tone or special dial tone (when lifting the handset).
2. Depress the Split Call Forwarding – All Calls feature access key.
   The LCD displays:
   FDA XXXX
   (Target station)
3. Replace the handset or depress the SPKR key.

■ To cancel Split Call Forwarding – All Calls

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Split Call Forwarding – Busy Line feature access key and receive special dial tone.
   The LCD displays:
   FDA XXXX
   (Target station)
3. Depress the * key and receive service set tone. The LCD displays **CNCL** and the associated LED goes off.
4. Restore the handset or depress the SPKR key.

From a Single Line Telephone

■ To set Split Call Forwarding – All Calls

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – Busy Line feature access code and receive feature dial tone.

3. Dial the desired destination number (0-9) and receive service set tone.

Number	Destination
0	Target station for Split Call Forwarding – All Calls (Block 0)
1	Target station for Split Call Forwarding – All Calls (Block 1)
2	Target station for Split Call Forwarding – All Calls (Block 2)
3	Target station for Split Call Forwarding – All Calls (Block 3)
4	Target station for Split Call Forwarding – All Calls (Block 4)
5	Target station for Split Call Forwarding – All Calls (Block 5)
6	Target station for Split Call Forwarding – All Calls (Block 6)
7	Target station for Split Call Forwarding – All Calls (Block 7)
8	Target station for Call Forwarding – All Calls
9	Station Speed Dialing

4. Replace the handset.

■ To monitor Split Call Forwarding – All Calls

1. Lift the handset.
2. When Split Call Forwarding – All Calls has been set, special dial tone is heard.
3. Replace the handset.

■ To cancel Split Call Forwarding – All Calls

1. Lift the handset and receive dial tone.
2. Dial the Split Call Forwarding – All Calls cancellation code and receive service set tone.
3. Replace the handset.

Service Conditions

1. This feature allows a station to set the two kinds of call forwarded stations. One is the target station assigned for Call Forwarding – All Calls, the other is the target station assigned for Split Call Forwarding – All Calls. The target stations for Split Call Forwarding are assigned in system programming.
2. Either Call Forwarding – All Calls or Split Call Forwarding – All Calls can be selected for the feature available per tenant in system programming, depending on the type of the incoming call which is an internal call/attendant assisted call, a Tie Line call, or a C.O. call.
3. Split Call Forwarding – All Calls allows any incoming Direct Inward Dialing (DID), Direct Inward Termination (DIT), Tie Line, Transfer, and internal calls to be forwarded to a predetermined location (Attendant Console, another station, or voice mail equipment).
4. When the station user that has set Split Call Forwarding lifts the handset, the station can receive special dial tone by system programming.

Split Call Forwarding – Busy Line

General Description

This feature allows internal and external calls to a busy extension to be rerouted to separate destinations. Destinations may be an internal station, Attendant Console, or voice mail.

Station Application

All stations.

Operating Procedure

To activate Split Call Forwarding, both Split Call Forwarding and Call Forwarding settings are required. For Call Forwarding settings, refer to the description of Call Forwarding – Busy Line.

From a Multiline Terminal with LCD

■ **To set split Call Forwarding – Busy Line**

1. Lift the handset or depress SPKR key and receive dial tone.
2. Depress the Split Call Forwarding – Busy Line feature access key and receive feature dial tone.
3. Dial the desired destination number (0-9) and receive service set tone.

Number	Destination
0	Target station for Split Call Forwarding – Busy Line (Block 0)
1	Target station for Split Call Forwarding – Busy Line (Block 1)
2	Target station for Split Call Forwarding – Busy Line (Block 2)
3	Target station for Split Call Forwarding – Busy Line (Block 3)
4	Target station for Split Call Forwarding – Busy Line (Block 4)
5	Target station for Split Call Forwarding – Busy Line (Block 5)
6	Target station for Split Call Forwarding – Busy Line (Block 6)
7	Target station for Split Call Forwarding – Busy Line (Block 7)
8	Target station for Call Forwarding – Busy Line
9	Station Speed Dialing

The LCD displays:

SET XXXX (Target Station) or **SET OPR** (Operator)

The LED of the associated feature button lights.

4. Restore the handset or depress the SPKR key.

■ **To cancel Split Call Forwarding – Busy Line**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Call Forwarding – Busy Line feature access key and receive special dial tone. Depress the * key and receive service set tone. The LCD displays **CNCL** and the associated LED goes off.
3. Restore the handset or depress the SPKR key.

From a Single Line Telephone and Multiline Terminal without Split Call Forwarding – Busy Line feature key

■ **To set Split Call Forwarding – Busy Line**

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding – Busy Line feature access code and receive feature dial tone.
3. Dial destination number (0-9) and receive service set tone.

Number	Destination
0	Target station for Split Call Forwarding – Busy Line (Block 0)
1	Target station for Split Call Forwarding – Busy Line (Block 1)
2	Target station for Split Call Forwarding – Busy Line (Block 2)
3	Target station for Split Call Forwarding – Busy Line (Block 3)
4	Target station for Split Call Forwarding – Busy Line (Block 4)
5	Target station for Split Call Forwarding – Busy Line (Block 5)
6	Target station for Split Call Forwarding – Busy Line (Block 6)
7	Target station for Split Call Forwarding – Busy Line (Block 7)
8	Target station for Call Forwarding – Busy Line
9	Station Speed Dialing

4. Replace the handset.

■ **To cancel Split Call Forwarding – Busy Line**

1. Lift the handset and receive dial tone.
2. Dial Call Forwarding – Busy Line cancellation code and receive service set tone.

Service Conditions

1. This feature allows a station to set the two kinds of call forwarded stations. One is the target station assigned for Call Forwarding – Busy Line, the other is the target station assigned for Split Call Forwarding – Busy Line. The target stations for Split Call Forwarding are assigned in system programming.
2. Either Call Forwarding – Busy Line or Split Call Forwarding – Busy Line can be selected for the feature available per tenant in system programming, depending on the type of the incoming call which is an internal call/attendant assisted call, a Tie Line call, or a C.O. call.
3. Split Call Forwarding – Busy Line allows any incoming Direct Inward Dialing (DID), Direct Inward Termination (DIT), Tie Line, Transfer, and internal calls which encounter a busy condition to be forwarded to a predetermined location (Attendant Console, another station, or voice mail equipment).
4. Split Call Forwarding – Busy Line and Split Call Forwarding – No Answer must be set to the same destination to result in Split Call Forwarding – Busy Line/No Answer.

Split Call Forwarding – No Answer

General Description

This feature allows internal and external calls, to extensions that do not answer, to be rerouted to separate destinations individually.

Station Application

All stations.

Operating Procedure

To activate Split Call Forwarding, both Split Call Forwarding and Call Forwarding settings are required. For Call Forwarding settings, refer to the description of Call Forwarding – No Answer.

From a Multiline Terminal with LCD

■ **To set split Call Forwarding – No Answer**

1. Lift the handset or depress SPKR key and receive dial tone.
2. Depress the Split Call Forwarding – No Answer feature access key and receive feature dial tone.
3. Dial the desired destination number (0-9) and receive service set tone.

Number	Destination
0	Target station for Split Call Forwarding – No Answer (Block 0)
1	Target station for Split Call Forwarding – No Answer (Block 1)
2	Target station for Split Call Forwarding – No Answer (Block 2)
3	Target station for Split Call Forwarding – No Answer (Block 3)
4	Target station for Split Call Forwarding – No Answer (Block 4)
5	Target station for Split Call Forwarding – No Answer (Block 5)
6	Target station for Split Call Forwarding – No Answer (Block 6)
7	Target station for Split Call Forwarding – No Answer (Block 7)
8	Target station for Call Forwarding – No Answer
9	Station Speed Dialing

The LCD displays:

SET XXXX
(Target station)

4. Replace the handset or depress the SPKR key.

■ **To cancel Split Call Forwarding – No Answer**

1. Lift the handset or depress the SPKR key and receive dial tone.
2. Depress the Split Call Forwarding – No Answer feature access key and receive special dial tone. Depress the * key and receive service set tone. The LCD displays **CNCL** and the associated LED goes off.
3. Replace the handset or depress the SPKR key.

From a Single Line Telephone

■ **To set Split Call Forwarding – No Answer**

1. Lift the handset and receive dial tone.
2. Dial the Split Call Forwarding – No Answer feature access code and receive feature dial tone.

3. Dial desired destination number (0-9) and receive service set tone.

Number	Destination
0	Target station for Split Call Forwarding – No Answer (Block 0)
1	Target station for Split Call Forwarding – No Answer (Block 1)
2	Target station for Split Call Forwarding – No Answer (Block 2)
3	Target station for Split Call Forwarding – No Answer (Block 3)
4	Target station for Split Call Forwarding – No Answer (Block 4)
5	Target station for Split Call Forwarding – No Answer (Block 5)
6	Target station for Split Call Forwarding – No Answer (Block 6)
7	Target station for Split Call Forwarding – No Answer (Block 7)
8	Target station for Call Forwarding – No Answer
9	Station Speed Dialing

4. Replace the handset.

■ **To cancel Split Call Forwarding – No Answer**

1. Lift the handset and receive dial tone.
2. Dial the specific Split Call Forwarding – No Answer cancellation code and receive service set tone.
3. Replace the handset.

Service Conditions

1. This feature allows a station to set the two kinds of call forwarded stations. One is the target station assigned for Call Forwarding – No Answer, the other is the target station assigned for Split Call Forwarding – No Answer. The target stations for Split Call Forwarding are assigned in system programming.
2. Either Call Forwarding – No Answer or Split Call Forwarding – No Answer can be selected for the feature available per tenant in system programming, depending on the type of the incoming call which is an internal call/attendant assisted call, a Tie Line call, or a C.O. call.
3. Split Call Forwarding – No Answer allows any incoming Direct Inward Dialing (DID), Direct Inward Termination (DIT), Tie Line, Transfer, and internal calls which encounter a no-answer condition to be forwarded to a predetermined location (Attendant Console, another station, or voice mail equipment).
4. Split Call Forwarding – Busy Line and Split Call Forwarding – No Answer must be set to the same destination to result in Split Call Forwarding – Busy Line/No Answer.

Call Forwarding – Override

General Description

This feature allows the call forward destination station to call the station which set call forward. The call forward setting will be ignored.

Station Application

All stations.

Operating Procedure

Normal call handling procedures apply.

Service Conditions

This feature is allowed to all stations and the Attendant Console.

Group Diversion

General Description

This feature allows all calls terminated to an extension that are not answered within a predetermined time to be forwarded to a predesignated station.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. The NEAX2000 IVS provides three methods of Call Forwarding – No Answer:

	Call Forwarding - No Answer (Individual)	**Call Forwarding - No Answer (System)**	**Group basis**
	Individual station basis	**Tenant basis**	**Group diversion**
Set/Cancel	From STA/ATT	From MAT/CAT	From MAT/CAT
Applicable for	STA call TRK call ATT call	TRK call (DID/Tie only)	STA call TRK call (DID, DIT, Tie Line) ATT call ATT Transfer Recalls
Priority	(1)	(3)	(2)

2. The maximum number of Group Diversion groups per system is 31.
3. The number of stations that can be included in the same group is unlimited.
4. The Group Diversion group has no relation with Call Pick Up Group, Station Hunting Group, or any other group.
5. No-Answer timing for Group Diversion is the same timing as for Call Forwarding – No Answer.
6. The destination of this service must be assigned for each group separately.
7. An Attendant Console cannot be assigned as the destination of this feature.
8. Incoming direct trunk appearances will not follow Group Diversion programming.

Call Park

General Description

This feature enables a station user or attendant to place a call into predesignated Call Park locations. The station user or attendant is then free to process other calls. This feature is available system wide and for individual tenants.

Call Park - System

General Description

When a call is parked by Call Park-System, the call can be retrieved from Call Park by any station in the system.

Station Application

All stations and Attendant Consoles.

Operating Procedure

To place a call into Call Park-System

■ From a Single Line Telephone

1. Press the FLASH key (or momentarily press the hookswitch) and receive feature dial tone.
2. The call in progress is placed on Consultation Hold.
3. Dial the Call Park-System feature access code.
4. Dial the Call Park-System location number (00-19) and receive service set tone. (If the Call Park number is busy, dial another location number using the Step Call feature until an idle park location is accessed).
5. Restore the handset.

■ From a Multiline Terminal with LCD

1. Press the TRF key and receive feature dial tone.
2. The call in progress is placed on Consultation Hold.
3. Dial the Call Park-System feature access code. The first available Call Park location is selected by the system and displayed in the LCD. Receive service set tone.
4. Restore handset.

OR

1. Press the Call Park - System feature key and receive service set tone.
2. Restore the handset.

■ From a Multiline Terminal without LCD

1. Press the TRF key and receive feature dial tone.
2. The call in progess is placed on Consultation Hold.
3. Dial the Call Park-System feature access code.

4. Dial the Call Park location number (00-19) and receive service set tone. (If Call Park-System number is busy, dial another location number using the Step Call feature until an idle park location is accessed.)
5. Restore the handset.

■ **From an Attendant Console**

1. Dial Call Park-System feature access code. The first available Call Park location is selected by the system and displayed in the LCD. Receive service set tone.
2. Depress the RELEASE Key.

To retrieve a call from Call Park-System

■ **From a Single Line Telephone**

1. From any station, go off hook and receive internal dial tone.
2. Dial the Call Park-System retrieval access code.
3. Dial the Call Park-System location number (00-19).
4. Converse.

■ **From a Multiline Terminal with a Trunk Direct Appearance**

1. Go off hook and receive dial tone.
2. Depress Trunk Direct Appearance feature key flashing.

■ **From an Attendant Console**

1. Depress LOOP key.
2. Dial the Call Park-System feature access code or depress the Call Park - System feature key.
3. Dial the Call Park-System location number (00-19).
4. Converse.

Service Conditions

1. A station user can originate and receive calls while having a call in Call Park-System.
2. A maximum of 20 simultaneous calls can be parked within a system. A station user can place multiple calls into Call Park-System provided the maximum number is not exceeded.
3. Any internal or external call can be placed into Call Park-System.
4. Any call left on Call Park-System for more than a preprogrammed time interval will recall to the primary extension of the station which originally parked the call. Once this recall has started, the Call Park-System location becomes idle. When Call Park-System recalls, the parked party hears ringback tone.
5. If the trunk which was placed in Call Park is assigned to any Multiline Terminal as a direct trunk appearance, the system can be programmed on a per system basis whether or not the Multiline Terminal can retrieve the parked call by depressing the Trunk key. Trunk key LED indication is as follows:

   Possible to retrieve: flashing Green/Red (hold)
   Impossible to retrieve: steady Red (busy)
6. When a Call Park-System recalls to a station, any other station can pick it up using Call Pickup - Direct, Call Pickup - Group or Call Pickup - Designated Group.
7. When attempting to set Call Park-System to a busy Call Park-System location, Step Call can be used to access an idle location.

8. A call can be retrieved from Call Park-System while receiving feature dial tone.
9. If a station other than the station that originally parked the call retrieves the call, Station Message Detail Recording (SMDR) will record a transfer.
10. Parked calls receive Music On Hold, if provided.
11. When a Call Park-System recalls to an Attendant Console, no LED indication is provided. However, the call park location will appear in the display.
12. No LED indication for the Call Park - System key on an Attendant Console is provided.

Call Park - Tenant

General Description

When a call is parked by Call Park - Tenant, the call can be retrieved from Call Park-Tenant by any station within the tenant from which the call was originally parked.

Station Application

All stations.

Operating Procedure

To place a call into Call Park-Tenant

■ **From a Single Line Telephone**

1. Depress the FLASH key (or momentarily depress the hookswitch) and receive feature dial tone.
2. Call in progress is placed on Consultation Hold.
3. Dial the Call Park-Tenant feature access code.
4. Dial the Call Park-Tenant location number (1-8) and receive service set tone. (If Call Park number is busy, dial another location number using the Step Call feature until idle Call Park location is accessed).
5. Receive service set tone.
6. Restore the handset.

■ **From a Multiline Terminal**

1. Depress the TRF key and receive feature dial tone.
2. Call in progress is placed on Consultation Hold.
3. Dial Call Park-Tenant feature access code.
4. Dial Call Park-Tenant location number (1-8) and receive service set tone. (If Call Park number is busy, dial another location number using the Step Call feature until idle Call Park location is accessed).
5. Receive service set tone.
6. Restore handset.

OR

1. Depress the HOLD key if Call Park - Tenant feature key is provided on the Multiline Terminal.
2. Restore the handset.

To retrieve a call from Call Park-Tenant

■ **From a Single Line Telephone**

1. Go off hook and receive internal dial tone.
2. Dial the Call Park-Tenant retrieval access code.
3. Dial the Call Park-Tenant location number (1-8).
4. Converse.

■ **From a Multiline Terminal with Call Park - Tenant feature key**

1. Go off hook and receive dial tone.
2. Depress the Call Park - Tenant feature key (flashing).
3. Dial the Call Park - Tenant location number (1-8).
4. Converse.

■ **From a Multiline Terminal with Trunk - Direct Appearances**

1. Go off hook and receive dial tone.
2. Depress the Trunk - Direct Appearances key flashing.

Service Conditions

1. A maximum of 8 simultaneous calls can be parked within a tenant. A station user can place multiple calls into Call Park-Tenant provided the maximum number is not exceeded.
2. A station user can originate and receive calls while having a call in Call Park-Tenant.
3. Any internal or external can be placed into Call Park-Tenant.
4. Any call left on Call Park-Tenant for more than a preprogrammed time interval will recall to the primary extension of the station which originally parked the call. If the call was parked using a Call Park-Tenant key, the call will recall to that key. (When Call Park-System recalls, the parked party will hear ringback tone.)
5. If the trunk which was placed in Call Park is assigned to any Multiline Terminal as a Trunk Direct Appearance, system programming determines whether or not the Multiline Terminal can retrieve the parked call by depressing the Trunk key. Trunk key LED indication is as follows:

   Possible to retrieve: Flashing as Green/Red (hold)
   Impossible to retrieve: Steady as Red (busy)
6. When attempting to set Call Park-Tenant to a busy Call Park-Tenant location, Step Call can be used to access an idle location.
7. A call cannot be retrieved from feature dial tone.
8. If a station other than the station that originally parked the call retrieves the call, Station Message Detail Recording (SMDR) will record a Transfer.
9. Parked calls can receive Music On Hold.
10. A Call Park-Tenant location key (1-8) can be assigned to a Multiline Terminal.

Call Pickup

General Description

This feature enables a station user to answer any call directed to another station, to a station within their own Call Pickup Group, or to a station within a different Call Pickup Group. Three Call Pickup methods are available: Call Pickup - Direct, Call Pickup - Group, and Call Pickup - Designated Group.

Call Pickup - Direct

General Description

This method permits a station user to pickup a call to any other station in the system by dialing a specific Call Pickup feature access code and the number of the called extension.

Station Application

All stations.

Operating Procedure

From a Single Line Telephone

1. Go off hook and receive internal dial tone.
2. Dial the Call Pickup - Direct feature access code and receive feature dial tone.
3. Dial the extension number of ringing station.
4. Converse.

From a Multiline Terminal

1. Go off hook on an extension line and receive internal dial tone.
2. Dial the Call Pickup - Direct feature access code or depress Call Pickup - Direct function key and receive feature dial tone.
3. Dial the extension number of the ringing station.
4. Converse.

From an SN-610 Attendant Console (1200 Series software enhancement)

1. Press an idle LOOP key.
2. Dial the Call Pickup - Direct feature access code.
3. Dial the extension number of the ringing station.
4. Converse

Service Conditions

1. All ringing calls directed to an extension, including voice calls, can be picked up by this feature, except for Trunk Queuing - Outgoing and Call Back.
2. This feature can be activated from feature dial tone.
3. This feature may be allowed or denied based on station Class of Service.
4. A fully restricted station cannot pickup an incoming Central Office call.
5. An SN-610 console can only use Call Pickup - Direct for calls that have been transferred by another SN-610 console.

Call Pickup - Group

General Description

This method permits a station user to answer any calls directed to other extensions in their preset pickup group by dialing a Call Pickup - Group feature access code.

Station Application

All stations.

Operating Procedure

Ringing telephone in your Call Pickup Group:

1. Go off hook on an extension line and receive internal dial tone.
2. Dial the Call Pickup - Group feature access code.
3. Converse.

Service Conditions

1. All ringing calls directed to extensions in the same Call Pickup Group can be picked up by this feature, except for Trunk Queuing - Outgoing and Call Back.
2. This feature can be activated from feature dial tone.
3. There is no limit to the amount of Call Pickup Groups.
4. A fully restricted station cannot pickup an incoming Central Office call.
5. An individual station may be assigned to only one Call Pickup Group.
6. The maximum number of telephones within a group is 60.
7. If more than one station within the group is ringing, the system will connect the calls in the order in which the system data for the group is stored.

Call Pickup - Designated Group

General Description

This method permits a station user to answer an incoming call directed to another group by dialing the Call Pickup - Designated Group feature access code and any station within the group to which the ringing station belongs.

Station Application

All stations.

Operating Procedure

Ringing telephone in another Call Pickup Group:

1. Go off hook on an extension line and receive internal dial tone.
2. Dial Call Pickup - Designated Group feature access code.
3. Dial any station number within the Call Pickup Group to which the ringing station belongs.

4. Converse.

Service Conditions

1. All ringing calls directed to an extension in a Call Pickup Group can be picked up by this feature, except for Trunk Queuing - Outgoing and Call Back.
2. This feature can not be activated from feature dial tone.
3. A fully restricted station cannot pickup an incoming Central Office call.
4. If more than one station within the group is ringing, the system will connect the calls in the order in which the system data for the group is stored.

Call Redirect

General Description

Without answering incoming calls or held calls which terminates to the line keys of a Multiline Terminal, the calls can be transferred to a pre-programmed station or Voice Mail System. Two transferring destination number can be designated per tenant, in system data programming. This feature can be used together with the Caller ID Display feature.

Station Application

All Multiline Terminals

Operating Procedure

When Caller ID Display feature is provided to the Multiline Terminal

1. Confirm the calling party's information by the operation of Caller ID Display.

Note: *For the operating procedure of Caller ID Display, refer to the pages of Caller ID Display.*

2. While in the CID (Caller ID Display) mode (while the CID key lamp lights), press the CRD (Call Redirect) key assigned to one of the programmable key on the Multiline Terminal.
   The call is transferred to the pre-assigned destination station and the CID key lamp goes out.

When Caller ID Display feature is not provided to the Multiline Terminal

1. Press the CRD key. The Multiline Terminal comes into CRD (Call Redirect) mode for six seconds, the CRD key lamp lights.
2. While in the CRD mode (while the CRD key lamp lights), press the line key of the incoming/held call.
   The call is transferred to the pre-assigned destination station and the CID key lamp goes out.

Service Conditions

1. A maximum of 8 Multiline Terminals can operate the Call Redirect simultaneously per system, including the terminal which is on CID (Caller ID Display) mode.
   If the CRD key is pressed on the 9th Multiline Terminal, CRD key lamp lights in a moment (0.5 seconds), then the call is transferred to the destination station.
2. CRD mode is continued for 6 seconds after the CRD key is pressed. After 6 seconds, the CRD key lamp goes out automatically and CRD mode is cancelled.
3. Two transfer destination can be designated per tenant by system data programming. However, one of these must be a station, and the another must be a voice mail station.
4. If the call cannot be transferred to the destination station due to the busy or restriction of the destination, CID and CRD mode is cancelled.
5. When the following terminating system is assigned to the trunk, the call which is terminated to the trunk access key can be transferred by the CRD key.
   - Trunk-Direct Appearances
   - Trunk-Direct Appearances+TAS

6. On the following conditions, the call cannot be transferred by the CRD key because the destination is regarded as busy state.
   - When the call is a Camp-On call, and the destination is a UCD queue.
   - When the call is held on an extension line/trunk access key, and the destination is a UCD queue.
   - When the call is terminating to or held on a trunk access key, and the destination is setting Call Forwarding-All Calls-Outside/Busy Line-Outside.
7. A call which is set Exclusive Hold by the other station cannot be transferred by the CRD key.
8. A voice call and a call from an Attendant Console cannot be transferred by the CRD key.
9. The system regards the Call Redirect operation as an Call Forwarding-No Answer. Information of the CRD setting station is sent to the destination station.

Call Transfer

General Description

This feature permits a station user to transfer a call to another station in the system directly, or with assistance from the attendant.

Call Transfer - All Calls

General Description

This feature permits a station user to transfer incoming or outgoing calls to another station within the system without attendant assistance.

Station Application

All stations.

Operating Procedure

To transfer a call in progress from a Single Line Telephone

1. Depress the FLASH key (or momentarily depress the hookswitch) and receive feature dial tone.
2. Dial the third party and receive ringback tone.
3. Restore the handset before the third party answers. The first and third parties will be connected when the third party answers.

   OR

   Wait for the third party to answer and announce the transfer while keeping the first party on Consultation Hold. When the station user hangs up, the first and third parties are connected automatically.

To transfer a call in progress from a Multiline Terminal

1. Depress the TRF key and receive feature dial tone.
2. Dial the third party and receive ringback tone.
3. Restore the handset before the third party answers. The first and third parties will be connected when the third party answers.

   OR

   Wait for the third party to answer and announce the transfer while keeping the first party on Consultation Hold. When the station user hangs up, the first and third parties are connected automatically.

Service Conditions

1. The station performing the Call Transfer can abandon the connection before the called party answers. If the called station does not answer within the predetermined time, a recall is initiated to the transferring station.
2. Outgoing calls may be transferred immediately.
3. A three-party Conference can be accessed from the Call Transfer state. The three parties connected can be as follows:

- three stations
- two stations and one trunk
- one station and two trunks.

4. A four-party Conference can be accessed from the Call Transfer state by Multiline Terminals only. When the Consultation Hold of a three-party Conference connection is followed by calling another internal station, a four-way connection can be initiated. Refer to the Conference (Three/Four party) Features and Specifications for additional information.
5. The maximum number of simultaneous Conferences per system is 16.

Call Transfer - Attendant

General Description

This feature permits a station user, while connected to an internal or outside call, to signal the Attendant and have the Attendant transfer the call to another station within the system or to an outside connection.

Station Application

All stations.

Operating Procedure

Calling the Attendant

1. While engaged in a call, depress the FLASH key on a Single Line Telephone or the TRF key on a Multiline Terminal and receive feature dial tone.
2. Dial the operator access code (normally "0"). The Attendant Console RCL lamp flashes and ringing is heard. The station receives ringback tone.
3. After the Attendant answers, request the transfer and restore the handset.

Service Conditions

1. This feature is available for incoming and outgoing Central Office calls and station-to-station calls.
2. When the Attendant Console is in Night Service, the transferring station will receive reorder tone. Refer to Attendant Night Transfer Features and Specifications for more information.
3. The Call Transfer-Attendant feature allows a station user, while participating in a two-party connection, to call the Attendant so that the Attendant may transfer the call or provide other assistance as required. A two-party connection can be comprised of two stations, or a station and a trunk
4. The Call Transfer - Attendant feature can be used by a fully restricted station. The Attendant can transfer a fully restricted station to another station only.
5. Any station, including Housephones without a dial, can transfer a call to the Attendant. Some additional system programming may be necessary.

Caller ID Class

General Description

This feature receives the calling subscriber's name and number sent from a public network using a MODEM signal and displays the name or number on a LCD of a Multiline Terminal and an Attendant Console.

Station Application

All Multiline Terminals with a LCD and Attendant Consoles.

Operating Procedure

To display the calling subscriber's name or number when receiving/answering a call

No manual operation is required.

In case of receiving both the name and the number, it can be specified by system programming which one has priority for display.

To change the name/number display

Every time the Name/Number Display Change key is pushed on the Multiline Terminal or the Attendant Console, the name and number are shown alternately.

To store the subscriber's number for Save & Repeat feature

During a call push the S&R (Save & Repeat) 0/1/2 key.

The S&R lamp lights if the number has been stored.
In the case that no number has been sent from the public network, the S&R lamp will go off because the number has not been stored.

To redial by Save & Repeat feature

Push the S&R 0/1/2 key after hearing the Dial Tone.

Service Conditions

1. Up to 14 digits of the calling subscriber's name or number can be displayed on the LCD of a Multiline Terminal or an Attendant Console.
2. Up to 16 digits of the calling subscriber's number can be recorded on the SMDR.
3. Up to 24 digits of the calling subscriber's number can be sent to the OAI computer.
4. The 4RSTC card and the 4COTG card are required for receiving the Caller ID signals.
5. In case of receiving the subscriber's name while another name is being assigned by system programming, it can be set which one has priority.
6. The kind of the ringing tone can be assigned to each calling subscriber's number respectively.
7. The destination station in the Day Mode/Night Mode can be specified for each calling subscriber's number.
8. The priority for queuing (when the destination station belongs to an UCD group and all the stations are busy) can be set by each calling subscriber's number.
9. It can be specified whether Call Waiting will be set or not by each calling subscriber's number.
10. Table 0 in CMDC YY = 00-63 is reserved for incoming numbers not programmed in the system.

Caller ID Display

General Description

Without answering incoming calls or held calls which terminate to the line keys of a Multiline Terminal, the calling party's information can be confirmed by the indications on the LCD. The following information is indicated according to the kind of the calls.

Kind of Calling Party/Network	Displayed Information	
	Upper on LCD	Lower on LCD
Extension	Station number	Station's name if provided
TI-ANI	Kind of trunk, trunk number	Calling subscriber's number
Caller ID Class	Kind of trunk, trunk number	Calling subscriber's number or Calling subscriber's name
ISDN	Calling party's sub-address	Calling subscriber's number
CCIS	Station number	Station's name if provided
	Kind of trunk	Calling subscriber's number
Other trunks	Kind of trunk, trunk number	None
Attendant Console	"OPR"	None

When a station is in conversation and the CID display key is pressed, the following information will be displayed on the lower line of the LCD.

Kind of Calling Party/Network	Displayed Information	
	Upper on LCD	Lower on LCD
Extension	Station number	None
TI-ANI	Kind of trunk, trunk number	Calling subscriber's number
Caller ID Class	Kind of trunk, trunk number	Calling subscriber's number or Calling subscriber's name
ISDN	Kind of trunk, trunk number	Calling subscriber's number
CCIS	Station number	None
	Kind of trunk, trunk number	Calling subscriber's number
Other trunks	Kind of trunk, trunk number	None
Attendant Console	"OPR"	None

Note: *"None" will not display. The field will be blank.*

Station Application

All Multiline Terminals with LCD

Operating Procedure

1. Press a CID (Caller ID Display) key assigned to one of the programmable keys on the Multiline terminal. The Multiline terminal stays in CID mode for six seconds, the CID key lamp lights, and the LCD displays the calling party's information of the incoming/held call for six seconds.

2. If there are plural incoming calls or held calls, press the desired line key while the CID key lamp lights. The LCD displays the calling party's information of the incoming/held call for six seconds. If the line key which is pressed while CID mode has no incoming/held call, CID mode is cancelled.
3. When the CID key is pressed again in CID mode, the CID key lamp goes out and CID mode is cancelled.
4. When the CID key is pressed during conversation, the LCD displays the calling party's information of the incoming/held call for six seconds.

Service Conditions

1. A maximum of 8 Multiline Terminals can come into CID mode simultaneously per system, including the terminal which is on Call Redirect operation.
2. CID mode is continued for 6 seconds after the CID key is pressed. After 6 seconds, the CID key lamp goes out automatically and CID mode is cancelled.
3. If there is no incoming/held call on the line key and there is no Camp-On call, the Multiline Terminal does not come into CID mode even if the CID key is pressed.
4. If there are plural incoming/held calls, Camp-On calls, the following priority for displaying is applied.
   1) Camp-On call information set to the call in progress on the Multiline Terminal.
   2) Incoming/held call information in order of the line key number (lowest to highest number).
5. When a call is transferred by Consultation Hold, the display shows the following information. Before the transfer operation finishes; the LCD displays the information of the station which holds the call. After the transfer operation finishes; the LCD displays the information of the held station/trunk.
6. When a call is set Executive Hold, the call information cannot be displayed on the other Multiline Terminal.
7. The information of voice call cannot be displayed.
8. When the following terminating system is assigned to the trunk, the calling party information of the call which is terminated to the trunk access key can be displayed by the CID key.
   - Trunk-Direct Appearances
   - Trunk-Direct Apperance+TAS

Camp-on

General Description

This feature provides selected stations or outside calls with Camp-On capability to a busy internal station. Two Camp-On methods are provided. The call waiting method allows a station or an outside party to camp itself on to a busy station. The transfer method allows a transferred outside call to be camped-on to a busy station.

Station Application

All stations.

Operating Procedure

To set Camp-On (call waiting method)

■ From a Single Line Telephone

1. Dial the desired station number and receive busy tone.
2. Depress the FLASH key (or momentarily depress the hookswitch). Feature dial tone is received.
3. Dial the Camp-On (call waiting) feature access code and receive special ringback tone. Camp-On tone (1 tone burst) is sent to the busy station.

■ From a Multiline Terminal

1. Dial the desired station number and receive busy tone.
2. Depress the TRF key. Feature dial tone is received.
3. Dial the Camp-On (call waiting) feature access code and receive special ring back tone. Camp-On tone (1 tone burst) is sent to the busy station.

■ From an outside party on DID incoming call

1. Dial desired station number and receive busy tone.
2. Camp-On (call waiting) is automatically set if the Camp-On feature is allowed.
3. Receive ringback tone. Camp-On tone (3 tone burst) is sent to the busy station.

To set Camp-On with an outside call in progress (transfer method)

■ From a Single Line Telephone

1. Depress the FLASH key (or momentarily depress the hookswitch). The call in progress remains on Consultation Hold and feature dial tone is received.
2. Dial the desired station and receive busy tone.
3. Depress the FLASH key (or momentarily depress the hookswitch). Feature dial tone is received.
4. Dial the Camp-On (transfer) feature access code and receive service set tone. Camp-On tone (two tone bursts) is sent to the busy station.
5. Restore the handset.

■ From a Multiline Terminal

1. Depress the TRF key. The call in progress remains on Consultation Hold and feature dial tone is received.

2. Dial the desired station number and receive busy tone.
3. Depress the TRF key. Feature dial tone is received.
4. Dial the Camp-On (transfer) feature access code and receive service set tone. Camp-On tone (two tone bursts) is sent to the busy station.
5. Restore the handset.

To answer a Camp-On (transfer method or Call Waiting method) from any station

1. Receive Camp-On tone.
2. From a Single Line Telephone, momentarily depress the hookswitch and dial the Call Hold feature access code. From a Multiline Terminal, depress the FLASH key or ANS key. The existing call is placed on Call Hold and the Camp-On call is automatically answered.

To answer a Camp-On (Call Waiting method-outside calls) from any station

1. Receive Camp-On (Call Waiting) tone.
2. From a Single Line Telephone, momentarily depress the hookswitch. From a Multiline Terminal, depress the FLASH key or ANS key. The existing call is placed on Call Hold and the Camp-On call is automatically answered.
3. To alternate between two calls, depress the FLASH key (or momentarily depress the hookswitch) or ANS key.

OR

1. Receive Camp-On tone (Call Waiting) tone.
2. Complete the existing call and restore the handset.
3. The Camp-On call is automatically terminated.
4. Lift the handset.

Service Conditions

1. Camp-On tone for call waiting method (internal calls) is one tone burst. Camp-On tone for transfer method is two tone bursts. Camp-On tone for the call waiting method (outside calls) is three bursts.
2. When Camp-On is activated to a station, any other Camp-On attempts to that station are denied and reorder tone is provided (transfer method) or busy tone is provided (call waiting method). Once the Camp-On recalls to the originator or is answered (and the first call abandoned, or the camped on party abandons), another Camp-On can be activated.
3. A Camp-On of an internal station will not recall. The station which sets camp-on must remain off-hook.
4. After a transfer Camp-On has remained Camped-On for a programmable period of time (8 to 128 seconds, 30 seconds as set in default), the station that set the Camp-On will be recalled.
5. The ability to activate this feature can be allowed or denied in the Station's Class of Service.
6. A maximum of 28 stations can set call waiting Camp-On simultaneously. A maximum of 128 stations can set transfer Camp-On simultaneously.
7. A party camped on for a transfer will hear Music On Hold (when provided) while on Consultation Hold.
8. Periodic Camp-On tone can be provided every 4 seconds. This can be allowed or denied in system programming on a per-system basis. When denied, a single Camp-On signal is received.

9. Camp-On can only be set if the called station is on a two-party call. Camp-On is denied if the busy station is dialing or in Line Lockout, receiving a system generated tone, protected against any override by DND key, a Data Station currently has a Camped-On call or if any of the following features are activated on the busy station:
   - Attendant Override
   - Attendant Camp-On
   - Call Hold (by key)
   - Call Transfer
   - Conference
   - Consultation Hold
   - Data Line Security
   - Executive Override
   - Privacy
   - Voice Call
10. When Camp-On is denied, the caller will receive reorder tone and can return to the original party (in the case of a Camp-On transfer).
11. When single digit access codes are enabled, Multline Terminal users can set a Camp-On without using the TRF key twice.
12. Camp-On (call waiting) for outside calls (DID, CCIS incoming calls) can be allowed or denied on a per-trunk route basis or per-DID number basis.
13. When the called station is a pilot station in a Hunt group or UCD group, Hunting or UCD queuing is followed. If all stations in the Hunt group are busy, the called station is camped on.
14. When the called station has set Call Forwarding-All Calls and the forwarding destination is busy, the forwarding destination is camped on.
15. When the called station has set Call Forwarding-Busy Lines and the forwarding destination is busy, the originally called station is camped on.

Centrex Compatibility

General Description

A combination of features allow full integration of the NEAX2000 IVS with Centrex service.

Station Application

All stations.

Operating Procedure

Refer to associated features.

Service Conditions

1. Flexible Configuration:
   - Universal Ports to meet high trunk-to-station ratio.
   - Building block approach for modular growth.
   - Flexible Line Assignment.
   - Wide variety of terminals.
2. Terminal Flexibility:
   - Choice of terminals to meet multiple applications.
   - Answering Positions:

     16-line Multiline Terminal with Direct Station Selection/Busy Lamp Field Console (DSS/BLF)

     OR

     Attendant Console
   - Standard Positions:

     8-Line Multiline Terminal.

     16-Line Multiline Terminal with LCD.

     Single Line Telephones
3. High trunk-to-station ratio (256 trunks).
4. Ground/Loop Start Centrex line compatibility.
5. Centrex line Direct In Termination (DIT) to individual Single Line Telephones with secondary answering at any Multiline Terminal.
6. Delayed Ringing for backup answer of Centrex incoming calls.
7. Hookflash to Centrex line from Multiline Terminal/Single Line Telephone.
8. Automatic seizure using dial access of individual Centrex lines with outgoing restriction control, up to 64 trunks.
9. Code Restriction allows for inspection to follow the Centrex access code for Direct Outward Dialing.
10. Flexible extension numbering to match Centrex numbering pattern.
11. KF registration (FCC Part 68).
12. Trunk Direct Appearance for Centrex lines.

13. Function keys at Multiline Terminals for easy access to Centrex features.
14. Automatic pause after Centrex access code.
15. Listed directory numbers display at Attendant Console.
16. Uniform Call Distribution (UCD) for quick and efficient handling of incoming calls.
17. Recall key provides timed hookflash to Centrex for feature access.
18. Prime line Assignment to Centrex line (when using direct trunk appearance). (Multiline terminals only.)

Check In / Check Out

General Description

When this feature is activated, the following operations occur:

- Check In
  Room Cutoff is cleared.
- Check Out
  Room Status printout is supplied.
  Do Not Disturb is reset.
  Room Cutoff is set.
  Message Waiting is reset.
  Automatic Wake Up is cleared.

Station Application

Multiline Terminals with LCD assigned as Hotel/Motel Front Desk Instruments.

Operating Procedure

To activate Check In/Check Out for an individual guest room:

1. Depress the Check In/Check Out feature key.
2. Dial the desired station number.
3. Depress the SET key to set Check In.
4. Depress the RESET key to set Check Out.

Service Conditions

1. This feature can only be activated from the Hotel/Motel Front Desk Instrument or the PMS (Property Management System). A line key on the Hotel/Motel Front Desk Instrument must be assigned as a Check In/Check Out function button.
2. This feature only applies to guest room stations.
3. Refer to the Hotel/Motel Front Desk Instrument and Property Management System Features and Specifications for more information on Check In/Check Out.

Class of Service

General Description

This feature permits all stations to be assigned a Class of Service in accordance with the degree of system use desired. The Class of Service is used to assign restrictions for trunk access and feature access.

Station Application

All stations.

Operating Procedure

Normal operating procedures apply. Restrictions are automatically applied by the system based on the Class of Service assignments in system data for each station.

Service Conditions

1. Every extension is assigned as one of the following by Class of Service:
   - House phone
   - Hotline
   - Automatic Intercom
   - Dial Intercom
   - Manual Intercom
   - Multiline Terminal
   - Single Line Telephone
2. A trunk route restriction class (from 1 to 8) is assigned for each station. This assignment is used to determine whether a station is allowed or denied outgoing or incoming access to trunk routes. All eight route restriction classes are assigned to allow or deny each trunk route. This allows the system to compare the station assignment with the trunk route assignment and determine whether access is denied or allowed. The default setting allows all stations access to all trunk routes.
3. The trunk restriction class is also used to provide flexibility in Code Restriction. Refer to the Code Restriction feature for details.
4. Sixteen combinations for each of three service classes (A, B, C) are available for assignment to stations. Based on the service feature class, the station is allowed or denied access to specific features. Each service feature class can be assigned to allow or deny each feature shown below.
   - Service Class A

     Call Forwarding - All Calls
     Call Forwarding - Busy Line
     Call Forwarding - No Answer
     Call Forwarding -Destination
     Call Hold
     Trunk Queuing - Outgoing
     Call Back
     Executive Override - Originate
     Executive Override - Receive

Speed Calling - System
Speed Calling - Station
External Paging
Automatic Wake Up/Timed Reminder - self
Automatic Wake Up/Timed Reminder - for others
Call Pickup Direct
Camp-On (Transfer)
Camp-On (Call Waiting) - Originate/Receive
Do Not Disturb from Station/Return Schedule Message Display
Priority Call
Trunk to Trunk Transfer
Message Wait- Set/Reset
Timed Queue
Account Code Entry
Authorization Code/Forced Account Code
Background Music (on Multiline Terminals)
Voice Recording Card Access (Record/Reply/Delete)
Announcement Service Replay (By Group Number)
Split Call Forwarding - Busy Line
Call Back - Multiple Assignment
Message Reminder - Originate
Message Reminder - Receive
Internal Zone Paging Access

- Service Class B

  Trunk Answer Any Station (TAS) Service
  Individual Trunk Access from Station
  Customer Administration Terminal (CAT) Access
  Day/Night Mode Change by Station Dialing
  Periodic Time Indication Tone
  Hotel/Motel Front Desk Instrument (Multiline Terminal)
  Privacy Release
  Dual Hold
  Inhibit Override by DND
  Group Listening
  6/10 Party Conference Trunk Leader
  Voice Call
  Answer Hold
  Multiline Terminal Attendant Position

- Service Class C

  Ringing Line Pickup
  Tone Ring Selection (on Multiline Terminal)
  Hookswitch Flash during internal call
  Hookswitch Flash during outside (CO) call
  Multiline Terminal type (with or without LCD)
  Off-Hook Alarm overflow service (in case of busy terminating station)

  a) Automatic/Uniform Call Distribution queuing with Camp-On (Call Waiting)
  b) Automatic/Uniform Call Distribution queuing

c) Camp-On (Call Waiting)
d) Hunting

5. Separately from the above, each station can be assigned to have the following options:

Feature	Option
Do Not Disturb - Group	Provided/Not Provided
Room Cut Off - Group	Provided/Not Provided
Message Waiting Service	Provided/Not Provided
Howler Tone	Provided/Not Provided
Station Message Detail Recording	Provided/Not Provided
Data Line Security	Provided/Not Provided

Feature	Option
Ringing to a Single Line Telephone when the extension also appears on a Multiline Terminal	Provided/Not Provided
Secretary Station	Secretary Station/Ordinary (Boss Station)
Automatic Message Waiting Cancel upon answering call (from Message Waiting-Set Station)	Automatic Cancel/No Automatic Cancel
Station Hunting for Non-DIT Calls	Provided/Not Provided
Station Hunting for DIT calls	Provided/Not Provided
VIP Class	Provided/Not Provided
FAX Station	FAX Station/Ordinary Station

6. Authorization Codes can be used to temporarily change the trunk route restriction class (incoming, outgoing, and code restrictions) and the feature service class (A, B, C) when a station is used. Refer to the Authorization Code feature.
7. Two assignments, one for day mode and one for night mode, are provided for trunk route restriction (incoming, outgoing, and code restrictions) for each station. When the system is placed in night mode, the trunk route restriction classes assigned for night mode are used for incoming and outgoing calls for all stations.
8. Non-restricted stations can transfer outgoing calls after dialing to stations that are outgoing restricted.
9. Only the Attendant Console can permit restricted stations to place outgoing calls by the Attendant Assisted Calling feature.
10. If a restricted station is connected to an unrestricted station, the unrestricted station cannot add-on an outside party using a trunk route to which the restricted station is denied dial access. Attempts to do so result in immediate ringback to the station attempting the add-on. The outside call must be made first before attempting to add-on the restricted station.

Code Restriction

General Description

This feature allows the NEAX2000 IVS 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 six digit area and office code numbering plan.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. The programmed restriction pattern may consist of either those codes to be allowed, or those codes which are to be denied.
2. The Code Restriction feature is assigned on a per-station basis in Class Of Service.
3. The system may be programmed to ignore digit 1 prefixing an area code pattern so that true 3/6 restriction can be applied.
4. Trunk Queuing - Outgoing provides queuing on selected outgoing trunk groups which are busy when dialed. The station user goes on-hook and is called back when an idle trunk is available. After answering the ring-back, the station-user dials the CO number. The number dialed must be allowed to the toll-restricted station user's line; otherwise, the trunk is immediately released and reorder tone is returned to the station user.
5. On a system wide basis, System Speed Dialing can be allowed to override or not override code restriction. The default is not to override code restriction.
6. Direct trunk line appearances on Multiline Terminals can be code restricted.
7. Code restriction is implemented as follows:
   a) The system determines the need for code restriction by checking the assignment of code restriction (Yes or No) and the assignment of a digit code table for the selected trunk route.
   b) The system compares the digits dialed with the digit code table assigned to the trunk route. If a match is found, the system is provided with an assigned code restriction class. If no match is found, the call is allowed to progress normally.
   c) An intersection table is provided in system programming which relates the station's restriction class to the code restriction classes. There are 16 code restriction classes and 5 route restriction classes which can be used for code restriction deny/allow assignment. Once a code restriction class is obtained from the digit code table, the intersection table is used by the system to decide whether the call is allowed or denied.
8. When a toll call is denied, Reorder Tone will be returned to the calling party (Toll Denial). If desired, the calling party can be routed to the Attendant Console ICPT key (Toll Diversion). Either toll denial or toll diversion is set on a per-system basis.
9. Six-digit code restriction is assigned by using Least Cost Routing (LCR) pattern tables and programming the system to check the 50 office code tables for allow or deny assignment based on the office code after the area code is matched by the system.

Conference (Three/Four Party)

General Description

This feature provides a station user the ability to add-on another party (trunk or station) to a call already in progress. Single Line Telephone users can add up to one additional party and Multiline Terminal users can add up to two additional parties.

Station Application

All stations.

Operating Procedure

To add a third party

■ **From a Single Line Telephone with a call in progress**

1. Depress the FLASH key (or momentarily depress hookswitch). First party is placed on hold and feature dial tone is received.
2. Dial the second party (either another station number or a trunk access code plus the outside number).
3. Wait for the second party to answer.
4. Depress the FLASH key (or momentarily depress the hookswitch). A three-party Conference is established.

■ **From a Multiline Terminal, with a call in progress**

1. Depress the TRF key. First party is placed on hold and feature dial tone is received.
2. Dial the second party (either another station or a trunk access code plus the outside number).
3. Wait for the second party to answer.
4. Depress the CNF key. A three-party Conference is established. The display shows CNF plus the name and number of the trunks or station (if assigned).

To add a fourth party with three party Conference in progress

1. Depress the TRF key. The two parties are placed on hold and feature dial tone is received.
2. Dial the third party (another station).
3. Wait for the third party to answer.
4. Depress the CNF key. A four-party Conference is established. CNF is shown in the LCD display.

Service Conditions

1. A maximum of two trunks can be used in a Conference.
2. Single Line Telephones can add up to one additional party (three-party Conference).
3. Multiline Terminals can add up to two additional parties (four-party Conference).
4. A Single Line Telephone will disconnect the last party added to a Conference [after the Conference (1 station, 2 trunk) is established] by providing a hookflash. This allows breaking up the Conference and returning to a two-party connection with the first party.

5. Multiline Terminals may allow other Multiline Terminals with the same line button appearance to enter the conversation (and therefore establish a Conference) by using the Privacy feature. Refer to the Privacy Features and Specifications for more information.
6. Once the second party answers, and prior to depressing the CNF key, Multiline Terminals may use the TRF or ANS key to alternate between the two parties. Refer to the Broker's Call Features and Specifications for more information.
7. During a three-party Conference, use of the ANS key on the Multiline Terminal will split the Conference into a Broker's Call.
8. A maximum of 16 simultaneous Conferences can be established in the system.
9. The HOLD key on Multiline Terminals can be used during a Conference to place the other parties on Hold (Exclusive or Nonexclusive). The other parties can continue to converse.
10. Retrieval of the first party on Multiline Terminals (after depressing the TRF key dialing another party and receiving ringback with no answer or busy tone) is accomplished by depressing the TRF key. Use of the RECALL key instead will provide feature dial tone and allows calling another party.
11. Attendant Override and Executive Override cannot be used on stations currently in a four-party Conference.
12. When attempting to call a second internal party after a hookflash, and the Single Line Telephone user encounters internal busy tone or internal ringback with no answer, the user can return to the first party by hookflashing again.
13. When a call is made to a second external party after a hookflash, the next hookflash will result in a Conference. By hookflashing again, the last connection is released, returning the Single Line Telephone user to the original party.
14. Call Back and Message Waiting can be set to stations involved in a three- or four-party Conference.
15. Amplification is not provided for Conferences.
16. When a Single Line Telephone or Multiline Terminal user goes on-hook during a three-party Conference with two outside parties, a tandem connection will be established if one of the trunks provides a release signal. If neither trunk provides a release signal, the trunks will be dropped. Reentry into this tandem connection is not possible.
17. When a Multiline Terminal user depresses the CNF key prior to going on-hook during a three-party Conference with two outside parties, a tandem connection will be established (Hold indication is provided). Reentry into this tandem connection is accomplished by depressing the held line button.
18. An internal party must be off-hook using the handset (or in speakerphone mode) in order to be included in a Conference.

Conference (Six/Ten Party)

General Description

This feature permits a station user or Attendant (conference leader) to establish a Conference among as many as six or ten parties (including the Conference leader).

Station Application

All stations and Attendant Consoles

Operating Procedure

Using the access code

■ To make a Conference Call

1. The Conference leader goes off hook, or an Attendant depresses a loop key.
2. Dial the access code (“A”) for a 6 or 10-party Conference and receive special dial tone. If the CFT trunks are all busy or the leader is not assigned as the Conference leader with service feature class, reorder tone is heard. If a participant's line (station or C.O./tie line) is busy, repeat Step 2 after going on hook once (no need to dial access code A again).
3. Dial the number of the first party to be added to the conference.
4. Depress the TRF key after the party answers and then dial the access code (“B”) to add then into the conference.
5. Sequentially call all desired parties and connect them to the CFT trunk by dialing the assigned access code B. The called party (station, C. O. /tie line) waits in the Conference mode until the leader is connected to the CFT trunk.
6. After connecting the last participant to the CFT trunk, dial the access code B to enter the CFT trunk and Conference can be started.

■ To release a participant

1. Conference leader goes on hook, or an Attendant depresses the RLS key.
2. Go off hook or depress loop key again. Dial the access code (“C”) for forced release dial the participant's number. (Conference number 1 to 5 for a 6-party Conference, or 1 to 9 for a 10-party Conference). Conference numbers are allocated in calling order from the Conference leader.
3. Dialed Conference number of Station or C. O. /tie line party is released from CFT trunk and party hears reorder tone.
4. The leader returns to CFT trunk.

Using the feature key of a Multiline Terminal

■ To make a Conference Call

The 6-Party or 10-Party Conference feature key and a maximum of 5 or 9 line keys for participants must be assigned to the Multiline Terminal of the conference leader.

1. (Conference leader:) Press the line key.
2. Dial the number of the first party (station or C.O./tie line) to be added to the conference.

3. After the party answers, press the HOLD key.
4. Call all desired parties (station or C.O./tie line) sequentially, using other line keys, and placing each on hold after the party answers.
5. After holding the last party, press the Conference feature key. The line key associated with the last party lights green. The last party is connected to the CFT trunk.
6. Sequentially press the holding line keys to connect the participants to the CFT trunk.

OR

1. (Conference leader:) Press the line key and then press the Conference feature key. The Conference feature key lights red.
2. Dial the number of the first party (station or C.O./tie line) to be added to the conference.
3. After the party answers, press the Conference feature key. The line key lights red, and the Conference feature key lights green. The first party is connected to the CFT trunk.
4. Press the HOLD key. The Conference feature key flashes red.
5. Sequentially call all desired parties (station or C.O./tie line) by using other line keys, and then connect them to the CFT trunk by pressing the Conference feature key after each party answers.

■ To release a participant

1. (Conference leader:) Go on-hook. The Conference feature key lights red.
2. Go off-hook and press the line key associated with the participant to be released. The participant is released from the CFT trunk and is connected to the leader.
3. Go on-hook, and the participant is released.
4. Go off-hook and depress the Conference feature key. The Conference feature key lights green.
5. The leader returns to the CFT trunk.

To end a Conference call (release CFT trunk)

- CFT trunk is automatically released when only one participant remains connected.

Service Conditions

1. Access codes A, B and C must be different numbers. A is used to reserve the Conference board. B is used to add Conference member. C is used to force release a member from the Conference.
2. Up to four CFT trunks (PN-CFTA) can be accommodated in the system.
3. The maximum number of participants which can be connected in a Conference call is:
   - Six participants (inclusive of the leader) when one CFT trunk is used.
   - Ten participants (inclusive of the leader) when two CFT trunks are used.
4. The maximum number of Conference groups per system when using four CFT trunks (maximum) is:
   - Four, 6-party Conference groups
   - Two, 10-party Conference groups
   - Two, 6-party Conference groups and one, 10-party Conference group
5. A CFT trunk is used for either a 6-party or 10-party Conference. Dialed access codes determine which CFT trunk is used for a Conference. If the leader dials the access code for a 10-party Conference when only one CFT trunk is idle, the leader is restricted and hear reorder tone.
6. The maximum number of C. O. line/tie lines that can be connected in a Conference is:
   - Up to five C. O. line/tie lines for a 6-party Conference
   - Up to nine C. O. line/tie lines for a 10-party Conference
7. Call charges for C. O. lines are charged to the leader (in SMDR).
8. Ten ports are required per CFT trunk.
9. The CFT time out until the first participant is connected into the CFT trunk after seizing the CFT trunk is fixed at 1 minute.
10. Amplification is not provided for Conferences.
11. When a conference using the access code and a conference using the feature key are held simultaneously in a system, the LED of the Conference feature key is not controlled.
12. A Multiline Terminal user can not use both 6-party and 10-party Conference feature keys simultaneously.
13. The LED indication of Conference feature key is as follows:

LED indication	STATUS
OFF:	CFT trunk is not used.
Flash Red (60 IPM):	CFT trunk is used. The leader is not attending by HOLD key.
Steady Red:	CFT trunk is used. The leader is not attending by going on hook.
Steady Green:	Conference is established.

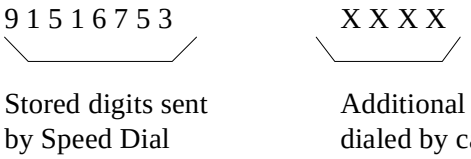
14. A participant can replace a conference leader by depressing the Conference feature key of their Multiline Terminal. If the kind of Conference key (6-party or 10-party) is different from that of the leader, replace is not allowed. Call charges for C.O. lines are charged to the first leader (in SMDR).

Consecutive Speed Dialing

General Description

For Speed Dialing, all digits are registered as a Speed Dialing Code. In the case of Consecutive Speed Dialing, the common portion of the number is registered as a speed calling code, and the remaining digits of each number are dialed by each individual calling station or by using a Station Speed Dial key on a Multiline Terminal.

Example:



Station Application

All stations.

Operating Procedure

1. Go off-hook and receive dial tone.
2. Dial the Speed Dialing feature access code.
3. Dial the abbreviated code.
4. Dial the remaining digits of the number or use a DSS key to dial a stored Station Speed Dial number.

Service Conditions

1. This feature is available with System Speed Dialing and Station Speed Dialing.
2. This feature can be used when the calling station has a call on Consultation Hold or Call Hold.
3. The Attendant Console can also manually dial after accessing a System Speed Dialing number.
4. After any type of dialing, System Speed Dialing is not available for the duration of the call.
5. After any type of dialing, Station Speed Dialing accessed by dialing a code is not available for the duration of the call.

Consultation Hold

General Description

This feature permits a station user to hold any incoming or outgoing CO call, tie line call, or any intraoffice call while originating a call to another station user within the system.

Station Application

All stations.

Operating Procedure

From a Multiline Terminal

■ **To hold the original call and place a second call**

1. Depress the TRF key and receive feature dial tone.
2. The original call is placed on hold and receives Music On Hold, if provided.
3. Dial an internal station number and receive ringback tone.
4. The second station answers. The original call is now on Consultation Hold.

■ **To return to the original call**

1. In any of the following cases, the calling station can return to the original call by depressing the TRF key:
   - If the second station called is busy.
   - If the calling station cannot gain access to second station due to restriction or no answer.
2. If the second station hangs up, the calling station will automatically be returned to the original call.
3. If the second station remains connected, depressing the TRF key returns the original call to the Multiline Terminal while the second call enters Consultation Hold.
4. By depressing the CONF key, a three-party Conference will be initiated.

From a Single Line Telephone

■ **To hold the original call and place a second call**

1. Depress the FLASH key (or momentarily depress the hookswitch).
2. The original call is placed on hold and receives Music On Hold when provided.
3. Dial an internal station number and receive ringback tone.
4. The second station answers. The original call is now on Consultation Hold.

■ **To return to the original call**

1. In any of the following cases, the calling station can return to the original call by depressing the FLASH key (or momentarily depressing the hookswitch).
   - If the second station called is busy.
   - If the calling station cannot gain access to second station due to restriction.
   - If the second station does not answer.
2. If the second party hangs up, the calling station will automatically be returned to the original call.

3. If the originating station depresses the FLASH key (or momentarily depresses the hookswitch), a three-party Conference will be initiated.

Service Conditions

1. An outgoing exchange network or tie line call can also be made by the station user with a call on Consultation Hold. Refer to Trunk- to-Trunk Connection and Conference Features and Specifications.
2. A station is only allowed to place one call on Consultation Hold at a time.

Customer Administration Terminal (CAT)

General Description

In addition to the Maintenance Administration Terminal (MAT), programming of the NEAX2000 IVS can be done from selected Multiline Terminals with LCD. The designated Multiline Terminals can be placed in program mode, and system data can then be changed. To prevent unauthorized changes, password levels are assigned, providing authorization for access to certain areas of programming and denying access to others.

Station Application

All Multiline Terminals with LCD.

Operating Procedure

Refer to of the NEAX2000 IVS Command Manual for programming instructions.

Service Conditions

1. Programming from a Customer Administration Terminal can only be accomplished when the system is online.
2. The system must be initialized with default data before system data can be changed from the CAT.
3. All Multiline Terminals with LCD scanned during initialization will be Customer Administration Terminals.
4. The commands CM00 (Office Data All Clear) and CM01 (Office Data Partial Clear) cannot be accessed from the CAT. The CAT cannot delete itself from the system program.
5. Only two Customer Administration Terminals can be in program mode at the same time.
6. The data that can be changed from the CAT can be limited by the Password level assigned. There are eight levels of Passwords that can be assigned in system programming. The relation between Password level and access to available commands is also assigned in system programming.
7. A password can consist of a maximum of any eight digits with the following limitation: The password cannot be CCCCCCCC or FFFFFFFF.
8. Caution should be exercised when assigning Passwords to command authorization levels. If a password is forgotten, access to system programming will be limited and a system initialization with subsequent programming may be required.
9. Refer also to the Maintenance Administration Terminal (MAT) feature for information on Peg Count, Remove and Restore Service, and Fault Message.
10. When the Customer Administration Terminal is off-line for programming, it cannot access normal terminal functions.

Data Hotline

General Description

This feature allows a Data Terminal Equipment (DTE) user to call a predetermined number for an internal data connection, immediately upon selection of the DATA key.

Through programming, the Data Hotline can be selected by either turning on the DTR (Data Terminal Ready) signal from the DTE or by pressing the DATA key on the Multiline Terminal, or by sending a specific code (by Keyboard Dialing) from the DTE to a Data Adapter without dialing.

Station Application

Multiline Terminals with LCD equipped for Data Communications.

Operating Procedure

Hotline call to internal data extension using the DATA key

1. Press the DATA key. The DATA LED flashes green and the display indicates: **D DTE XXXX**, where **XXXX** is the preassigned called data extension. This part of the display will flash until the called party answers.
2. Once the called party answers, the display changes to **RDY D DTE XXXX** for 5 seconds, then returns to Clock/Calendar display.

Hotline call to internal data extension by setting DTR signal on

1. Turn on DTR from the DTE.
2. DATA LED flashes green and the display indicates: **D DTE XXXX**, where **XXXX** is the preassigned called data extension. This part of the display will flash until the called party answers.
3. Once the called party answers, the display changes to **RDY D DTE XXXX** for 5 seconds, then returns to Clock/Calendar display.

Hotline call to internal data port by Keyboard Dialing

1. Type in the character(s) to originate a call.
2. DATA LED flashes green and the display indicates: **D DTE XXXX**, where **XXXX** is the preassigned called data extension. This part of the display will flash until the called party answers.
3. Once the called party answers, the display changes to **RDY D DTE XXXX** for 5 seconds, then returns to Clock/Calendar display.

Service Conditions

1. When the called internal Hotline station is a member of a Data Hunt group, hunting is executed.
2. Overriding a DTE in the communicating state is not allowed.
3. A call from an ordinary DTE can be terminated to the Hotline DTE by normal procedures.
4. There are a maximum of 100 assignments for Hotline stations, including Data Hotline - Outside assignments. Bidirectional internal Data Hotlines use 2 assignments (one for each termination).

5. Terminal Attribute Data Assignment cannot be displayed or changed by the Multiline Terminal on a Data Hotline. Attribute data can only be assigned from the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
6. According to the state of the called DTE or station, the following indications are displayed on the calling Hotline station.

For:	Display contents	Display appearance
Async Data Adapter	Called party idle	**D DTE XXXX**
	Called party busy	**BSY D DTE XXXX**
	Restriction	**RST D DTE XXXX**
	Lock out/Make Busy	**BSY D DTE XXXX**
Async/Sync Data Adapter	Called party idle	**CALLING**
	Called party busy	**BUSY**
	Restriction	**RESTRICTED**
	Lock out/Make Busy	**BUSY**

7. Data Hotline to an internal Single Line Telephone with modem requires an Analog Port Adapter (APA/APR) instead of a Data Adapter, which provides an analog Single Line Telephone interface for a Multiline Terminal.

   A DTE connected to a Multiline Terminal with APA/APR must be equipped with a modem.

Data Hunting

General Description

This feature provides hunt groups of data extensions for applications requiring termination to a data facility. This provides access to multiple input/output connections on a mainframe.

Station Application

All Multiline Terminals with LCD equipped for Data Communications.

Operating Procedure

To initiate Data Hunting:

1. Press the DATA key. The LCD displays **DTE XXXX**. The DATA key LED lights red.
2. Dial DATA HUNTING group pilot number (4 digits).
3. **RDY D DTE XXXX** is displayed in the LCD of the Multiline Terminal when the distant end answers.
4. The data connection is established.

Service Conditions

1. There can be a maximum of 60 data extensions in a Data Hunting group. There is no limit to the amount of Data Hunting groups. A Multiline Terminal can be assigned to only one Data Hunting group.

2. If all extensions in a Data Hunting group are busy or in Data Do Not Disturb (DND), callers to the Data Hunting group receive two chime tones and a **BSY D** indication in the LCD. If one extension in a Data Hunting group is busy or in DND, that extension is bypassed and the Data Hunting continues to the next extension in the hunt group.

3. Refer to the Station Hunting feature and associated data features for more information.

Data Interface - Automatic Answer

General Description

This feature permits all incoming data calls to be answered automatically by the Data Adapter.

Automatic Answer can be set by a switch and data setting on the Hayes® (Async)/V.25bis (Async/Sync) Data Adaptor, the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT) using Terminal Attribute Data Assignment, or by assignment of a line key as a DISP/AUTO key or AUTO key.

Note: *Hayes is a registered trademark of Hayes Microcomputer Products, Inc.*

Station Application

Multiline Terminals with LCD equipped for Data Communications.

Operating Procedure

To set automatic answer by DISP/AUTO or AUTO key

1. Press the DISP/AUTO key on the Multiline Terminal. The DISP/ AUTO LED lights steady red.
2. Automatic Answer setup is completed.

To set automatic answer by Terminal Attribute Data Assignment

1. Press the DATA key of the Multiline Terminal. The LED lights steady green.
2. Press the DTX key on the Multiline Terminal. The LEDs for DATA and DTX flash, and the display indicates DATA SET.
3. Dial 01 on the key pad to display the automatic answer mode. The display indicates: **01:AUTO ANS 01**.
4. Dial 00 to set the automatic answer mode. The display indicates: **01:AUTO ANS 00**.
5. Press the # key on the dial pad to move to the next setting.
6. Automatic answer setup is completed.
7. Press the DATA key. The DATA and DTX LEDs turn off, and the AUTO or DISP/AUTO LED turns on.

Service Conditions

1. When Data Interface - Automatic Answer is set by the DISP/AUTO or AUTO key, the Terminal Attribute Data Assignment will be overridden.
2. When Data Interface - Automatic Answer is set by Terminal Attribute Data Assignment from the CAT or MAT, the DISP/AUTO or AUTO LED lights to indicate the status when returning from the attribute change mode to normal mode.

Data Line Security

General Description

This feature allows line circuits which are used for data transmission to be protected from interruptions such as Attendant Camp-On, Executive Override, and Attendant Override.

Station Application

Not applicable.

Operating Procedure:

No manual operation is required.

Service Conditions

1. This feature is assigned in system programming on a per-station basis.
2. Data Line Security functions on all calls.
3. Data Line Security cannot prevent disruptions from interfering with data transmission when the disruption occurs outside the system.
4. The following connections are restricted when Data Line Security is allowed since transmitted tones are involved in their operation. All interrupt attempts directed towards stations with a Data Line Security call in progress result in reorder tone:
   - Attendant Camp-On
   - Attendant Override
   - Boss-Secretary Override
   - Executive Override
   - Camp-On
5. The ringing interval provided to a station assigned for Data Line Security is fixed at 1 second ON – 2 seconds OFF.

Delayed Ringing

General Description

This feature enables trunks and station lines to ring immediately at the terminating station, but also, after a programmable period of time has elapsed, to ring at secondary Multiline Terminals with that trunk or line appearance.

Station Application

All Multiline Terminals.

Operating Procedure

No manual operation is required.

Service Conditions

1. Delayed Ringing is assigned in system programming on a per line key basis.
2. The timing of call termination to the start of Delayed Ringing is programmable in system data in increments of 2 seconds to a maximum of 40 seconds (default value = 10 seconds).
3. When Delayed Ringing and Call Forwarding - No Answer are applied to the same call, the feature which timeouts first will take priority.

Diagnostics

General Description

To assist maintenance personnel, the NEAX2000 IVS provides diagnostic capabilities such as fault code generation, device status information and alarm information recording which can be accessed from the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS Maintenance Manual for operating procedures.

Service Conditions

1. The following station status information can be displayed on the MAT or CAT by direct command.
   - Idle
   - Line Lockout
   - Dialing
   - Tone Trunk Connection (reorder tone, busy tone, service set tone, etc.)
   - Types of Connection, (station to station, three way calling, voice calling, holding, etc.)
   - Destination number (trunk number, register number)
   - Short circuit on line
2. The following trunk status information can be displayed on the MAT or CAT by direct command:
   - Idle
   - Ringing in
   - Incoming queue to Attendant Console
   - Holding
   - In a tandem connection
   - Incoming queue to UCD
   - Dialing
   - Receiving dialed digits
3. The following information is stored and can be displayed on the MAT or CAT using a memory dump command in hexadecimal format:
   - Program address where an endless loop has occurred.
   - Last initialization time for main program.
   - Last initialization time for firmware program.
   - The reason for initialization (power-on, RESET key, endless loop, sense switch, command from MAT or CAT).
4. The NEAX2000 IVS has a built in patrol program that monitors the status of all connected devices. Additionally, when no response or an invalid response from a device is received, this program stores in memory the slot number of that device. From the MAT or CAT a maintenance person can read the slot number of any device which does not respond to the Main Processor or provides an illegal status to the Main Processor.

Dial Conversion

General Description

The system can be assigned to use rotary Dial Pulse (DP) or Dual Tone Multifrequency (DTMF) trunks and stations. This feature provides for the repeating of digits dialed by the station user onto the C.O. trunks.

Station Application

All stations.

Operating Procedure

Normal call handling procedures apply.

Service Conditions

1. Trunks are assigned for DP and/or DTMF on a trunk route basis.
2. Single Line Telephone (SLT) circuits are assigned for DP and/or DTMF through station Class of Service for the station number assigned to the circuit. The Single Line Telephone circuits can accept 10 or 20 PPS.
3. The system will automatically provide Dial Conversion when the station is a DTMF SLT and dialing is being done on a DP trunk.
4. The system can be assigned to provide DTMF dialing on trunks for Attendant Consoles only, while generating rotary dial pulsing for station dialing.
5. For an outgoing call on a trunk once the outgoing register times out (6 seconds after the last digit is dialed), further digits dialed out by a Multiline Terminal will be DTMF and the duration of the tones will be the same as the length of time the dial pad key is depressed. This feature allows Multiline Terminals to send DTMF signals to external equipment such as computers and other dial up services.
6. The dial pulse make ratio is programmable for 33% or 39% (default is 39%). The dial pulse interdigit pause can be set from 300 ms to 900 ms (in increments of 100 ms) or 1100 ms (default is 800 ms).
7. The DTMF signal width is programmable for 64ms or 128ms (default is 64ms). The DTMF interdigit pause can be set for 32, 64, 80, 96, 160, 192, or 240 ms (default is 96 ms).

Direct Data Entry

General Description

This feature allows a maid or other hotel personnel to enter numeric data to the PMS (Property Management System), using the guest room station for entry through dial operation. The same numerical data can be output to a Hotel/Motel Printer by system data programming.

Station Application

All stations.

Operating Procedure

1. Lift the handset and receive dial tone.
2. Dial the Direct Data Entry access code and receive feature dial tone.
3. Dial input data to the PMS or Hotel/Motel Printer, and receive service set tone.
4. Restore the handset.

Service Conditions

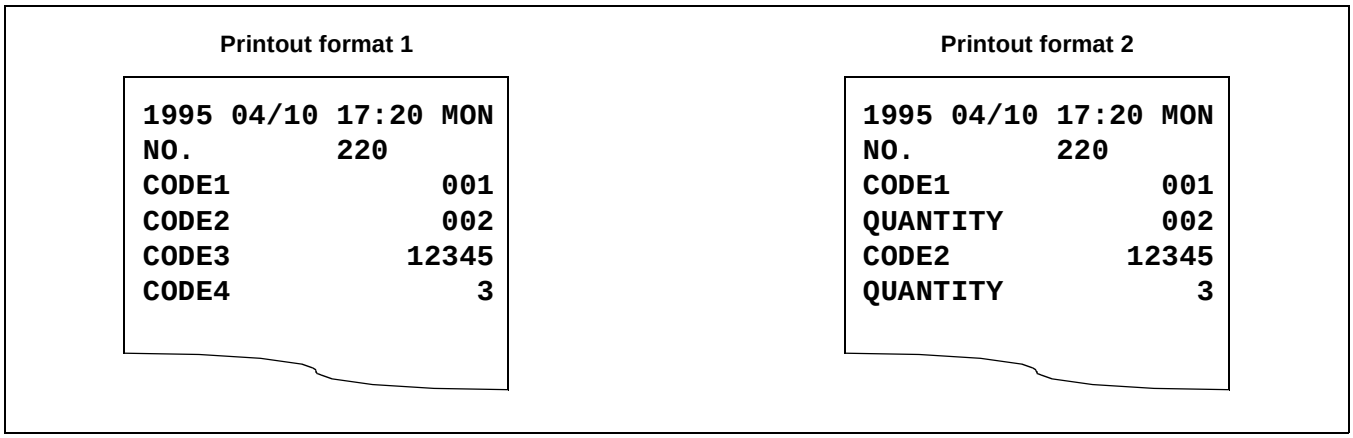
1. This feature is activated from a guest room telephone.
2. The digit 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 can be used for the input data.
3. The input data can be sent out to the PMS and/or Hotel/Motel Printer. The output option can be selected by system data programming.
4. A maximum of 30 digits can be entered in one operation to the PMS and/or Hotel/Motel Printer. If data exceeds 30 digits, the guest room station receives reorder tone.
5. If the input data to be sent is less than 30 digits, "#" can be used to end the digit string. (The "#" is not sent to the PMS and Hotel/Motel Printer.)

   Example: Access code + 1234567890#
6. When the Hotel/Motel Printer is used, "*" can be used to separate the data entry ("*" is not printed out, but is sent out to the PMS). In this case, the input data including "*" shall be up to 30 digits.

   Example: Access code + 001*002*12345*3#
7. Reorder tone will be received instead of service set tone if the PMS does not respond within 15 seconds or sends a negative answer to the NEAX2000IVS.

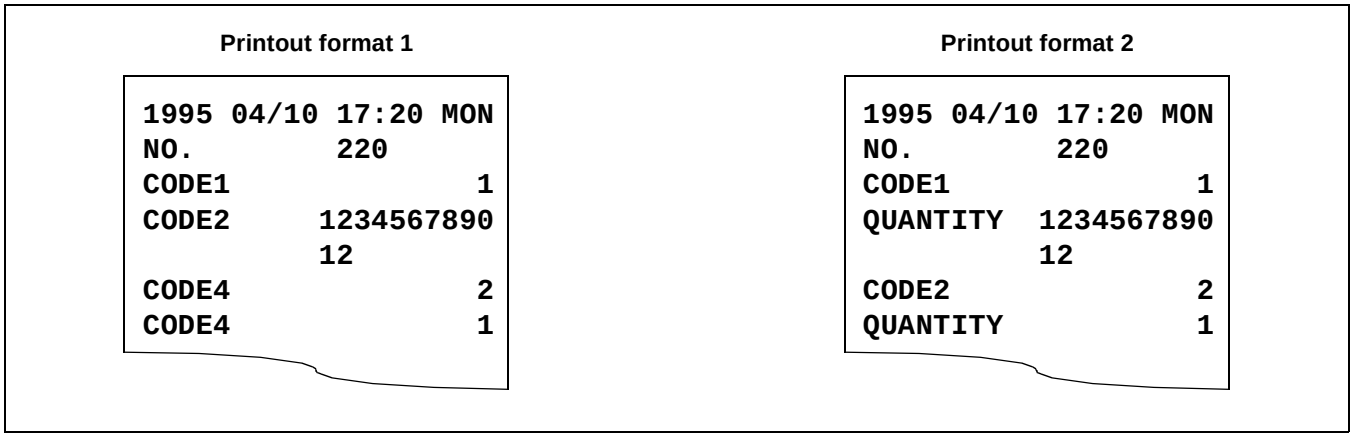
8. There are two types of printout format for the Hotel/Motel Printer. The printout format can be selected by the system data programming. The following figure shows examples of the printout format 1 and 2.

   Example: Input data = 001*002*12345*3# (* is used to separate the input data. * is not printed out but sent out to the PMS.)



   1) The maximum number of characters per line is 20.
   2) The maximum number of input data per line is 10. When the number of input data is 11 or more, the data over 10 characters are printed out on the next lines.

      Example: Input data = 1*123456789012*12*2*1#



3) In Printout Format 2, even if the data corresponding QUANTITY is not entered, the system does not recognize that the data entry is an error (no reorder tone is received).

Example: Input data = 1*2*3*#

Printout format 1

```
1995 04/10 17:20 MON
NO.         220
CODE1               1
CODE2               2
CODE3               3
```

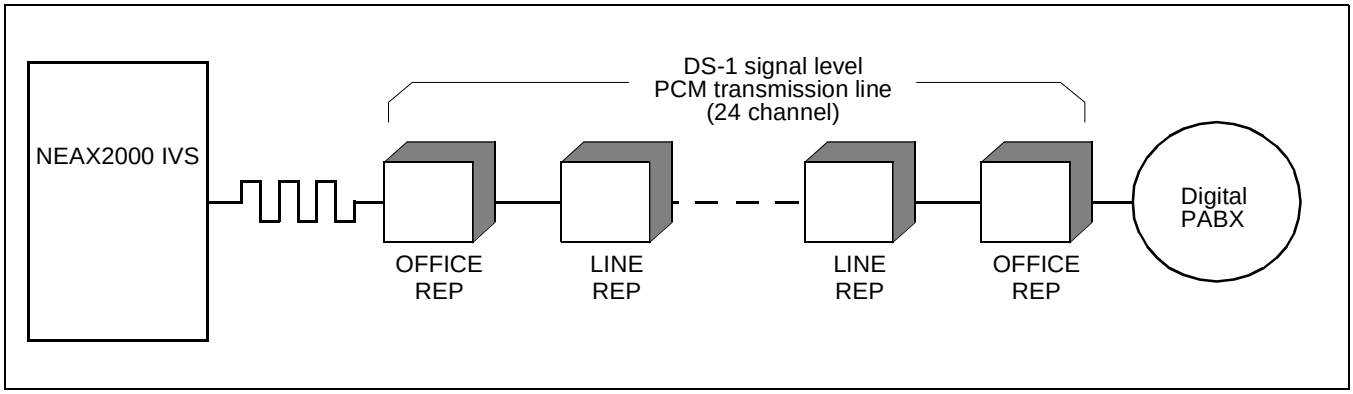
Printout format 2

```
1995 04/10 17:20 MON
NO.         220
CODE1               1
QUANTITY            2
CODE2               3
```

Direct Digital Interface

General Description

This service feature provides the capability to connect trunks from the NEAX2000 IVS directly to T1 carrier links using either a private or public network.



Operating Procedure

No manual operation is required.

Service Conditions

1. Each Office Heirarchy is defined as follows:
   a) Master office

      One center will operate as the Master Office. This location has two highly stabilized master oscillators, and distributes the Master Clock to all the systems through the Digital Interface lines.

   b) Sub-master office

      This office operates using a Phase Lock Oscillator (PLO) to synchronize with the clock at the Master Office. If the Master Clock fails, the Sub-Master Office can operate using its own backup oscillator.

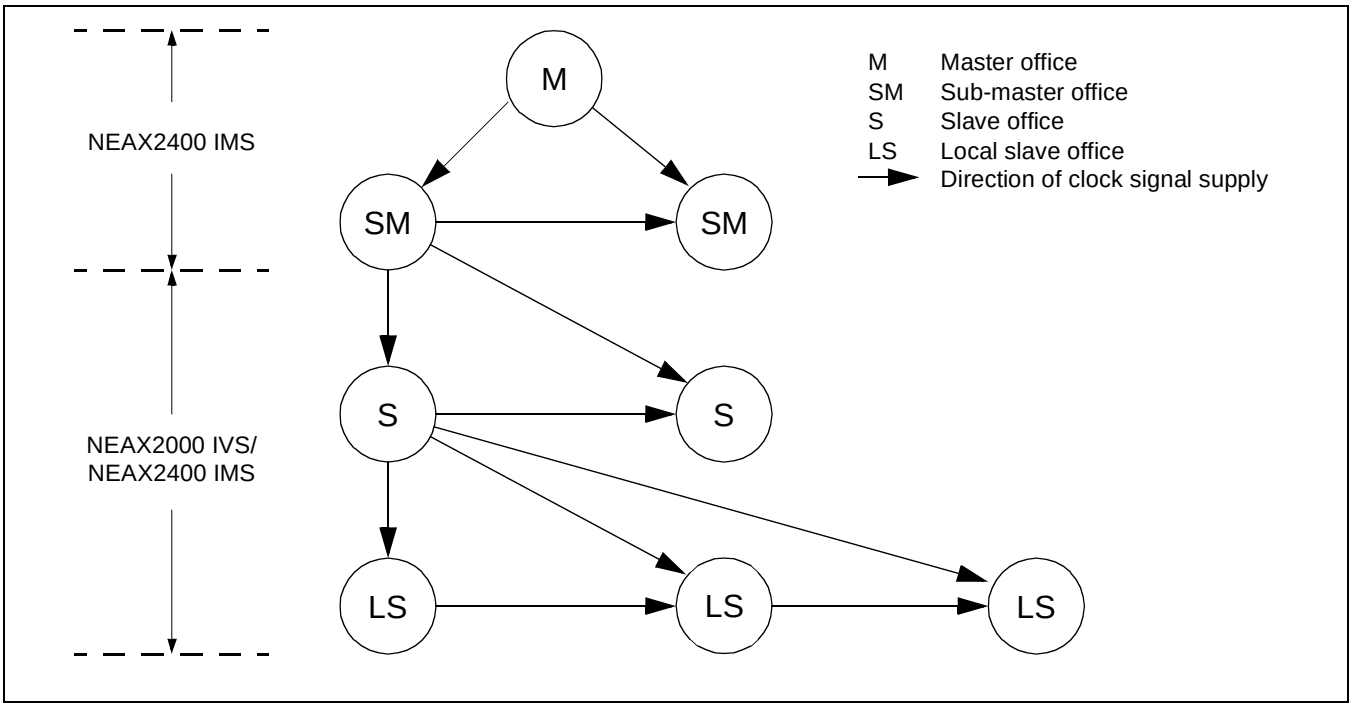
   c) Slave office

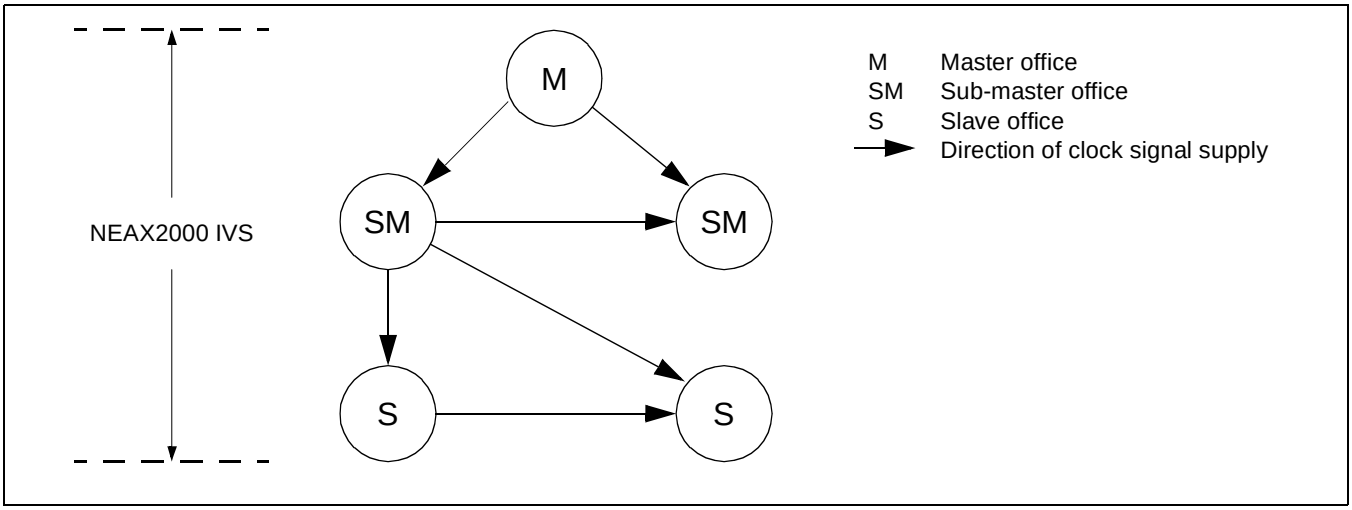
      This office is arranged so it will have at least two clock routes, one for Master and the other for standby. Synchronization Clock is derived from incoming PCM bit stream from higher heirarchy offices.

   d) Local slave 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 the event of trouble occurrence.
2. When a digital network is implemented using the NEAX2000 IVS, the NEAX2400 can function as a Master Office or Sub-Master Office while the NEAX2000 functions as a Slave and/or Local Slave Office.
3. Each digital office is equipped with a PLO used for network synchronization. Clocks from the Master Oscillator or Digital Interface Package should be connected to inputs on each PLO.
4. D3 Channel Banks are not required since the switch can be equipped with a Digital Trunk Interface (DTI) compatible with DS-1 signal level.
5. The DTI provides signalling interface, bipolar/unipolar conversion, frame synchronization, insertion/extraction and alarm detection.

6. The DTI can be provided with circuit cards to interface with T1 carrier.
7. The DTI boards are mounted in the AP board slot of the Port Interface Module (PIM).
8. The following two methods may be used for network synchronization (see Figure 2 below):
   a) Master - Slave System (Master)
   b) Master - Slave System (Slave)





9. The maximum number of trunks for DTI is 120 ports (24 DTI: 24 ports/DTI board or 4 30 DTI boards, 30 DTI: 31 ports/DTI card). The total number of ports (DTI and other AP) must be less than 128 ports. A maximum of 5 (24 DTI) boards may be installed in the system.
10. The NEAX2000IVS includes built-in PLO (Slave Mode only) in the MP card. If the system is to be used as a Master, a PN-CK00 (PLO) card is required.
11. The PLO card (PN-CK00) is mounted in the AP slot of Port Interface Module 0 (PIM0).

Direct Inward Dialing (DID)

General Description

This feature provides for incoming calls from the exchange network (except FX or WATS) to reach any station within the system without attendant assistance.

Station Application

Not applicable.

Operating Procedure

The calling party outside the system dials the appropriate telephone number. The call will ring directly at the called station, bypassing the attendant.

Service Conditions

1. This feature is normally used when direct in service is desired on an extension or system-wide basis.
2. DID must be provided by the serving Central Office; however, not all telephone company Central Offices are capable of providing this service.
3. One of the following control signaling methods can be used on incoming DID trunks: immediate start, delay start and wink start.
4. Dual-Tone, Multi-Frequency (DTMF) or rotary dial signaling is available. This is assigned on a trunk route basis.
5. Calls to invalid numbers can be routed to an Attendant, a predesignated station, or to a recorded announcement.
6. When a station has activated Call Forwarding (all types), the DID call will be forwarded to the designated station rather than to the specific station dialed.
7. If the called station is assigned as a pilot in Station Hunting and is busy, the call follows the preset hunting pattern.
8. On an incoming call to a busy station, the Call Forwarding feature takes precedence over the Station Hunting feature. If the Call Forwarding feature and the Station Hunting feature are not activated, the caller will receive busy tone or will reroute to the Attendant Console, predesignated station, or recorded announcement depending on the assignment in system programming.
9. Stations in Do Not Disturb will be provided with visual indication but no audible indication. Secondary appearances will ring when assigned. The calling party will receive ring back tone until answered.
10. An incoming Listed Directory Number (LDN) received from a DID line can be displayed on the LCD of a Multiline Terminal or an Attendant Console. This system data is assigned on a trunk route basis.
11. The DID incoming LDN display is one digit to four digits.

DID Call Waiting

General Description

This feature allows an incoming call on a DID trunk or a tie line to automatically be Camped-On to the destination station if the destination station is busy.

Station Application

All stations.

Operating Procedure

The camp-on occurs automatically once this feature is assigned. For details on how to respond to the camp-on, refer to the Camp-On Features and Specifications.

Service Conditions

1. This feature is assigned on a per trunk route basis and on the basis of which number is dialed into the DID/tie trunk.
2. The outside party receives ringback tone while waiting for the station to answer the Camp-On.
3. Refer to the Camp-On Features and Specifications for more information and service conditions related to Camp-On.

DID Digit Conversion

General Description

This feature allows the NEAX2000 IVS to convert the digits received from the serving C.O. to valid station numbers when the C.O. numbering plan differs from the desired station numbering plan.

Station Application

Not Applicable.

Operating Procedure

No special operations by station users is required.

Service Conditions

1. Addition and deletion of digits can be implemented to coincide with the existing numbering plan.
2. When digit conversion of DID incoming LDN has been activated, the number received from the C.O. before conversion is displayed.
3. A DID incoming LDN can be converted to a PBX station number, by analyzing the upper two-four digits of DID incoming LDN. A maximum of 10,000 DID incoming LDN can be converted to a maximum of 500 PBX station numbers.

Direct Inward System Access (DISA)

General Description

This feature allows an outside caller to access the system using an exchange network connection without Attendant or station assistance. The outside user may originate calls over any or all of the system's facilities such as WATS, FX, Tie Line or CCSA. The outside user can also directly call stations and access miscellaneous trunks for such features as dictation access.

Item No.	Service feature	Max. number of codes per max. digit number						
		10	9	8	7	6	5	4
1	Forced Account Code	680	770	890	1050	1280	1646	2300

Station Application

Not Applicable.

Operating Procedure

1. Dial the number to connect to the system.
2. After ringback tone, service set tone is received.
3. Dial the DISA identification code. If accepted, system dial tone will be heard. If denied , busy tone will be heard.
4. Dial the desired number (trunk access code, station number, or Digital Announcement Trunk Card access/ record code, and then card number).

Service Conditions

1. Direct Inward System Access code limitations
   - Without Application Processor AP-01 (standard):
     Number of digits: up to 10 digits.
     Number of Codes: up to 8 digits.
   - With Application Processor AP-01 (optional):
     Number of digits: up to 10 digits .
     Number of Codes: up to 1000 digits combined with Forced Account Codes and Authorization Codes.

   Note: *Capacity varies depending on the numbering scheme. For details, refer to table above.*
2. Dual-Tone, Multi-Frequency (DTMF) instruments are required for DISA. A portable tone generator may be utilized in circumstances where such instruments are not available.
3. A DISA identification code must be programmed into the system to identify the user accessing this service.
4. The DISA identification code may be assigned a Class Of Service limiting access to NEAX2000 IVS capabilities by an outside caller.
5. DISA identification codes can be entered from the Maintenance Administration Terminal (MAT), the Customer Administration Terminal (CAT) and Attendant Console. From Attendant Consoles, 8 DISA Codes (Standard) can be entered or changed.

6. A dedicated trunk is used for DISA access. The outside user dials a dedicated number to access this capability.
7. DISA Codes can be printed out in the SMDR record for Tandem Connection.
8. If the called station is busy or does not answer, or the number dialed is a feature access code, any one of the following operations can be set:
   - The C.O. line can be released.
   - Dial tone can be supplied.
   - An alternate call terminating destination (Attendant, Trunk Answer Any Station, Direct Inward Termination) can be provided.
9. The outside user can access a Digital Announcement Trunk Card via DISA, if programmed.
10. The feature cannot use the DTMF Receiver on the CP03 card.

Direct Inward Termination (DIT)

General Description

This feature automatically routes incoming network exchange calls directly to a preselected station without Attendant assistance. The call can then be processed by the called party. Three-party Conference, Call Transfer, etc., are handled in the same manner as any normal trunk call.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. Bothway trunks can be used for Direct Inward Termination, but incoming only trunks are recommended. This minimizes DIT calls meeting busy conditions.
2. If there is no answer at a station, the calling party will continuously receive ringback tone. Call Fowarding - No Answer will occur if set or the calling party will be transferred to the Attendant or Trunk Answer any Station by system programming if enabled.
3. Once a call is answered, it can be processed by the called station in the same way as any normal trunk call.
4. If the DIT is assigned to a pilot number of a Station Hunting group or Automatic/Uniform Call Distribution (ACD/UCD) group, the incoming call will follow the hunt group station assignment. If the station is Call Forwarded, the incoming call is connected to the Call Forward target station according to the types of Call Forwarding set and the condition of the DIT station.
5. This feature is normally utilized where direct-in service is required on a limited basis. The number of stations thus serviced is limited to the number of trunks available for Direct Inward Termination.
6. Multiple trunks can be assigned to Direct Inward Terminate to an extension, but a trunk cannot be assigned to Direct Inward Terminate to multiple extensions.
7. When the Direct Inward Termination station is busy, the call can be preprogrammed to either go to the Attendant, Trunk Answer any Station , or Camp-On. During night mode, the call can be pre-programmed to Camp-On or go directly to Trunk Answer any Station.

Direct Outward Dialing (DOD)

General Description

This feature permits any station user the ability to gain access to the exchange network by dialing an access code and receiving new dial tone. The user may then proceed to dial the desired exchange network number.

Station Application

All stations.

Operating Procedure

To place an outside call

■ From any station

1. Go off-hook and receive extension dial tone.
2. Dial the trunk access code.
3. Receive outside dial tone.
4. Dial the desired outside number.

■ From a Multiline Terminal

1. Depress the SPKR key and receive extension dial tone.
2. Depress a trunk appearance line key.
3. Receive outside dial tone.
4. Dial the desired outside number.

Service Conditions

1. Outgoing restriction can be assigned on an individual station basis. Refer to Class Of Service.
2. Code Restriction may be applied to Direct Outward Dialing (DOD).
3. Various types of trunks (FX, WATS, Tie, DID, etc.) can be accessed by stations using this feature.
4. The trunk route access code can be one to three digits.
5. Use of the DOD feature can be denied on a per trunk route basis when one of the following restrictions is 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 access preselected trunk routes. Attempts are routed to reorder tone.
   - Code Restriction: Levels of this feature restrict unauthorized stations the ability to complete outgoing Central Office or foreign exchange calls to a specified area or office codes within an area code. Refer to the Least Cost Routing feature. A station with Toll Denial is routed to reorder tone when a restricted number is dialed after the trunk access code has been dialed.

6. Exchange network call completion using the Hotline Outside feature is permitted. The originating station is automatically routed to the assigned trunk route and the digits are dialed automatically when the station goes off-hook.
7. This feature is disabled when the switch on the PN-CP00 (MP) is set to KF registration.

Direct Station Selection/Busy Lamp Field (DSS/BLF) Console

General Description

This feature allows an EDW-48-2A unit associated with a Multiline Terminal to be used as a Direct Station Selection/Busy Lamp Field (DSS/BLF) Console. When the buttons on the EDW-48-2A unit are programmed for Direct Station Selection (DSS) buttons, up to 60 stations can be directly accessed in addition to those already appearing on the Multiline Terminal. Busy status for each station is indicated by a red LED associated with each button.

In addition, the DSS console can provide the following functions:

- Message Waiting - Set/Cancel/Status Display
- Do Not Disturb - Set/Cancel/Status Display
- Automatic Wake Up No Answer - Status Display/Cancel
- Agent Busy Out - UCD - Status Display
- Line Lockout - Status Display
- Room Cutoff - Set/Cancel/Status

Station Application

All Multiline Terminals.

Operating Procedure

To initiate a call

1. Depress the desired DSS key.
2. Lift handset and converse when party answers.

   OR

1. Lift handset and receive dial tone.
2. Depress the desired DSS key.
3. Converse when party answers.

To display Line Lockout status

- No manual operation is required. When stations are currently in Line Lockout mode, their associated LED will flash red at 30 ipm.

Service Conditions

1. A Multiline Terminal can be equipped with as many DSS/BLF Console units as necessary.
2. The maximum number of EDW-48-2A units that can be programmed for DSS/BLF function is 8 per Firmware Processor (FP). The maximum number of EDW-48-2A units that can be programmed in the system is 32 (DSS/BLF + Add-On modules).
3. A maximum of 60 Direct Station Selection keys can be assigned on each DSS/BLF Console.

4. When a call is made using the DSS/BLF Console, the associated Multiline Terminal's LCD displays the same indication that is provided for internal calls made from the line keys of the Multiline Terminal.
5. Feature Access keys cannot appear on the DSS/BLF Console.
6. When the EDW-48-2A unit is assigned as a DSS/BLF Console, the console can be provided with a Message Wait (MW) key, a Do Not Disturb (DND) key, a Night Transfer (NT) key, a Wake Up No Answer (WU) key, a Room Cutoff (RC) key, and a Agent Busy Out (BYO) key for the following purposes:
   - MW key Message Waiting Set/Cancel/Status Display
   - DND key Do Not Disturb Set/Cancel/Status Display
   - NT key Day/Night mode change for the associated tenant
   - WU key Automatic Wake Up No Answer Cancel/Status Display
   - RC key Room Cutoff Set/Cancel/Status Display
   - BYO key Agent Busy Out - UCD Status Display

   These keys must be assigned to the last three (3) keys (key no. 57, 58 and 59) on the DSS/BLF Console.
7. Key operation from MW, DND, WU, and BYO key on the DSS/BLF Console are effective for only the first 48 DSS keys (key no. 00 to 47), which have two (2) LEDs (red and green) in each key. Direct Station Selection, busy status indication, and Line Lockout status indication are effective for all 60 keys on the DSS/BLF Console.
8. When the following operations from the DSS/BLF Console are used, the Function Mode key must be assigned to one of 60 DSS keys.
   - Message Waiting Set/Cancel using MW key.
   - Do Not Disturb Set/Cancel using DND key.
   - Automatic Wake Up No Answer Cancel using WU key
9. A 4DLC card is required when an EDW-48-2A unit is installed.

Busy Out Status Console

General Description

This feature allows an EDW-48-2A unit associated with a Multiline Terminal to be used as a Busy Out Status Console. This feature is activated by use of a Function Mode key on a DSS/BLF Console. The Busy Out Status for each station is indicated by a red LED associated with each button.

Station Application

All stations with an associated DSS/BLF Console.

Operating Procedure

To display station Busy Out (BYO) status:

1. Depress the Function Mode key on the DSS/BLF Console assigned for Busy Out Status display. An LED associated with the BYO key lights.
2. When stations are currently in the Busy Out state, their associated LED will light green.
3. Depress the same Function Mode key to return to DSS/BLF mode, if desired.

Service Conditions

1. If the system is initialized (Reset) the Console Function Mode will return to DSS/BLF.
2. The Busy Out Status of a station cannot be set or cancelled from a Busy Out Status Console.
3. Refer to the DSS/BLF Console and the Uniform Call Distribution Features and Specifications for more details.

Do Not Disturb Console

General Description

This feature allows an EDW-48-2A unit associated with a Multiline Terminal to be used as a Do Not Disturb (DND) Console. This feature is activated by the use of a Function Mode key on a DSS/BLF Console. DND set status for each station is indicated by a green LED associated with each button. In addition, the Multiline Terminal user can set/cancel the DND status of other stations using the DND Console.

Station Application

All stations with a DSS/BLF Console.

Operating Procedure

To set and cancel Do Not Disturb (DND):

1. Depress the DND key. When stations are currently in DND their associated LED will light green.
2. Depress the Function Mode key: an LED associated with the Function Mode key will light red.
3. Depress the desired DSS key(s) to set or cancel. A lit LED indicates DND is set.
4. Depress the DND key again to return to DSS/BLF mode, if desired.

Service Conditions

1. The DND Console displays the set status for those stations for whom DND was set, by the station user of the DND console or by the set station only. Indication is not provided when another DND Console, the Attendant Console, a Hotel/Motel Front Desk Instrument, or a PMS changes the status of a station.
2. If the system is initialized (reset), the Console function mode will return to DSS/BLF.
3. Refer to the DSS/BLF Console and the Do Not Disturb Features and Specifications for more details.

Message Waiting Console

General Description

This feature allows an EDW-48-2A unit associated with a Multiline Terminal to be used as a Message Waiting (MW) Console. This feature is activated by the use of a Function Mode key on a DSS/BLF Console. The Message Waiting status for each station is indicated by a green LED associated with each button. In addition, the Multiline Terminal user can set/reset MW status using the MW Console.

Station Application

All stations with a DSS/BLF Console.

Operating Procedure

To set and cancel Message Waiting:

1. Depress the MW key. When stations are currently in MW their associated LED will light green.
2. Depress the Function Mode key: an LED associated with the Function Mode key will light red.
3. Depress the desired DSS key(s) to set or cancel. A lit LED indicates MW has been set.
4. Depress the MW key again to return to DSS/BLF mode, if desired.

Service Conditions

1. The MW Console only displays/cancels the set status for those stations to whom Message Wait was set, by the station user of the MW Console.
2. If the system is initialized (reset), the Console function mode will return to DSS/BLF.
3. Refer to the DSS/BLF Console and the Message Waiting Features and Specifications for more details.

Room Cutoff Console

General Description

This feature allows an EDW-48-2A unit associated with a Multiline Terminal to be used as a Room Cutoff Console. This feature is activated by the use of a Function Mode key on a DSS/BLF Console. The Room Cutoff status for each station is indicated by a green LED associated with each button. In addition, the Multiline Terminal user can set/cancel Room Cutoff to another station using the Room Cutoff Console.

Station Application

All Multiline Terminals with a DSS/BLF Console.

Operating Procedure

To set and cancel Room Cutoff:

1. Depress the RC key. When stations are currently in RC their associated LED will light green.
2. Depress the Function Mode key: an LED associated with the Function Mode key will light red.
3. Depress the desired DSS key(s) to set or cancel. A lit LED indicates RC has been set.
4. Depress the RC key again to return to the DSS/BLF mode, if desired.

Service Conditions

1. The Room Cutoff Console only displays/cancels the set status for those stations which were set into room cutoff by the station user of the Room Cutoff Console. Indication is not provided when another Room Cutoff console, the Attendant Console, a Hotel/Motel Front Desk Instrument, or a PMS changes the RC status of a station.
2. If the system is initialized (reset), the Console function mode returns to DSS/BLF.

3. Refer to the DSS/BLF Console and the Room Cutoff Features and Specifications for more details.

Wake Up No Answer Console

General Description

This feature allows an EDW-48-2A unit associated with a Multiline Terminal to be used as a Wake Up No Answer (WU) Console. This feature is activated by a function mode key on a DSS/BLF Console. The No Answer status for each station is indicated by a flashing green LED associated with each button.

Station Application

All Multiline Terminals with a DSS/BLF Console.

Operating Procedure

To display and cancel Wake Up No Answer:

1. Depress the WU key. If stations failed to answer their wake up call, their associated LED flashes green at 30 ipm.
2. Depress the Function Mode key: an LED associated with the Function Mode key will light red.
3. Depress the flashing DSS key(s) to turn out the desired station's LED.
4. Depress the WU key again to return to the DSS/BLF mode, if desired.

Service Conditions

1. The Wake Up No Answer Console is only used to display/cancel the No Answer status of the Automatic Wake Up feature after the station has failed to answer. The Automatic Wake Up feature cannot be set from the Wake Up No Answer Console.
2. If the system is initialized (reset), the Console function mode will return to DSS/BLF.
3. Refer to the DSS/BLF Console and the Automatic Wake Up Features and Specifications for more details.

Distinctive Ringing

General Description

This feature provides Distinctive Ringing patterns to the station so that the station user can distinguish between internal and external incoming calls. This feature also enables the LED associated with the line key of the Multiline Terminal to flash in two colors according to the kind of incoming call.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. Ringing pattern for incoming internal calls:
   1 second on, 2 seconds off
   or
   2 seconds on, 4 seconds off.
2. Ringing pattern for incoming external calls:
   1 second on, 2 seconds off
   or
   2 seconds on, 4 seconds off.
   or
   0.4 seconds on, 0.2 seconds off
   0.4 seconds on, 2.0 seconds off
3. Ringing pattern for Call Back, Trunk Queuing - Outgoing and Executive Calling:
   0.5 seconds on, 0.5 seconds off
   0.5 seconds on, 1.5 seconds off.
4. All recalls (to Multiline Terminals):
   0.5 seconds on, 0.5 seconds off
   0.5 seconds on, 0.5 seconds off.
5. When calling a third station (three-party Conference, Consultation Hold, etc.), the ringing signal sent to the called station is dependent upon the type of call placed on Hold. If the call is a trunk call, external ringing is provided; if the call is an extension call, internal ringing is provided.
6. Ring frequencies of Multiline Terminals can be assigned in programming through station Class of Service. Refer to the Ring Frequency Control Features and Specifications.
7. The ringing pattern for incoming internal calls is programmable on a system basis.
8. The ringing pattern for incoming external calls is programmable on per trunk route basis.
9. The ringing pattern of recalls to Single Line Telephones is the same pattern as that of the original call.
10. The distinctive lamp indication is applicable only for Multiline Terminals during call termination (including a recall).

11. The lamp indication patterns are as follows:
    - Incoming internal calls Red, 120-ipm flashing
    - Incoming external calls Green or Red, 120-ipm flashing

    The lamp color for incoming external calls can be selected to be green or red.
12. The lamp color for incoming external calls can be designated on a per-trunk-route basis.
13. The distinctive lamp indication is valid for Direct Inward Termination, Automated ATT, Direct Inward Dialing, and Tie line incoming call.
14. The flashing lamp color depends on system data (assigned for Distinctive Ringing (CM08, 137)) and is used to indicate the termination of a transferred external incoming call.
15. If the NEAX2000 IVS is installed behind Centrex or the main PBX, this feature provides Distinctive Ringing patterns to the Multiline Terminal in the NEAX2000 system so that the station user can distinguish between internal calls from the main PBX and external incoming calls. The C.O. trunk to the main PBX must be assigned on Trunk - Direct Appearances on the Multiline Terminal.
16. When Distinctive Ringing in behind system is activated, Delayed Ringing is not available for the related C.O. trunk.

Do Not Disturb

General Description

This feature restricts incoming calls to a station and can be set by an individual station or from the Attendant Console. Placing a station in Do Not Disturb (DND) does not prevent a station from originating a voice or data call or from receiving a data call. This feature also allows a station to ensure privacy from telephone interruptions while on an outgoing call. Additionally, the Attendant Console can place a group of stations in the Do Not Disturb condition.

Station Application

All stations.

Operating Procedure

From a Single Line Telephone or a Multiline Terminal

■ **To set**

1. Lift the handset and receive dial tone.
2. Dial the Do Not Disturb feature access code and receive service set tone.
3. Restore the handset.

■ **To cancel**

1. Lift the handset and receive dial tone.
2. Dial the Do Not Disturb cancel code and receive service set tone.
3. Restore the handset.

From a Multiline Terminal

■ **To set**

1. Depress the SPKR key and receive dial tone.
2. Depress the DND function key and the associated LED lights. If equipped with an LCD the display will indicate **SET**.
3. Depress the SPKR key.

■ **To cancel**

1. Depress the SPKR key and receive dial tone.
2. Depress the DND function key and the associated LED goes out. If equipped with an LCD the display will indicate **CNCL**.
3. Depress the SPKR key.

From the Attendant Console

■ **To set an individual station in DND**

1. Dial the desired station number.

2. Depress the DD key and the associated LED flashes.
3. Depress the START key. The DD LED lights steady and service set tone is received.
4. Depress the RELEASE key.

■ **To cancel an individual station in DND**

1. Dial the desired station number.
2. Depress the DD key and the associated LED flashes.
3. Depress the RESET key and the DD LED goes out.
4. Depress the RELEASE key.

■ **To set a group of stations in DND**

1. Depress the DD key and the associated LED flashes.
2. Depress the START key and the DD LED lights steady.
3. The designated group is now in DND.

■ **To cancel a group of stations in DND**

1. Depress the DD key and the associated LED flashes.
2. Depress the RESET key and the DD LED goes out.
3. The designated group is no longer in DND.

■ **To call a station that set DND (Attendant Only)**

1. Depress an idle LOOP key.
2. Dial the station number and the DD LED flashes and reorder tone is received.
3. Depress the DDOVR key.
4. The station will ring.

Service Conditions

1. Calls to stations that are in Do Not Disturb will receive reorder tone or on a tenant basis, can be assigned to transfer to the Attendant or a predesignated station.
2. The station in Do Not Disturb can originate calls in the normal manner.
3. Call Forwarding can be set to a station in Do Not Disturb.
4. A Do Not Disturb station will be omitted from the Station Hunting chain. If a DIT call is directed to a pilot of a hunt group, hunting will be provided. Internal calls will receive a fast busy tone.
5. The Do Not Disturb station can cancel DND even though the condition was set by the Attendant.
6. Verification of stations in Do Not Disturb is only possible from the Attendant Console. Multiline Terminals with LCD and a DND key assigned can verify their own DND setting.
7. The ability to set DND can be controlled on a per station via Class of Service or a per system basis.
8. This feature can only be set or canceled by the station while the station is receiving internal dial tone.
9. When a Multiline Terminal is set in DND, calls to the primary extension and secondary extensions will not ring. Trunks programmed to ring will not do so while DND is set, but flashing LED indications are still provided. DND will not deny an Executive Override.

10. Only the Attendant has the ability to place a group of stations in Do Not Disturb. There is only one group available and the stations within the group are programmed in system data. There is no limitation on the number of stations in the group.
11. A station included in a DND group, retains the ability to place their particular station in DND.
12. When the Attendant places a group in DND, an individual station within the group can cancel the DND setting to their station.
13. A feature access line key can be assigned on Multiline Terminals for DND set and cancel.
14. If the DND key is depressed while connected to a trunk or station, the following interruptions are denied until that call is completed:
    - Attendant Camp-On
    - Attendant Override
    - Boss Secretary Override
    - Camp-On
    - Executive Override
15. Refer also to the Data Do Not Disturb feature, and the Hotel/Motel Do Not Disturb feature.
16. DND is displayed on a Multiline Terminal with LCD when calling a station in DND.
17. The priority for service checks (features activated) on a station is as follows:
    1) Call Forwarding - All Calls
    2) Call Forwarding - Busy Line
    3) Station Hunting/UCD
    4) Do Not Disturb

Do Not Disturb-Data Line

General Description

This feature allows a station user to put a data line in Do Not Disturb (DND) mode. When this feature is activated, calls to the data line are denied, and the calling party will receive chime tone and display **BSY D**.

Station Application

All Multiline Terminals with LCD equipped for Data Communication.

Operating Procedure

To set

- Press the DATA DND key while station is idle. The associated LED lights red.

To cancel

- Press the DATA DND key while station is idle. The associated LED goes out.

Service Conditions

1. A DATA DND key must be assigned to a line key on the Multiline Terminal.
2. When the data line is in Do Not Disturb, all data calls to the station will receive two chime tones.

Do Not Disturb-Hotel/Motel

General Description

This feature allows the Attendant Console(s), Hotel/Motel Front Desk Instrument(s), guest stations or Property Management System (PMS) terminal(s) to place individual stations into Do Not Disturb. Calls can be placed from stations set in DND.

Station Application

All stations.

Operating Procedure

From the Hotel/Motel Front Desk Instrument

■ **To set Do Not Disturb**

1. Depress the DD key.
2. Dial the desired station number.
3. Depress the SET key.
4. The above two steps can be repeated for additional stations.
5. Depress the RLS key.

■ **To cancel Do Not Disturb**

1. Depress the DD key.
2. Dial the desired station number.
3. Depress the RESET key.
4. The above two steps can be repeated for additional stations.
5. Depress the RLS key.

■ **To set Do Not Disturb to the station currently connected**

1. Depress the DD key.
2. Depress the SET key.
3. Depress the RLS key.

■ **To cancel Do Not Disturb to the station currently connected**

1. Depress the DD key.
2. Depress the RESET key.
3. Depress the RLS key.

From a guest station or administrative station

■ **To set Do Not Disturb**

1. Go off-hook and receive dial tone.
2. Dial the Do Not Disturb setting code.

3. Receive service set tone and restore the handset.

■ **To cancel Do Not Disturb**

1. Go off-hook and receive dial tone.
2. Dial the Do Not Disturb cancellation code.
3. Receive service set tone and restore the handset.

Service Conditions

1. Automatic Wake Up and Timed Reminder will override Do Not Disturb.
2. A station in Do Not Disturb can be called from the Attendant Console or the Hotel/Motel Front Desk Instrument using the DNDOVR key.
3. Do Not Disturb is automatically cleared when Check Out is performed.
4. Depending on system programming, an incoming call addressed to a station in DND condition is routed to one of the following on a per-tenant basis:
   - Reorder tone
   - Attendant Console
   - A predesignated station
5. Refer to Attendant Console and Hotel/Motel Front Desk Instrument Features and Specifications for additional information on Do Not Disturb.
6. When a member station within a Station Hunting group is in DND, calls will bypass the member station and continue hunting. A pilot station in DND places the Hunt group in DND.
7. Call Forwarding - Busy settings by stations in DND will result in calls being forwarded, even if the stations are idle.
8. Message Waiting and Message Reminder can not be set to stations in DND during conversation.
9. Call Back can not be set to stations in DND.
10. Recalls will override the DND setting, and ring back to a station in DND.

Do Not Disturb-System

General Description

This feature simultaneously restricts incoming calls to a preassigned group of stations by operation from the Hotel/Motel Front Desk Instrument(s). Attendant Console(s) and Hotel/Motel Front Desk Instruments can use the DND OVR key to override this Do Not Disturb setting.

Station Application

All stations.

Operating Procedure

To set Do Not Disturb - System from the Hotel/Motel Front Desk Instrument

1. Depress the DD key.
2. Depress the GROUP key.

3. Depress the SET key.
4. Depress the RLS key.

To cancel Do Not Disturb - System from the Hotel/Motel Front Desk Instrument

1. Depress the DD key.
2. Depress the GROUP key.
3. Depress the RESET key.
4. Depress the RLS key.

Service Conditions

1. Stations are assigned to the Do Not Disturb (DND) Group in Class of Service.
2. Calls to extensions whose stations are in Do Not Disturb will receive reorder tone.
3. The station in Do Not Disturb can originate calls in the normal manner.
4. Verification of stations in Do Not Disturb is possible from the Hotel/Motel Front Desk Instrument and Attendant Consoles.
5. The ability to set DND is both on a per-station basis, and a per-system (for DND group) basis.
6. Only Hotel/Motel Front Desk Instruments and Attendant Consoles have the ability to place a group of stations in Do Not Disturb. There is only one group available, and the stations within the group are programmed in system data. There is no limitation on the number of stations in the group.
7. A station included in a DND group retains the ability to place that particular station in DND.
8. When the Hotel/Motel Front Desk Instrument places a group in DND, an individual station within the group can cancel the DND setting to that station.
9. Refer to the Hotel/Motel Front Desk Instrument Features and Specifications for more information.
10. Refer to Do Not Disturb Features and Specifications for the interactions between DND and system features.

Elapsed Call Timer

General Description

This feature provides a display of the elapsed time while a Multiline Terminal with LCD is connected to any trunk.

Station Application

All Multiline Terminals with LCD.

Operating Procedure

No manual operation is required.

Service Conditions

1. The elapsed time is displayed in the seven upper left-hand positions of the LCD display.
2. The elapsed time can reach a maximum of 9 hours, 59 minutes and 59 seconds after which the clock resets to zero.
3. When a call is placed on Consultation Hold, Exclusive Hold, and Nonexclusive Hold, the elapsed time display will disappear. The Elapsed Call Timer will not reset to zero when a call is retrieved from Hold (Consultation Hold, Exclusive Hold, or Nonexclusive Hold) by the same station.
4. When a call is transferred or parked, the time display of the party receiving the transfer begins at zero.
5. The elapsed time is not displayed when the station is in a Conference.

Enhanced 911

General Description

This feature allows the PBX to transmit a callers' emergency service identification information to an Enhanced 911 Emergency system.

Station Application

All stations and Attendant Consoles.

Operating Procedure

1. Lift the handset and receive a dial tone.
2. Dial the trunk access code and telephone number (e.g. 911).
3. The system automatically completes a call and sends the pre-assigned number: calling area code + calling station number.

Service Conditions

1. Up to four 911 Sender trunk (PN-4RSTB) can be accommodated in the system which includes T1-ANI/ Caller ID Receiver trunk (PN-4RSTB/4RSTC).
2. The caller's telephone number must be sent in Automatic Number Identification (ANI) format, corresponding to Centralized Message Accounting (CAMA) standards. A trunk circuit capable of performing these functions is called a CAMA type trunk.
3. The calling station in the NEAX2000 IVS will receive ROT if there is a Central Office line failure on the CAMA trunks.
4. If the NEAX2000 IVS has multiple CAMA trunks and the calling station receives ROT due to a Central Office line failure, the calling station must go on hook and then attempt the call again.

   With CM 35, YY = 83 set to "1" (by allotter) for the CAMA trunk route, the PBX will select the next available CAMA trunk.

Note: *For this purpose, it is recommended that the NEAX2000 IVS have a minimum of two CAMA trunks for Enhanced 911.*

5. The physical interface for Enhanced 911 can be any of the following:
   - Digital (T1) configured as Loop Start or E&M type lines (PN-24DTA)
   - Analog E&M type lines (PN-20DT)
   - Analog Loop Start lines (PN-4COT)

Note: *These lines must be ordered from the Central Office as CAMA type trunks.*

Executive Calling

General Description

This feature allows a station to be assigned a VIP class. This provides special ringing to a called station when that station is idle, and automatic sending of three tone bursts to a called station when that station is busy, provided the call was originated from a station assigned as VIP class.

Station Application

All stations.

Operating Procedure

To initiate an Executive Call:

1. The station assigned as VIP class goes off-hook.
2. The station dials another extension.
3. If the called station is busy, three tone bursts will be sent to the called party to indicate there is a call waiting. The called party can now hang up and answer the Executive Call.
4. If the called station is idle, a distinctive ring will be sent to the called party to indicate an Executive Call is ringing in.

Service Conditions

1. Executive Calling (VIP class) is assigned in Class of Service.
2. This feature is station based. This feature applies only when a station assigned for VIP class is used.
3. When a Single Line Telephone's extension is assigned as VIP class, all internal calls originated from that station are Executive Calls.

Executive Override

General Description

This feature allows selected users to override a busy condition on a called station. A warning tone is transmitted to both stations in the busy call before the busy condition is overriden, and a three-party Conference is then established.

Station Application

All stations.

Operating Procedure

From a Multiline Terminal

1. When busy tone is heard, press the key assigned for Executive Override. The associated LED lights and a warning tone is transmitted to both parties.
2. The Multiline Terminal is now bridged into a three-party Conference.

From a Single Line Telephone

1. When busy tone is heard, press the FLASH key (or momentarily press the hookswitch) and receive feature dial tone.
2. Dial the Executive Override feature access code. A warning tone is transmitted to both parties.
3. The station is now bridged into a three-party Conference.

Service Conditions

1. Two burst tones of 0.8 seconds each are transmitted upon activation to alert the connected parties that an Executive Override will occur. On a system-wide basis the tones transmitted to the C.O. line may be denied. The station will still receive alert tones.
2. When a three-party Conference is established and one party hangs up, the remaining two parties are still connected.
3. The Executive Override access code is flexible and can be assigned in system programming.
4. The maximum number of simultaneous Executive Overrides per system is eight or sixteen, depending upon conferencing hardware installed.
5. If the called station has set the Call Forwarding - Busy/All Calls feature, and the target station is also busy, the Executive Override will interrupt the originally dialed station. If the target station is not busy, the call will be forwarded.
6. Executive Override can be set when the busy station is connected to another station or a trunk in a two-party connection.
7. Executive Override is denied if the busy station is dialing, in Line Lockout mode, receiving a system generated tone, protected against Executive Override in Class of Service, protected against any override by DND key, or when any of the following features are in progress:
   - Attendant Override
   - Consultation Hold
   - Call Back
   - Data Line Security
   - Hold
   - Paging

- Call Transfer
- Privacy
- Camp-On
- Trunk Queuing - Outgoing
- Conference
- Voice Call

8. When Executive Override is denied, the caller will receive reorder tone.

External Paging with Meet-Me

General Description

This feature allows a station user or attendant dial-access to local voice paging equipment and connects both parties automatically after the paged party has answered the page by dialing an access code.

Station Application

All stations and Attendant Consoles.

Operating Procedure

To page

■ **From any station**

1. The calling station dials External Paging feature access code and receives continuous ringback tone for 1 second.
2. The calling station pages desired party.
3. The calling station remains off-hook or hangs up.

■ **From an Attendant Console**

1. Place the incoming call on hold by pressing HOLD key.
2. Seize an idle LOOP key.
3. Dial the External Paging feature access code and receive continuous ringback tone for 1 second.
4. Page the desired party.
5. Press the RELEASE key.

To answer

■ **From any station**

■ ■ **Non-delay operation**

1. The paged party dials the Meet-Me access code.
2. The paged party is immediately connected to the calling party.

■ ■ **Delay operation**

1. The paged party dials Meet-Me access code.
2. The party paged receives ringback tone.
3. The calling station rings.
4. The calling station goes off-hook and is immediately connected to the paged party.

To cancel the page from an Attendant Console

1. Press the External Paging feature key while paging.
2. The page is canceled.

Service Conditions

1. Amplifiers and speakers must be provided locally.
2. One trunk circuit from a COT card is required for each zone of external paging.
3. One PN-DK00 card is required for every four zones of external paging in order to share a common amplifier and background music source.
4. The maximum length of paging access codes is three digits. Paging access codes and Meet-Me codes must be preprogrammed.
5. A maximum of 10 zones of external paging can be set up.
6. Meet-Me service is programmable. When Meet-Me service is not provided, there is no system timeout on paging. When Meet-Me service is provided, a system timeout is applied to the delay Meet-Me operation. In the case of delay operation, both the paging period and the period of waiting for the Meet-Me call are combined. After this timeout expires, Meet-Me attempts will be denied and the paging circuits become available again. (Refer to the Variable Timing Parameters feature for timeout information).
7. If additional dialing is required after seizing a paging trunk, the Radio Paging Equipment Access feature may be used.
8. No LED indication for the External Paging key on an Attendant Console is provided.

Fax Arrival Indicator

General Description

When a call from a C.O. line (Direct-Inward-Termination, Direct-Inward-Dialing, Automated Attendant), station or tie line has terminated to a facsimile machine, a related lamp on a predesignated Multiline Terminal is caused to light, indicating reception of a facsimile call. The lamp indication is as follows:

Status	Indication
Receiving	Lamp (red); 120-ipm flash (The chime beeps on start of message reception)
Receive End	Lamp (red); Steady Lighting
Not Receiving/Clear	Lamp Off

Station Application

All Multiline Terminals.

Operating Procedure

To turn off the facsimile call lamp, depress the FACSIMILE INCOMING CALL key.

Service Conditions

Note: *In the following service conditions, the term facsimile station refers to the actual facsimile machine single line station number. Facsimile call station refers to the button assignment on the Multiline Terminal.*

1. The number of facsimile station numbers and facsimile call station numbers that can be assigned varies with each of the following cases.
   a) When Hot Lines-Inside/Outside are used to implement this feature, a maximum of 100 facsimile stations can be assigned. In addition, a maximum of 100 facsimile call stations can be assigned.
   b) When House Phone groups are used to implement this feature, a maximum of four facsimile stations can be assigned. In addition, there is no limit to the number of facsimile call stations that can be assigned to each facsimile station.
2. Termination of a facsimile call is indicated on the lamp of the flexible line key to which a facsimile call station number is assigned.
3. This feature does not indicate a call termination on the LCD.
4. One facsimile call number can be assigned to flexible line keys of multiple Multiline Terminal sets.
5. Multiple facsimile call numbers can be assigned to a flexible line key of any one specific Multiline Terminal set.
6. When a new call terminates while the facsimile incoming call lamp is lit, the lamp indication changes to 120-ipm flash.
7. The chime which signals starting reception of a facsimile message beeps even if the Multiline Terminal is busy, unless the speaker is in use at that time.

Feature Activation from Secondary Extension

General Description

This feature allows the Multiline Terminal user to access an appearance of another extension and program certain features from that extension.

Station Application

All Multiline Terminals.

Operating Procedure

Refer to the applicable feature for operating procedures.

Service Conditions

1. The following features may be set on a secondary extension:
   - Busy IN/Busy Out - ACD
   - Busy In/Busy Out - UCD
   - Call Forwarding - All Calls
   - Call Forwarding - Busy Line
   - Call Forwarding - No Answer
   - Call Pickup - Group
   - Return Message Schedule Display
2. After a call has been originated from a secondary extension, Call Back or Trunk Queuing - Outgoing can be set. The primary extension of the station that set the feature will be recalled. If Trunk Queuing - Outgoing is already set on the primary extension, it cannot be set on the secondary extension.
3. When an incoming call rings on the Call Pickup - Group to which the secondary extension belongs, the incoming call can be picked up.

Flexible Line Key Assignment

General Description

Multiline Terminals can have any desired line-key assignment. This feature permits assignments to be tailored to each individual's needs. (The terminal's primary extension line appearance is the only line key which cannot be reassigned.)

Station Application

All Multiline Terminals.

Operating Procedure

No manual operation is required.

Service Conditions

1. Each line key can be assigned as one of the following:
   - Trunk Access
   - Extension
   - Save and Repeat
   - Do Not Disturb
   - Data
   - Intercom
   - Hot Line
   - Feature Access

   Refer to the applicable Features and Specifications for more information on that feature.
2. Line key assignment is made in system programming using the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
3. The ETJ-16DC-1 has 15 programmable line keys. One line key is reserved for that station's primary extension.
4. The ETJ-8-1 has 7 programmable line keys. One line key is reserved for that station's primary extension.
5. A maximum of one Do Not Disturb key and three Save and Repeat keys can be assigned per Multiline Terminal.
6. Stations desiring dial tone from a specific line can press that line key before lifting the handset.
7. When Station Speed Dialing is assigned to the line key on a Series E Multiline Terminal with no DSS key by the system data, and an extension number is assigned to the line key by the station user, a lamp of the line key indicates the busy/idle status of the extension.

Flexible Numbering Plan

General Description

The NEAX2000 IVS has a Flexible Numbering Plan. All access codes and station numbers and can be assigned in system programming. Refer also to the Single Digit Dialing Features and Specifications which further increases the flexibility of the system.

Station Application

All stations.

Operating Procedure

Normal call handling procedures apply.

Service Conditions

1. The system is provided with a Resident System Program; however, the flexibility of the NEAX2000 IVS allows all access codes and station numbers to be changed to any desired number (from one to three digits for access codes, and one to four digits for station numbers), provided access codes and station numbers do not conflict with each other.
2. Up to four different numbering plans may be assigned in the same system. When there are multiple tenants, any one of the four numbering plans can be assigned to each tenant.
3. Any combination of 1 to 4 digits can be assigned as station numbers within the same numbering plan. When assigning different amounts of digits to stations the leading digits of the shorter extension numbers cannot be the same as the leading digits of the longer extension numbers. For example: extensions 60 and 607 cannot be assigned in the same numbering plan.
4. The system can also be programmed to provide a group of fixed single-digit feature access codes. These codes allow a station user to dial a single digit to activate specific features. These codes can only be applied while the station user is receiving ringback or busy tone. The following feature access codes can be dialed while receiving busy tone:

Access code	Feature
2	Call Back, Trunk Queuing Outgoing
3	Executive Override
4	Camp-On (transfer)
5	Camp-On (call waiting)
6	Message Reminder
*	Step Call

The following feature access codes can be dialed while receiving ringback tone:

Access code	Feature
1	Internal Voice/Tone Signaling
2	Call Back
6	Message Reminder

5. The single-digit feature access codes used while receiving ringback tone can be used by Single Line Telephones with a DTMF dialpad, after pressing the FLASH key.

Flexible Ringing Assignment

General Description

This feature allows lines on Multiline Terminals to be individually programmed to ring or not ring.

Station Application

All Multiline Terminals.

Operating Procedure

No manual operation is required.

Service Conditions

1. The following priority applies to ringing of multiple incoming calls:
   1) Voice call (station to station on extension, Automatic or Dial Intercom
   2) Recalls
   3) Incoming External Calls
   4) Incoming Internal Calls, Dial Intercom ringing calls, Manual Intercom
2. Delayed Ringing is available. Refer to the Delayed Ringing Features and Specifications for more information.
3. Flexible Ringing Assignment is assignable in system programming.

Forced Account Code

General Description

This feature forces the user to enter an Account Code (up to 8 or 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 Codes are valid.

Item No.	Service feature	Max. number of codes per max. digit number						
		10	9	8	7	6	5	4
1	Forced Account Code	680	770	890	1050	1280	1646	2300

Station Application

All stations.

Operating Procedure

When dialing an outgoing call:

1. Lift the handset and receive dial tone.
2. Enter the Forced Account Code feature access code and receive service set tone.
3. Enter the Forced Account Code (up to 8 or 10 digits) and receive dial tone.
4. Dial the desired number.

Service Conditions

1. The maximum number of digits in the Forced Account Code is programmable, (for the entire system), from 1 to 8 or 10 digits.
2. The Forced Account Code access code can be 1 to 3 digits.
3. If both Forced Account Code and Authorization Code are provided in the system, the maximum number of codes are limited as follows:
   - Without Application Processor AP-01 (standard):

     Number of digits: up to 8 digits.
     Number of Codes: up to 100 digits combined with Authorization Codes.
   - With Application Processor AP-01 (optional):

     Number of digits: up to 10 digits.
     Number of Codes: up to 1000 digits combined with Authorization Codes and Direct Inward System Access (DISA) Codes.

Note: *Capacity varies depending on the numbering scheme. For details, refer to the table above.*

4. Both Authorization Code and Forced Account Code can be provided for the same system.
5. Stations are assigned this feature according to Class of Service programming in system data.
6. Forced Account Codes are recorded in the System Message Detail Records.
7. Existing restriction assignments will be applied even after a Forced Account Code is entered.
8. If the NEAX2000 IVS is designated as KF registration, this feature is not available.
9. A Forced Account Code can be assigned per a station number so that one code is used only on the specific station. Application Processor AP01 is required.

Group Call

Automatic Conference (6/10-Party)

General Description

This feature allows a D^{term} user or single line telephone user within the system to establish a conference among as many as six or ten parties. From a D^{term}/single line telephone, a maximum of 9/stations can be paged simultaneously plus the originator. The stations are assigned to the simultaneous paging groups as a participants by the system data beforehand.

Station Application

All Stations.

Operating Procedure

To make a conference call

From D^{term}/single line telephone;

1. Press the speaker key or go off hook, and receive a dial tone.
2. Dial the access code, or press feature access key (D^{term} only), for a desired paging group and receive a ring-back tone.

To answer the paging

1. The called terminals receive ringing. The LCD of the D^{term} shows Paging, plus the station number of the originator.
2. Answer the ringing page from the originator.
3. You can converse with the originator and other participants.

To participate in the middle of the conference

From D^{term}/single line telephone;

1. Press the speaker key or go off hook, and receive a dial tone.
2. Dial the access code, or press feature access key (D^{term} only), for re-participation to the paging group.

Service Conditions

1. A maximum of nine stations are paged simultaneously including the originator.
   Even if more than nine stations are assigned to one group, the first nine stations are paged in order of registered number on the system data.
2. Single line telephones, D^{term}s, can be assigned as the stations within the conference groups (Virtual line cannot be assigned). A station can belong to multiple groups.

3. Up to eight groups can be assigned as conference groups by system data.
4. The maximum number of participants which can be connected in a conference is:
   - Six participants (inclusive of the leader) when one CFT trunk is used.
   - Ten participants (inclusive of the leader) when two CFT trunks are used.

   Up to four CFT trunks (PN-CFTA) can be accommodated in the system.
   The maximum number of conference groups per system when using four CFT trunks (maximum) is:
   - Four, 6-party conference groups
   - Two, 10-party conference groups
   - Two, 6-party conference groups and one, 10-party conference group

   A CFT trunk is used for either a 6-party or 10-party conference. Dialed access codes determine which CFT trunk is used for a conference. If the leader dials the access code or press the feature access key for a 10-party conference when only one CFT trunk is idle, the leader is restricted and hear reorder tone.
5. A single line telephone, D^{term}, can be an originator and make a conference call to a group, even if it does not belong to the group.
6. A single line telephone, D^{term}, which does not belong to the group, can be a participant of a conference by dialing the re-participation access code or by pressing the feature access key (D^{term} only), when the CFT trunk has an idle circuit.
7. An originator cannot page two or more groups simultaneously.
   A group cannot be paged simultaneously by the multiple originators.
   A group cannot be paged while a conference of the group is in progress.
8. If all stations within the paged group are busy, the originator hears the reorder tone.
   If a station does not answer the paging by certain time (which is determined by the system data), the originator leader hears the busy tone.
9. When a station cannot answer the paging by paging time out, or busy state, the station can participate the conference by dialing the re-participation access code or by pressing the feature access key while the conference is in progress.
10. If the originator leaves the conference, the originator can re-participate by dialing the re-participation access code or by pressing the feature access key while the conference is in progress.
11. A station can be paged in the idle state. When the station is busy at the time of paging, the station cannot be paged even if the station returns to idle afterward.
12. Even if a station sets Call Forwarding, the originator can page the station.

2 Way Calling

General Description

This feature allows a D^{term}/single line telephone to page a maximum of fifteen parties simultaneously including the originator. After one of paged parties answers, the paging becomes the 2 Way Calling between the originator and the first answered party, automatically stops paging other parties. The stations are assigned to the simultaneous paging groups as a participants by the system data beforehand.

Station Application

All Stations.

Operating Procedure

To page stations of a group

From D^{term}/single line telephone;

1. Press the speaker key or go off hook, and receive a dial tone.
2. Dial the access code, or press feature access key (D^{term} only), for a desired paging group and receive a ringback tone.

To answer the paging

1. The called terminals receive ringing. The LCD of the D^{term} shows “Paging”, including the station number of the originator.
2. Answer the ringing page from the originator.
3. Paging stops after one of paged stations answer.

Service Conditions

1. A maximum of fifteen stations are paged simultaneously including the originator.
   Even if more than fifteen stations are assigned to one group except the leader, the first fifteen stations are paged in order of registered number on the system data. Also one station can belong to multiple groups.
2. Single line telephones, D^{term}s, can be assigned as the stations within the group call groups (Virtual line cannot be assigned). A station can belong to multiple groups.
3. Up to eight groups can be assigned as the call group by system data, including voice paging and Group Call-Automatic Conference.
4. A single line telephone, D^{term}, can be an originator and page a group, even if the originator does not belong to the group.
5. The originator cannot page two or more groups simultaneously.
   A group cannot be paged simultaneously by the plural group call leaders.
6. If all stations within the paged group are busy, the originator hears a reorder tone.
   The Group Call leader will continue to hear ringback tone until the page is answered. It does not time out.

7. A station can be paged in the idle state. When the station is busy at the time of paging, the station will not be paged even if the station returns to idle afterward.
8. Even if a station sets Call Forwarding, the originator can page the station.

Group Listening

General Description

When a Multiline Terminal user makes a call using the handset, pressing the SPKR key will allow others to listen through the built-in speaker of the Multiline Terminal. The user may continue talking on the handset at the same time.

Station Application

All Multiline Terminals.

Operating Procedure

To monitor a call:

1. Talk with a station/trunk by handset.
2. Press the SPKR key and the associated LED lights.
3. Continue the conversation on the handset.
4. To return to private conversation, press the SPKR key again.

Note: *To prevent feedback from a Multiline Terminal, keep the handset away from the built-in speaker while this service is in progress, and press the SPKR key to turn the speaker off before restoring the handset.*

Service Conditions

1. This feature applies to both internal and external calls.
2. Volume may be adjusted using the Multiline Terminal's volume control.
3. Group Listening is assigned in Class of Service on a per station basis.

Handsfree Answerback

General Description

This feature allows the station user to answer a voice call without lifting the handset.

Station Application

All Multiline Terminals.

Operating Procedure

To answer a voice call:

1. Make sure the MIC (Microphone) is active and the associated LED is lit.
2. Respond to call handsfree.

Service Conditions

1. Handsfree Answerback may only be used when responding to calls on the primary extension.
2. The MIC LED on the Multiline Terminal must be lit before Handsfree Answerback can begin.
3. The MIC is turned on and off by depressing the FNC key followed by the digit 1 (one).

Handsfree Dialing and Monitoring

General Description

This feature allows the station user to dial or monitor a call without lifting the handset.

Station Application

All Multiline Terminals.

Operating Procedure

To initiate a call

1. Press the SPKR key and receive dial tone.
2. Dial the desired number.
3. When the called party answers, lift the handset.

To monitor a call

1. Press the SPKR key and replace the handset.
2. When the conversation resumes, lift the handset.

Service Conditions

1. This feature may be used for both internal and external calls.
2. Volume may be adjusted using the speaker volume control on the Multiline Terminal.
3. To talk to the called party, the user may use the handset, or handsfree if the MIC is active.

Hold

General Description

This feature permits a user to Hold a call in progress. After Hold has been set, the station user can make or answer new calls.

Call Hold

General Description

This feature permits a user to Hold a call in progress by sending a hookflash and dialing the Call Hold feature access code, or by pressing the Call Hold key. This line can then be used for originating another call or returning to a previously held call.

Station Application

All stations.

Operating Procedure

To Hold a call in progress

■ **From a Single Line Telephone**

1. Press the FLASH key (or momentarily press the hookswitch) and receive special dial tone.
2. Dial the Call Hold feature access code and receive dial tone.
3. The call in progress is held and the station may make a new call.

■ **From a Multiline Terminal with a Call Hold key assigned**

1. Press the CALL HOLD key and receive dial tone.
2. The call in progress is held and the user may make a new call.

■ **From a Multiline Terminal without a Call Hold key**

1. Press the TRF key and receive special dial tone.
2. Dial the Call Hold feature access code and receive dial tone.
3. The call in progress is held and the user may make a new call.

To release a call and return to the original call

■ **From a Single Line Telephone**

1. Hang up to release the call in progress.
2. The original call rings back to station.
3. Lift the handset and continue with the original call.

■ **From a Multiline Terminal**

1. Go on-hook to release the call in progress.

2. The original call rings back to Multiline Terminal.
3. Lift the handset and continue with the original call.

To Hold a call and return to original call

■ **From a Single Line Telephone**

1. Press the FLASH key (or momentarily press the hookswitch) and receive special dial tone.
2. Dial the Call Hold feature access code. The call is now on Hold.
3. The original call is automatically returned.

■ **From a Multiline Terminal**

1. Press the TRF key and receive special dial tone.
2. Dial the Call Hold feature access code. The new call is now held and the original call is automatically returned.

Note: *By repeating the above steps, the station users may alternately converse with two parties (Broker's Call).*

■ **From a Multiline Terminal with a call in Call Hold and a call in progress on an extension line key**

1. Replacing the handset will release the call in progress and initiate an immediate recall of the Call Hold call.
2. Pressing the RECALL key will cause release of the call in progress and immediate connection to new Dial Tone (unless the call in progress on the extension line key is via a trunk programmed as Centrex, in which case the RECALL key will generate a hookflash to the distant exchange for feature access there).

Service Conditions

1. Lines freed through use of this feature may also be used for answering incoming calls using the Call Pickup Group or Trunk Answer any Station features.
2. If the controlling station user does not dial any further digits after the Hold feature access code, the station will enter the Line Lockout mode after a preset time-out period.
3. Calls will remain on Hold until the controlling station user either replaces the handset, causing the held call to ring back, or provides a hookflash and redials the Hold feature access 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-party Conference.
5. Stations may be allowed or denied this feature in Class Of Service programming in station data.
6. A maximum of 128 stations per system may simultaneously use this feature.
7. When a station has a Camp-On call, providing a hookflash and dialing the Call Hold feature access code results in the station immediately connecting to the Camped-On party.

Dual Hold

General Description

This feature permits a station user who is placed on Hold by another station to place that station on Hold also.

Station Application

All Multiline Terminals.

Operating Procedure

Internal party connection from a Multiline Terminal:

1. Station A depresses the HOLD key and Station B is placed on hold.
2. Station B depresses the HOLD key and Station A is placed on hold.
3. Dual Hold is now in progress.

Service Conditions

1. The party who placed the other party on Hold first will not receive a recall until the other party releases the Dual Hold.
2. This feature is available for extension calls including Intercom calls.
3. When two Multiline Terminals activate this feature, the recall timer begins when second station goes on Hold (the first hold is no longer timed). When the timer expires, the second station is recalled and upon answering initiates a recall to the first station.
4. An Intercom Voice Call with Hands free Answerback cannot be placed on Hold. The called party must be off-hook using the terminal's handset in order for this call to be placed on Hold.

Exclusive Hold

General Description

This feature allows a Multiline Terminal user to place a call on Hold and to exclude all other station users from retrieving the held call.

Station Application

All Multiline Terminals.

Operating Procedure

While a call is in progress:

1. Press the TRF key and then press the HOLD key. The LCD displays: **EHD**

   OR
2. Press the HOLD key twice. The LCD displays: **EHD**
3. To return to the held call, press the held line key. The conversation is re-established.

Service Conditions

1. Exclusive Hold may be activated from any line appearing on a Multiline Terminal.
2. After Exclusive Hold has been set, the user can make or answer calls from any other line appearing on the Multiline Terminal.
3. Only the Multiline Terminal that set Exclusive Hold may retrieve the held call.
4. The station initiating the Exclusive Hold will receive a distinctive I-Hold indication.
5. After a programmable period of time, the held call will be automatically recalled regardless of the status of the Multiline Terminal. Ringing, however, is disabled while Do Not Disturb is activated.

6. The LEDs of other Multiline Terminals on which the held line appears will give a steady display while the Exclusive Hold exists and during recall.
7. An internal station on Exclusive Hold cannot receive the following:
   - Camp-On
   - Attendant Override
   - Executive Override

Non-exclusive Hold

General Description

This feature allows a Multiline Terminal user to place a call on Hold which may be retrieved by any station that has an appearance of the held line.

Station Application

All Multiline Terminals.

Operating Procedure

1. With a call in progress, press the HOLD key (once).
2. To retrieve a held call, press the held line key.

Service Conditions

1. Any Multiline Terminal displaying another appearance of the held line can seize the held call.
2. Automatic Recall is directed only to the station which placed the call on Hold.
3. The station initiating Hold will receive a distinctive I-Hold indication.
4. Two-Party Hold is available when a Multiline Terminal is engaged in a three-party Conference with stations and/or trunks.
5. When two parties are put on Hold, service features such as Executive Override, Attendant Override, and Camp-On cannot be activated to that busy line with the two parties on Hold.
6. The two held parties remain connected to each other and can talk to each other. Music on Hold is not activated.
7. The two held parties cannot be placed on Exclusive Hold by the Multiline Terminal user.
8. If one of the two held parties is released from the connection, Music On Hold will be activated on the remaining connection. When the holding party returns to the connection, a two-party connection is established.

Hotel/Motel Attendant Console

General Description

The Attendant Console can be programmed to function as a Hotel/Motel Attendant Console. In addition to the business features and functions of the Attendant, the Hotel/Motel Attendant Console can set Room Cutoff (individual and group), Automatic Wake Up, Message Waiting, and Do Not Disturb (individual and group).

Station Application

Attendant Consoles.

Operating Procedure

Room Cutoff - Individual, Do Not Disturb - Individual and Message Waiting

■ **To set**

1. Dial the desired extension.
2. Depress the applicable function key.
3. Depress the START key.

■ **To cancel**

1. Dial the desired extension.
2. Depress the applicable function key.
3. Depress the RESET key.

Room Cutoff - Group and Do Not Disturb - Group

■ **To set**

1. Depress the applicable function key.
2. Depress the START or key.

■ **To cancel**

1. Depress the applicable function key.
2. Depress the RESET key.

Automatic Wake Up

■ **To set**

1. Dial the desired extension.
2. Depress the Automatic Wake Up function key.
3. Dial the digits applicable to the requested Automatic Wake Up time in military time (ex. 7:30pm is 1930).
4. Depress the START key.

■ **To cancel**

1. Dial the desired extension.

2. Depress the Automatic Wake Up function key.
3. Depress the RESET key.

Service Conditions

1. A dedicated function key on the console must be assigned for each desired feature (Room Cutoff, Automatic Wakeup, etc.).
2. The Room Cutoff and Do Not Disturb features are applicable to a group of stations and individual stations. One group is available for each feature and the stations in the groups are programmed on a per station basis in system data.
3. An AP00 is required to provide Station Message Detail Recording, Message Registration, Room Cutoff-Group, and Do Not Disturb - Group.
4. Depressing the DDOVR key, when calling a station that has DND set, will override the DND setting.

Hotel/Motel Front Desk Instrument

General Description

A Multiline Terminal with LCD can be programmed to function as a Hotel/Motel (H/M) Front Desk Instrument. This can be used to set and cancel standard H/M features such as Message Waiting, Do Not Disturb, Automatic Wake Up, and Room Cutoff.

Station Application

All Multiline Terminals, with LCD.

Operating Procedure

Normal call processing procedures apply except for the following:

- When calling a station that has set Do Not Disturb (DND), depressing the DNDOVR key will override the DND condition.

To activate Do Not Disturb, Message Waiting, and Room Cutoff

1. Depress the applicable function button.
2. Dial the desired station number where feature is to be set or canceled. (This procedure is not required when speaking with that station in a station-to-station call or when setting the group functions.)
3. Depress the SET key to set the desired function.

   OR

   Depress the RESET key to cancel the desired function.
4. Repeat the above steps if multiple station assignments are desired.

   OR

   Depress the RLS key to exit feature activation.

Note: *For alternate operating procedures, refer to the applicable feature.*

To activate Do Not Disturb-Group or Room Cutoff-Group

1. Depress the DD or RC key.
2. Depress the GROUP key.
3. Depress the SET key.
4. Depress the RLS key.

To cancel Do Not Disturb-Group or Room Cutoff-Group

1. Depress the DD or RC key.
2. Depress the GROUP key.
3. Depress the SET key.
4. Depress the RLS key.

To activate Automatic Wake Up

1. Depress the WK UP key.

2. Dial the desired Wake-Up time in military format (in one minute increments).
3. Depress the WK UP key.
4. Dial the station number.
5. Depress the SET key.
   Steps (4) and (5) can be repeated for additional stations.
6. Depress the RLS key.
   OR

1. Depress the WK UP key.
2. Dial the station number.
3. Depress the SET key.
4. Dial the desired wake up time in military format (in one minute increments).
5. Depress the SET key.
   Steps (2) through (5) can be repeated for additional stations.
6. Depress the RLS key.

To cancel Automatic Wake Up

1. Depress WK UP key.
2. Dial station number.
3. Depress RESET key.
   Steps (2) and (3) can be repeated for additional stations.
4. Depress RLS key.

To activate Automatic Wake Up while engaged in conversation with station

1. Depress the WK UP key.
2. Dial the Wake up time in military format (in one minute increments).
3. Depress the SET key.
4. Depress the RLS key.

To cancel Automatic Wake Up while engaged in conversation with station

1. Depress the WK UP key.
2. Depress the RESET key.
3. Depress the RLS key.

To activate Check In/Check Out

1. Depress the Check In/Check Out function button.
2. Dial the desired station number.
3. Depress the SET key to set Check In.
   OR
   Depress the RESET key to set Check Out.

To activate Room Status

1. Depress the Room Status function button.
2. Dial the desired station number.
3. Depress the SET key. The features that are activated at the station will be indicated by the LED lighting at the applicable feature function button and the LCD will display **:** unless Automatic Wake Up is set, in which case the set time will be displayed. In addition (to the right of the display) the Room Status number is displayed.
4. Depress the RLS key to exit feature activation.

To activate Print Out

1. Depress the Print Out function button.
2. Depress the applicable function button for which a Print Out is desired. If Room Status is selected, a code must be dialed to select which room condition is to be printed. If a code is not entered all room conditions will be printed.
3. Depress the SET key.
4. Depress the RLS key to exit feature activation.

Service Conditions

1. The following Hotel/Motel functions can be accessed from the Hotel/Motel Front Desk Instrument:
   - Do Not Disturb
   - Room Cutoff
   - Message Waiting
   - Print Out
   - Check In/Check Out
   - Automatic Wake up
   - Room Status
   - Do Not Disturb Override
2. For each feature desired, a dedicated line key on the Hotel/Motel Front Desk Instrument must be assigned.
3. The Room Cutoff and Do Not Disturb features are applicable to a group of stations and individual stations. There is one group available for each feature and the stations in the groups are programmed on a per-station basis in system data.
4. An AP00 card is required for this feature.
5. The Print Out function provides a hard copy on the status of the following features when the feature is set or reset:
   - Do Not Disturb
   - Room Cutoff
   - Message Waiting
   - Automatic Wake up
   - Room Status
   - Check In/Check Out
6. Successful and unsuccessful Wake Up attempts are printed out.
7. A printer must be provided locally.

8. The Print Out function allows selection of output based on individual station numbers (except for Room Status).
9. When Check Out is done, the following functions are set or cleared:
   - DND - cleared
   - Message Wait - cleared
   - Room Cutoff - set
   - Automatic Wake Up - cleared
10. Room Status Codes are totally flexible, and the user determines the meaning for each code. The system will print the maid ID or station number (if other than guest room) that set the specific code. Up to eight codes (1-8) are available.

Hotline - Inside/Outside

General Description

This feature causes the terminal to place a call to another station or to an outside party automatically when the user selects the Hotline extension.

Station Application

All stations.

Operating Procedure

To place a Hotline call from a Single Line Telephone

1. Lift the handset and receive ringback tone. The other party receives ringing indication.
2. Converse when the other party answers.

To place a Hotline call from a Multiline Terminal

1. Lift the handset.
2. Press the Hotline extension button (if not Prime Line). Receive ringback tone. The other party receives ringing indication.
3. Converse when the other party answers.

Service Conditions

1. There is a maximum of 100 assignments for Hotline destination. If internal bidirectional Hotline calling is required, two assignments (one for each direction) must be made. A maximum of 50 pairs of bidirectional Hotlines can be assigned.
2. Hotline assignments are programmed into system data using the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
3. A Hotline call can be transferred to another station using the Call Transfer feature.
4. On an internal Hotline call, the calling party hears reorder tone when the called station is in one of the following conditions:
   - Busy
   - In Line Lockout
   - In make busy through software programming.
5. Call Forwarding is applied whenever the destination station of the Hotline call has set Call Forwarding (All Calls, Busy, and No Answer).
6. Hotline calls can be directed to the outside exchange network by assignment of the destination as a system speed dial memory location. When this Hotline is used, the system will access a trunk in the trunk route associated with the trunk access code assigned in the system speed dial memory location, and then will dial out the assigned outside number. See System Speed Dialing for the methods to reprogram the outside number.
7. On Hotline - Outside calls, when all trunks in the trunk route are busy, reorder tone is heard by the calling party.
8. On Hotline - Outside calls, Station Message Detail Recording (SMDR) will register the primary extension of the station that used the Hotline and the system speed dial memory location code.

House Phone

General Description

This feature allows selected stations to reach the Attendant simply by going off-hook.

Station Application

All stations.

Operating Procedure

1. The House Phone user lifts handset.
2. The Attendant Console is called automatically.
3. The attendant answers.
4. The attendant connects user to another station or a trunk.

Service Conditions

1. Attendant Console indications will appear as follows:
   - ATND lamp flashes.
   - Console buzzer sounds.
2. House Phones (locally provided) may be equipped without dials .
3. House Phone assignments are programmed into system data from the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT).
4. There is no limit to the number of House Phones permitted in the system provided the maximum amount of available ports is not exceeded.
5. The Attendant has the option to process the call using the delay or non-delay operation or passing dial tone to House Phones with dials.
6. The system's response to a hookflash from a House Phone can be assigned to provide feature dial tone or recall the Attendant.
7. Four house phone groups are available.
8. Each house phone group can be assigned to automatically call the Attendant Console or a predesignated station.

Individual Attendant Access

General Description

This feature permits a user to call a specific Attendant by dialing an Attendant call code.

Station Application

All stations.

Operating Procedure

To originate a call to the Attendant:

1. Go off-hook and dial the Individual Attendant Access code.
2. Dial the individual Attendant number (0-7).
3. The desired Attendant receives Incoming Call Identification and answers using normal call handling procedures.

Service Conditions

1. All stations, including fully restricted stations, can call an Attendant.
2. If Tenant Service is provided, each tenant can call his own Attendant via the same code. When this feature is assigned, Attendant Night Transfers will not function for these calls.
3. Interposition Transfer uses the same Attendant call codes as Individual Attendant Access.

Intercept Announcement

General Description

This feature provides the automatic interception of Direct Inward Dialing (DID) and Tie Line calls which cannot be completed due to unassigned station or level. The caller hears a recorded Intercept Announcement which informs the caller that an inoperative number was reached, and may supply the number for information.

Station Application

Not applicable.

Operating Procedure

To record a message:

1. Go off-hook and receive internal dial tone.
2. Dial the voice recording feature access code and the voice recording card number. Three seconds of tone will be supplied.
3. Record the message (maximum duration 60 seconds).
4. Restore the handset.

Service Conditions

1. This feature requires a Digital Announcement Trunk (DAT) card programmed for Intercept Announcement.
2. Multiple calls may be connected to the Intercept Announcement board at the same time. If a second call arrives while the first is being processed, the second caller may not hear the announcement from the beginning.
3. If the caller does not hang up, the system will repeat the message.
4. This feature is only available on DID and tie line calls where answer supervision is provided.
5. The following call conditions, which cannot be completed, can be routed to an Intercept Announcement:
   - vacant level.
   - unassigned station number.
6. Calls to restricted access codes or feature access codes will always receive the Intercept Announcement.
7. Only one common message can be provided for the different intercept conditions.
8. There is no method to exempt individual DID or tie lines from Intercept Announcement.

Intercom

General Description

Three types of Intercoms are available: Manual Intercom, Automatic Intercom, and Dial Intercom. Each type of Intercom provides access to a small group of Multiline Terminals with simplified calling methods.

Manual Intercom

General Description

The Manual Intercom groups have up to six Multiline Terminals sharing a common signal path. Users can call other members of the Manual Intercom group by pressing a Manual Intercom key; each press sends a tone burst over the speakers of all the terminals in the group. When another user answers the call, a speech path is activated.

Station Application

All Multiline Terminals.

Operating Procedure

1. The caller lifts the handset and presses the Manual Intercom key. The other members of the group receive a tone burst.
2. Each subsequent press sends another tone burst.
3. Another user presses the same Manual Intercom appearance and establishes a station-to-station call by lifting the handset.

Service Conditions

1. A Manual Intercom group can consist of two to six Multiline Terminals.
2. A maximum of 25 Manual Intercom groups can be assigned per system.
3. A Manual Intercom is always non-private; therefore, up to 4 members of the group can enter an Intercom call.
4. Incoming call indications are given to all members of the Manual Intercom group except the originator of the call.
5. Each Manual Intercom (from 2 to 6 appearances) uses a single extension which can be a software extension (no supporting hardware is required).
6. Transfer, Call Park, and other extension line features are not available on Manual Intercom. Dual Hold and Hold Recall are available on Manual Intercom.
7. More than one Manual Intercom can appear on a Multiline Terminal.

Automatic Intercom

General Description

Automatic Intercom provides a path for Voice Announcement Calls with Handsfree Answerback between two Multiline Terminals using a line key. Private conversations can be held by using the Multiline Terminal handsets. The Busy/Idle status of the associated Multiline Terminal is displayed on the Automatic Intercom line key LED.

Station Application

All Multiline Terminals.

Operating Procedure

1. The caller lifts the handset and presses the Automatic Intercom key.
2. The called terminal receives a tone burst followed by Voice Announcement and can answer using Handsfree Answerback.

   OR
3. The caller can change the call to a ringing call by dialing 1.
4. The called terminal must press Automatic Intercom key and lift the handset to answer ringing call.

Service Conditions

1. Only two Multiline Terminals can share an Automatic Intercom path.
2. The maximum number of Automatic Intercom paired stations per system is 32.
3. More than one Automatic Intercom can appear on a Multiline Terminal.
4. Automatic Intercoms are private.
5. Each Automatic Intercom pair uses two extensions which can be software extensions (no supporting hardware is required).
6. Dual Hold with hold recall is available on Automatic Intercom. Other extension features such as Call Transfer, Call Park, etc. are not available.
7. When the called terminal is busy, the caller will receive busy tone.

Dial Intercom

General Description

Dial Intercom comprises up to 10 Multiline Terminals which can call each other using a dedicated Dial Intercom line key with abbreviated dialing. Dial Intercom calls can be Voice Announce with Handsfree Answerback or ringing calls.

Station Application

All Multiline Terminals.

Operating Procedure

1. The caller lifts the handset, presses the Dial Intercom key, and receives dial tone.
2. The caller dials the one-digit Intercom code of the called Multiline Terminal (0-9).
3. The called terminal receives a tone burst followed by Voice Announcement and can answer using Handsfree Answerback.

   OR

1. The caller can dial 1 to change the call to a ringing call. (Each 1 dialed changes the mode from ringing to Voice Announce or vice versa).
2. To answer a ringing call the user must lift the handset and press the flashing Dial Intercom key.

Service Conditions

1. A maximum of 25 Dial Intercom groups are available per system. A maximum of 10 Multiline Terminals per Dial Intercom group are allowed.
2. A Multiline Terminal can have more than one Dial Intercom appearance.
3. Each Dial Intercom provides a single voice path.
4. Intercom number assignments are one digit (0-9).
5. A Dial Intercom is private, and the other members of the group can not enter an Intercom call.
6. Incoming call indication is only given to the called party within the Dial Intercom group.
7. Each Dial Intercom (from 2 to 10 appearances) uses a single extension, which can be a software extension (no supporting hardware is required).
8. Dual Hold and hold recall are available on Dial Intercom. Other extension features such as Call Transfer, Call Park, etc. are not available.
9. If the called party, within the Dial Intercom group, is busy (off hook) on its primary extension, the station making the intercom call will receive busy tone.

Internal Tone/Voice Signalling

General Description

Multiline Terminals can signal incoming internal calls by Voice Announcement or by ringing according to the programmed mode (Voice first or Ring first) of the called terminal. The caller can dial the digit 1 to change from Voice Announcement to Ring Tone or vice versa.

The Multiline Terminal assigned this feature can program the following two modes:

- Voice Mode: allows an incoming call to terminate with Voice Announcement.
- Tone Mode: allows an incoming call to terminate with ringing.

Station Application

All Multiline Terminals.

Operating Procedure

When a called Multiline Terminal has been set to Ring First

1. Press the extension line key and lift the handset.
2. Dial extension number. The called party's extension will ring.
3. The handset must be used for reply.
   OR
   Dial 1.
4. Wait for voice page alert tone.
5. Voice announce call.
6. The called party can reply handsfree.

When a called Multiline Terminal has been set to Voice First

1. Press the extension line key and lift the handset.
2. Dial extension number. Wait for voice page alert tone.
3. Voice announce call.
4. The called party can reply hands-free.
   OR
   Dial 1.
5. The called party's extension will ring.
6. The handset must be used to reply.

To set Voice/Tone mode

1. Press the SPKR key.
2. Dial the Voice/Tone Programming access code and receive feature dial tone. The LCD will show the current mode of the Multiline Terminal.
3. Dial any single digit (0-9). Voice mode is switched to Tone mode (or vice versa) and Service Set tone is received.

4. Press the SPKR key.

Service Conditions

1. When a Multiline Terminal is receiving a Voice Announcement, it cannot receive any other audible signal.
2. Single-digit feature access codes must be allowed in system programming.
3. Voice Announce service on extension lines can be allowed or denied on a system basis.
4. Microphone control MIC lamp must be lit for Handsfree Answerback response.
5. Refer also to the Intercom Features and Specifications.
6. Voice announcement is available only to the primary extension of the dialed station.

Internal Zone Paging with Meet-Me

General Description

This feature allows the Attendant Console and system users to page over the built-in speakers of the Multiline Terminals within the assigned zone or all zones.

Station Application

All stations.

Operating Procedure

To page from a Multiline Terminal or a Single-Line Telephone

1. Lift the handset and receive extension dial tone.
2. Dial the Internal Zone Paging feature access code for the desired zone/all zones or press line key assigned for the desired zone/all zones.
3. Page the desired party.

To page from Attendant Console

1. Press an idle LOOP key.
2. Dial the Internal Zone Paging feature access code for the desired zone/all zones.
3. Page the desired party.

To answer (Meet-Me) from a Multiline Terminal or a Single-Line Telephone

1. Lift the handset and receive extension dial tone.
2. Dial the Meet-Me Answer feature access code.
3. Converse.

Service Conditions

1. The maximum number of internal paging zones is 8, zone 0 through zone 7. Up to 8 Internal zones can be accessed simultaneously by different stations.
2. The paging station can only page to one zone at a time. For all-zone paging, the paging station can page Zone 0 through Zone 5 simultaneously.
3. The maximum number of Multiline Terminals within one zone is 16.
4. A busy Multiline Terminal will not be paged during an Internal Zone Page.
5. Multiline Terminals can be assigned to more than one zone.
6. Meet-Me Answer cannot be done after performing a consultation hold.
7. Any station can page any zone.
8. The paging station will not receive busy tone when all stations in the paged zone are busy.
9. For the following paging, a paged station must dial paging station number or attendant access code to answer without Meet-Me Answer:
   - Zone Paging by Attendant Console
   - All Zone Paging by any station or attendant

Keyboard Dialing - Data Adapter

General Description

This feature provides Data Terminal Equipment (DTE) with the ability to originate a call using the keyboard of the DTE or by sending a command character set from the DTE. The user may also originate a voice call at the same time. The voice and data call can be placed to two different locations.

Station Application

All Multiline Terminals with LCD equipped for Data Communication.

Operating Procedure

Using the Hayes® command set

■ **To initiate a data call**

1. Enter the carrier control command ATC1 from the keyboard on the DTE and press the RETURN key. The display on the DTE will indicate: `OK`.
2. Enter the originating command ATD and the desired data station number XXXX and then press the RETURN key.
3. When the called party answers by entering the answering command ATA and pressing the RETURN key, the DTE will display `CONNECT`.

■ **To release from a data connection**

1. Enter the release request command +++ from the keyboard of the DTE. The DTE will display `OK`.
2. Enter the release command ATHO and press the RETURN key. The DTE will display `NO CARRIER`.
3. The data connection is now released.

Using the V.25bis command set

■ **To initiate a data call**

1. Enter the originating command CRN from the keyboard of the DTE and the desired data station number XXXX and then press the RETURN key. The display on the DTE will indicate: `OK`.
2. When the called party answers automatically. (If automatic answer is not set at the called DTE, enter the answering command CIC and press the RETURN key.)
3. The DTE will display `INC`.

■ **To release from a data connection**

1. Enter the release request command +++ from the keyboard of the DTE. The DTE will display `OK`.
2. The data connection is now released.

■ **When the distant end DTE disconnects**

1. When the distant end DTE releases, a buzzer will sound two times from the Data Adapter.
2. Enter the release command RLS and press the RETURN key. The LCD displays **RLS** and DTE displays `RELEASED`.

3. The data connection is now released.

Service Conditions

1. Only Multiline Terminals with LCD equipped with a Data Adapter can use Keyboard Dialing.
2. When data communication is established using the keypad, the dialed number will be indicated on the LCD, but there will be no indication on the DTE. When data communication is established using Keyboard Dialing, the dialed number will be indicated on the Multiline Terminal's LCD.
3. When an incoming data call is received, the display of the DTE and the Multiline Terminal will show the number of the calling data station, or incoming trunk type and number.
4. The maximum amount of data stations that can be assigned Keyboard Dialing is 128 per system. Refer to the Data Communication Command Guide for detailed information on data station installation.
5. The Hayes® command set or V.25bis command set can be used depending on the switch setting in the Data Adapter and the data setting from Multiline Terminal keys or keys on DTE keyboard.
6. A Multiline Terminal with Keyboard Dialing assigned uses two time slots: one for voice and one for data.

Note: *Hayes is a registered trademark of Hayes Microcomputer Products, Inc.*

Last Number Redial

General Description

This feature allows users to redial the last station-to-station or outside number they dialed using a feature access key or a feature access code. This is useful when the called station is busy or does not answer.

Station Application

All stations and Attendant Consoles.

Operating Procedure

From a Multiline Terminal

1. Go off-hook and receive dial tone.
2. Press the LNR/SPD key followed by a #, or dial the Last Number Redial feature access code.
3. The system will redial the last number dialed from that station.

From a Single Line Telephone

1. Go off-hook and receive dial tone.
2. Dial the Last Number Redial feature access code.
3. The system will redial the last number dialed from that station.

From an Attendant Console

1. Depress an idle LOOP key.
2. Press the LNR key followed by a #.
3. The system will redial the last number dialed from that attendant.

Service Conditions

1. The maximum number of digits that can be stored for Last Number Redial is 32.
2. Dialing digits after going off-hook replaces previously stored digits with the new digits.
3. When the Step Call feature is used, the final destination number is stored in memory.
4. Pressing the LNR/SPD key when the Multiline Terminal is idle displays the stored number on the LCD, and turns on the speaker (SPKR) LED.
5. This feature stores numbers dialed on the Multiline Terminal's primary or secondary extension, or Direct-Trunk Appearances. This feature does not store Dial Intercom or data calls.
6. If the NEAX2000 IVS is designated as KF registration, this feature is not available.

Least Cost Routing - 3/6 Digit

General Description

This service feature allows the NEAX2000 IVS to be programmed to route outgoing calls over the most economical facility (WATS, FX, DDD). Based on the individual area code and office code dialed (6-digit analysis), the system examines the programmed tables and uses the trunk in the order specified.

Station Application

All stations.

Operating Procedure

1. Lift the handset and receive dial tone.
2. Dial the trunk access code and receive dial tone again.
3. Dial the area code, office code and telephone number.
4. The system automatically completes the call using the most economical route.

Service Conditions

1. Least Cost Routing can be programmed to choose a route based on the following criteria:
   - Digits dialed (first 3 or 6 digits of the outside number).
   - Day of Week
   - Time of Day
   - Tenant number
   - Route Advance

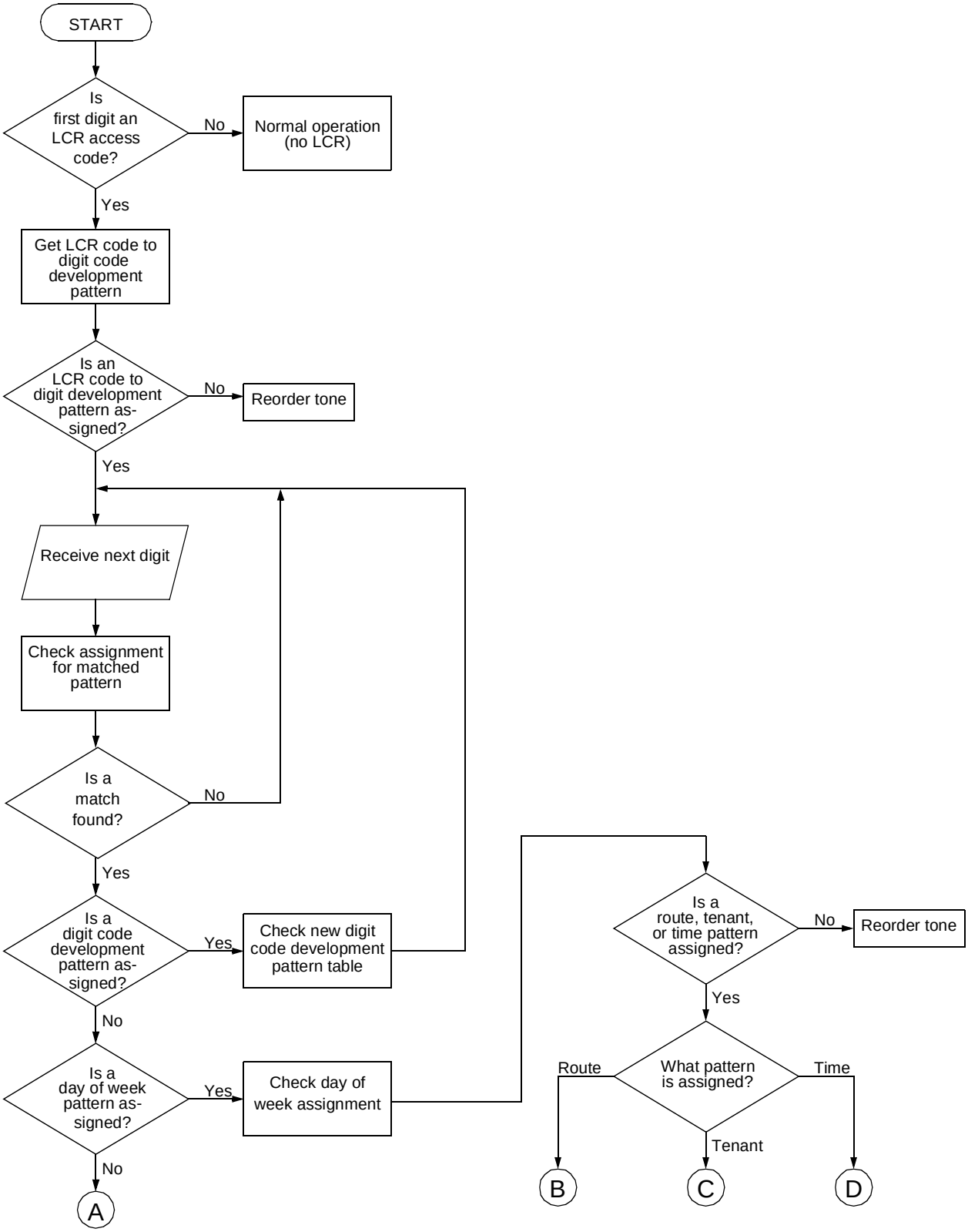
   In addition, a special Digit Code Table is used to interpret the one, two, or three leading digits of the area code: e.g. 01XX....X: International Call; 0: Operator Call; 0XXX: Toll Operator Call. The system examines the Digit Code Table when an ORT timeout has occured after dialing leading digits.
2. In addition to selecting the route, the system can be programmed to:
   - Add the prefix digit 1 for use with FX lines requiring 1+ dialing.
   - Add up to 32 digits in front of the number dialed by the station user to allow for equal access accommodation, or for secondary common carrier access or Central Offices which do not provide equal access.
   - Delete the area code (for FX trunks).
   - Delete all digits, or up to 8 digits from the number dialed.
   - Allow or deny access to a specific trunk route based on the office code dialed.
3. All trunk routes in the system can be accessed using LCR (including DDD, Tie, FX, WATS, etc). Restriction on outgoing calls and Code Restriction assignments are applied.
4. The following programmable tables are available:
   - Digit Code Table - Up to 3 tables of area codes are used to determine the route to be selected. Although area codes are normally 3-digit codes, this table can be assigned with 1 to 8-digit codes. These codes can be assigned to select any other LCR table.
   - Route Pattern Table - Up to 64 Route Advance tables are available, each with 4 entries. If more than 4

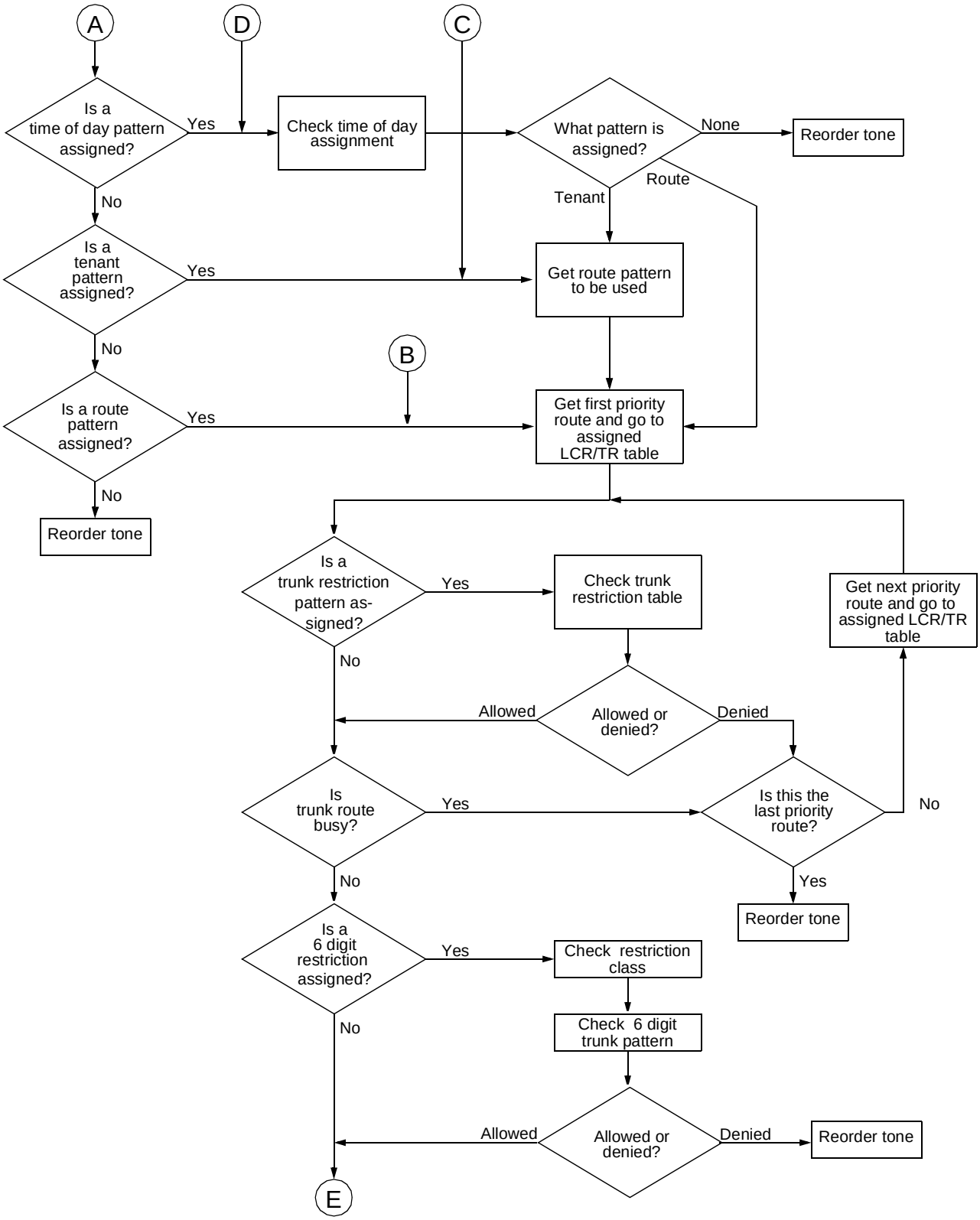
entries are required, up to 8 entries can be provided by combining two route pattern tables.

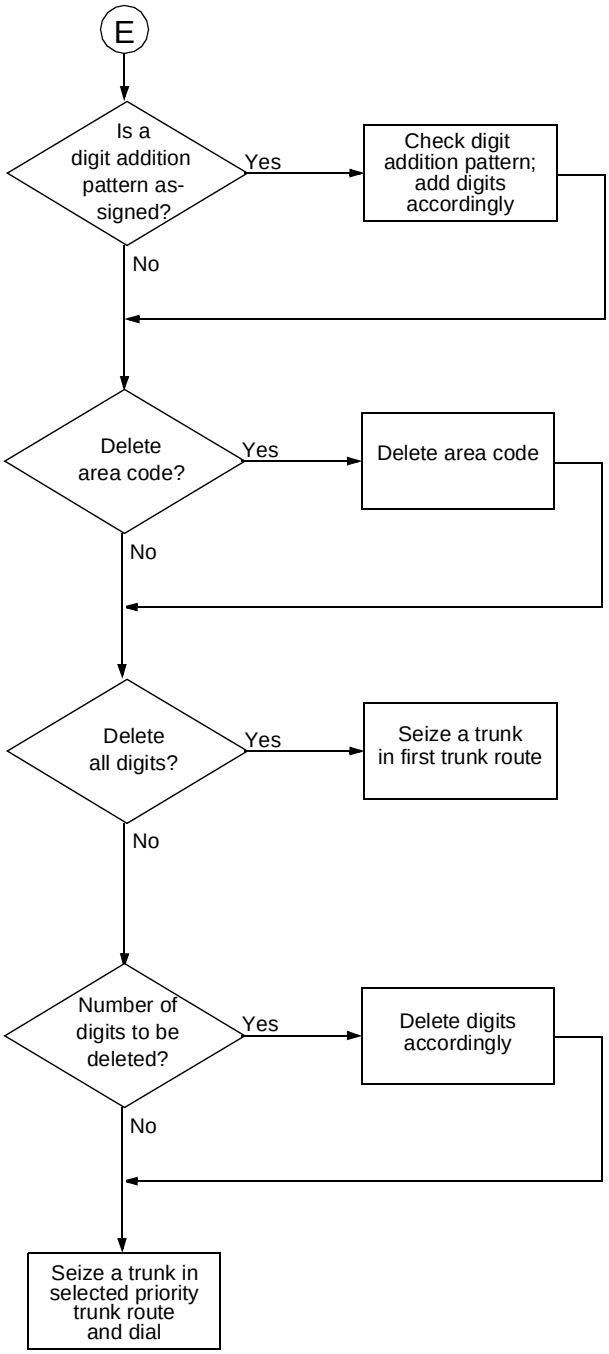
- LCR Pattern Table - Up to 256 tables are available for assignment of digits to be added or deleted. Also, the office code dialed can be checked to determine whether service is available for a specific office code, and whether a prefix 1 should be added. This table can be used in conjunction with toll restriction assignment for combined LCR/toll restriction capability. Refer to the Code Restriction Features and Specifications.
- Tenant Pattern Table - Up to 16 tables are used to select a route pattern table. The programmer can make the system select a route pattern table based on which tenant the caller is associated. This allows sharing of LCR and toll restriction capability among multiple tenants, while providing for the individual needs of each tenant. Each of the 64 tables can be assigned a route pattern table for each of the 64 tenants.

  In addition, the special Digit Code Table is used for assigning the same digits as leading one, two or three digits of area code assigned to the Digit Code Tables above (e.g. 00XX.....X: International Call, 0: Operator Call, 0XXX:Toll Operator Call use the special Digit Code Table). The system examines the special Digit Code Table when an ORT timeout has occurred after dialing leading digits.
- Date Pattern Table - Up to 4 day-of-week tables determine whether a route pattern table, tenant pattern table, or a time pattern table is used next in the routing procedure.
- Time Pattern Table - Up to 8 time-of-day tables determine whether a route pattern or tenant pattern table is used next in the routing procedure. The time is military time and can be input in half hour increments (00:00 - 23:30).
- Office Code Pattern Tables - Up to 50 tables contain office codes to be checked to see if a prefix digit 1 must be added, and to see if the office code dialed is allowed or denied for a specific trunk route (Service area check).
- Digit Addition Pattern Table - up to 50 tables are available for assigning digit addition pattern. Up to 32 digits, including pauses, can be added.

7. Assignment of LCR is on an access code basis. All trunk access codes can be assigned for LCR. Up to 3 different LCR access codes can be assigned, per numbering plan, providing flexibility in choosing routes by access code. When LCR is implemented, all stations within the system are subject to the LCR process.
8. To provide a group of stations access to trunks that are not subject to LCR, the associated trunk routes should be given different access codes (not assigned to LCR). Other stations can be restricted from access to these trunk routes.
9. Direct trunk appearances on Multiline Terminals are not subject to the LCR process.
10. If the NEAX2000 IVS is designated as KF registration, this feature is not available.
11. The following flow charts describe LCR system operation.


START
Is first digit an LCR access code?
No
Normal operation (no LCR)
Yes
Get LCR code to digit code development pattern
Is an LCR code to digit development pattern assigned?
No
Reorder tone
Yes
Receive next digit
Check assignment for matched pattern
Is a match found?
No
Yes
Is a digit code development pattern assigned?
Yes
Check new digit code development pattern table
No
Is a day of week pattern assigned?
Yes
Check day of week assignment
No
A
Is a route, tenant, or time pattern assigned?
No
Reorder tone
Yes
What pattern is assigned?
Route
Time
Tenant
B
C
D


A
D
C
Is a time of day pattern assigned?
Yes
Check time of day assignment
What pattern is assigned?
None
Reorder tone
Route
Tenant
No
Is a tenant pattern assigned?
Yes
Get route pattern to be used
No
B
Is a route pattern assigned?
Yes
Get first priority route and go to assigned LCR/TR table
No
Reorder tone
Is a trunk restriction pattern assigned?
Yes
Check trunk restriction table
Get next priority route and go to assigned LCR/TR table
No
Allowed
Allowed or denied?
Denied
Is trunk route busy?
Yes
Is this the last priority route?
No
No
Yes
Reorder tone
Is a 6 digit restriction assigned?
Yes
Check restriction class
Check 6 digit trunk pattern
No
Allowed
Allowed or denied?
Denied
Reorder tone
E


E
Is a digit addition pattern assigned?
Yes
Check digit addition pattern; add digits accordingly
No
Delete area code?
Yes
Delete area code
No
Delete all digits?
Yes
Seize a trunk in first trunk route
No
Number of digits to be deleted?
Yes
Delete digits accordingly
No
Seize a trunk in selected priority trunk route and dial

Line Lockout

General Description

This feature automatically releases a station from the common equipment if the station remains off-hook for longer than a programmed interval before dialing. Howler tone may be programmed to be sent to the station in Line Lockout.

Station Application

All stations.

Operating Procedure

For Line Lockout

1. The station user goes off-hook and receives dial tone.
2. f the user doesn't begin dialing within approximately 12 seconds, reorder tone is received.
3. After 30 seconds of reorder tone, the station is automatically placed into the Line Lockout condition and receives no tone.
4. Upon replacing the handset, the station is released from the Line Lockout condition.

For Line Lockout with howler tone assigned

1. The station user goes off-hook and receives dial tone.
2. If the user doesn't begin dialing within approximately 12 seconds, reorder tone is received.
3. After 30 seconds of reorder tone, the station is automatically placed into the Line Lockout condition and howler tone (30 seconds on, 30 seconds off) is sent to the station.
4. Upon replacing the handset, the station is released from the Line Lockout condition.

Service Conditions

1. A station in Line Lockout condition cannot receive or originate calls.
2. The Attendant cannot activate any feature to a station in a Line Lockout condition.
3. Howler tone can be allowed or denied on a per station basis.
4. This feature will also be activated if 12 seconds elapses between dialing digits.

Line Preselection

General Description

This feature provides the station user with two ways to select an idle, held, recalling, or ringing line before going off-hook.

Station Application

All Multiline Terminals.

Operating Procedure

1. Press the desired line key.
2. Lift the handset or press the SPKR key and receive dial tone or answer the incoming call.

   OR

1. Press the line key and receive dial tone or answer the incoming call. (This procedure is programmable in system programming on a system basis.)

Service Conditions

1. A line key whose associated LED is lit steady cannot be seized by pressing that key.
2. When the desired line key is pressed, line preselection will remain in effect for 6 seconds. After 6 seconds, line selection returns to the prime line, if assigned.
3. Line Preselection has priority over Ringing Line Pickup and prime line assignment.

Maid Status

General Description

This feature allows the Hotel/Motel (H/M) Front Desk Instrument, Property Management System (PMS) terminal, or guest room station (using special access code) to register the condition of each guest room.

Station Application

All stations except House Phones.

Operating Procedure

To set Maid Status from the Hotel/Motel Front Desk Instrument

1. Depress the STS key.
2. Dial the desired function status code.
3. Depress the STS key again.
4. Dial the guest room number.
5. Depress the SET key. The above two steps can be repeated for other stations.
6. Depress the RLS key.

OR

1. Depress the STS key.
2. Dial the guest room number.
3. Depress the SET key - Room Status is displayed. The above two steps can be repeated for other stations.
4. Depress the STS key again.
5. Dial the desired function status number code.
6. Depress the SET key. The above two steps can be repeated for other stations.
7. Depress the RLS key.

To set Maid Status from a guest room station by maid or repair person

1. Lift the handset and receive dial tone.
2. Dial the Maid Status feature access code and receive special dial tone.
3. Dial the maid ID code.
4. Dial the desired function status number code.
5. Receive service set tone, then restore the handset.

Service Conditions

1. There are a maximum of 8 types of room conditions as follows:

Status number	Room condition (example; see below)
1	Check In
2	Check Out
3	Under Cleaning
4	Cleaning Finished
5	Check Finished
6	Out of Service
7	Needs Maintenance
8	Maintenance Complete

2. Although the system provides for a maximum of 8 types of room conditions, the 8 codes (1-8) provided are not fixed for a given condition. This provides the end user with the flexibility to select any code (1-8) to serve as the Maid Status code for any condition. When Maid Status is displayed, or printed out, the digit(s) dialed as the code when the Maid Status was last changed are displayed or printed.
3. When dialing from a guest station, a Maid Identification code (maid ID code) can be provided (up to 2 digits). This is allowed or denied in system programming.

Maintenance Administration Terminal (MAT)

General Description

The Maintenance Administration Terminal (MAT) is a Personal Computer (PC) used for programming and maintenance of the NEAX2000 IVS. The MAT can provide a Maintenance Printout, Peg Count information and fault message output. Additionally, the MAT can be used to Remove and Restore to Service any station in the system and can read or save system data from disks. The MAT can assign the Key Data for the Attendant Console.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. Any IBM®[1] PC-XT compatible PC can be used as a MAT, including the NEC Multispeed.
2. Connection through modems is available, providing remote maintenance capabilities.
3. The MAT can be connected to the system either directly or remotely. Direct connection is through the RS connector of the PIM which houses the MP card. The MAT CA - M cable connects the MAT to the RS connector. Remote connection is available via either an internal modem on the MP card or an external modem for high speed. Remote connection via the internal modem is through the COT card. Connection between the modem and the COT is accomplished through internal switching of the TDSW. Remote connection via an external modem is through the MP card. The RS NORM - 4 CA - A cable connects the MP the modem.
4. The following functions can be performed from the MAT:
   - System, station, and trunk data entry, change, and copy.
   - Loading, saving, and verification of system data to and from a disk.
   - ROM check readout of generic program.
   - Peg Count data display.
   - Display of fault/fault cleared messages.
   - Password level assignments
   - On site or remote access to the system.
   - Printout of system data (when printer is connected to PC).
   - Display and setting of system clock/calendar.
   - Display of station/trunk connected status and forced release.
   - Multiple assignment for Multiline Terminal/Key/Station/Trunk
   - Serial port changeover
5. The PC used as the MAT must have an RS-232C port, and cannot be located more than 50 feet from the system when connected on premises.

1. IBM is a registered trademark of International Business Machines.

6. When stations or trunks are expanded, moved, or changed, office data for a Multiline Terminal key/station/ trunk can be copied and multiple assignment of related office data is possible.
7. If a station is assigned the following data, it is not possible to change the station's port assignment by multiple assignment:
   - Station Hunting Group
   - Call Pickup Group
   - UCD Group
8. The MAT can make backup disks of office data.
9. The following changes cannot be made without initialization:
   - Addition of a Port Interface Module (PIM),
   - Addition of any AP (Application Processors) including the following:
     - AP-00 - Station Message Detail Recording/Hotel/Motel package
     - AP-01 - Authorization Code expansion package
   - Addition of Multiline Terminal data port
10. When the NEC Multispeed PC is used, a 3-1/2 inch disk is required for MAT operation. The office data disk must also be a 3-1/2 inch disk and must be locally provided.
11. The system clock/calendar is entered using a 24 -hour clock, and the month, day and date.

Battery Release Control

General Description

This feature provides the MAT with the ability to release and reconnect backup batteries from the System. This prevents an excessive discharge of the batteries when a long - term power outage is planned (ex. building maintenance).

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS Maintenance Manual.

Service Conditions

1. This feature is available for both internal and external batteries.
2. This feature is effective on a system - wide basis (ex. all the batteries connected to the system are released or reconnected at the same time, when this feature is activated).
3. If the system is initialized while in a battery - off state, the batteries are automatically reconnected to the system.

Configuration Report

General Description

This feature displays various configuration information on the MAT, such as type of card mounted, terminal type, extension number, restriction class, service class, and reports on time slot allocations.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. To print out a Configuration Report, connect a printer to the MAT first, then set the printer to ready status.
2. When not printing out any configuration report, set the printer to the wait status (select mode OFF, etc.) or disconnect the printer from the MAT.
3. The printer should be an 80-column or more type.
4. To list the PIM configuration, select the target PIM (PIM 0_7), then select the specified LT Line/Trunk number group. There are 2 sets of LT number groups, which correspond to Line Equipment Numbers (LENs) as follows:

   LT 00–07 ... LEN 000–031

   LT 08–15 ... LEN 032–063
5. To understand the meaning of information displayed on the MAT screen or printed out, press the MAT function key [F2] and a help message will display on the MAT screen.
6. The total number of LEN numbers that can be displayed at one time for List Up of Configuration Report is 32 or less. Detailed information on individual LENs can be provided.
7. The number of LENs to be displayed for printout of 8 LEN at a time is 8 consecutive LENs.

Fault Message

General Description

This feature stores fault messages of the NEAX2000 IVS, and displays the fault messages on the MAT. When a fault has occurred, this feature provides alarm indication to external circuits by driving relay contacts.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. Print out of fault messages is possible through the printer connected to the MAT. Print out is by manual request only.
2. The maximum number of fault messages that can be stored is 16.
3. For providing external alarm indication, equipment such as a Fault Display Panel must be installed. External alarm indication is provided using a contact to ground at the main distribution frame. One contact is needed for minor alarms, and one contact is needed for major alarms.
4. The following fault messages are provided:
   - System Initialized
   - Number of stack overflows was more than a fixed number
   - MP-FP/AP communication failure
   - FP/AP board down/turned back to normal condition
   - DTI line failure/turned back to normal condition
   - CCH link connection failure/turned back to normal condition
   - Number of lock-out station was more than/less than a fixed number
   - SMDR output buffer memory overflow/turned back to normal condition
   - AC/DC Power Supply failure/burned buck to normal condition (AC input down, DC output down, fuse blown)
   - DLC failure/turned back to normal condition
5. This feature is also available from the Customer Administration Terminal.

Listup

General Description

The Listup feature is a program available on a floppy disk which allows the Maintenance Administration Terminal (MAT) or a separate IBM® PC (or compatible), to display and/or print the database of the NEAX2000 IVS.

Station Application

Not Applicable.

Operating Procedure

Refer to the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. The Listup feature can be used as a separate DOS program or may be run from within MAT mode.
2. The Listup program allows selection of a draft mode or IBM graphics mode printout.
3. Selection of the entire database or a partial database, for printout, is available.

Maintenance Printout

General Description

The Maintenance Administration Terminal can print system data to a locally provided printer.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. The personal computer used as the MAT must have an operating system with a print screen function. By using this function, all information displayed on the screen can be printed. Refer to the MAT-Listup Features and Specifications for printing of the database without the print screen function.
2. The following information can be printed:
   - All office data.
   - Peg Count data.
   - Fault condition codes.
   - All commands entered by a programmer.

Passwords

General Description

This feature of the NEAX2000 IVS allows the system to be programmed such that access to program changes is controlled by Passwords. Up to eight Password levels are available. This feature, when activated, prevents unwanted changes by unauthorized personnel. Passwords are active for both the Maintenance Administration Terminal (MAT) and the Customer Administration Terminal (CAT).

Station Application

All Stations allowed to use the CAT Mode.

Operating Procedure

Refer to the NEAX2000 IVS Command Manual and MAT Operation Guide for details on using Passwords.

Service Conditions

1. The data that can be changed from the MAT/CAT can be limited by the Password level assigned in system data. There are eight levels of Passwords. Access to available commands for each Password level is assigned in the system data.
2. Viewing of system data is allowed, but changing the data requires Password entry, when this feature is active.

3. The Passwords are never displayed, either on the CAT or the MAT. Special care should be taken when assigning Passwords to command authorization levels. If a Password is forgotten, access to system programming may be severely limited and may require system reinitialization and reprogramming.

Peg Count

General Description

This feature permits traffic information to be accessed from the MAT.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. All information required for this feature is registered at the MAT.
2. The following information can be accessed:
   - Number of successful attempts at outgoing access, based on trunk route.
   - Number of times all trunks were busy, based on trunk route.
   - Number of incoming calls, based on trunk route.
   - Number of incoming calls connected to busy tone and then trunk abandoned.
   - Quantity of incoming calls with no answer and trunk abandoned, based on trunk route.
   - Number of times a push button register was connected, on a system basis.
   - Number of times all push button registers were busy, on a system basis.
   - Number of outgoing connections using modem trunks, based on modem trunk group.
   - Number of incoming connections using modem trunks, based on modem trunk group.
   - Number of times all modem trunks were busy, based on modem trunk group.
   - Number of times the Conference circuits were used, on a system basis.
   - Number of times Conference circuits were all busy, on a system basis.
   - Number of times an incoming call was Call Forwarded-No Answer to the Attendant or another station (on DID, Tie or DIT lines), on a system basis.
   - Number of Tandem Connections, on a system basis.
   - Number of times a push button register was connected to a trunk, based on trunk route.
   - Number of Attendant calls including recalls, on a system basis.
   - Number of station-to-station calls, on a system basis.
   - Number of times senders were all busy, on a system basis.
   - Number of ring generator capacity overflows, on a system basis.
   - Number of DTE to DTE connections, on a system basis.

(UCD Peg Count)

- Number of answered calls by UCD group.
- Number of incoming calls by UCD group.
- Number of waiting calls for a pre-determined time into queuing mode on the UCD group.
- Number of incoming calls to all busy stations in the UCD group.
- Number of answered calls in the UCD group.

3. This feature is also available from the Customer Administration Terminal.

Remote Maintenance

General Description

This feature allows station and trunk changes or reassignments to be performed without a site visit by service personnel, and can be used to retrieve fault codes prior to visiting a site. One Remote Maintenance center can service an unlimited amount of systems, thus reducing the amount of personnel to maintain each site, travel costs and customer billing for each site.

Station Application

Not applicable.

Operating Procedure

The operation of this feature requires a Maintenance Administration Terminal (MAT). All related operations and programming can be found in the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. The following additional equipment is required for this feature:
   - A modem at the maintenance center and one at each remote site. (When the internal modem of the Main Processor (MP) is used , no modem at each remote site is required)
   - An RS-NORM-4 CA-A cable for connection between the MP and the on-site modem. (When the internal modem of the MP is used, the above cable is not required)
2. The internal modem of the MP is compatible with the following specifications:
   - CCITT V.22 Sync.1200 bps
   - CCITT V.22 bis Async.2400 bps
   - Bell 212A Async.1200 bps
3. Any one of the following connections are also required for access to the modem:
   - A dedicated line
   - Direct Inward System Access (DISA)
   - Attendant controlled transfer
   - Direct Inward Termination
4. The following operations can be executed from the Remote Maintenance location:
   - Retrieval of fault data
   - Retrieval of Peg Count information

- Deletion or addition of system data (line, trunk, etc.) using a preprogrammed security password
- Multiple data assignment by device number (stations, trunks, and Attendant Console)
- Copying of station data from one station to other stations (when adding sequential stations in groups)
- Release / Reconnection of backup batteries
- Display of station line status

5. Refer to the Maintenance Administration Terminal (MAT) Features and Specifications for more information.

Remove And Restore Service

General Description

This feature allows any station or trunk to be busied out and restored from the MAT.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS MAT Operation Guide.

Service Conditions

1. During busy-out state, call termination is restricted for stations and allowed for trunks, and call origination is available for stations and restricted on trunks.
2. This assignment is done by MAT, and is assigned on a per station or per trunk basis.
3. When a station or trunk is busied out while a call is in progress, the call is not interrupted. The station or trunk is made busy upon the circuit becoming idle.
4. The busy lamps on the associated interface card flash at 60 IPM (impulses per minute) when busied out.
5. This feature is also available from the Customer Administration Terminal.

Station Line Status Display

General Description

This feature allows line status of single-line telephones and Multilane Terminals to be displayed on the MAT, for the detection of faulty lines dunning regular testing or after complaints.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS Maintenance Manual.

Service Conditions

1. This feature is effective during on-line status only.
2. For single - line stations, this feature mauy affect the operating status of the stations accommodated in the same LC card as the station to be displayed. Therefore, it is recommended that this feature is performed after complaints or problems should occur.
3. Printout of station line status is not available through the printer connected to the MAT.
4. Station line status are displayed in numerical data.

   The numerical data represents the status from both hardware and software aspects. Following shows the numeral data displayed and their corresponding status.

Hardware Status

Displayed Data	Status (Single - Line Station)	Status (Multiline Terminal)
00	Terminal is not connected	Terminal is not connected OR B - wire is grounded
01	Terminal is connected	Terminal is connected
02	Circuit is looped OR Short Circuit	Short Circuit
03	A - wire is grounded	A - wire is grounded
04	LC card is not mounted	DLC card is not mounted
05	Test Busy	Terminal Failure
06	—	DLC Card Down
08	—	Line Failure

Software Status

01	Terminal is idle
02	Terminal is in line lockout status
03±08	Terminal is hush

5. This feature is also available from the Customer Administration Terminal.

Station/Trunk Status Display

General Description

This feature allows station/trunk connection status to be displayed on the MAT. If the status is abnormal, this feature can forcibly release the connection by the operation from the MAT.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS Operation Guide.

Service Conditions

1. Print out of connection status or execution report of forced release is available through the printer connected to the MAT.
2. This feature is available for the following:
   - Trunk number (T1 or analog trunks)
   - Station number
   - Virtual station number (Except for Intercom/Dual path/Attendant position loop line.)
   - Data station number
3. The MAT continues to scan and update the latest connection status on the screen during connection status display.

Message Center Interface (MCI)

General Description

This feature provides an interface with a customer supplied Voice Mail System (VMS) which can send Message Waiting lamp control data to the NEAX2000 IVS.

The Message Center Interface (MCI) can provide the following operations:

1. When terminating the call to the VMS, the NEAX2000 IVS sends call connection status information to the VMS through the MCI.
2. The VMS sends the Message Waiting Lamp on data to the MCI.
3. The NEAX2000 IVS, upon receiving this control data from the MCI, illuminates the Message Waiting lamp of the corresponding station.
4. The VMS, upon receiving retrieved message information, will send the Message Waiting lamp control data requesting the NEAX2000 IVS to extinguish the Message Waiting lamp of the corresponding station.

Station Application

All stations.

Operating Procedure

To originate a voice mail message

1. Go off hook and receive dial tone.
2. Dial the voice mail pilot number and receive ringback tone.
3. Follow the instructions given by the voice mail system.

To set call forwarding to a voice mail system

- Call Forwarding - All Calls
- Call Forwarding - Busy Line
- Call Forwarding - No Answer
- Split Call Forwarding - All Calls
- Split Call Forwarding - Busy Line
- Split Call Forwarding - No Answer

1. Go off hook and receive dial tone.
2. Dial the Call Forwarding or Split Call Forwarding feature access code and receive feature dial tone.
3. Dial the voice mail extension number and receive service set tone.

   The LCD displays:

   [SET xxxx]

   VMS: Voice mail extension number

Connection when an extension line number whose call forwarding is set to a voice mail system is called from another station

1. Go off hook and receive dial tone.
2. Dial the desired station number and receive ringback tone. The LCD displays:

   [FDA xxxx]

   VMS: Voice mail extension number

3. Follow the instructions given by the voice mail system.

To retrieve a voice mail message from the voice mail system

1. The Message Waiting lamp is lit or the LCD displays:

   [MSG]
2. Go off hook and receive dial tone.
3. Dial the voice mail extension number and receive ringback tone. The LCD displays:

   [xxxx]

   VMS: Voice mail extension number
4. Follow the instructions given by the voice mail system.

Service Conditions

1. The voice mail system (VMS) is interfaced to the NEAX2000 IVS through the PN-4LCJ card. (The PN-4LCJ provides disconnect supervision in the form of a momentary loop open.)
2. The UCD or Station Hunting feature is usually provided with the VMS station.
3. The PN-AP00 Application Processor is required to make a data link with a customer supplied VMS.
4. Messages can be retrieved from any Multiline Terminal, DTMF telephone, or the Attendant Console, but not from DP telephones.
5. The MCI is available to a direct call or a forwarded call from a station/trunk/Attendant to the VMS. For details of the connecting patterns, refer to the MCI System Manual.
6. Stations can set Call Forwarding or Split Call Forwarding - All Calls, No Answer, and Busy Line to the Voice Mail System. The system sends out incoming call information to the Voice Mail System. A call to a station that has Call Forwarding set to the VMS is automatically answered by the Voice Mail System.
7. The MCI can control the LCD display of a Multiline Terminal for “MSG” Indication. The number of messages is not displayed.
8. When the Message Waiting lamp control is activated with the MCI, the lamp control from the following equipment will not be provided:
   - From the Property Management System (PMS)
   - From the station (by dialing the access code)
   - From the Direct Station Selection (DSS) Console
   - From the Hotel/Motel Attendant Console
   - From the Hotel/Motel Front Desk Instrument
   - From the Attendant Console
9. Only one NEAX2000 IVS should be programmed (via system programming) to control Message Waiting lamps through the CCIS network.
10. The NEAX2000 IVS controls Message Waiting lamps normally when the time interval between messages is a minimum of 350 msec. or more.
11. When the VMS interface line does not answer, all of the messages are sent out from the I/O port of the AP00.
12. If the VMS is not ready for information receiving (Busy Status), the AP00 can temporarily store up to 16 call records in its internal memory. If the maximum of 16 call records is stored and a 17th is generated, the system will write over the oldest stored record.

13. The Voice Mail Integration (Inband) feature cannot be combined with voice mail through the Message Center Interface in the system. Either the Voice Mail Integration (Inband) feature or Message Center Interface feature must be selected in system programming.
14. When terminating a call with the ANI information to the VMS through the MCI, the NEAX2000 IVS can send the ANI information to the VMS, if required. This is not available through CCIS interface.

Message Registration

General Description

This feature provides output from the system to a call accounting system using an RS-232C connector. This allows the Hotel/Motel clerk to retrieve the information needed to charge for local and toll calls.

Station Application

Not applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. An AP00 board is required for this feature.
2. The Station Message Detail Recording call record information is used to provide Message Registration information to a call accounting system.
3. The call accounting system must be locally provided and compatible with the NEAX2000 IVS.
4. Refer to Station Message Detail Recording Features and Specifications for more information.

Message Reminder

General Description

This feature allows a user or Attendant to turn on the message waiting (MW) lamp of a Single Line Telephone, or the Message Reminder (MSG) LED of a Multiline Terminal (if assigned).

Station Application

All stations.

Operating Procedure

To set Message Reminder from a Single Line Telephone

1. Lift the handset and receive dial tone.
2. Dial the Message Reminder set access code.
3. Dial the desired station number and receive feature dial tone.
4. The MSG LED on the dialed Multiline Terminal or MW lamp on the dialed Single Line Telephone lights.

To set Message Reminder from a Multiline Terminal without calling the station to be set

1. Lift the handset or press the SPKR key and receive dial tone.
2. Dial the Message Reminder set access code.
3. Dial the desired station number. Feature dial tone is received and the LCD displays **SET XXXX** where **XXXX** is the dialed station number.
4. The MSG LED on the dialed Multiline Terminal or MW lamp on the dialed Single Line Telephone will light to indicate a message has been set.

To set Message Reminder from a Multiline Terminal (after dialing the station to be set)

1. Lift the handset or press the SPKR key and receive dial tone.
2. Dial the desired station number. Ringback tone or busy tone is received.
3. Press the Message Reminder MSG key, or dial 6, if single digit feature access codes are enabled. Service set tone is received and the LCD displays **SET XXXX** where **XXXX** is the dialed station number.
4. The MSG LED on the dialed Multiline Terminal or MW lamp will light to indicate a message has been set.

To retrieve a message from a Single Line Telephone or Multiline Terminal

1. Lift the handset and receive dial tone.
2. Dial the Message Reminder search access code.
3. Dial 2. The station which set the message is automatically called.
4. Converse when the call is answered.

OR

1. Lift the handset and receive dial tone.
2. Dial the Message Reminder retrieve access code.
3. The station which set the message is automatically called.

To clear the message indication without calling the station that set the message, from a Single Line Telephone or a Multiline Terminal

1. Lift the handset and receive dial tone.
2. Dial the Message Reminder search access code.
3. Dial 3. The message indication is cleared.
4. Restore the handset.
5. If more than one message has been set, repeat the above procedure as required.

To Search/ Retrieve/ Cancel a message from a Multiline Terminal with LCD

1. Press the SPKR key or lift the handset and receive dial tone.
2. Dial the Message Reminder Search access code; the LCD displays: **MSG XXXX** (where **XXXX** is the station number that set the message) and the time the message was sent.
3. Three options are now available:
   - Dial 1 to see the next message
   - Dial 2 to call the displayed station
   - Dial 3 to clear the message in the display

To call the first station that set a message, from a Multiline Terminal with a MSG key

1. Lift the handset, or press the SPKR key, and receive dial tone.
2. Press the MSG key. The first station that set a message is called.
3. Use the handset to speak when answered.

   OR

1. Lift the handset and receive dial tone.
2. Dial the Message Reminder retrieve access code.
3. The station which set the message is automatically called.
4. Converse when answered.

To set a message from the Attendant Console

1. Press an idle LOOP key.
2. Dial the Message Reminder feature access code.
3. Dial the desired station number and receive feature dial tone. Message indication is set.
4. Press the RELEASE key to return to an idle condition.

To cancel a message from the Attendant Console

1. Press an idle LOOP key.
2. Dial the Message Reminder cancel access code.
3. Dial the desired station number and receive feature dial tone. Message indication is canceled.
4. Press the RELEASE key to return to an idle condition.

To cancel a message from the station that set it

1. Lift the handset and receive dial tone.

2. Dial the Message Reminder cancel code.
3. Dial the desired station number and receive feature dial tone. The message is cleared at the dialed station.
4. Restore the handset.

Service Conditions

1. Single Line Telephones must be connected to a 4LCD card for this feature to operate. (+80Vdc on - board power supply is included). Single Line Telephones must be equipped with message waiting lamps for 70 Vdc.
2. Multiline Terminals can be assigned a MSG key for use with this feature. This line button serves as an indicator for received messages, and allows setting of Message Reminder to other stations (after dialing the station number).
3. A maximum of four messages can be set to one station. If a fifth message is attempted, reorder tone is heard and the LCD at the setting station shows: **RST** (when LCD is provided.)
4. A maximum of 200 messages can be set from stations in one system.
5. Message indications are battery backed up and are not lost due to power failure or initialization of the system.
6. In Multiple Console Operation, messages set by one Attendant can not be canceled by another Attendant.
7. Messages can be set to a station in any status condition (idle, busy, in Line Lockout, etc.). Message indications are not provided when a Single Line Telephone handset is off-hook.
8. When a Multiline Terminal calls a station that is forwarded and then presses the MSG key, the message is left at the station to which the call was forwarded.
9. When all stations in a hunt group are busy, messages set by a Multiline Terminal using the MSG key are left at the called station.
10. Voice Mail Systems that provide in-band signaling for this purpose may be able to set Message Reminder(s).
11. Operating procedures and service conditions of a message waiting LED on Multiline Terminals without LCD are the same as those of Single Line Telephones, except that the message waiting LED remains on when the terminal is off hook.
12. To set Message Reminder service for Multiple Stations, set Message Reminder for the first station, wait for feature dial tone, and then set the reminder for the next station.
13. The number of messages is displayed while the Multiline Terminal is in an idle state.
14. The number of messages displayed includes the setting of Message Waiting.

Message Waiting (Single/Multiple)

General Description

Message Waiting - Single Lamp

This feature allows the Attendant Console, Hotel/Motel (H/M) Front Desk Instrument, administrative station, Voice Mail Systems (VMS) or Property Management System (PMS) terminal to light a lamp (on an uninterrupted or interrupted basis) on a Single Line Telephone or Multiline Terminal to indicate a message is waiting.

Message Waiting - Multiple Lamp

This feature allows the Attendant Console, Hotel/Motel (H/M) Front Desk Instrument, administrative station, Voice Mail Systems (VMS) or Property Management System (PMS) terminal to light multiple line keys on a Multiline Terminal, to indicate a message is waiting. This allows multiple individuals who share the same Multiline Terminal to receive their own Message Waiting indication.

Voice Message Waiting

In addition to the lamp indication control, this feature also provides the Voice Message Waiting service that an originating station user can set the Message Waiting with a prerecorded message by using the Digital Announcement Trunk card (PN-2DATA).

- Voice Message Waiting - System

  An originating station user can choose the prerecorded message to be set by dialing the message number associated. The messages are recorded by the predetermined station.
- Voice Message Waiting - Individual

  When setting Message Waiting, an originating station user announces the message to be recorded after dialing the station number.

Station Application

All stations.

Operating Procedure

From the Hotel/Motel Front Desk Instrument

■ To set Message Waiting (Single and Multiple Lamp)

1. Press the MW key.
2. Dial the desired station number.
3. Press the SET key.
4. The above two steps can be repeated for additional stations.
5. Press the RELEASE (RLS) key.

■ To cancel Message Waiting (Single and Multiple Lamp)

1. Press the MW key.
2. Dial the desired station number.

3. Press the RESET key.
4. The above two steps can be repeated for additional stations.
5. Press the RELEASE key.

■ **To set Message Waiting while receiving ringback tone or busy tone**

1. Press the MW key.
2. Press the SET key.
3. Press the RELEASE key.

■ **To cancel Message Waiting while receiving ringback tone or busy tone**

1. Press the MW key.
2. Press the RESET key.
3. Press the RELEASE key.

From the Attendant Console

■ **To set Message Waiting (Single and Multiple Lamp)**

1. Dial the desired station number.
2. Press the MW key.
3. Press the START key.
4. Press the RELEASE key.

■ **To cancel Message Waiting (Single and Multiple Lamp)**

1. Dial the desired station number.
2. Press the MW key.
3. Press the RESET key.
4. Press the RELEASE key.

From an administrative station

■ **To set Message Waiting (Single and Multiple Lamp)**

1. Lift the handset and receive dial tone.
2. Dial the Message Waiting set access code (default *9).
3. Dial the desired station number and receive service set tone.
4. Restore the handset.

■ **To cancel Message Waiting (Single and Multiple Lamp)**

1. Lift the handset and receive dial tone.
2. Dial Message Waiting reset access code (default *9).
3. Dial the desired station number and receive service set tone.
4. Restore the handset.

Note: *Property Management System (PMS) procedures will vary, depending on the locally provided PMS.*

Voice Message Waiting - System

■ **To record**

1. Lift the handset and receive dial tone.
2. Dial the Voice Message - System record access code.
3. Dial the message number (0-9) and receive service set tone for 3 seconds.
4. Record the message.
5. Restore the handset.

■ **To check**

1. Lift the handset and receive dial tone.
2. Dial the Voice Message Waiting - System replay access code.
3. Dial the message number (0-9) and receive service set tone for 3 seconds.
4. Listen to the message.
5. Restore the handset.

■ **To set**

1. Lift the handset and receive dial tone.
2. Dial the Voice Messaging Waiting - System set access code.
3. Dial the message number (0-9) and receive feature dial tone.
4. Dial the desired station number and receive feature dial tone.
5. Repeat Step 4 for additional stations.
6. Restore the handset.

■ **To cancel Voice Message Waiting - System to all stations**

1. Lift the handset and receive dial tone.
2. Dial the Voice Message Waiting - System all stations cancel access code.
3. Dial the message number (0-9) and receive service set tone.
4. Restore the handset.

■ **To cancel Voice Message Waiting - System to an individual station**

1. Lift the handset and receive dial tone.
2. Dial the Voice Message Waiting - System cancel access code.
3. Dial the station number and receive service set tone.
4. Restore the handset.

■ **To retrieve a message from a Single Line Telephone**

1. Lift the handset and receive dial tone.
2. Dial the Voice Message Waiting - System retrieve access code.
3. Listen to the message.
4. Restore the handset.

■ **To retrieve a message from a Multiline Terminal**

1. Press the SPKR key or lift the handset and receive dial tone.
2. Press the MSG key.
3. Listen to the message.
4. Press the SPKR key or restore the handset.

Voice Message Waiting - Individual

■ **To set**

1. Lift the handset and receive dial tone.
2. Dial the Voice Message Waiting - Individual set access code and receive feature dial tone.
3. Dial the desired station number and receive service set tone for 3 seconds.
4. Record the message.
5. Restore the handset.

■ **To cancel**

1. Lift the handset and receive dial tone.
2. Dial the Voice Message Waiting - Individual cancel access code and receive feature dial tone.
3. Dial the desired station number and receive service set tone.
4. Restore the handset.

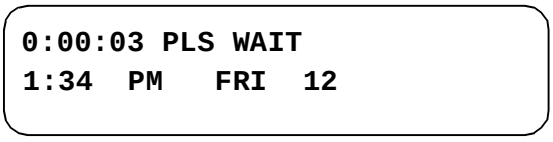
■ **To set while receiving ringback tone or busy tone or performing voice call**

■ ■ **From a Single Line Telephone**

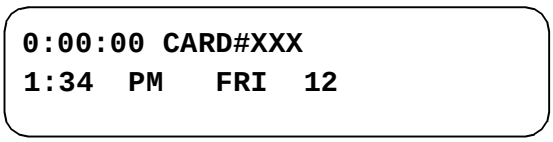
1. Dial "8" (or depress the hookswitch and dial "8" for PB telephone and Voice Call); receive service set tone for 3 seconds.
2. Record the message.
3. Restore the handset.

■ ■ **From a Multiline Terminal**

1. Dial "8" or depress the function key of the Multiline Terminal; receive service set tone for 3 seconds.



2. Record the message.



3. Message Waiting lamp is lit on the called station (X=the number of messages).

```
MSG__X
1:34  PM   FRI  12
```

4. Restore the handset.

```
REC COMPLETE XXX
1:34  PM   FRI  12
```

(XXX=Card No.)

■ ■ From the Attendant Console

1. Dial "8"; receive service set tone for 3 seconds.
2. Press the RELEASE key or CANCEL key.

■ To retrieve a message

■ ■ From a Single Line Telephone

1. Lift the handset and receive dial tone.
2. Dial the Voice Message Waiting - Individual retrieve access code.
3. Listen to the message.
4. Restore the handset.

■ ■ From a Multiline Terminal

1. Press the SPKR key or lift the handset and receive dial tone.
2. Press the MSG key.
3. Listen to the message.
4. Press the SPKR key or restore the handset.

Service Conditions

Message Waiting - Single and Multiple Lamp

1. When Check Out is performed, any remaining messages will be output to the printer and cleared from memory.
2. The Message Waiting function can be set even when the guest station is busy. The Message Waiting lamp will not light while the guest station has the handset in use (on single-line telephones).
3. Message Waiting status is displayed by the Message Waiting lamp on Single Line telephones or Multiline terminals.
4. Message Waiting can be automatically cleared by talking to the Attendant Console or the Hotel/Motel Front Desk Instrument (on a system basis). If Message Waiting is not automatically cleared, the reset operation is required.
5. A 4LCD card is required to provide Single Line telephones with the Message Waiting function. Single Line telephones must be equipped with Message Waiting lamps for 70VDC.

6. When multiple Message Waiting indications are initiated from various points (Attendant Consoles, Front Desk Instrument, other stations, etc.), clearing one message will remove the Message Waiting indication.
7. The flashing rate for the Message Waiting lamp on the Multiline Terminal is selected on a system-wide basis for 60 IPM or lit steady.
8. When the user of a station that has a Message Waiting indication lifts the handset, the station can receive special dial tone by system programming. It reminds the station user that a message is waiting.

Message Waiting - Multiple Lamp

1. The secondary extension appearance used for Multiple Message Waiting indication can be a valid hardware extension, a phantom D^{term} extension, or a virtual extension.
2. Multiple Message Waiting indication for virtual extensions can ONLY be set and cancelled by Digital Voice Mail or MCI integration.
3. A maximum of 384 Digital Ports are allowed in the NEAX2000 IVS.
4. Message Reminder should not be used when implementing Multiple Message Waiting indication. All secondary extensions should be assigned a Service Restriction Class that does not allow "Message Reminder (set side)" (CM15, YY=48).
5. Assigning Hot Line feature to the secondary (Multiple Message Waiting) extension, the users Voice Mailbox can be automatically dialed by pressing the secondary line key.
6. If Digital Voice Mail or MCI sets a MW to a virtual extension that is assigned on the keys of a DSS/BLF Console, the associated LED will light green. Refer to the DSS/BLF Console for more details.
7. When speaking on a secondary extension and accessing the Live Record feature, if automatic CallBack is set to NO, then messages are stored in the Primary Extensions mailbox.

Voice Message Waiting - System/Individual

1. A maximum of 10 messages can be recorded for Voice Message Waiting - System. A maximum of 128 messages can be set simultaneously for Voice Message Waiting - Individual. One Voice Recording Memory port per message is required.
2. The duration of an announcement is limited to 60 seconds in Voice Message Waiting - System/Individual.
3. Voice Message Waiting - System/Individual can be automatically cleared by retrieving a message from a set station.
4. For the Voice Message Waiting - System, more than one connection can be made to a Digital Announcement Trunk. Secondary connections can be made in the middle of a message. For the Voice Message Waiting - Individual, only one station can be connected to each Digital Announcement Trunk Card at a time.
5. Any operations for Voice Message Waiting - System/Individual are not available from a station with a call in Consultation Hold.
6. The message is repeated until the station goes on-hook.
7. Voice Message Waiting - System/Individual can be provided on a system basis.

Miscellaneous Trunk Access

General Description

This feature allows the connection of various types of external facilities. In addition to Loop and Ground Start Trunks, the following can also be interfaced with the NEAX2000 IVS: CCSA Lines Code Calling Equipment, Dictation Equipment, Foreign Exchange (FX) Lines, Radio Paging Equipment, and Wide Area Telephone Service (WATS) lines. Refer to separate features, Direct Inward Dialing (DID), and Tie Line Access for more applications of Miscellaneous Trunk Access.

CCSA Access

General Description

This feature allows connection to or from a CCSA (Common Control Switching Arrangement) network. A CCSA network is a special, privately-leased network constructed for one customer's exclusive use which replaces or augments the public switched network services.

The outgoing connections using CCSA lines are accomplished in the same manner as a normal outgoing call. Incoming calls are received from the CCSA network as a series of digits from the network instead of a ringing signal, and the connection is established in the same manner as a Direct Inward Dial (DID) or tie line connection.

For tie line applications, the customers can construct a network with their own numbering plan. In a CCSA application, the numbers are issued by the Central Office following the CCSA network numbering plan.

Station Application

All stations.

Operating Procedure

To place an outgoing CCSA call from station

1. Lift handset and receive dial tone.
2. Dial CCSA feature access code and receive second dial tone from CCSA switch.
3. Dial desired telephone number.
4. Converse when called party answers.

To answer an incoming CCSA call

■ With Attendant assistance

1. DID lamp flashes and audible indication is received.
2. Attendant depresses either the DID or ANSWER key.
3. Attendant extends call to desired station.

■ Without Attendant assistance

- Lift handset and converse

Service Conditions

1. An access code needs to be assigned for CCSA Access.
2. 4-Wire Tie Line circuits (ODT board) must be provided for the interface with CCSA network.
3. The maximum number of ODT boards are 32/PIM.
4. Immediate, second dial tone, wink start or delay dial operation is available by system data on a trunk route basis.
5. When the called station is busy, busy tone is returned to the calling party.

Code Calling Equipment Access

General Description

Code Calling Equipment consists of external paging units and external dialers requiring dial access from the NEAX2000 IVS.

Station Application

All stations.

Operating Procedure

To access Code Calling Equipment:

1. Go off hook and receive dial tone.
2. Dial the Code Calling feature access code.
3. Dial the code number for the Code Calling unit desired.

Service Conditions

1. Code Calling Equipment must be locally provided.
2. Loop Start or Ground Start trunks may be used to interface Code Calling Equipment to the NEAX2000 IVS.
3. An external equipment control relay board (PN-DK00) can be used when external equipment low power control is required (up to 125 mA). For higher power control, a locally provided external relay can be driven by the PN-DK00.
4. Access to this feature can be allowed or denied in Class of Service assignment.

Dictation Equipment Access

General Description

This feature permits dial access to customer provided Dictation Equipment, and in some instances allows them to maintain telephone dial control of normal dictation system features.

Station Application

All stations.

Operating Procedure

To access the Dictation Equipment from any station:

1. Go off hook and receive dial tone.
2. Dial the Dictation Equipment feature access code.
3. Proceed according to operation procedures of the Dictation Equipment.

Service Conditions

1. One trunk circuit is required for each piece of dictation interface equipment accessed.
2. Dictation Equipment must be able to receive DTMF signals if dial control is desired; however, access is also available with rotary dial signals.
3. Dictation Equipment must be locally provided.
4. Dictation Equipment can be accessed from stations, Attendant Consoles, Tie Lines, or remotely. Refer to the Direct Inward System Access Features and Specifications.
5. Access to this feature can be allowed or denied in Class of Service assignment.

Foreign Exchange (FX) Access

General Description

An FX line is a line which is extended and terminated at a distant Central Office. With this feature, outgoing calls over the FX line become a local call at the distant C.O.

Station Application

All stations.

Operating Procedure

Outgoing Call from any station

1. Go off hook and receive dial tone.
2. Dial the FX line access code and receive dial tone from distant C.O.
3. Dial the desired telephone number.
   (Multiline Terminals can have direct trunk appearances of FX lines).

Incoming call to the Attendant Console

1. The FX lamp at the Attendant Console flashes and an audible signal is received.
2. The Attendant presses key assigned to the FX line or the ANSWER key.
3. The Attendant processes the call in a normal manner.

Service Conditions

1. One circuit on the COT board is required for each FX line interface.

2. Care should be excerised in system data assignment when using this feature in conjunction with Least Cost Routing (LCR) since FX lines may require that the digit 1 be dialed prior to the desired number, or that the area code be deleted.
3. The maximum capacity of all trunk, including FX lines, cannot exceed 256 lines.
4. Access to this feature can be allowed or denied in Class of Service assignment.
5. FX lines can be assigned as Direct In Terminations.

Radio Paging Equipment Access

General Description

This feature provides station users dial access to Radio Paging Equipment, and to selectively tone - or voice/ tone-alert individuals carrying pocket paging devices. The paged party (when on premises) can be connected to the paging party by going to the nearest station and dialing an answer back code.

Station Application

All stations.

Operating Procedure

To page:

1. Go off hook and receive dial tone.
2. Dial the Radio Paging Answer Code and receive feature dial tone.
3. Dial the number of the paged radio and receive ring back tone.
4. The on premises paged party answers. The two parties can converse.

Service Conditions

1. Radio Paging Equipment must be locally provided. Refer to the manufacturer's documentation for the following specifications:
   - type of tones
   - capability of receiving individual radio number
   - maximum number of users that can be assigned individual radio access numbers
2. A maximum of three digits can be assigned as Radio Paging Equipment Access and answer codes.
3. Individual radio numbers can be a maximum of 4 digits.
4. The Attendant Console can originate a radio paging call.
5. The maximum number of radio paging answer zones is 9.
6. The maximum number of trunk routes that can be assigned radio paging is 9.
7. If the paged party does not answer within 300 seconds, the on-premises paging-answer capability will be cancelled. This timing is programmable up to 900 seconds (15 minutes).
8. Access to this feature can be allowed or denied in Class of Service Assignment.

Wide Area Telephone Service (WATS) Access

General Description

This feature allows any station user direct dial access to outgoing WATS lines.

Station Application

All stations.

Operating Procedure

Normal call handling procedures apply.

Service Conditions

1. One circuit on the COT card is required for each WATS line interface.
2. Least Cost Routing and Code Restriction can be applied to WATS lines.
3. The maximum capacity of all lines including WATS Lines cannot exceed 256 lines.
4. Access to this feature can be allowed or denied in Class of Service assignment.

Multiline Terminal Attendant Position

General Description

A Multiline Terminal with LCD can be programmed to function similar to an Attendant position. This Attendant position has limited access to Attendant related features and functions and can be substituted where an Attendant is required but an Attendant Console is not necessary. When an EDW-48-2A unit is associated with this Attendant Multiline Terminal enhanced operation is available.

Station Application

An Multiline Terminals, with LCD.

Operating Procedure

Answering and transferring an incoming CO line call

With an incoming call in progress (DDD, FX, or WATS line key LED is flashing, CO ring is heard):

1. Press the flashing line key or the ANS key.
2. The First available LOOP key LED lights steady green. Incoming indication stops. The LCD shows the trunk name and number.
3. Press the TRF key and dial the station number to be transferred to, or press the desired DSS key. The LCD shows the called station number.
4. Press the RLS key or go on-hook.

To Hold a call

With a call in progress:

1. Press the HOLD key. The LOOP key flashes green.
2. Go on-hook or press the RLS key.

To retrieve a held call

1. Go off-hook.
2. Press the flashing LOOP key. The LED key indication goes to steady green.
3. Converse.

To set/cancel Message Waiting

1. Press the MW key on the EDW-48-2A unit to enter the Message Wait mode.
2. Press the associated DSS key for the desired station. The associated LED lights steady green for set Message Waiting or extinguishes when Message Wait is canceled.
3. Press the MW key to return to the normal DSS mode.

To set/cancel Do Not Disturb

1. Press the DND key on the EDW-48-2A unit to enter the Do Not Disturb mode.
2. Press the applicable DSS key for the desired station. The associated LED lights steady green when Do Not Disturb is set and extinguishes when Do Not Disturb is canceled.

3. Press the DND key to return to the normal DSS mode.

To set/cancel Night Service

- Press the NT key on the EDW-48-2A unit.

  OR

  Dial the Night Service set/cancel code when off-hook on the primary extension.

Answering an Operator call

1. Press the OPE key. The associated LED lights steady green and the LCD will display either the trunk name and number or station name and number.
2. Converse.

Service Conditions

1. Transfer of calls is possible with the TRF key.
2. Answering of calls is possible using the ANS key or by direct line key selection.
3. Normal internal call operation is available using the station's primary extension, a secondary extension, or a software line appearance.
4. An EDW-48-2A unit can be associated with the Attendant Multiline Terminal, and its keys can be assigned as Direct Station Selection (DSS) keys and used in conjunction with the RLS key.
5. When the EDW-48-2A unit is assigned for use with the Multiline Terminal, the unit can be provided with a Message Wait (MW) key, a Do Not Disturb (DND) key, and a Night Transfer (NT) key. Using the MW key converts the EDW-48-2A unit into a Message Wait Console. Using the DND key converts the EDW-48-2A unit into a Do Not Disturb console. Using the NT key places the associated tenant into night mode. Only one of these can be accessed at one time.
6. An RLS key can be assigned on the Multiline Terminal's line keys.
7. Use of the RLS key during a call in progress will terminate that call, unless a transfer is in progress, in which case the transfer occurs. (The RLS key acts the same as going on-hook).
8. The associated LED for MW, DND or N.T. on the EDW-48-2A unit will light steady green when in use, and be off when canceled.
9. The associated LED for each station assigned MW or DND is lit steady green while it is set, but is displayed only when the Multiline Terminal user activates the Message Wait mode or Do Not Disturb mode.
10. Direct trunk line appearances may be assigned to the Attendant Multiline Terminal. Operation is the same as on normal Multiline Terminals. Attendant Console style operation is not available with Trunk Direct Appearances.
11. For operator calls from tie lines, the outside party must dial a virtual line number associated with an ATT position.
12. An NT key may be assigned to a Multiline Terminal when no master Attendant Console or no station for Day/Night Mode Change by Station Dialing is provided by the tenant.
13. When a station has been in Line Lockout, the associated LED on the DSS Console flashes red at 30 ipm.

Music on Hold

General Description

This feature plays music when a line is placed on hold. Music is provided by a circuit board memory chip or a local music source, such as a CD player or a radio.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. Music may be played in three different cases: CO lines, Tie Lines, and internal station-to-station calls. The same source can be used for all three.
2. If an external music source is desired, it must be locally provided. Refer to the NEAX2000 IVS Installation Procedure Manual for installation instructions.
3. Any of the following can be selected as the Music On Hold source:
   - MP card provides the following two synthesized melodies: Nocturne or Menuett.
   - Hold tone
   - External source: tuner, tape deck, CD player, etc. connecting via COT or TNT or CP03 card.
   - Internal Recorded Message
4. Attendant operations resulting in Music On Hold being played include the following:
   - When incoming calls to the Attendant are answered and the Attendant presses the HOLD key or dials an extension number, the held party receives Music On Hold.
   - When the Attendant camps on a call to a busy station, the calling party is connected to Music On Hold until the called party answers or the Attendant reenters the switched loop.
5. When a station user in a two-party connection places the second party on hold, the second party is connected to Music On Hold.
6. A maximum of ten Music On Hold input sources can be assigned. Each Music Source must be assigned to a different tenant.

Nailed-down Connection - Data

General Description

This feature provides a fixed connection between two internal Data Adapters or an internal Data Adapter and an external Data Communication Device.

Station Application

All Multiline Terminals with LCD equipped for Data Communication.

Operating Procedure

No manual operation is required.

Service Conditions

1. This connection is assigned using the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT) in the system data base.
2. The fixed connection is set automatically after initialization of the system.
3. If power failure occurs, the Nailed-Down Connection is lost until power is restored and the system has reinitialized.
4. Data extensions on the associated Multiline Terminals must be dedicated to the Nailed-Down Connection. The LED associated with the data extension will be lit green at all times.
5. Refer to associated data features for more information on Data Communications.
6. A Data Adapter may be nailed down via a T1 channel or on the CCIS network.

Night Service

General Description

This feature provides a variety of methods for handling incoming calls when the system is in night mode. These include:

- Attendant Night Transfer
- Call Rerouting
- Day/Night Mode Change by Attendant Console
- Day/Night Mode Change by Station Dialing
- Night Connection-Fixed
- Night Connection-Flexible
- Trunk Answer Any Station

Attendant Night Transfer

General Description

When the Attendant Console is in Night Service, any operator directed calls (dial 0 calls) are automatically routed to a preprogrammed station.

Priority Calls and Off-Hook Alarms which terminate to an Attendant are also routed by this feature.

Station Application

All stations.

Operating Procedure

1. The calling party dials 0.
2. That call is automatically forwarded to the preprogrammed station.
3. The calling party receives ringback tone.
4. Ringing signal is sent to the preprogrammed station.
5. The preprogrammed station goes off-hook, and the answered call can be transferred to another station or outside party.

Service Conditions

1. This feature may be provided together with Night Connection Fixed or Night Connection Flexible to a predetermined night station.
2. The predetermined night station for this feature can also be assigned as a night station for Night Connection Fixed or Flexible.
3. If the night station is set for Call Forwarding, 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 group.

5. One night station per tenant is available in multiple tenant arrangements.
6. The night station can be assigned as a station in an Automatic/Uniform Call Distribution (UCD) group.
7. This operation is not applicable to Listed Directory Number (LDN) calls. For LDN calls, Night Connection Fixed/Flexible or Trunk Answer Any Station (TAS) service is applicable.
8. Night stations can utilize the Call Hold, Call Transfer and Conference features, provided these features are programmed into the night station's Class of Service.
9. Any calls to the Attendant (dial 0) during Night Service are routed to the night station.
10. Individual Attendant Access calls are not transferred to the night station assigned by Attendant Night Transfer.

Call Rerouting

General Description

This feature provides flexible reroute capabilities for a variety of calls when the system is in night mode.

Station Application

Not applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. The following is the call rerouting table according to different types of calls.

Call type	Reroutes to
Operator Call (dial 0 call)	Predetermined station (Refer to Attendant Night Transfer)
LDN Call	TAS or night station
Direct Inward Termination (DIT)	Predetermined station or Announcement Service
DIT when busy	TAS or Automatic Camp-On until the station becomes idle
DIT when no answer	TAS or ringback tone
DID when busy or no answer	Predetermined station or Announcement Service*****
Tie Line when busy or no answer	Predetermined station or Announcement Service*****
Trunk Direct Appearance	TAS, night station, or TAS and night station with Trunk Direct Appearance.

***** *In the day mode, the call also reroutes to the same service or Attendant.*

2. When an Attendant depresses the NT key, any calls existing in call queuing memory or loop memory on the Attendant Console should be completed first. New incoming calls, after hitting the NT key, will reroute according to assigned Night Service programming.

Day / Night Mode Change by Attendant Console

General Description

This feature provides activation of DAY/NIGHT Mode Change by depressing a predetermined key from the Attendant Console.

Station Application

Attendant Console

Operating Procedure

To change Day to Night mode

1. Dial the MODE feature access code or depress the MODE key and the associated red LED lights. The LCD displays **DAY** for day mode and the LED of the DAY key lights green.
2. Depress the NIGHT key and the associated LED lights red. The LCD display changes from **DAY** to **NIGHT**.
3. Depress the ANS key and receive service set tone. The LCD displays **SET NIGHT**. The mode of the console is now changed from day to night mode.
4. Depress the RLS key.

To change Night to Day mode

1. Depress the MODE key and the associated red LED lights.
2. Dial a predetermined password number which will display on the LCD.
3. Depress the DAY key and the associated green LED lights. The LCD display changes from **NIGHT** to **DAY**.
4. Depress the ANS key and receive service set tone. The LCD displays **SET DAY**. The mode of the console is now changed from night to day.
5. Depress the RLS key.

Service Conditions

- This feature can be activated only by a master Attendant Console.

Day / Night Mode Change by Station Dialing

General Description

This feature allows selected stations to activate a change from day mode to night mode by dialing a special code.

Station Application

All stations.

Operating Procedure

By dial access code

1. Go off-hook and receive dial tone.
2. Dial the DAY/NIGHT Mode Change feature access code followed by 1 for DAY mode or 2 for NIGHT mode.
3. Restore the handset.

By function key on a Multiline Terminal

1. Go off-hook or depress the SPKR key and receive dial tone.
2. Depress the assigned feature access key.
3. Dial 1 for DAY mode or 2 for NIGHT mode.
4. Restore the handset or depress the SPKR key.

Service Conditions

1. This feature is assigned in the station's Class of Service.
2. If using a function key, the associated lamp will be lit when the tenant changes to night mode.
3. On a system basis, incoming trunk destination and trunk restriction class can be changed (depending upon programming) when the tenant or system is placed in Night Service.
4. This feature is only available for the tenant without a master Attendant Console. The number of stations for this feature in each tenant is limited to one.

Night Connection - Fixed

General Description

This feature allows incoming calls normally terminated to the Attendant to reroute to a predetermined station when the system is placed in Night Service.

Station Application

All stations, except fully restricted stations.

Operating Procedure

With an incoming call during Night Service:

1. The outside party hears ringback tone.
2. Ringing signal is sent to the night station.
3. The night station goes off-hook and answers the call. If necessary, the answered call can be transferred to another station or outside party.

Service Conditions

1. Night Connection station can be assigned the following types of trunks:
   - Direct Distance Dialing (DDD)

- Foreign Exchange (FX)
- Wide Area Telephone Service (WATS)
- Common Control Switching Arrangement (CCSA)
- Direct Inward Dialing (DID) (available only for LDN calls)
- Tie (available only for operator calls)

2. Each night station can be assigned multiple trunks.
3. A fully restricted station cannot be assigned as a night station.
4. If the night station to which an incoming call has been terminated is busy, the system can be programmed to provide one of the following choices on a per-trunk basis:
   - Automatic Camp-On
   - Trunk Answer Any Station
   - Ringback tone.
5. If the night station does not answer after a predetermined time, the system can provide one of the following options on a per-trunk basis:
   - Trunk Answer Any Station
   - Ringback tone.
6. The night station can be assigned to a Station Hunting Group.
7. The night station can be assigned to an Automatic/Uniform Call Distribution (UCD) group.
8. If the night station has set Call Forwarding, incoming calls terminated to that station will be forwarded to the destination station.
9. If the night station has set Call Forwarding to the Attendant, this setting will be ignored and incoming calls will terminate to the night station.
10. Night stations can access Call Hold, Call Transfer, and Conference provided these features are programmed into its Class of Service.

Night Connection - Flexible

General Description

This feature provides incoming calls normally terminated to the fixed night station to be Call Forwarded to another station.

Station Application

All stations, except fully restricted stations.

Operating Procedure

Before placing the Attendant Console into Night Service, the Attendant sets Call Forwarding-All Calls from the fixed night station to the desired station.

Note: *The Call Forwarding setting should be canceled when the tenant or system is changed back to the day mode.*

Service Conditions

1. The Night Connection- Flexible station may be programmed from either the Attendant Console or the Night Connected - Fixed station.
2. Refer to the Call Forwarding Features and Specifications for more information.

Trunk Answer Any Station (TAS)

General Description

This feature allows any station, other than one with incoming restrictions, to answer incoming calls when the system is in the night mode. When this feature is activated, incoming exchange network calls will activate a common alert signal at the customer premises. By dialing a specified code, any station may answer the call and then extend it to any other station by means of the Call Transfer feature.

Station Application

All stations.

Operating Procedure

To answer a Trunk Answer Any Station (TAS) call:

1. The TAS signal sounds.
2. Go off-hook and receive dial tone.
3. Dial the specified TAS feature access code.

   OR

   Depress the specified TAS key (on a Multiline Terminal if provided).
4. Connection to the incoming call is completed.

Service Conditions

1. TAS service can be assigned to the following types of lines:
   - Direct Distance Dialing (DDD)
   - Foreign Exchange (FX)
   - Wide Area Telephone Service (WATS)
   - Common Control Switching Arrangement (CCSA)
   - Direct Inward Dialing (DID) (available only for LDN calls)
   - E&M Tie (available only for operator calls)
2. TAS indication can be provided on a per-tenant basis, and there can only be one per tenant.
3. Stations which may access TAS service are programmed in Class of Service.
4. Stations accessing TAS service must be in the same tenant group.
5. By dialing different access codes, stations can access other tenants' TAS service.
6. A PN-4LCD or PN-DK00 board is required to interface with the TAS equipment.
7. TAS Call termination to the ANS key on Multiline Terminals can be programmed on a per-system basis.

Off-hook Alarm

General Description

This feature allows a station user to call the Attendant, or a predesignated station, by simply staying off-hook for a preprogrammed period of time. The calling number is automatically displayed at the Attendant Console, or the predesignated station if equipped with an LCD.

Station Application

All stations.

Operating Procedure

1. Lift the handset and stay off-hook.
2. After a predetermined time elapses (30 seconds as set in default), the call will terminate at the Attendant Console or a predesignated station.
3. The calling station number will be displayed at the Attendant Console when answered.

Service Conditions

1. The predetermined timing interval of 4-32 seconds in 4 second increments is programmable through the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
2. The station assigned as a terminating station of each Off-Hook Alarm group can be a member of a hunting group.
3. This feature is assigned on a station basis for origination of Off-Hook Alarm and on a tenant basis for the destination assignment.
4. The Attendant Console can answer by depressing the EMG key, which must be assigned by the MAT or CAT. Answering by the ANS key will not give priority to the Off-Hook Alarm.
5. The predesignated station, if allowed, can set Call Forward-All Calls and Call Forward-Busy. The Off-Hook Alarm will follow the Call Forward setting.

Off-Premises Extensions

General Description

This feature allows the connection of a single line telephone in an off-premises location. The connection to the Off-Premises Extension can be through direct copper or through the local telephone company.

Station Application

Single Line Stations.

Operating Procedure

Normal operating procedures apply.

Service Conditions

1. A PN-AUCA is required for connection of Off-Premises Extensions. The PN-AUCA is a 2-circuit card.
2. The maximum loop resistance for an Off-Premises Extension is 2500 ohms, inclusive of the resistance of the telephone.
3. Message Waiting is not available for Off-Premises Extensions.
4. Disconnect supervision is not available on Off-Premises Extensions.

Open Application Interface (OAI)

General Description

This feature provides a computer-to-PBX interface, allowing a computer to control the function of the NEAX2000 IVS. The NEAX2000 can be customized to accommodate most customer applications. Application software can be provided by NECAM, an outside software house, or a customer.

Operating Procedure

For operating procedures, see the individual OAI features.

Note: *For more detailed information, consult the manuals for each individual OAI feature.*

Service Conditions

1. This feature requires the following hardware/software:
   - SPN-AP01 IP (AP)
   - SPN-CC00 ETHER (AP)
   - APM Platform Software Rel FD 600C
   - OAI Application FD 600C (Specific Application Software)
   - OAI Computer
2. If the host computer goes off line for any reason, all OAI features will be unavailable.
3. Up to 24 digits of the calling subscriber's number for Automatic Identification (ANI) can be sent out to the OAI Computer by system programming.
4. This feature supports TAPI-2.1.

Pad Lock

General Description

This feature temporarily restricts telephones from making unauthorized calls by dialing special access code when station users are away from their seats.

Station Application

All stations.

Operating Procedure

To set Pad Lock from a station

1. Lift the headset and receive dial tone.
2. Dial the Pad Lock access code 1 (access code for Authorization Code).
3. Dial Authorization Code and receive dial tone.
4. Dial the Pad Lock access code 2 (access code for Maid Status).
5. Dial 1 and receive service set tone.
6. Restore the handset.

To cancel Pad Lock from a station

1. Lift the headset and receive dial tone.
2. Dial the Pad Lock access code 1 (access code for Authorization Code).
3. Dial Authorization Code and receive dial tone.
4. Dial the Pad Lock access code 2 (access code for Maid Status).
5. Dial 2 and receive service set tone.
6. Restore headset.

Service Conditions

1. This feature restricts telephones from making C.O. outgoing calls and/or terminating calls from C.O. trunks, stations, and Attendant. 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 one of the following:
   a) Reorder Tone
   b) Attendant
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.
4. The Pad Lock access code 1 and 2 can be one to three digits.

5. Authorization Code Limitations:

   Without Application Processor AP01 (standard):

   Number of digits: up to 8 digits.

   Number of codes: up to 100 digits combined with forced Account Codes and Authorization codes.

   With Application Processor AP01 (option):

   Number of digits: up to 10 digits.

   Number of Codes: up to 1000 digits combined with forced Account Codes, Authorization Codes, and Direct Inward System Access (DISA) Codes.

Note: *Capacity varies depending on the numbering scheme as shown in the following table.*

Number of digits per code	10	9	8	7	6	5	4
Number of codes	680	770	890	1050	1280	1646	2300

6. Authorization Codes are assigned in system data from the MAT, or CAT.
7. Pad Lock status will continue unless it is cancelled.
8. An Authorization Code can be assigned per station number so that one code is used only on the specific station. Application Processor AP01 is required.
9. This feature cannot be used in the hotel system using Maid Status feature.
10. Application Processor AP00 is required to supply the Pad Lock feature.

Periodic Time Indication Tone

General Description

This feature provides a periodic tone to the station user who has made an outgoing call. This feature can be allowed or denied for each station.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. This feature is allowed or denied in the stations' Class of Service assignment using the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT). Additionally, this feature can be allowed or denied on a system basis for C.O. lines and Tie Lines.
2. The Periodic Time Indication Tone is 80 ms. in duration. The interval between tones is programmable from 32 seconds to 724 seconds (180 seconds as set in default).
3. Outgoing calls initiated by the Attendant will not have this feature.

Pooled Line Access

General Description

A line key can be assigned to access Pooled Lines. Each line key will allow incoming, outgoing, or both-way access to a trunk route.

Station Application

All Multiline Terminals.

Operating Procedure

To originate a call on Pooled Lines

1. Go off-hook and select the Pooled Line key. The Virtual Line key is seized if it is available. If the Virtual Line key is not available, the Primary Extension is seized. If neither line is available, Pooled Line Access is impossible.
2. Receive dial tone from a trunk in that Pooled Line's assigned trunk route.
3. Dial desired number.

To answer a call on Pooled Lines

1. Go off-hook and select the ringing line key.
2. Converse.

Service Conditions

1. When all trunks in the Pooled Line group are busy, no visual indication is provided on the associated line key LED. However, a different line key can be assigned for this purpose when required.
2. A user on a Pooled Line can access Call Park, Call Transfer, Conference, and Station Speed Dialing. Station Message Detail Recording will provide a record of calls made on a Pooled Line.
3. When all trunks in the Pooled Line are busy and access is attempted, busy tone is received.
4. If the NEAX2000 IVS is designated as KF registration, this feature will not be available.
5. When originating a call on Pooled Lines, the Virtual Line key that is seized is the first idle extension found by the key scanning program, starting at button number 1 (one) and counting up to the last line button assigned. Care should be taken in determining the line button assignments on Multiline Terminals with Pooled Lines to prevent inadvertent (or undesired) selection of someone else's extension(s).

Power Failure Transfer

General Description

This feature provides for specified trunks to be automatically connected to designated Single Line Telephones in the event of AC power loss. It is normally utilized when the system is not equipped with reserve power.

Station Application

Single Line Telephones.

Operating Procedure

Operation is automatic upon loss of input power to the system.

Service Conditions

1. If the Central Office provides ground-start trunks, Single Line Telephones must be equipped with ground buttons to complete calls over the exchange network.
2. Power Failure Transfer (PFT) lines should not be wired to common bells, since these require outside power sources and therefore will not operate.
3. Both the PN-AUC card and the PZ-8PFT card can be used as the Power Failure Transfer (PFT) circuit.
4. When using the PN-AUC card, the Power Failure Single Line Telephones must be interfaced with a PN-AUC card. This card provides 2 Power Failure Transfer circuits (when the AUC card is used in the Long Line Circuit (LLC) Mode). The connection between the AUC card and the 4COT card is made via a flat cable (4Q - TW 0.3 conn CA). No. 0 and No.1 circuit of the 4COT can be used for the Power Failure Transfer connection.
5. When using the PZ-8PFT card, each Port Interface Module (PIM) can contain one PZ-8PFT card which supplies 8 Power Failure Transfer circuits. This card is mounted on the front bracket of the PIM.
6. A maximum of 32 Power Failure Transfer connections are available per PIM.
7. When the Power Failure Transfer feature is activated, telephone service is limited to incoming calls and/or outgoing calls through the serving CO. The Power Failure Single Line Telephone must be compatible with the dialing scheme on the trunks, i.e. rotary dial or Dual-Tone Multi-Frequency (DTMF) dialing.
8. When the system is in power failure operation, Direct Inward Dialing (DID), CCSA, Tie Line and DISA calls cannot be received.
9. Multiline Terminals cannot be used as power failure stations.
10. All calls in progress and/or established calls are lost when a power failure occurs. When commercial power is restored, the NEAX2000 IVS system automatically reinitializes, dropping all calls in progress. Back-up battery is provided to the system data memory to retain the data for the following features:
    - Call Forwarding
    - Speed Calling - Station
    - Speed Calling - System
    - Message Waiting
    - Return Schedule Message Display
    - Do Not Disturb
11. When a COT card is used as a ground-start trunk, the Power Failure Single Line Telephone must be provided with a ground sending button for trunk access.

Priority Call

General Description

This feature allows the Attendant to answer a call before other calls, at the Attendant's discretion.

Station Application

All stations.

Operating Procedure

To initiate a Priority Call from any station

1. Lift the handset and receive dial tone.
2. Dial the Priority Call number.

To answer a Priority Call at the Attendant Console

- The Attendant depresses the designated Priority Call key.

Service Conditions

1. A Priority Call can be answered by depressing the ANSWER key, provided no other calls are waiting. If other calls are waiting, the Priority Call must be answered by depressing the designated Priority Call key in order to be answered first.
2. The designated Priority Call key must be assigned using the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT).
3. Two Priority Call numbers can be assigned. Separate Priority Call keys must be assigned at the Attendant Console.
4. The ability to place a Priority Call can be allowed or denied in Class of Service.
5. A Priority Call to an Attendant Console when the system is in night mode receives reorder tone.
6. When a station is assigned as the destination of a Priority Call and the station has set Call Forwarding, the Priority Call will follow the Call Forwarding setting.

Privacy

General Description

This feature restricts Multiline Terminal users from depressing a busy line button and entering a conversation unless permitted by the Multiline Terminal user currently on that line button or if the line button is assigned for Direct Privacy Release.

Direct Privacy Release

General Description

This feature allows a station user with a secondary appearance of another extension in the system to access that extension when it is being used by someone else. This feature allows for a simplified method for establishing a conference. In addition, this feature can be used to emulate PC dialing, where a single line extension connected to a PC can appear on a Multiline Terminal and be accessed by the Multiline Terminal user after the PC is completed dialing.

Station Application

All Multiline Terminals.

Operating Procedure

Accessing an extension already in use (lit steady red) by someone else

1. Depress the line button associated with the extension to be accessed. The associated line button changes to green, and the display shows a conference in progress (left side of display says **CNF**).
2. Inform parties of your presence and converse.

PC Dialing

(With desired communication program loaded and ready within the PC)

1. Initiate the dialing sequence in the communication program. Modem dials out on associated single line extension.
2. After modem has completed dialing, depress the line button associated with the secondary appearance of the single line extension on the Multiline Terminal.
3. On the PC, execute the command sequence to tell the modem to go on-hook.
4. Converse with called party when they answer.

Service Conditions

1. This feature can be allowed/denied to a Multiline Terminal via class of service assignment.
2. This feature is allowed only when the extension to be accessed is in conversation with another extension or trunk. This feature is denied when the extension to be accessed is listening to a system tone (busy tone, service set tone, internal ringback tone, etc.).
3. Access is denied to an extension that has a camp-on set to it or has been overridden via Executive Override or Attendant Override.

4. The ability to access a busy extension that is making an outside (trunk) call prior to being answered is dependent on proper setting of the maximum digit dialed assignment (Command 85).
5. This feature is denied on an extension that has been placed on Call Hold by another extension or has placed another party on Call Hold.

Manual Privacy Release

General Description

This feature allows a Multiline Terminal user to enter a conversation on a busy line button if the Multiline Terminal user already in the conversation allows them by releasing Privacy.

Station Application

All Multiline Terminals.

Operating Procedure

To activate Privacy Release with a call in progress:

1. Depress the CNF key. The CNF LED flashes.
2. Another station with the same line appearance depresses that line button.
3. Privacy on that line is released and a three-party Conference is in progress.
4. Repeat above procedure to establish a four-party Conference, if desired.

Service Conditions

1. When a line is busy and Manual Privacy Release has not been activated on that line, any attempt to access that line will result in busy tone.
2. Manual Privacy Release is available for Multiline Terminals connected to any extension line key.
3. When a Multiline Terminal user depresses the CNF key, Privacy on the active line is released. If the CNF key is depressed again or another party enters the connection, Privacy is reestablished.
4. After a third party enters the conversation, the CNF key can be depressed again. Privacy is released and a fourth party is allowed to join the conversation by the same operating procedure.
5. Manual Privacy Release is activated only on a connection during which the CNF key is depressed. Once the station releases the connection, Manual Privacy Release is canceled and Privacy is restored.
6. The primary extension of the station entering the conversation is accessed when that station enters the conversation. For this reason, the primary extension must be idle at the entering station for this feature to work.

Private Lines

General Description

Only a C.O. trunk assigned to that specific station is seized when a station user originates an outgoing C.O. call or when an incoming C.O. call is terminated at the station designated by Direct-In-Termination. In this manner, stations and C.O. trunks are to be associated on a 1-to-1 basis.

Station Application

All Multiline Terminals and single-line stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. Incoming and outgoing restriction assignments can be used to assure privacy.
2. The following features are available:
   - Conference, Delayed Ringing, Station Message Detail Recording (SMDR), Hold, Call Transfer, Call Park, Call Hold, Save and Repeat, Last Number Redial, Broker's Call and Station Speed Dialing using feature keys.
3. When an outgoing call is placed, System Speed Dialing cannot be used.
4. The LED associated with the line key will be lit red when the trunk is busy, and green when being used by the station that selected that trunk.
5. For further information, refer to the Flexible Line Key Assignment, Flexible Ringing Assignment, and Trunk - Direct Appearance features.
6. This feature is valid for outgoing calls from a single-line station or Multiline Terminal.
7. For an outgoing call, multiple trunks can be designated per station so that one specific trunk can be selected out of them for seizure.
8. The following are valid methods for making an outgoing call from a Private Line:
   - Dialing the C.O. trunk access code
   - Station/System Speed Dialing
   - Least Cost Routing
   - Trunk Direct Appearance on a Multiline Terminal
   - Last Number Redial
9. Private Lines are not available when using Trunk Queuing-Outgoing and Timed Queue.
10. If a station uses a direct trunk line appearance on a Multiline Terminal for an OG calling, the call is originated from the C.O. trunk corresponding to the key depressed.
11. Only C.O. (loop-start and ground-start) trunks and tie-line trunks can be assigned as private lines.
12. If the designated trunk is busy, the system is able to hunt to the next trunk (following increasing trunk number order). When the route number of the trunk differs from the route number of the original designated trunk, hunting stops and the caller receives busy tone.

13. If a station uses a secondary extension on a Multiline Terminal for an OG calling, the designated trunk for the primary extension of that station is seized.
14. A designated trunk can not be seized unless the route of the trunk access code is the same as the route of that trunk.
15. In the case of an outgoing call from an Attendant Console or a tandem call, a trunk is seized normally, irrespective of this feature.
16. An Account Code may be entered using a function key programmed for Account Code entry or Account Code can be dialed on second dial tone.

Property Management System Interface

General Description

The NEAX2000 IVS provides a data interface to a locally provided Property Management System (PMS). This enables communication between the NEAX2000 IVS and the PMS in order to provide computer control of Hotel/Motel features.

Major functions and their interactions are indicated below:

Automatic Wake-up	NEAX2000	◄——►	PMS
Message Waiting	NEAX2000	◄——►	PMS
Automatic MW Lamp-off	NEAX2000	◄——►	PMS
Check In/Check Out	NEAX2000	◄——►	PMS
Direct Data Entry	NEAX2000	◄——►	PMS
Maid Status	NEAX2000	◄——►	PMS
Do Not Disturb	NEAX2000	◄——►	PMS
Room Cut-off	NEAX2000	◄——►	PMS
Room Status	NEAX2000	◄——►	PMS
Room Change/Room Swap	NEAX2000	◄——►	PMS
SMDR	NEAX2000	——►	PMS
Guest Name Display	NEAX2000	◄——	PMS

Station Application

Not applicable.

Operating Procedure

Operating procedures will vary with the locally provided PMS.

Service Conditions

1. One Interface Port is provided for PMS.
2. The NEAX2000 IVS sends information relating to the following features to the PMS upon request from the PMS:
   - Do Not Disturb
   - Room Cut-off
3. A PN-AP00 card is required for this feature.

Proprietary Multiline Terminal

General Description

There are four Multiline Terminals available which can be used with the NEAX2000 IVS.

- Series E
- Series III
- Electra Professional
- Series II (see **Notes**)

Note 1: *The CP03 will support a maximum of 2 SN-610 ATTCONs. If more than 2 are required, CP00-B and CP01 must be used.*

Note 2: *The CP03 does not support Series II terminals. If Series II terminals are required, CP00-B and CP01 must be used.*

The following features apply to these Multiline Terminals.

Automatic Idle Return

General Description

This feature returns a station to the idle state after 3 seconds of reorder tone is received due to the distant end disconnecting.

Station Application

All Multiline Terminals.

Operating Procedure

No manual operation is required.

Service Conditions

1. Automatic Idle Return only applies when the call was made using the SPKR key.
2. The call can be either an internal or external call. If it is an external call, a remote disconnect signal from the CO must be supplied.
3. Automatic Idle Return can be allowed or denied on a system basis.

Called Station Status Display

General Description

This feature provides a display on the status of a called station on the LCD of the calling Multiline Terminal.

Station Application

All Multiline Terminals with LCD.

Operating Procedure

1. Lift the handset or depress the SPKR key and receive extension dial tone.
2. Dial the desired station.
3. The status of the called station appears on the LCD.

Service Conditions

1. If the called station is idle, the called stations number will flash on the LCD until the call is answered. When the call is answered, the number and the name of the called party will be displayed in the LCD. The called party's name can be assigned in system programming.
2. If the called station is busy, the LCD will display **BSY** and the called station's number.
3. If the called station is in Do Not Disturb, the LCD will display **DND** and the called station's number.
4. If a restricted station is called, the LCD will display **RST** and the called station's number.
5. If the called station has set Call Forwarding (All Calls, Busy, or No Answer), the LCD will display **FDA**, **FDB**, or **FDN** respectively, the called station's number and the target station's number.
6. If the called station is in a Call Pickup group and the call is picked up by another station, the LCD will display **PCK**, the called station's number and the number of the station that picked up the call.
7. Refer to the Alphanumeric Display and Elapsed Call Timer features for additional information.

Calling Name and Number Display

General Description

This feature provides a display on the LCD of the Multiline Terminal receiving a call, indicating the station number or trunk number of the incoming call.

Station Application

All Multiline Terminals.with LCD.

Operating Procedure

No manual operation is required.

Service Conditions

1. When a call terminates to a line other than the station's Prime Line, the Calling Name and Number Display will be indicated only after the ringing line key is depressed or the call is answered. For trunk calls, the LCD displays the trunk route name and trunk number. For internal incoming calls on the Prime Line, the LCD displays the extension number and caller's name. For Direct Inward Termination (DIT), the LCD displays DIT, the trunk route name and trunk number.
2. When an incoming call terminates to the Prime Line, the station number and name will be displayed when the call begins ringing.
3. Refer to the Alphanumeric Display and Elapsed Call Timer features for additional information.

Dynamic Dial Pad

General Description

Station users can press Dial Pad keys to place calls or set features without first going off-hook or pressing speaker key.

Station Application

All Multiline Terminals.

Operating Procedure

Dial the desired number by pressing a Dial Pad key, without pressing a SPKR key or going off-hook.

Service Conditions

1. An extension must be set as a prime line. This extension can be a primary line or virtual line.
2. This feature is not available when the prime line is busy.

Handsfree Unit

General Description

The built-in Handsfree Unit enables full Handsfree operation for both internal and external calls (No optional Handsfree Unit is required).

Station Application

All Multiline Terminals.

Operating Procedure

1. Depress the FNC key followed by 1 to turn on the microphone: MIC LED is lit.
2. Depress the SPKR key and the SPKR LED lights.
3. Dial the desired number.
4. When the called party answers, converse Handsfree.

Service Conditions

1. The MIC LED must be lit to transmit during Handsfree operation. When the microphone is off, the outside party cannot hear the Multiline Terminal user's conversation.
2. Clipping of voice transmission or reception may occur if the microphone is covered or the ambient noise level in the area is too loud.

I-Hold / I-Use Indication

General Description

Multiline Terminals provide indication of which line keys have been placed on Hold, or are in use by that Multiline Terminal. The LED associated with the line key will give the appropriate indication.

Station Application

All Multiline Terminals.

Operating Procedure

No manual operation is required.

Service Conditions

1. Multiline Terminals provide a green LED lit steady at the line key currently being used by that Multiline Terminal.
2. Multiline Terminals provide a green flashing LED at the line key placed on Hold by that Multiline Terminal.
3. The LED flash rate for calls placed on I-Hold (by that terminal) is .125 seconds on, .125 seconds off, .125 seconds on, .625 seconds off.

Microphone Control

General Description

All Multiline Terminals are equipped with a Microphone Control button with an associated LED.

Station Application

All Multiline Terminals.

Operating Procedure

When the MIC LED is off, depress the FNC key followed by 1 to activate the microphone. The associated LED will light.

Service Conditions

1. When the MIC LED is lit, Intercom voice and extension voice calls to a Multiline Terminal can be answered using the microphone.
2. When the MIC LED is off, Intercom voice signals will still be received, but the user must activate the microphone in order to respond using Handsfree Answerback.

Multiple Line Operation

General Description

This feature allows for the appearance of multiple lines on the Flexible Line Keys and feature keys of all Multiline Terminals.

Station Application

All Multiline Terminals.

Operating Procedure

No manual operation is required.

Service Conditions

1. The following lines can be assigned to appear on the line keys of Multiline Terminals:
   - Primary Extension - this line is associated with the extension number assigned to the circuit on the DLC card.
   - Secondary Extension - this line is a secondary appearance of a primary extension appearing on another Multiline Terminal, a Single Line Telephone extension, or a Software Line Appearance.
   - Trunk - Direct Appearances - Refer to the Miscellaneous Trunk Access feature for available trunks.
   - Intercom - three types are available, refer to the Intercom feature for detailed information.
   - Hotlines - refer to the Hotline feature for detailed information.
   - Pooled Lines - refer to the Pooled Lines Access feature for detailed information.
2. When assigning the last 8 keys on a 24DS/32 terminal, two ports are required: one for the 24DS/32 terminal and one for the non-equipped Add-On Module.
3. When assigning the last 8 keys on a 24DS/32 terminal, the maximum number of 24DS/32 terminals per FP is 32; the maximum number per system is 32.
4. The number of DSS/BLF and/or Add-On Modules per FP is reduced by the number of 24DS/32 terminals that use the last 8 keys.

5. If a dummy Add-On Module is already assigned and the last 8 keys are programmed, then a real Add-On Module cannot be assigned to that station.

Mute Key

General Description

This feature mutes the transmit of the handset, internal microphone, and headset of a D^{term} Series E terminal.

Station Application

Series E Multiline Terminal.

Operating Procedure

To activate muting

1. While a station is in conversation, the station presses a mute key.
   - The other side party cannot hear the voice of the station.
2. The station re-presses the mute key.
   - The station returns to the original call.

Service Conditions

1. While a station is muting, the associated lamp on the mute key lights.
2. Mute status is canceled when the mute key is pressed again, or the station user hangs up.
3. Mutes handset, headset, and internal microphone.
4. Does note mute external speakerphone or APR devices.

Off-Hook Voice Announcement

General Description

This feature provides a secondary voice path to the Multiline Terminal with an APR-J or APA-J unit. This allows the station to receive a voice call through the speaker while on a handset call on the Primary Extension, a secondary extension, or a Direct Trunk Line Appearance.

The Multiline Terminal with this feature can program two modes:

- Voice mode: allows an incoming call to terminate with Voice Announcement.
- Tone mode: allows an incoming call to terminate with ringing.

Station Application

Multiline Terminals with an LCD (D^{term} Series III), with APR-J or APA-J unit.

Operating Procedure

With a call in progress using handset

1. The terminal receives an incoming extension call directed to the Primary Extension, and hears voice-page alert tone.
2. Respond hands-free (when MIC LED is lit).
3. Press the ANSWER key to respond with the handset. The original call is automatically put on Non-exclusive Hold.

To set Voice or Tone mode

1. Press the SPKR key.
2. Dial Voice/Tone Programming access code and receive feature dial tone. The LCD will show the current mode of the Multiline Terminal.
3. Dial any single digit (0-9). Voice mode is switched to Tone mode, or vice versa, and Service Set Tone is heard.
4. Press the SPKR key.

Service Conditions

1. This feature is assigned in Class of Service on a per-station basis.
2. This feature is only available for the incoming call to the Primary Extension of a Multiline Terminal with an APR-J or APA-J unit.
3. The APR-J or APA-J unit cannot be installed in a Multiline Terminal equipped with an SN1152 DTAM-A Data Adapter unit.
4. The Multiline Terminal with APR-J or APA-J unit requires two time slots: one for primary voice, one for secondary voice. Therefore, the maximum number of Multiline Terminals with APR-J or APA-J units is limited by the total number of time slots in the PIM or the system.

5. The voice announcement to a Multiline Terminal in DND is restricted.
6. The voice call on Automatic Intercom/Boss-Secretary Transfer is not affected by the mode programming (Voice/Tone mode) of the called station.

Prime Line Pickup

General Description

This feature allows a Multiline Terminal user to go off hook and originate a call from the line assigned as the Prime Line without depressing the associated line key.

Station Application

All Multiline Terminals.

Operating Procedure

1. Lift the handset or depress the SPKR key.
2. Dial tone from the Prime Line is received.
3. Proceed with normal call processing.

Service Conditions

1. One Prime Line per station is allowed. Prime Line is assigned on a per-station basis by the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
2. Only extensions or Direct Trunk Appearances can be assigned as Prime Lines.
3. The default setting for Prime Line is the station's primary extension.

Recall Key

General Description

Each Multiline Terminal is equipped with a Recall Key that is used to generate a hookflash to access features provided by the outside exchange, or to abandon a call while retaining the line for origination of another call.

Station Application

All Multiline Terminals.

Operating Procedure

With an outside or Tie Line call in progress using extension appearance

1. Depress the RECALL key.
2. Receive internal dial tone and trunk is released.

With an outside or Tie Line call in progress using direct appearance

1. Depress the RECALL key.

2. Key operation is not affected. The call is still in progress.

With a CENTREX call in progress, using an extension or a Trunk Direct Appearance

1. Depress the RECALL key.
2. Receive CENTREX feature dial tone.

With an internal call

1. Depress the RECALL key.
2. Receive internal dial tone.

With a Conference in progress

1. Depress the RECALL key. The station is removed from the Conference.
2. Receive internal dial tone.

Service Conditions

1. The default duration of the timed disconnect signal or hookflash signal is 600 msec., and is programmable on a per-system basis.
2. The RECALL key functions differently, depending on the type of line key appearance and type of outgoing trunk.
3. On trunk routes programmed as CENTREX, regardless of whether they are accessed using an extension or Trunk Direct Appearance, a timed disconnect corresponding to a hookflash is sent to the distant exchange. The duration of the hookflash is programmable on a system basis.
4. On Trunk Direct Appearances, a timed disconnect (of the same duration as that for CENTREX) is sent to the Central Office. The same trunk is reserved and new Central Office dial tone is received.
5. If a call was placed through Least Cost Routing, the RECALL Key releases the C.O. call and new extension dial tone is received.
6. The RECALL key does not function on Intercom calls.

Relay Control Function Key

General Description

This feature provides a Multiline Terminal with the ability to activate/deactivate relays (on a PN-DK00) to control external devices.

Operating Procedure

To turn the relay on

- Press the line key programmed to perfom the relay function.

  The associated line-key LED lights.

  The relay will close and remain closed.

To turn the relay off

- Press the line key programmed to perfom the relay function.

The associated line-key LED will go off.

The contact will open and remain open.

Service Conditions

1. A maximum of 128 contacts per system can be controlled.
2. One PN-DK00 is required for every four external items to be controlled.
3. The relay control key functions regardless of the Multiline Terminal condition (busy or idle).
4. The contact returns to the previous status, after a momentary open for a maximum of ten seconds, when the system is reset.
5. The same relay control function key should not be assigned to more than one Multiline Terminals.
6. The relay control function key can also be assigned to ATTCON.

Ring Frequency Control

General Description

The ring frequency of the Multiline Terminal can be controlled on a station basis in system programming (four frequencies are available) or by use of a function key on the Multiline Terminal.

Station Application

All Multiline Terminals.

Operating Procedure

Ring Frequency Change at the Multiline Terminal:

1. Depress the FNC key followed by 3: receive the new selected tone from the built in speaker.
2. Depress the FNC key to return to idle.
3. Repeat this procedure until the desired tone is selected.

Service Conditions

- The ring frequency for both internal and external calls can be controlled by system programming. For internal calls, the frequency can be assigned on a per-station basis by Class of Service assignment. For external incoming calls, the frequency can be assigned on a trunk route basis.

Ringing Line Pickup

General Description

This feature provides the ability to answer any call ringing into a Multiline Terminal by just lifting the handset.

Station Application

All Multiline Terminals.

Operating Procedure

With an incoming call (or recall) in progress:

1. Lift handset and the call is answered.
2. Converse.

Service Conditions

1. This feature is assigned in station Class of Service.
2. The following priority applies for answering of multiple incoming calls:
   1) Voice Call.
   2) Incoming call on primary extension; recalls on primary extension.
   3) Incoming call on trunk line key; recalls on trunk line key.
   4) Incoming call on secondary extension; recalls on secondary extension.
3. Ringing Line Pickup has priority over Prime Line Pickup in any case.
4. The Prime Line Pickup feature takes priority over Ringing Line Pickup when the SPKR key is used to answer the call. If necessary, the Prime Line Pickup feature can be disabled on a per station basis.

Soft Keys

General Description

According to the status of the Multiline Terminal, function keys (Soft Keys) are displayed in the third line on the LCD. If the status of Multiline Terminal changes, the Soft Keys will change automatically. Also if the HELP key is pressed, explanation of indicated Soft Keys are shown on the LCD.

Station Application

Series E Multiline Terminal with Soft Keys

Operating Procedure

To use Soft Keys

1. 4 Soft Keys are indicated in the LCD according to the status of the Multiline Terminal.
2. Press the Scroll Key to scroll the display to show the desired key if there are more than 4 Soft Keys.
3. Press a desired key under the indicated 4 Soft Keys on the LCD.
4. The service feature of the pressed Soft Key is operated.

To use the HELP key

1. Press the HELP key and Soft Key.
2. Explanation of the pressed Soft Key is indicated on the LCD.
3. Press the EXIT key and the explanation is deleted.

Service Conditions

1. The indication of 4 Soft Keys are shown in the third line and each key is indicated by maximum 6 letters.
2. The combination of Soft Keys are maximum 4 patterns per system. The pattern can be selected for each station by the system data programming (CM12).
3. The function of Soft Keys per pattern can be set by system data programming (CM9A).
   Maximum 12 statuses can be set as the status of a Multiline Terminal, and maximum 16 Soft Keys can be set in each status.
4. If more than 4 Soft Keys are set in one status, one Scroll Key should be assigned in every 4 Soft Keys.
5. Pattern No. 3 is fixed. If Pattern No. 3 is changed, the only way to reset to default is to clear all data in the PBX and load the Resident System Program.
6. HELP key is only available in Pattern No. 3, for English or French.
7. The following list provides status and an example of the Soft Key function:

STATUS

- Idle state
- During dialing (holding no call)
- During dialing (holding a station/trunk)
- During calling (holding no call)
- During calling (holding a station/trunk)
- Being called
- When called party is busy (holding no call)
- When called party is busy (holding a station/trunk)
- When called party sets Do Not Disturb
- Trunk busy
- During speaking (holding no call)
- During speaking (holding a station/trunk)

FUNCTION

- Scroll Key
- Function Keys (The function assigned by CM90-F0XXX, F1XXX and F50XX can be set to the Soft Keys by CM9A.)
  For details, refer to the Command Manual.

  <example>

  MIC ON/OFF
  Save and Repeat
  Call Pickup Direct
  Call Forwarding All
  Call Forwarding Busy-N/A
  Outgoing Queuing
  Do Not Disturb Set
  Call Hold
  Voice Call
  Message Waiting Set
  Transfer to VMS
  Ringer Tone Changing
  Call Back Set
  Scroll Key
  Voice Messaging System Live Record
  (For details, refer to NEAX Mail AD-8 User's Guide.)

Volume Control

General Description

Multiline Terminals are equipped with common Volume Control keys for:

- Built-in Speaker / Handset Receiver Volume.
- Ring Volume.
- C.O.Transmission Level.
- LCD contrast.
- Ring Tone Frequency

The Volume Control keys are located on the lower front side of Multiline Terminals (UP ↑ and DOWN ↓).

Station Application

All Multiline Terminals.

Operating Procedure

Built-in Speaker/Handset Receiver Volume

- While in an off-hook state, depress the ↑ (UP) key to increase the volume, or the ↓ (DOWN) key to decrease the volume.

Ring Volume

1. Depress the FNC key followed by 0: receive a test ring tone from the built in speaker.
2. Depress the ↑ (UP) key to increase the volume, or the ↓ (DOWN) key to decrease the volume.
3. Depress the FNC key, or lift the handset and restore the handset, to return to idle.

OR

1. When in a ringing state, depress the ↑ (UP) key to increase the volume, or the ↓ (DOWN) key to decrease the volume.

C.O. Transmission Level

- While connected to a trunk, depress the FNC key followed by 2 or 4:

  FNC key + 2 : +5 dB (receiving) /+3dB (sending)

  FNC key + 4 : +5 dB (receiving) /No gain (sending)

LCD contrast

- While in an on-hook state, depress the ↑ (UP) key to decrease the contrast, or the ↓ (DOWN) key to increase the contrast.

Service Conditions

1. The Speaker/Handset volume control adjusts the volume of voice calls over the speaker/handset receiver, and any tone sent by the system when using the speaker or handset.
2. The ring Volume Control adjusts the volume of all ring tones to the Multiline Terminal.

Remote Hold

General Description

This feature allows a Multiline Terminal user to hold it on the line button of transferred terminal, by depressing the **HOLD** key.

Station Application

All Multiline terminals

Operating Procedure

1. Multiline Terminal-A is talking with station/trunk party.
2. Press the **TRF** key and dial the station number of Multiline Terminal-B.
   a. Station trunk party hears music on hold.
   b. Multiline Terminal-B is rung or notified call transfer by Voice Call.
   c. The line button of Multine Terminal-B is flashing to indicate incoming transferred call.
3. Multiline Terminal-A depresses the **HOLD** key.
   a. The ringing of Multiline Terminal-B is stopped
   b. The line button of Multiline Terminal-B is flashing to indicate call in hold.

To answer

Press the line button on Multiline Terminal-B or other terminals that have the line button of Multiline Terminal-B.

or

From other stations, dial access code for Direct Call Pick-up and the station number of Multiline Terminal-B.

Service Conditions

1. This feature is provided according to CLASS OF SERVICE.
2. If the called terminal is Single Line telephone, this feature is not activated.
3. After setting Remote Hold, if the call is not answered for a pre-assigned time, the original Multiline terminal is recalled, even if the called Multiline terminal is set Call Forwarding - No Answer.
4. A Single Line station cannot set Remote Hold to a D^{term}.
5. Remote Hold cannot be set to a Single Line (analog) telephone.
6. The ATTCON (SN716/SN610) cannot set Remote Hold.
7. A Single Line (analog) telephone can retrieve a Remote Hold held call.

Remote PIM

General Description

When the system has two or more PIMs, the PIMs can be installed separately by T1 Digital interface. A maximum of 3 PIMs can be installed apart at the remote site.

Station Application

All stations

Operating Procedure

The same operating procedure as the regular NEAX2000 IVS apply for each service feature.

Service Conditions

1. The Main Site must be the NEAX2000 IVS. The Small Platform System cannot be the Main Site.
2. Only one PIM is available at each Remote Site.
3. The Remote PIM can be installed at a maximum of 1312 ft. distance from the Main Site. The distance can be extended by using line extension equipment (repeater, MUX, etc.).
4. A maximum of 23 lines/trunks can be accommodated in one Remote PIM. Application processor cards can not be accommodated in Remote PIM.
5. When the link between the Main Site and the Remote Site has been lost for a certain duration, the system activates the PFT (Power Failure Transfer) automatically on the Remote Site, if it is provided.
6. The PIM for Remote Site require the DAIB card.
7. The Wireless System is not available at the Remote Site according to the UTAM regulation.
8. Battery Backup Time: Using the internal battery kit, the Remote PIM, equipped with 23 ports, can operate up to 100 minutes (1 hour, 40 minutes) when AC power is lost.
9. The resident system programming cannot be set to the Remote Site while the Main Site is set.

Reserve Power

General Description

This feature provides backup power from a 24V battery source in the event of a commercial power failure.

Station Application

Not applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. Batteries should be installed inside the PIM or separattly from the NEAX2000 IVS system.
2. Sealed lead acid (or maintenance free) batteries must be locally provided.
3. No interruption of system operation should occur during switchover from commercial to battery power. However, when the system senses the supplied voltage from the batteries has dropped to 20-21 volts, the system will automatically shut down to prevent excessive discharge of the Reserve Power batteries.
4. Duration of battery operation is a direct function of the capacity of the batteries installed, and the quantity and types of cards installed.
5. The Reserve Power requirements are dependent on the configuration of each individual system.

Resident System Program

General Description

This feature provides the installers a simple procedure to have the system generate system data according to the system hardware configuration, thereby providing immediate operation and shorter programming time. When activated, the system scans hardware configuration (such as line/trunk card slot location) and assigns system data (such as extension numbers, trunk numbers, etc.) according to a predetermined generic program assignment.

Station Application

Not applicable

Operating Procedure

Refer to the NEAX2000 IVS Command Manual for activation procedures.

Service Conditions

1. This feature is only applicable for equipment installed in Port Interface Module (PIM) 0 to 3.
2. System data is not assigned to any vacant slot.
3. Virtual extensions are not assigned.
4. The Resident System Program scans the hardware configuration.
5. Details of Resident System Program:
   a) Extension Numbers:
   Extension Numbers 200 through 455 are assigned according to sequential slot location number of the associated circuit boards.
   b) SN610 ATTCON Numbers:
   Attendant Console Numbers E004 through E007 are assigned according to sequential slot location numbers of the associated circuit card.
   c) Trunk Numbers:
   Trunk Numbers 000 through 255 are assigned according to sequential slot location number of the associated circuit boards.
   d) Multifrequency Receivers (8RSTA)/External Equipment and Key Interface (DK00)/External Memory for AP00 (ME00)/Digital Announcement Trunk (2DAT):
   Consecutive circuit numbers beginning at 00 are assigned according to sequential slot location number of the associated circuit boards.
   e) Extension data:
   Following data is assigned on a per extension basis.
   Type of dial signal: Dual-Tone, Multi-Frequency (DTMF) for Single Line Telephones.
   f) Trunk data:
   Following data is assigned on a per-trunk basis.
   Trunk Route Numbers
   00 for Central Office Lines

01 for 2 Wire E&M Tie Lines

02 for 4 Wire E&M Tie Lines

03 for Direct Inward Dial lines

Incoming call indication:

Provided at trunk line appearance LED.

g) Trunk Route Data:

Following data is assigned on a trunk route basis.

Type of trunk

RT00 → Direct Distance Dialing

RT01, RT02 → E&M Tie Lines (2W/4W)

RT03 → Direct Inward Dialing

Type of address signaling for all trunk routes is DTMF for incoming and outgoing calls.

Tie Lines are assigned for wink - start operation.

h) System Speed Dialing memory block data:

100 Memory blocks are allocated to tenant 00.

i) Multiline Terminal line key data:

The following data is assigned according to the type of the terminal.

ETJ-8-1

Line key 08 - Primary extension

Line keys 01 through 07 - Trunks 000 through 006

ETJ-16DC-1

Line key 16 - Primary extension

Line keys 01 through 04 - Trunks 000 through 003

j) Prime Line

For all Multiline Terminals, the primary extension is assigned as the Prime Line.

k) Memory allocation for Station Speed Dial:

Multiline Terminals without DSS keys - 10 buffers

Single Line Telephones - 10 buffers

Up to the maximum of 4500 buffers

l) All stations are assigned to tenant 01.

m) Numbering Plan

Numbering plan (Sheet 1 of 3)

CM 20			
Y (0 ~ 3)	**Access code**	**Setting data**	**Service features**
0	0	800	Operator Call
	11	046	Call Hold
	2, 3, or 4	803	First digit of three digit station number

Numbering plan (Sheet 2 of 3)

CM 20				
Y (0 ~ 3)	Access code	Setting data	Service features	
	50	A30	Internal Zone Paging group 0	For calling
	51	A31	group 1	
	52	A32	group 2	
	53	A33	group 3	
	54	A34	group 4	
	55	A38	Internal Zone Paging group 0	For answering
	56	A39	group 1	
	57	A40	group 2	
	58	A41	group 3	
	59	A42	group 4	
	5*	024	Timed Reminder/Automatic Wake Up	Set
	5#	025		Cancel
	60	A63	Voice Call/Ring Tone programming	
	62	A10	Assignment of station name	
	66	039	BGM on Multiline Terminal set/reset	
	68	043	Day/Night mode change by station dialing	
	6*	008	Call Park-System	Set
	6#	009		Retrieve
	72	047	TAS Answer A	
	73	021	Call Pickup-Direct	
	74	020	Call Pickup-Group	
	75	037	Call Pickup-Designated Group	
	7*	065	Station Speed Dialing	Entry
	7#	066		Cancel
	9	100	Trunk Access Code	RT00
	81	101		RT01
	82	102		RT02
	83	104		RT04
	84	105		RT05
	85	106		RT06
	86	107		RT07
	87	081	Individual Trunk Access	
	*1	004	Trunk Queueing-Outgoing/Call Back	Set
	#1	005		Cancel
	*2	007	Camp-On by station (Transfer method)	
	#2	A25	Camp-On by station (Call Waiting method)	
	*4	006	Executive Override	

Numbering plan (Sheet 3 of 3)

CM 20				
Y (0 ~ 3)	Access code	Setting data	Service features	
	*5	010	Call Forwarding-All Calls	Entry
	#5	011		Cancel
	*6	012	Call Forwarding-No Answer/Busy Line	Entry
	#6	013		Cancel
	*7	018	Call Forwarding-Destination	Entry
	#7	019		Cancel
	*8	022	Do Not Disturb	Set
	#8	023		Cancel
	*9	040	MW Lamp	Set
	#9	041		Reset
	**	069	Last Number Redial	
	*#	085	Account Code	Entry
	#*	064	Station Speed Dialing	Origination
	##	067	System Speed Dialing	Origination

- Refer to the Variable Timing Parameters feature for default data relating to timeouts.

Return Message Schedule Display

General Description

This feature permits any station user to register his Return Schedule from his phone when he leaves his desk or the premises, and have the Return Schedule displayed on a calling Multiline Terminal with a Liquid Crystal Display (LCD) during his absence.

Station Application

All stations can set a Return Schedule; however, only Multiline Terminals with an LCD can display the schedule.

Operating Procedure

To set Return Schedule from any station

1. Go off-hook and receive internal dial tone.
2. Dial the Return Schedule feature access code.
3. Dial the number corresponding to the desired message:

Dial	Message
0	**IN:BACK HH:MM**
1	**OUT:BACK HH:MM**
2	**AWAY:BACK MM:DD**

4. If 0 or 1 is selected, dial the desired time.
5. If 2 or 3 is selected, dial the month and date (example: for June, 8, enter 0608).
6. Restore the handset and the Return Schedule is registered.

To cancel Return Schedule from the station that set Return Schedule

1. Go off-hook and receive internal dial tone.
2. Dial the Return Schedule cancel code.
3. Restore the handset and the Return Schedule is cancelled.

Service Conditions

1. Registration of a Return Schedule is possible from any type of station (either Single Line Telephone or Multiline Terminal).
2. A Multiline Terminal user can register Return Schedule not only on its primary extension but also on secondary extension appearances for the associated extension user. Calls to the primary extension will result in receipt of the Return Schedule message.
3. The Call Forwarding - All Calls feature has priority over the Return Schedule feature.
4. When a call is rerouted to another station (by Call Forwarding - All Calls), and if that station has registered a Return Schedule, that Return Schedule is displayed to the calling party.
5. The feature access code for Return Schedule can be programmed in a DSS key on the Multiline Terminal.
6. Up to three different messages can be selected:

a) **IN:BACK**: recommended when the station user is not at his/her desk but is still on premises (in a meeting, in the building, etc.) Provides an hour and minute display.

b) **OUT:BACK**: recommended when the station user has left the premises but will be back within the same day. Provides an hour and minute display.

c) **AWAY: BACK**: recommended when the station user has left the premises and will be away for an extended time period. Provides a month and date display.

7. Reorder tone is heard by the calling party when a station that set Return Schedule is called.
8. The lower portion of the LCD on a Multiline Terminal with display is used to provide the Return Schedule display.
9. Entry of return time is through 4 dialed digits (HH/MM) for hours and minutes.
10. Entry of return date is through 4 dialed digits (MM/DD) representing the month and day.

Room Cutoff

General Description

This feature allows the Attendant Console, Hotel/Motel (H/M) Front Desk Instrument, or Property Management System (PMS) terminal, or guest room telephones using a special access code, to temporarily restrict guest room telephones from making unauthorized calls when guests are away from their room, and when rooms are in Check Out status.

There are two types of Room Cutoff conditions depending on the type of calls restricted.

- External Call Restriction: All outgoing calls from guest room stations are restricted in the Room Cutoff status. (Only internal calls are available.)
- Toll Call Restriction: All toll calls from guest room stations are restricted during Room Cutoff status. (Internal and local calls are available.)

Station Application

All stations except House Phones.

Operating Procedure

External Call Restriction

■ To set Room Cutoff from the Attendant Console

1. Dial the desired station number.
2. Depress the RC key.
3. Depress the ANS key.
4. Depress the RLS key.

■ To cancel Room Cutoff from the Attendant Console

1. Dial the desired station number.
2. Depress the RC key.
3. Depress the RESET key.
4. Depress the RLS key.

■ To set Room Cutoff from the Hotel/Motel Front Desk Instrument

1. Depress the RC key.
2. Dial the desired station number.
3. Depress the SET key. The above two steps can be repeated for other stations.
4. Depress the RLS key.

■ To reset Room Cutoff from the Hotel/Motel Front Desk Instrument

1. Depress the RC key.
2. Dial the desired station number.
3. Depress the RESET key. The above two steps can be repeated for other stations.

4. Depress the RLS key.

■ **To set Room Cutoff from the Hotel/Motel Front Desk Instrument while engaged in conversation with station**

1. Depress the RC key.
2. Depress the SET key.
3. Depress the RLS key.

■ **To reset Room Cutoff from the Hotel/Motel Front Desk Instrument while engaged in conversation with station**

1. Depress the RC key.
2. Depress the RESET key.
3. Depress the RLS key.

Toll Call Restriction

■ **To set Room Cutoff from the Hotel/Motel Front Desk Instrument**

1. Depress the STS key.
2. Dial the desired function status code.
3. Depress the STS key again.
4. Dial the guest room station number.
5. Depress the SET key. The above two steps can be repeated for other stations.
6. Depress the RLS key.

   OR

1. Depress the STS key.
2. Dial the guest room station number.
3. Depress the SET key. Room Status is displayed. The above two steps can be repeated for other stations.
4. Depress the STS key again.
5. Dial the desired function status code.
6. Depress the SET key. The above two steps can be repeated for other stations.
7. Depress the RLS key.

■ **To set Room Cutoff from a guest room station by maid or repair person**

1. Lift the handset and receive dial tone.
2. Dial the Maid Status feature access code and receive special dial tone.
3. Dial the maid ID code.
4. Dial the desired function status code and receive service set tone.
5. Replace the handset.

Service Conditions

1. Stations in Room Cutoff condition are able to place outgoing calls using the Attendant Assisted Calling feature.
2. If the station under Room Cutoff status dials a C.O. line access code and/or a special area code, the station is rerouted to one of the following:
   - Reorder tone

- Attendant Console

3. Room Cutoff is automatically set by Check Out operation, and it is automatically reset by Check In operation.
4. Room Cutoff is available for guest room stations only.
5. Station-to-station calling and service feature access (such as Maid Status) are still available.

Room Status

General Description

This feature provides the Hotel/Motel (H/M) Front Desk Instrument with a visual display of the guest's room status. A supplementary print out (individual and summary) can be provided.

Station Application

All stations.

Operating Procedure

To display Room Status from a Hotel/Motel Front Desk Instrument:

1. Depress the STS key.
2. Dial the desired station number.
3. Depress the SET key. The Automatic Wake Up time and Maid Status are displayed on the LCD and related room status lamps are lit green, if set. The above two steps can be repeated for other stations.
4. Depress the RLS key.

Service Conditions

1. Items indicated are as follows:
   - Set status of Do Not Disturb.
   - Set status of Message Waiting.
   - Set status of Room Cutoff.
   - Automatic Wake Up Time if set.
   - Check In/Check Out status.
   - Maid Status.
2. The status of the function is indicated by a green LED associated with each function key:
   - Check In/Check Out set.
   - Do Not Disturb set.
   - Message Waiting set.
   - Room Cutoff set.
   - Automatic Wake Up set (LCD displays time set).
3. The Room Status of stations can be printed at the Hotel/Motel printer (if available) by depressing the print (PR) key on the Hotel/Motel Front Desk Instrument prior to depressing the STS key.
4. An AP00 card is required for printer connection.
5. Refer to the Hotel/Motel System Manual for more information.

Route Advance

General Description

This feature automatically routes outgoing calls over alternate facilities when the first choice trunk group is busy. Users select 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.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. There is no indication provided to the station user as to whether the call is routed over the first choice or subsequent choice facilities.
2. Station Message Detail Recording (SMDR) will generate call records in conjunction with this feature.
3. Route Advance is trunk-route based.
4. Careful consideration should be given to the use of FX trunks as an alternate facility since in many instances, these lines require outpulsing of digits for long distance (which the user may not dial because he will not know he is connected to an FX trunk). Use of the Least Cost Routing feature overcomes this difficulty.
5. The maximum number of trunk routes to be included in a single Route Advance group is 7.
6. The total number of routes that can be contained in all Route Advance groups is 64.
7. The same route can be included in two or more different groups.
8. Route Advance occurs only when the dialed code accesses the first choice trunk route in the Route Advance table.
9. No code conversion capability is provided with Route Advance. The digits the user dials (after the trunk access code) will be sent over the selected trunk regardless of the trunk route used. The user will not know which trunk route is selected; therefore, only those trunk routes that accept the same dialing format may be assigned to a given Route Advance group. If digit conversation is needed, the LCR (Least Cost Routing) feature should be used.
10. FX trunk routes to a foreign number plan area (FNPA) do not require the dialing of that FNPA area code. Therefore, these FX trunks may not be used in the same Route Advance table with local exchange or WATS trunks. Use of the Least Cost Routing feature overcomes this difficulty.
11. Tie Lines should not be assigned to a Route Advance table that includes CO, FX, or WATS trunk groups.
12. Route Advance is available for use with outgoing CO, FX, WATS, CCSA, and Tie Lines.
13. The dialing party may be either a station, Attendant, Tie Line, or outside party using Direct Inward System Access (DISA).
14. If the NEAX2000 IVS is designated as KF registration, this feature will not be available.

Save and Repeat

General Description

This feature allows a Multiline Terminal to save a specific dialed number and then redial that number at a later time.

Station Application

All Multiline Terminals.

Operating Procedure

1. Go off-hook and seize any idle line. Dial a number.
2. After the number has been dialed, depress the Save and Repeat feature key. The dialed number is stored for future use. The associated LED lights red.
3. To access this number later, go off-hook and receive dial tone. Depress the Save and Repeat key and the saved number is dialed.

Service Conditions

1. Three Save and Repeat keys per station can be assigned.
2. The Save and Repeat 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 the stored number in order to save another. The second number will automatically replace the first.
4. If necessary, dialing can be added after depressing the Save and Repeat key.
5. When a call is originated using the Save and Repeat feature, the LED associated with the Save and Repeat key goes out. However, the memory is retained and that number can be accessed again.
6. To monitor the saved digits, depress the Save and Repeat key while the station is idle. The saved digits will be displayed if the Multiline Terminal is equipped with an LCD.
7. The trunk access code is saved along with the dialed number on a Trunk Direct Appearance. This allows use of the Save and Repeat key on an extension.
8. The maximum number of digits that can be stored is 26.

Security Alarm

General Description

This feature provides an indication on the Attendant Console when a contact closure occurs.

Station Application

Not applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. The contact to be monitored is connected across Tip (T) and Ring (R) of one circuit on a 4LC card.
2. The contact installed must be a normally open contact.
3. The contact generated signal is non-latching; therefore, if the contact opens again, the signal to the Attendant Console stops.
4. The station number assigned to the single line circuit associated with the contact closure is displayed when the Attendant depresses the ATND key or ANSWER key.
5. Assignment of this feature is accomplished using Hotline assignment of a single line extension to the Attendant Console. Refer to the Hotline - Inside/Outside features and Specifications for more information.

Simultaneous Voice and Data Transmission

General Description

A voice signal and a data signal in digital format can be transmitted simultaneously. Voice and data calls can be placed to different locations.

Station Application

All Multiline Terminals with LCD equipped for Data Communications.

Operating Procedure

To place a voice call while in data call mode

1. Lift handset and receive Dial Tone.
2. Dial the desired number. The dialed number is indicated on the LCD display and Ringback Tone is received.
3. When the called party answers, converse.

To place a data call while in voice call mode with internal Multiline Terminal

■ **To establish a data connection with the connected party**

- Press the DTX key on the Multiline Terminal. The data connection is established and the display indicates **RDY D DTE XXXX**.

■ **To establish a data connection with a data station other than the connected party**

1. Press the DATA key on the Multiline Terminal. The display indicates **DTE** and the user's data extension number.
2. Dial the desired data extension. The dialed number is indicated in the display.
3. As soon as dialing is completed, the display indicates **D DTE** and the dialed number.

Service Conditions

1. Both Full and Half Duplex Data Terminal Equipment can be connected using a Data Adapter.
2. Ring indication can be selected from one of the following by the command for Terminal Attribute Data Assignment setting on data station basis.
   - 2 sec ON, 4 sec OFF
   - 1 sec ON, 2 sec OFF
   - Continuous
3. An Analog Port Adapter is required for a Multiline Terminal and internal Single Line Telephone (with modem) connection. An operating procedure by a DTE with an Analog Port Adapter (APA/ APR) follows the one by a Single Line Telephone with modem.
4. The following connections are available:
   - Internal Multiline Terminal to Multiline Terminal data connection.
   - Internal Multiline Terminal to Single Line Telephone (with modem) connection using Analog Port Adapter (APA/APR).

- Internal Multiline Terminal to Outside Line using Analog Port Adapter (APA/APR). (Outgoing Data call must be established before regular voice call.)

5. Refer to associated data features for more information.

Single Digit Dialing

General Description

This feature provides the station user the ability to dial single digit codes to access certain features while still allowing the same digit dialed to be used as the first digit of guest room station numbers.

Station Application

All stations.

Operating Procedure

Normal call processing procedures apply.

Service Conditions

1. This feature is available on a numbering plan basis. Up to 4 different numbering plans are available per system. For multiple tenant applications, each tenant can be assigned to one of these four numbering plans.
2. When this feature is assigned, digits in the numbering plan can overlap and Single Digit Dialing is based on a timeout after dialing the first digit. The timing duration before the system stops looking for a second digit is programmable from 2-8 seconds. The default setting is 4-5 seconds.
3. Digits 0-9, *, and # can be assigned within each numbering plan for Single Digit Dialing.
4. Single digit codes can be dialed with Consultation Hold.
5. Only the following features can be activated using Single Digit Dialing:
   - Trunk Answer Any Station
   - Trunk Access
   - Single Digit Station Numbering
   - Operator calls (Dial 0)

Software Line Appearance (Virtual Extensions)

General Description

This feature permits assignment of circuits which do not physically exist, to be used as secondary extensions on Multiline Terminals. There are 256 software lines that can be assigned to line keys and used as desired.

Station Application

All Multiline Terminals.

Operating Procedure

Normal call processing procedures apply.

Service Conditions

1. A Software Line Appearance can be assigned as follows:
   - Hotline
   - Intercom
   - Station Hunting pilot number
   - Automatic/Uniform Call Distribution phantom number
   - Secondary appearance on Multiline Terminals
   - Pilot numbers for hunting groups and Automatic/Uniform Call Distribution (ACD/UCD) groups
2. When accessing the Call Pickup feature, the Software Line Appearance assigned as a secondary extension can only pickup calls directed to the group programmed for that secondary extension.
3. A Software Line Appearance can enter or access the Speed Dialing data on the station of the same Multline Terminal on which it appears.
4. All Station Message Detail Recording (SMDR) data of the Software Line Appearance will be recorded as activity on the primary extension of the Multiline Terminal on which it appears, including that on secondary extension appearances.
5. When a real number (corresponding to an installed station) is not used as a pilot number for Station Hunting or ACD/UCD groups, a software line can be used.
6. See Intercom, Station Hunting, Automatic Call Distribution, Uniform Call Distribution With Overflow and Hotline features for details.
7. The system can support up to 384 D^{term} stations and up to 256 Software Line Appearances. However, the combined total of D^{term} stations and Software Line Appearances must not exceed 512.

Stack Dial

General Description

This feature enables a Multiline Terminal or an Attendant Console to remember the numbers dialed in the preceding five calls, including the last number dialed. The stack dial numbers are sequentially displayed on the LCD display, thus allowing the station user to make an outgoing call by selecting the desired dialed number from the display.

Station Application

All Multiline Terminals with an LCD display and Attendant Consoles.

Operating Procedure

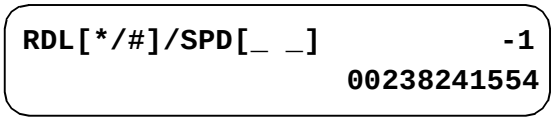
1. Depress the LNR/SPD key. The caller hears special dial tone, and the number dialed last is displayed on the LCD.
2. To display the numbers dialed before the last call, depress the LNR/SPD key again. While the caller hears special dial tone, the number dialed before the last call are displayed on the LCD. (Each time the LNR/SPD key is depressed, the numbers dialed for the last five calls are displayed sequentially from the last number dialed.)
3. To redial the displayed number on the LCD, depress the * or # key.

Example

Operation	LCD display
1. Idle	`3:21 PM MON 26`
2. Depress the LNR/SPD key • */# key depressed: Go to Step 4. • RST Timeout: Go to Step 6.	`RDL[*/#]/SPD[_ _] -1` `82625563`
3. Depress the LNR/SPD key again • */# key depressed: Go to Step 4. • RST Timeout: Go to Step 6.	`RDL[*/#]/SPD[_ _] -2` `00471857712`
4. Depress the */# key	`00471857712` `3:21 PM MON 26`
5. Depress the LNR/SPD key 6 times. The display returns to the last number dialed. • Go to Step 2.	
6. RST Timeout	`RDL[*/#]/SPD[_ _] -1` `3:22 PM MON 26`

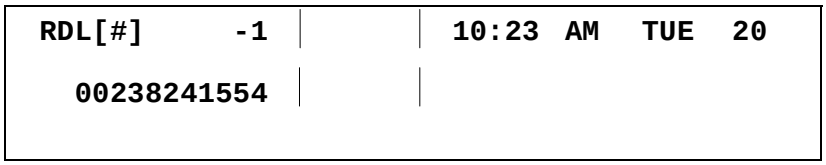
Service Conditions

1. The Stack Dial feature memorizes the numbers dialed for the last five calls (unless the same number is dialed twice) inclusive of the last number, and allows redial using the memorized numbers.
2. For Stack Dial, station numbers and C.O. line numbers (inclusive of trunk access codes, routes, route advance, and Least Cost Routing) are memorized but feature access codes and unused numbers are not memorized.
3. On the display for Stack Dial, a number representing the number of times of dialing is displayed in the upper line, and the dial number is displayed in the lower line.



4. When displaying the fifth number that was dialed, depressing the LNR/SPD key causes the display to return to the last number dialed.

5. When the lower line of the LCD is being used by Data Communication/OAI, Stack Dial is not available.
6. The maximum number of digits that can be memorized by Stack Dial is 32. The number of digits to be displayed on the LCD ranges from 1 to 16.
7. When only one number is registered by Stack Dial, BLANK is displayed on the lower line of the LCD when the LNR/SPD key is pressed. If redial is attempted by pressing the # key while BLANK is being displayed, the station user hears reorder tone.
8. While a number is being displayed by Stack Dial, it cannot be saved for Save and Repeat. After the call has been redialed by Stack Dial, the number can be saved.
9. The Stack Dial feature access key (LNR/SPD) can be used for both Last Number Redial and Station Speed Dialing.
10. When a digit key is depressed instead of the # key, while Stack Dial is being displayed, a station speed dial call is originated. (In this case, current clock is displayed in the lower line of the LCD.)
11. The Stack Dial stored numbers will not be saved in the event of a system reset.
12. The following is displayed on the Attendant Console:



Station Hunting

General Description

Three Station Hunting arrangements are available. Station Hunting - Circular processes the call no matter which station in the hunt group is called. Station Hunting - Terminal initiates a hunt only when the pilot number of a hunt group is called. Station Hunting - Secretarial is initiated when a busy secretarial station in a Station Hunting - Circular group or Station Hunting - Terminal group is reached.

Station Hunting - Circular

General Description

When a busy station in a hunt group is called, this feature permits the call to be processed automatically through the hunt group in a preprogrammed order from that station's position within the hunt group.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. When all stations within a Station Hunting - Circular group are busy, the calling party will receive busy tone unless the call is rerouted by Station Hunting - Secretarial.
2. Assignment of station numbers to a Station Hunting - Circular group may be in any numerical order. The last station in the order of hunting can be programmed, if required (Switch Back System).
3. Calls to any programmed station in a Station Hunting - Circular group will, when that station is busy, proceed through all other stations entered subsequently in the hunt group until reaching the last.
4. If a hunt group station has set Do Not Disturb, hunting will bypass that station and continue in the order of hunting.
5. The maximum number of stations per hunt group is 60.
6. There is no limit to the number of Station Hunting - Circular groups within the system.
7. In a Station Hunting - Circular group, any number of stations can be designated as secretarial stations. When all stations in the the Station Hunting - Circular group are busy, the system will reroute a call initiated to the secretarial station to a preassigned Station Hunting - Secretarial group. All stations within the Station Hunting - Circular group can be assigned the same station as an entry to the Station Hunting - Secretarial group.
8. Call Forwarding - All Calls has priority over Station Hunting if the dialed station has this feature set. Call Forwarding - Busy, if set at the called station, can occur if all stations in the hunting group are busy.
9. Recalls (Call Back, Call Park, Camp-On, Call Transfer, etc.) return to the originating station and do not hunt.
10. Each station can belong to only one hunt group.

11. This feature will be activated whenever the hunt group is dialed or terminated under the following conditions:
    - Dialed from a station
    - Dialed from Attendant Console
    - Dialed from Direct Inward Dialing (DID)
    - Dialed from an Tie Line
    - Terminated by Direct In Termination (DIT)
    - Terminated by Hotline - Inside/Outside
    - Terminated by Off-Hook Alarm
    - Terminated by Priority Call
12. The Attendant Console cannot be a member of a hunt group.

Station Hunting - Terminal

General Description

When a pilot number is dialed and that number is busy, sequential Station Hunting will be initiated. However, if a number other than the pilot number is dialed and that number is busy, busy tone will be provided rather than initiate Station Hunting.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. If all lines in a hunt group are busy, the caller will receive busy tone.
2. Only calls to the pilot number will initiate a Terminal Hunt. Calls to other stations in the Terminal Hunt group will ring at that station, or receive busy tone.
3. The maximum number of stations that can be included in one Station Hunting group is 60, including the pilot station.
4. When the extension number used as a pilot number has set Call Forwarding-All Calls, Call Forwarding will reroute the call and Station Hunting-Terminal will not occur.
5. When an extension within the Station Hunting-Terminal group other than the pilot extension sets Call Forwarding-All Calls, calls already in the hunt process will bypass the extension and continue hunting. Calls directed to the extension (versus directed to the pilot extension) will follow the Call Forward setting.
6. When any extension except a pilot in a hunt group has set Do Not Disturb, the extension will be bypassed and Station Hunting continues. When a pilot station has set Do Not Disturb, the calling party will receive reorder tone.
7. There is no limit to the number of Station Hunting - Terminal groups within the system.

8. The priority for call handling by features, to a pilot station, is as follows:
   - Call Forwarding - All Calls
   - Station Hunting
   - Call Forwarding - Busy Line
   - Camp-On (Call Waiting Method/Transfer Method)
9. Recalls (Call Back, Call Park, Camp-On, Call Transfer, etc.) return to the originating station and do not hunt.
10. This feature will be activated whenever the hunt group is dialed or terminated under the following conditions:
    - Dialed from a station
    - Dialed from Attendant Console
    - Dialed from Direct Inward Dial (DID)
    - Dialed from an E&M Tie Line
    - Terminated by Direct In Termination (DIT)
    - Terminated by Hotline - Inside/Outside
    - Terminated by Off-Hook Alarm
    - Terminated by Priority Call

Station Hunting - Secretarial

General Description

This feature allows assignments to be given to members of Terminal and Circular Hunting groups to reroute calls (when their hunting group is all busy) to a back-up hunting group.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. When all stations in a hunt group are busy, a method of rerouting the incoming calls to a back-up Station Hunting-Secretarial hunt group exists. For a Terminal Hunt group, the pilot number is assigned an extension number of a station within the back-up Station Hunting - Secretarial group. For a Station Hunting - Circular group, each station (because each station can be considered a pilot station) is assigned an extension number of a station within the back-up Station Hunting-Secretarial group. When all stations in the Terminal or Circular Hunt are found busy, the system will reroute incoming calls to that station in the Station Hunting-Secretarial group, and station hunting will continue.
2. The Station Hunting-Secretarial hunt group can be a Circular or Terminal Hunt group.
3. A maximum of 31 extensions can be members of the Station Hunting - Secretarial group.

4. Any number of stations in Station Hunting - Terminal groups and Station Hunting - Circular groups can have their calls rerouted to a station within the Station Hunting - Secretarial group. In practice, it is best for the pilot number of Station Hunting - Terminal groups and every member of Station Hunting - Circular groups to be assigned an entry extension into the Station Hunting - Secretarial group. All Station Hunting - Terminal and Station Hunting - Circular groups can be rerouted to a single extension within the Station Hunting - Secretarial group. Multiple entry points can be used by assigning different Station Hunting - Terminal pilot extensions and different Station Hunting - Circular member extensions to different Station Hunting - Secretarial extensions.
5. Unlike the normal Circular Hunt group where a call to a member extension which has Call Forwarding-All Calls or Call Forwarding-Busy set will result in Call Forwarding occurring, a rerouted Station Hunt group will not follow call forward setting, but will bypass the forwarded station and continue the Secretarial Hunt.
6. One Station Hunting Secretarial group is available per system.

Station Message Detail Recording (SMDR)

General Description

This feature provides a call record for outgoing station-to-trunk calls and incoming trunk-to-station calls (including Data Call). This facilitates cost control by identifying trunk use and misuse by individual stations. Station Message Detail Recording (SMDR) enables call billing to customers and clients, and provides a means for checking local telephone bills.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

1. SMDR can be programmed to record all outgoing calls or toll calls only, depending on the customers' requirements.
2. When customer provided computer equipment is connected using the RS-232C interface, SMDR information will be transmitted directly to the equipment as each call record is completed.
3. One RS-232C interface port is provided. The following specifications apply to this port:
   - Synchronization: Asynchronous
   - Data Speed: 9600 bps (maximum)
   - Code: ASCII 7- or 8-bit + parity bit

   If the distance between the NEAX2000 IVS and the processing computer exceeds 50 feet, an asynchronous modem should be used.
4. If the outgoing call is directed to a trunk which does not supply answer supervision, SMDR will start recording the call approximately 10 seconds after the last digit has been dialed.
5. Supervison of the status of the external RS-232C terminal is not supplied.
6. There are two kinds of SMDR features as follows:
   a) Built-in SMDR
   The CP03 (Main Processor) card has one of RS-232C ports for SMDR. This card provides memory for a maximum of 128 calls, and provides a record of a maximum of 32 trunk calls simultaneously for a maximum of 4 digit extension number.
   b) SMDR with AP00
   The AP00 (Application Processor) card provides memory for a maximum of 1000 calls. To expand the memory up to 12,000 calls, an additional memory card (ME00) can be installed.

   When a call is completed, the record is sent to the output device and is removed from memory. Should the amount of calls exceed the SMDR memory, those overflow calls will not be recorded.
7. The built-in SMDR can not be provided when AP00 is mounted.
8. The built-in SMDR does not provide a record of tandem calls.
9. Account Codes, Forced Account Codes, Authorization Codes and DISA Codes on Tandem connections (SMDR with AP00 only) are reported in the applicable call record.
10. SMDR with AP00 provides a record of incoming Tie Line tandem calls where another trunk is dial accessed.
11. For details of SMDR format, data stream, memory buffer, etc., refer to the NEAX2000 IVS SMDR System Manual.
12. Up to 16 digits of the calling subscriber’s number for Automatic Number Identification (ANI) and CPN (ISDN) can be recorded in the SMDR by system programming.

Station Speed Dialing

General Description

This feature allows a station user to dial frequently called numbers by dialing an access code and an abbreviated code, or by depressing a One Touch key assigned for Station Speed Dialing capability.

Station Application

All stations.

Operating Procedure

Multiline Terminals

■ **To operate using a One Touch key:**

- Depress the One Touch key associated with the desired telephone number. The speaker automatically turns on and the number is dialed.

■ **To operate using dial access**

1. Depress the LNR/SPD key. The speaker and SPKR LED automatically turn on and feature dial tone is received.
2. Dial the abbreviated code assigned to the desired number.
3. The number is dialed.

■ **To program numbers in memory for One Touch key**

1. Depress the CNF key and the desired One Touch key. Previously stored digits will be displayed on the LCD.
2. Dial the desired number. The old digits will be erased and the new number is displayed.
3. Depress the CNF key. The LCD will display **SET**.

■ **To program numbers in memory for dial access**

1. Depress the FNC key followed by the LNR /SPD key.
2. Dial the abbreviated code to be assigned.
3. Dial the desired telephone number including a trunk access code.
4. Depress the FNC key.

Single Line Telephones

■ **To operate**

1. Go off-hook and dial the Station Speed Dialing feature access code.
2. Dial the abbreviated code assigned to the desired number.
3. The number is dialed.

■ **To program numbers in memory**

1. Go off-hook and dial the Station Speed Dialing programming code.
2. Dial the abbreviated code to be assigned.
3. Dial the trunk access code and the desired telephone number.
4. Restore the handset.

Service Conditions

1. Each Station Speed Dialing buffer can store a maximum of 16 digits, including pauses. The trunk access code (maximum 2 digits) must be dialed to be stored; however, the trunk access code is not counted in the 16 digits. If the first and/or second digit is not a trunk access code, a maximum of 6 digits can be stored.
2. There are 10 Speed Dialing buffers in a memory block, and there are 450 memory blocks for a total of 4500 Speed Dialing buffers per system.
3. Single Line Telephones and the Multiline Terminals can be assigned up to 10 memory blocks (100 buffers) each. When Station Speed Dialing is assigned, the minimum assignment is one memory block (10 buffers).
4. The same memory blocks can be shared by multiple stations. When the same memory blocks are shared, there is an assignment that allows selected stations to be able to reprogram the buffer on a per-station basis.
5. Only the feature keys on Multiline Terminals can be programmed for internal or external calls. All other Speed Dialing buffers are for trunk calls only.
6. Code Restriction can be allowed or denied with Station Speed Dialing on a system basis.
7. The numbers stored in each Speed Dialing buffer will be retained in the event of system reinitialization or power failure.
8. A pause may be programmed by using the # or * key. If # is used, the pause duration is 1.5 seconds. If * is used, a system programmable pause (1.5 - 12 seconds: default is 3 seconds) is provided.
9. Refer to the Consecutive Speed Dialing feature for additional information.
10. If the NEAX2000 IVS is designated as KF registration, this feature will not be available, except for the following operation:
    - Depress a Trunk (TRK) key (trunk service)
    - Depress a One-Touch key (station speed dialing)
11. The following numbers can be stored in a One Touch key of a Multiline Terminal:
    a) Access code for Hooking signal to a Centrex (maximum 2 digits) + desired number (maximum 26 digits)
    This One Touch key is effective when the station user is connected to a Centrex line. The RECALL key is used to return to the original line. Call information can be recorded in SMDR.
    b) Station number + DTMF signal after the called station answered (maximum 26 digits in total)
    This One Touch key is effective when the station user is in idle or busy or seizing a trunk.
    c) Trunk access code (maximum 2 digit) + outside number + * # + DTMF signal after the called station answered (maximum 26 digits in total except trunk access code)

Note: *"* #" is programmed as a delimiter between outside number and DTMF signal.*

This One Touch key is effective when the station user is in idle or seizing a trunk. When talking to the outside party, the One Touch key sends only outside number as DTMF signal.
When depressing another One Touch key during the sending DTMF signal after a called station answered, the stored number in the second One Touch key is sent out as DTMF signal continuously. If the second One Touch key stores the station or outside number with DTMF signal (the above "b", "c"), only the station/outside number is sent out and the DTMF signal is not sent out.

12. By dialing the feature access code of Call Forwarding - All Calls / - Busy Line / - No Answer and depressing a One Touch key, Call Forwarding can be set to a stored station/outside number in the One Touch key. The station which Call Forwarding - Outside is restricted cannot use a One Touch key for Call Forwarding operation.
13. If a system provides an Extension Memory card for Station Speed Dialing, an additional 8000 memory buffers can be used.
14. When using the additional 8000 memory buffers for a Multiline Terminal, the LEDs on the One Touch keys do not show the busy state of the station associated with the keys.
15. When using the additional 8000 memory buffers for the Multiline Terminal, Speed Dialing by a Programmable key is not available on the Multiline Terminal.
16. The SPN-AP00A card is required when the PN-ME00 card is used.

Required Hardware

For Speed Dial Expansion:

- PN-ME00
- SPN-AP00A

Step Call

General Description

This feature allows the Attendant or station user, after calling a busy station, to call an idle station by simply 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.

Station Application

All stations.

Operating Procedure

To operate:

1. The dialed station (220) is busy.
2. Dial 5.
3. If station 225 is idle, the call will be connected there.

Service Conditions

1. If the second selected station is also busy, Step Call can continue until an idle station is reached. When Call Forwarding - All Calls is set, and a station called during Step Call meets the Call Forwarding condition, Call Forwarding will occur.
2. Step Call can be activated when busy tone is returned on a Consultation Hold or Call Park attempt.
3. When a call is rerouted by Call Forwarding, and the station to which the call was forwarded is busy, Step Call will occur within the forwarded-to station's tens group of stations, and not the initially dialed station's tens group of stations.
4. Step Call can not be initiated on Direct Inward Dial and Direct Inward Termination calls, but can be initiated on Direct Inward System Access (DISA) calls.

Supervisory Control of Peripheral Equipment

General Description

When various types of peripheral equipment (such as facsimiles, dictation equipment, Voice Mail, etc.) are connected to the line circuits of the NEAX2000 IVS, this feature allows the loop of the line circuit concerned to open for a programmable interval, and send a release signal to the peripheral equipment when the calling party disconnects.

Station Application

Not applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. The duration of the momentary open is flexible, and can be programmed from 200 ms to 1000 ms in system programming.
2. When the calling party releases the connection, a release signal (loop open) is sent to the peripheral equipment.
3. The calling party can be internal or external.
4. A 4LCD card must be installed to provide this feature.

Synchronous Data Switching

General Description

Synchronous data terminals can place switched data calls if both terminals are equipped with Synchronous Data Adapters.

Station Application

All Multiline Terminals with LCD equipped for Data Communications.

Operating Procedure

Internal connection between two Multiline Terminal Synchronous Data Adapters

To originate a call from a Multiline Terminal

1. Press the DATA key. The DATA LED lights steady and display indicates **DTE** and the data extension number.
2. Dial the desired data extension. **DTE XXXX** and the dialed number are indicated on the display.
3. When the dialing is completed, the display changes to **D** and a flashing **DTE** and dialed number until the called party answers.
4. When the called party answers, the display shows **D DTE** and the dialed number.

To answer a data call on a Multiline Terminal

1. DATA LED flashes green. The display shows **DTE** and the data extension number.
2. Press the DATA key to answer. The DATA LED lights steady green and display indicates **RDY D DTE** and the calling station's data extension.
3. After about 5 seconds the display changes back to Clock/ Calendar indication.

To release the call

1. Press the DATA key to release the connection. The DATA LED turns off and the display clears.
2. After about 5 seconds the display changes back to Clock/ Calendar indication.

When released by the distant end

1. When the other party releases the connection, the DATA LED turns off. Two chime tones are heard and the display indicates **RLS D** and the distant end's data extension.
2. After about 5 seconds the display changes back to Clock/ Calendar indication.

Service Conditions

1. Keyboard Dialing is not supported on Synchronous Data Switching connections.
2. Synchronous data terminals connected to a synchronous Data Adaptor using a Multiline Terminal with LCD can call other synchronous DTEs.
3. Some synchronous data terminals may not work in a switched synchronous environment, depending on the limitations of the particular DTE. In this case, Nailed-Down Connection can be used.

4. The following shows the maximum data speed in synchronous transmission
   - PROTIMS (NEC's unique): 2.4k/4.8k/9.6kbps
   - V.110 (CCITT's): 2.4k/4.8k/9.6k/19.2kbps
5. The system provides a transparent data connection (no speed or code conversion) between terminals. If devices do not work when directly connected to each other, they will not work when connected using the NEAX2000 IVS.
6. The maximum amount of synchronous data stations is 128 per system.

System Speed Dialing

General Description

This feature provides all users the ability to dial frequently called numbers using an abbreviated call code.

Station Application

All stations.

Operating Procedure

Multiline Terminals

To initiate a call:

1. Depress the SPKR key or lift the handset and receive extension dial tone.
2. Depress the System Speed Dialing access feature key (one touch key) or dial the System Speed Dialing feature access code.
3. Dial the abbreviated call code (2 or 3 digits).
4. Converse when the party answers.

Single Line Telephones

To initiate a call:

1. Lift the handset and receive dial tone.
2. Dial the System Speed Dialing feature access code.
3. Dial the abbreviated call code (2 or 3 digits).
4. Converse when the party answers.

Service Conditions

1. System Speed Dialing can be allowed or denied to individual stations in that station's Class of Service assignment. System Speed Dialing may also be allowed or denied on a per tenant or system wide basis.
2. System Speed Dial numbers are assigned in system programming from the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT). Two pauses are available to be programmed in System Speed Dialing buffers. One pause is preset at 1.5 seconds, the other pause is programmable from 1.5 seconds to 12 seconds (default is 3 seconds).
3. Code Restriction can be allowed/denied to System Speed Dialing on a system basis only.
4. When Least Cost Routing is supplied in the system, it will be applied when System Speed Dialing is accessed.
5. There is a total of 300 System Speed Dialing buffers per system, as set in default. This total can be increased to a maximum of 4000 buffers by reassigning Station Speed Dialing buffers as System Speed Dialing buffers. In this case, the reassigned Station Speed Dialing buffers are still only able to store 16 digits.
6. Each tenant in the system can be assigned up to a maximum of 300 buffers.
7. Each buffer can store a maximum of 26 digits. Trunk access codes are not part of the 26 digits.

8. When Station Message Detail Recording (SMDR) is provided, the actual dialed number is recorded and printed.
9. If the NEAX2000 IVS is designated as KF registration, this feature will not be available.
10. System Speed dialing cannot be used on Trunk Direct Appearances.

Tenant Service

General Description

This feature provides for more than one organization (tenant) to share the same NEAX2000 IVS system. Through system programming, each organization may be restricted to its own Central Office trunks, Attendant Consoles and extension group. In addition, incoming calls are directed to the specific tenant.

Station Application

Not applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. An Attendant Console can be provided for each tenant. However, a single common Attendant Console may be shared by two or more tenants. The number of Attendant Consoles per tenant is limited to the sum total of the system.
2. Interoffice calling between tenants may or may not be restricted, depending on system data programming.
3. Different tenants may share a common group of trunks where required.
4. When a station dials access code 0, it will be connected to the associated Attendant.
5. There are 4 different numbering plans. Different tenants can utilize the same numbering plan when necessary.
6. The NEAX2000 IVS can provide tenant service up to a maximum of 64 tenants.
7. Programming on the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT) is common to the system.
8. Station-to-station, Call Transfer, Conference and Trunk Answer any Station between tenants can be allowed or denied in system programming.
9. The same feature access code(s) can be shared between tenants.
10. When more than one numbering plan is assigned in the system, more than one Day/Night Mode Change By Station Dialing access code can be assigned. When the access code is dialed by a station, only the associated tenant will be placed in Night Service.
11. One AP00 board is required for Station Message Detail Recording (SMDR). The same AP00 board is applied to all tenants.
12. Paging can be shared between tenants, or the assignment of different paging zones and different numbering plans allow for individual paging access by tenants.
13. When Multiple Console Operation is applied, a master Attendant Console must be designated to place multiple tenants into Night Service.
14. A different music source for Music On Hold (maximum 10) may be used for each tenant.
15. Music On Hold on a tenant basis has a choice for holding-/held-party control in the music source.
16. Relay control is available for each of 10 tone sources.

Terminal Attribute Data Assignment

General Description

This feature provides a Multiline Terminal equipped with a data adapter the ability to assign or change its own terminal attributes. Attributes such as auto answer, baud rate, and half/full duplex operation can be changed. This ability provides the user with the flexibility to adapt to various data communication needs.

Station Application

All Multiline Terminals with LCD equipped for Data Communications.

Operating Procedure

To program changes:

1. While on-hook, press the DATA key, then the DTX key.
2. Dial the number corresponding to desired attribute. Current attribute setting is displayed.
3. Mark the necessary assignment(s) where change is required.
4. Press # to enter, and the next attribute is displayed.
5. Continue assignments or press the DATA key to end data assignment.

Service Conditions

1. Available assignments are accessed by dial code as follows:
   - 00 ER Check-DTE Equipment Ready signal is needed/not needed
   - 01 Auto Answer Yes/No
   - 02 Outgoing Modem Group #
   - 03 Incoming Modem Group #
   - 04 Speed 300 bps - 19.2K bps
   - 05 Parity - Yes/No
   - 06 Synchronous or Asynchronous
   - 07 Half Duplex or Full Duplex
   - 08 Stop bit 00 - (2 bits) / 01 - (1 Bit)
   - 09 Type of Code
   - 10 Profile
   - 11 Rate Adaptation - PROTIMS or V.110
2. A DATA key and a DTX (Data Transmit) key must be assigned to line keys on the Multiline Terminals.
3. Pressing the # key will enter the currently displayed assignment and advance to the next available assignment (in the order listed above).

Tie Lines

General Description

This feature allows any station user dial access or direct access to an E&M Tie Line.

Station Application

All stations.

Operating Procedure

To dial access an E&M Tie Line

1. Lift handset and receive dial tone.
2. Dial E&M Tie Line access code.
3. Dial desired number.

To directly access an E&M Tie Line

1. Lift handset or depress SPKR key and receive dial tone.
2. Depress line key assigned E&M Tie Line.
3. Dial desired number.

Service Conditions

1. Tie Line access may be denied to individual stations through Class of Service.
2. When a power failure occurs (without reserve power backup), all existing E&M Tie Line connections and access to E&M Tie Lines is lost.
3. Each tie line group can be programmed for both rotary and pushbutton address signaling (incoming and/or outgoing).
4. The NEAX2000 IVS can only be equipped with dial repeating tie lines. Immediate start, delay dial, or wink start signaling is available.
5. When a trunk route access code is dialed by a station user, the tie line route is used to index a trunk route restriction table to determine if the call attempt is allowed. If access is restricted, reorder tone is provided.
6. The system can be programmed to supply second dial tone on incoming E&M Tie Lines.
7. Both 2 and 4-wire, Type I and Type V, E&M Tie Lines can be connected.
8. When 4-wire E&M Tie Lines are connected, the following pad control can be assigned:
   - Station to Tie Line - 0 to –12 db.
   - CO to Tie Line - 0 to –4 db.
   - Tie Line to Tie Line - 0 to –4 db.
9. A PN-2ODT card is required for 2- or 4-wire E&M Tie Line interface.

Tie Line Tandem Switching

General Description

This feature allows trunk-to-trunk connections through the NEAX2000 IVS without the need for any Attendant assistance or control. The major use of this feature is in association with a 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.

Station Application

Not applicable.

Operating Procedure

1. E&M Tie Line is seized by distant end system.
2. Distant end system dials applicable trunk access code and desired number.

Service Conditions

1. When using a 2-wire application (2ODTA card), there may be a decrease in transmission decibel levels.
2. When using a 4-wire application, a 2ODTA card is required for every tie line. This card provides attenuation so that the desired transmitting and receiving levels can be maintained, providing the overall tandem system with transparency.
3. When all tie lines are busy, the calling station will receive busy tone.
4. Incoming trunks may be restricted from outgoing access to other trunks on a trunk route basis.
5. Consideration should be given to access code numbering plans to avoid unnecessary loss of access codes and code duplication within the same system.
6. There is no limitation on the allowable number of Tie Line Tandem Switching connections.
7. Incoming dial repeating tie lines can connect to the following types of outgoing trunks:
   - Dial repeating tie lines
   - CO trunks
   - FX trunks
   - WATS trunks
   - CCSA trunks
8. All trunk routes assigned for no release signal are restricted from tandem connections.
9. The Station Message Detail Recording feature applies to incoming tie line calls which dial access an outgoing trunk.

Timed Queue

General Description

When a user originates an outgoing trunk call and the called party is busy or does not answer, the caller can set the Timed Queue feature. When this feature is set, the trunk seizure is repeated and the number is redialed after a predetermined time interval.

Station Application

Multiline Terminals.

Operating Procedure

1. Depress the SPKR key and receive dial tone.
2. Dial a trunk access code and the desired number.
3. Receive busy tone or ring no answer. Depress the line key assigned as the CALL BACK key. The associated LED flashes green and the LCD displays **TIMED-Q**. Timed Queue is now set.
4. Within a preprogrammed time interval, the system will automatically seize a trunk (dial tone is heard), redial the number (dialed digits are heard), and ring back or busy tone (depending on the status of the called party) will be heard at the station that set Timed Queue.
5. Lift the handset and converse.

Service Conditions

1. The time between setting the Timed Queue and when the system releases the trunk is programmable from 4-120 seconds (30 seconds as set in default). During this period, the station's SPKR key LED is lit and the station is considered off-hook by the system.
2. The time between the release of the trunk and the reseizure of the trunk is programmable from 4-120 seconds (60 seconds as set in default).
3. The number of times a Timed Queue will occur is programmable from 1-7 times (3 times as set in default). When the programmed number of attempts is reached, Timed Queue will be canceled.
4. Timed Queue is canceled if a station user either lifts the handset or depresses the SPKR key while this feature is activated.
5. When a Timed Queue occurs and ringback tone is supplied to the station, the station user should immediately lift the handset when the called party answers. This operation cancels the Timed Queue; therefore, the period of ringback tone will not time out.
6. The combined maximum number of Timed Queues set and Trunk Queuing Outgoing set cannot exceed 32. When the maximum is reached and an attempt to access Timed Queue is made, Multiline Terminals with an LCD will receive a visual and audible indication.
7. If all trunks are busy when reseizure is attempted, the system waits for a trunk in the same trunk route to become idle.

Timed Reminder

General Description

This feature allows the system to be programmed to automatically call stations at specified times. Upon answering, the station is connected to a recorded announcement or music source.

Station Application

All stations.

Operating Procedure

To set Timed Reminder

1. Go off-hook and receive dial tone from the primary extension.
2. Dial the Timed Reminder feature access code or depress the Timed Reminder feature access key and receive feature dial tone.
3. Dial the desired reminder time in military format.
4. Receive service set tone.
5. Restore the handset.

To cancel Timed Reminder

1. Go off-hook and receive dial tone.
2. Dial the Timed Reminder cancellation code, or press the Timed Reminder feature access key and press *.
3. Receive service set tone.
4. Restore the handset.

Service Conditions

1. The time is entered on a 24-hour basis in 1 minute increments.
2. A maximum of 32 stations can set the same reminder time. When the number of settings exceeds 32, the excess stations will automatically be set to 5 minutes prior to the time set at the other 32 stations.
3. Timed Reminder attempts, whether successful or not, can be printed out at a locally provided printer. When a Timed Reminder is set or canceled, a printout is provided.
4. The ringing signal is the same as station-to-station calls, and its time can be assigned from 4 sec. to 32 sec. (programmable) on a system basis. The default is 28-32 seconds.
5. The Timed Reminder will ring a station in Do Not Disturb.
6. When setting or canceling has been completed, service set tone is heard as confirmation.
7. When a Timed Reminder is answered, either music or announcement is provided to the station. Either a DAT card (as an internal announcment source), or COT card (with locally provided music or announcement source) is required. As an option, a PN-DK00 card can be programmed to provide a contact closure for starting the external announcement or music source when used in conjunction with a COT card.

   When providing the internal announcment via DAT card, multiple connections can be made to the announcement card. Secondary station users cannot be connected to the beginning of the message.

8. The number of Timed Reminder attempts is programmable in system data from 1 to 5 times, when the called station does not answer.
9. If the station does not answer, is busy, in Line Lockout, or ringing, recalling is initiated 1 minute later. When each call results in failure, it is printed out at the printer. Additionally, when the final attempt results in failure, a buzzer is sounded at the printer.
10. An AP00 card is required for connection to a printer.
11. After a Timed Reminder is set, the setting cannot be verified. A simple procedure is to reset the Timed Reminder. Only one Timed Reminder is available per station.
12. Timed Reminder calls will not be rerouted by Call Forwarding or other features.

Trunk - Direct Appearances

General Description

This feature allows Multiline Terminal users the ability to access a CO line or E&M Tie Line without dialing an access code. For this feature, trunks must be assigned to the line keys on the Multiline Terminal. Incoming calls on CO lines can be answered on the appropriate trunk line appearance.

Station Application

All Multiline Terminals.

Operating Procedure

To make an outgoing call

1. Depress the desired line key.
2. Lift the handset or depress the SPKR key and receive dial tone from outside exchange.
3. Dial the desired number.

To answer an incoming call

1. Depress the ringing line key.
2. Lift the handset.
3. Answer the incoming call.

To transfer an incoming call using the Trunk Appearance Hold key

1. Depress the ringing line key, lift the handset, and answer the incoming call.
2. Depress the TAH key (Trunk Appearance Hold), and receive dial tone. (TAH key and dial tone/no tone are set by system data.) The Trunk-Direct Appearance key blinks in red.
3. Dial the target station number for transferring the call by voice call or by ringing.
4. Restore handset before the target station answers.
   The line key remains at held state and the ringing to the target station stops.
   The target station can answer the held call by depressing the applicable line key on the Multiline Terminal.

   OR

   Depress Transfer key and restore handset.
   The line key lights in red and the ringing to the target station goes on.
   When the target station answers the ringing, the held call is connected to the target station.

Service Conditions

1. The ETJ-16DC-1 has 15 available line keys which can be assigned as Trunk-Direct Appearances. The ETJ-8-1 has 7 available line keys which can be assigned as Trunk-Direct Appearances.
2. The following features are available:
   - Outgoing call connection restriction
   - Conference
   - Station Message Detail Recording (SMDR)
   - Call Transfer
   - Save and Repeat
   - Broker's Call
   - Code Restriction
   - Delayed Ringing
   - Hold
   - Call Park
   - Last Number Redial
   - Station Speed Dialing
3. When an outgoing call is placed, the following restrictions apply:
   - Trunk Queuing Outgoing is not available.
   - System Speed Dialing cannot be used.
   - Account Codes may be entered using the function key programmed for Account Code entry, or Account Codes can be dialed from second dial tone.
4. The LED associated with the line key will be lit red when the trunk is busy, and green when being used by the station that selected that trunk.
5. Trunks assigned as Trunk-Direct Appearance on Multiline Terminals can also be assigned to ring at Attendant Consoles and Trunk Answer any Station.
6. For further information, refer to the Flexible Line Key Assignment and Flexible Ringing Assignment features.
7. When transferring the call of line key, it can be specified by system data programming whether a dial tone is sent or not by depressing TAH key.
8. To set Exclusive Hold to a call of a line key by the TAH key assigned to a programmable key, press FNC (Feature) key first, then press the TAH key.

Trunk Queueing - Outgoing

General Description

This allows a station user, upon encountering a busy signal on a trunk, to dial a feature access code and enter a first-in, first-out queue. As soon as an outgoing trunk becomes available, stations in the queue will be called back on a first-in, first-out basis.

Station Application

All stations.

Operating Procedure

Single Line Telephones

■ **When Least Cost Routing is not provided**

1. Dial the trunk access code and receive busy tone.
2. Depress the FLASH key (or momentarily depress hook switch) and receive feature dial tone.
3. Dial the Trunk Queuing-Outgoing feature access code and receive service set tone.
4. Replace the handset.
5. When a trunk becomes idle, the station is recalled.

■ **When Least Cost Routing is provided**

1. Dial the trunk access code and receive PBX dial tone.
2. Dial the desired number and receive busy tone.
3. Depress the FLASH key (or momentarily depress hook switch) and receive feature dial tone.
4. Dial the Trunk Queuing-Outgoing feature access code and receive service set tone.
5. Replace the handset.
6. When the trunk becomes idle, the station is recalled. Once connected to the trunk, the system automatically redials the number.

Multiline Terminals

■ **When Least Cost Routing is not provided**

1. Dial the trunk access code and receive busy tone.
2. Depress the assigned CALL BACK key and receive service set tone.
3. Replace the handset.

■ **When Least Cost Routing is provided**

1. Dial the trunk access code and receive PBX dial tone.
2. Dial the desired number and receive busy tone.
3. Depress the assigned CALL BACK key and receive service set tone.
4. Replace the handset.

5. When the trunk becomes idle, the station is recalled. Once connected to the trunk, the system will automatically redial the number.

Service Conditions

1. Once an outgoing trunk becomes available, the user's station will ring for 30 seconds. If not answered within that time, the station is automatically dropped from the queue.
2. When this feature is utilized in conjunction with System Speed Dialing or Least Cost Routing, the system automatically dials out the called subscriber number when the handset is lifted.
3. If the user wishes to remove himself from the queue prior to being recalled, a Trunk Queuing-Outgoing cancellation code must be dialed.
4. Individual stations may only initiate one outgoing Trunk Queue at a time. Subsequent attempts result in a reorder tone.
5. Stations may be restricted from using this feature in Class Of Service.
6. This feature is not available on an Attendant Console.
7. Maximum number of simultaneous Trunk Queues-Outgoing per system is 32.
8. Call Pickup group cannot be used to answer a call directed to another station using the Trunk Queuing-Outgoing feature.
9. The Trunk Queuing-Outgoing Call Back will return to the originating station, not to the Call Forwarding terminating station.
10. Account Code information can be recorded on Station Message Detail Recording (SMDR) when used in conjunction with Trunk Queuing-Outgoing.
11. If the NEAX2000 IVS is designated as KF registration, this feature will not be available.

Trunk-to-Trunk Connection

General Description

This feature provides any station user with the ability to conference together two outside trunk calls and abandon the connection without dropping the Trunk-to-Trunk Connection.

Station Application

All stations.

Operating Procedure

To establish a Trunk-to-Trunk Connection from a Single Line Telephone

1. Depress the FLASH key (or momentarily depress the hookswitch). The original call is placed on Consultation Hold and feature dial tone is received.
2. Dial the applicable trunk access code.
3. Dial the desired number and wait for the party to answer.
4. Depress the FLASH key (or momentarily depress the hookswitch). A Conference is now in progress.

   OR

   Restore the handset. The original caller and the second party are now connected.

To establish a Trunk-to-Trunk Connection from a Multiline Terminal

1. Depress the TRF key. The original call is placed on Consultation Hold and feature dial tone is received.
2. Dial the applicable trunk access code.
3. Dial the desired number and wait for the party to answer.
4. Depress the CNF key. A Conference is now in progress.

   OR

   Restore the handset. The original caller and second party are now connected.

To establish a Trunk-to-Trunk Connection from the Attendant Console

1. Attendant answers an incoming call.
2. Dial the applicable trunk access code. The original party is placed on Consultation Hold.
3. Dial the desired number.
4. Depress the RLS key. The original caller and second party are now connected.

Service Conditions

1. The initiating station may hang up at any time. The additional two parties will not be disconnected.
2. At least one of the two trunks must provide a release signal (some loop start trunks do not provide any signal after the distant party abandons the call).
3. This feature may be restricted to individual stations in system data programming.

4. If an originating Single Line Telephone encounters a busy or no answer condition after dialing out to Conference a third party, the originating party can be reconnected to held caller by providing a hookflash or by depressing the FLASH key to establish a Conference, and a second hookflash to release the last party called.
5. If an originating Single Line Telephone encounters a busy condition because all trunks are busy, a single hookflash will return to the first trunk.
6. If an originating Multiline Terminal user encounters a busy or no answer condition after dialing to conference a third party, the RECALL key can be used to return to feature dial tone to allow making another call, or to allow depressing the TRF key to return to the original party.
7. Stations and Attendants can establish a Trunk-to-Trunk Connection either before or after the distant station answers.
8. There is no limitation on the number of Trunk-to-Trunk Connections in the system.
9. Trunk-to-Trunk Connection can be restricted by trunk-route-to-trunk-route restriction assignments.
10. Recalls will apply to a Trunk-to-Trunk Connection except where answer supervision is provided (i.e. second trunk is a tie line).
11. Depressing the ANS key after the second call is established allows the station user to return to the original line, resulting in a Broker's Call.
12. Stations cannot re-enter a Trunk-to-Trunk Connection once they have established the connection.
13. After a Trunk-to-Trunk Connection is established, both trunks are released when a disconnect signal is received by either trunk.
14. If the NEAX2000 IVS is designated as KF registration, this feature will not be available.
15. The AMP trunk can be connected to tandem connection on trunk route basis in system data programming, a maximum of 16 ports per FP, 64 ports per system.

Uniform Call Distribution (UCD)

General Description

The Uniform Call Distribution (UCD) feature permits incoming calls to terminate to a prearranged group of stations. Calls are distributed in the order of arrival to idle terminals within the group, based on which terminal has been idle the longest period of time. Stations may log on/log off from the UCD group. Supervisor stations may monitor conversations of agents.

Station Application

Multiline Terminals and single-line stations.

Operating Procedure

Refer to individual UCD sub-features for details on station operating procedures.

Service Conditions

1. A maximum of 16 UCD groups may be assigned per system. Each UCD group is assigned a pilot number. Calls directed to the pilot number are directed to that UCD group.
2. Up to 60 stations may be programmed per UCD group, up to the system limit of 512 stations or 256 multiline stations.
3. Assignment of UCD groups is performed from the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
4. UCD groups consist of a pilot station and one or more member stations. Hunting is initiated in a circular fashion, and then based on which member has been idle the longest period of time.
5. If all stations within the UCD group are busy, incoming calls may be serviced in the following ways:
   - Remain in queue until an agent becomes available (Ringback Tone provided).
   - Immediately overflow to another group, to a station, or to the Attendant.
   - Remain in queue until an agent becomes available (Delay Announcement or Music on Hold provided).
   - Remain in queue for a preset time (Ringback Tone, Delayed Announcement, or Music on Hold provided), then overflow to another group, to a station, or to the Attendant.
6. When the pilot station has set Call Forwarding - All Calls, incoming calls to the UCD group will be transferred to the destination of that Call Forwarding - All Calls setting.
7. A UCD group number can be used as the destination station of Direct Inward Termination (DIT), or as a designated Night Service station.
8. A UCD group number can be assigned as the destination station of Off - Hook Alarms, Priority Calls, and Attendant Night Transfer.
9. UCD group pilot numbers should not be placed in Station Hunting groups. The Station Hunting feature would take priority over the UCD function.
10. Two types of traffic measurements can be provided for UCD:
    a) UCD group Peg Count
       count of incoming calls
       count of answered calls

count of abandoned calls
count of waiting calls
count of all busy calls

b) UCD station Peg count
count of answered calls

11. Upon initial installation, or after a system initializaation (reset), each agent must lift and restore handset (of their station) to begin receiving calls for the UCD group.

Busy In/Busy Out-UCD

General Description

This feature allows an agent in a UCD group to log their station onto or off of the group. This allows the system to control whether a call directed to the pilot number of the UCD group goes to that station or not. This prevents incoming calls from being directed to stations at which no agent is available.

Station Application

Multiline Terminals and Single Line Stations.

Operating Procedure

To log off (busy out) of a UCD station

1. Lift the handset and receive extension dial tone.
2. Dial the log off (busy out - set) feature access code, or depress the LOG OFF key.
3. Restore the handset.

To log on (cancel busy out) to a UCD station

1. Lift the handset and receive extension dial tone.
2. Dial the log on (busy out - cancel) feature access code, or depress the LOG ON key.
3. Restore the handset.

Service Conditions

1. Any agent may log off (busy out) or log on (cancel busy out). When an agent has activated log off (busy out), any call targeted at the UCD group will bypass that agent. Calls directed to the specific station number will ring at the agent position.
2. The agent may originate calls while in log off (busy out) mode.
3. The agent can log off (busy out) their station while idle, or while on an incoming outside call. When that call is completed, the station is logged off (busy out).
4. The agent can log on/off from the secondary extension by dialing the log on/log off feature access code. The LOG ON/LOG OFF key is not available for the secondary extension.

Call Waiting Indication-UCD

General Description

This feature provides a visual indication when an incoming call to a UCD group is placed in queue, due to an "all agents busy" condition. An external relay controlled indicator or an LED on a Multiline Terminal can be used to provide Call Waiting Indication.

Station Application

Multiline Terminals assigned with a Call Waiting (CW) Lamp.

Operating Procedure

No operating procedure is necessary. Indication is automatic, once it is assigned.

Service Conditions

1. A PN-DK00 is required to provide the external relay control when an external indicator is used.
2. There is no limit to the number of appearances of a CW lamp assigned to Multiline Terminals. One CW lamp per group is available.
3. On a per system basis, the option is available to select how many calls in queue causes the CW lamp to flash. Default setting is one. The LED lights steady until the set threshold count is reached, at which time it begins to flash.)
4. Provision of ringing on a CW key is controlled on a per station basis.
5. The interruption rate of the external relay control is programmable, on a per system basis, as follows:
   - 30 IPM
   - 60 IPM
   - 120 IPM
   - Steady

   This interruption rate is the same as the rate used for TAS (Trunk Answer Any Station).

Delay Announcement-UCD

General Description

This feature allows the system to provide a recorded announcement to an incoming caller placed in queue to a UCD group. A single announcement, or two separate announcements, can be provided.

Station Application

None.

Operating Procedure

Operation is automatic, once system programming is assigned.

Service Conditions

1. A Delay Announcement service can be provided for DIT, DID or a trunk call transferred by a station user or the Attendant to a UCD Group. Internal calls or station-to-station transferred calls to the UCD Group can go into the UCD queue but do not receive the Delay Announcement.
2. The following configurations are available when using Delay Announcement:
   a) After being in queue for a predetermined time, the caller receives a Delay Announcement, followed by Music-on-Hold (if provided), until an agent is available or the caller hangs up.
   b) After being in queue for a predetermined time, the caller receives a Delay Announcement, followed by Music-on-Hold (if provided) for a programmed interval, then followed by repetition of the Delay Announcement. This process repeats until an agent in the UCD group is available on the caller hangs up.
   c) After being in queue for a predetermined time, the caller receives a first Delay Announcement, followed by Music-on-Hold (if provided). After a pre-programmed interval, the caller then hears a second Delay Announcement, followed again by Music-on-Hold. The second Delay Announcement and Music-on-Hold are then repeated at the pre-programmed interval time until an agent becomes available or the caller hangs up.
   d) After being in queue for a predetermined time, the caller receives a first Delay Announcement followed by Music-on-Hold (if provided). After a pre-determined interval time, the system checks to see if an overflow destination has been assigned for the incoming trunk route. If assigned, and the destination is available (idle), the call overflows to the destination. If not assigned, or the destination is busy, the call remains in queue for the predetermined interval time and the system then checks again for overflow assignment. For the latter case, if repetition of first announcement is set, or second announcement is made available, that announcement will be played.

Note: *Repeat of the first announcement or receipt of second announcement is **only** available when the overflow destination for the trunk route is busy (not available).*

3. Overflow out of queue causes the caller to be removed from the queue. This means that if the overflow destination (out of queue) is another UCD group, the caller is placed at the end of that queue (if all agents are busy) and is no longer in queue for the first group.
4. One PN-2DATA (Digital Announcement Trunk) circuit (two per card) is required for each Delay Announcement.
5. Delay Announcements cannot be shared between groups. Each group must have their own set of Delay Announcements.
6. Multiple PN-2DATA circuits may be assigned for 1st or 2nd Delay Announcement function to the same UCD group, when warranted by high traffic rates into the group.
7. When a UCD station becomes available, the caller is immediately connected to the station, even if the recorded announcement is in progress.
8. Incoming call billing to the outside party starts when the first recorded announcement begins.

Hunt Past No Answer-UCD

This feature allows calls targeted at a UCD group to hunt past an agents station , after a no answer condition, if the agent forgets to log off of the group and the agent is unable (or not available) to answer the call.

Station Application

Multiline Terminals and Single Line Stations.

Operating Procedure

Refer to the Call-Forwarding-No Answer Features and Specifications for details on setting the No Answer forwarding condition.

Service Conditions

1. This feature uses Call Forwarding-No Answer (to another UCD member) to enable a call to an agent that fails to answer, to hunt past that agent, to the next agent.
2. Calls directed to the agents primary extension number will also forward (or a no-answer condition) to the next agent.
3. It is recommended, when this feature is used, that the Call Forward-No Answer and the Call Forward-Busy features be separately assigned (use different access codes and keys).

Immediate Overflow-UCD

General Description

This feature allows a call directed to a UCD group to immediately overflow to another UCD group, upon encountering an “all agents busy” condition.

Station Application

All UCD Pilot Stations.

Operating Procedure

Refer to the Call Forwarding-Busy Features and Specifications for details on setting the forwarding when busy condition.

Service Conditions

1. This feature uses the Call Forwarding-Busy feature (set on the UCD pilot extension) to immediately forward the call to another UCD group, upon encountering an all busy condition in the first group.
2. This feature works if the overflow destination is a UCD pilot number.
3. When a call has terminated to UCD group A, and all station in group A are busy, and group B is assigned as the overflow destination (using Call Forward - Busy), the call is transferred to group B. When all the stations are busy in group B, the call queues onto UCD group A.
4. One overflow group can be provided for each UCD group.
5. Overflow is performed only once.

Priority Queueing-UCD

General Description

This feature allows the system to prioritize incoming calls by trunk route and on a per station basis, when the call enters a UCD queue. When a call is a considered as priority it is placed at the beginning of the queue.

Station Application

Not Applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. Priority queuing is available on incoming trunk calls. Queue priority is determined on a trunk route, or for DID Calls, on a station number, basis.
2. If two (or more) priority type calls occur at the same time, the system will place them in queue in a first-in-first-out order.

Queue Size Control-UCD

General Description

On incoming DID/Tie line calls, the system can be assigned a threshold which limits the number of calls in queue. When the queue size threshold is exceeded, incoming callers are connected to busy tone.

Station Application

Not Applicable.

Operating Procedure

No manual operation is required.

Service Conditions

1. The maximum number of queuing in each UCD group (hereinafter called Queue Size) can be specified by the system data. When the number of queuing calls reaches the preassigned queue size, new calls receive Busy Tone. Depending on the queue size, the Overflowed UCD call indication on a Multiline Terminal or on the external indicator is provided as shown below:

   Queue Size assigned by system data = S Number of queuing calls = N

CONDITIONS	LAMP INDICATION	
	Multiline Terminal	External Indicator
S = 1	Steady on red	Lamp on
$1 \leq N < S$ ($S \neq 1$)	Steady on red	Lamp off
$S \leq N$ ($S \neq 1$)	Flashing red	Lamp on

Silent Monitor-UCD

General Description

This feature provides the UCD group supervisor with the ability to monitor a call to a UCD agent. The silent monitor function gives no indication (as an option) to either the agent or the calling party.

Station Application

All UCD group agents can be monitored. All UCD group supervisors can monitor.

Operating Procedure

To monitor a conversation/to cancel monitoring (Supervisor only):

1. Lift the handset, or depress the SPKR key, and receive extension dial tone.
2. Dial the monitor feature access code, or depress the MONITOR key.
3. Dial the extension number to be monitored.
4. Monitor the conversation via the handset or the speaker.
5. Restore the handset, or depress the SPKR key to cancel monitoring.

Note: *Monitoring telephone conversations may be illegal under certain circumstances and laws. Consult a legal advisor before implementing the monitoring of telephone conversations. Some federal and state laws require a party monitoring a telephone conversation to use beep-tone(s), to notify all parties to the telephone conversation, and/or obtain consent from all parties to the telephone conversation. Some of these laws provide strict penalties for illegal monitoring of telephone conversations.*

Service Conditions

1. Service feature class is used to control which stations are agents and which are supervisors.
2. The default setting in system programming is that one tone is sent to both parties when the monitoring feature is used. As an option, this tone may be disabled, on a per system basis.
3. The Silent Monitor feature uses a 3-party conference circuit. Therefore, a maximum of 16 monitors can occur simultaneously, in conjunction with any normal Conference (Three/Four party) in progress.

Uniform Numbering Plan (UNP) - Voice and Data

General Description

In the numbering plan for a network to be configured through the use of Tie Lines, a Uniform Numbering Plan (UNP) is employed. When UNP is employed, a station user from any PBX within the network can call a desired party by using a uniform dialing method based on the UNP.

Station Application

All stations.

Operating Procedure

The following describes two applications of the UNP:

a) Station Number

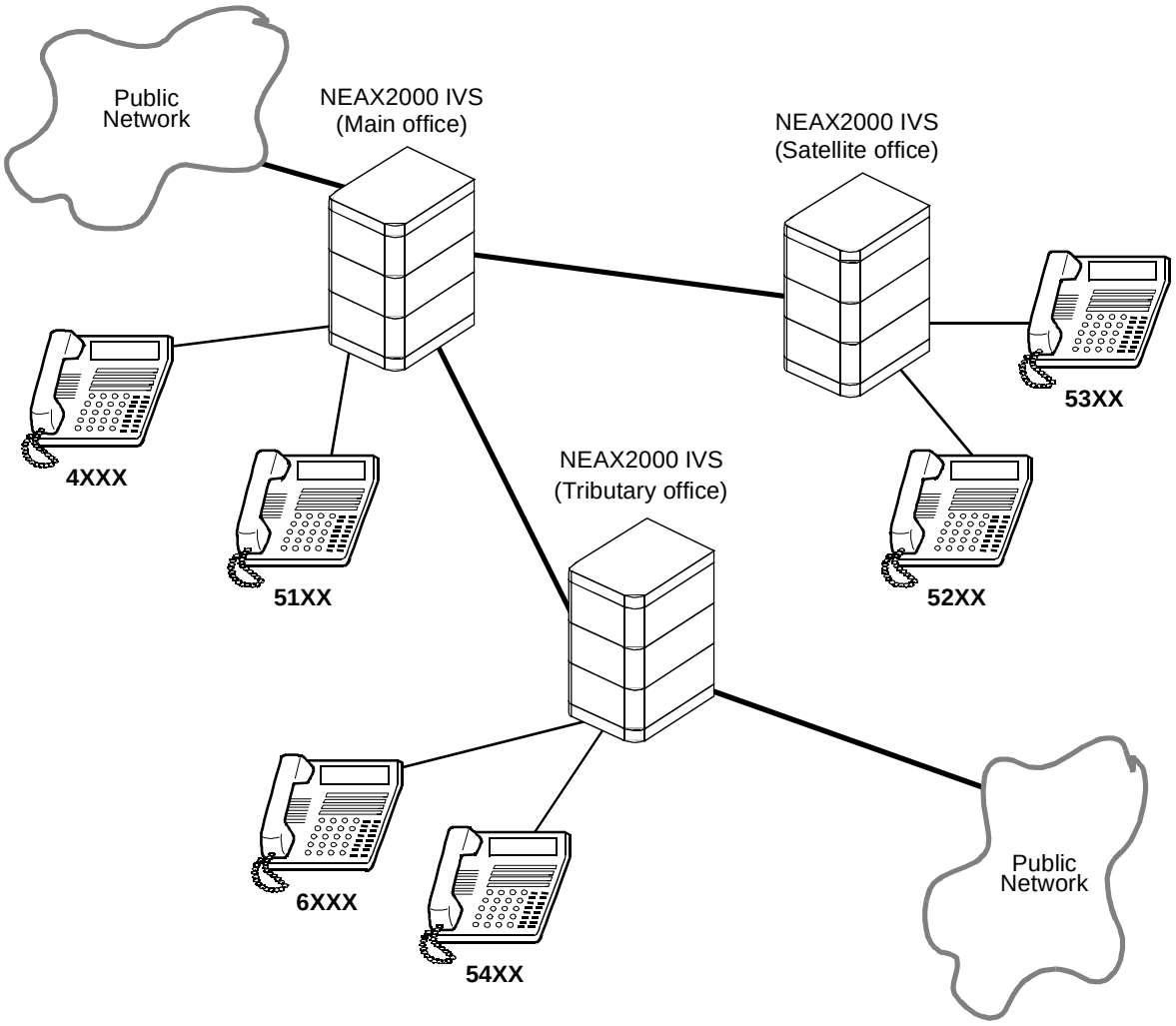
As shown in Figure 1, all the stations of each PBX connected using Tie Lines are assigned a Station Number of 3 or 4 digits, and the location of the PBX can be identified by the first two digits of the Station Number.

When this numbering plan is employed, a station user from any PBX within the network can call a desired party using a uniform dialing method.

b) Office Code and Station Number

When this numbering plan is employed, each PBX in the network is assigned a 1, 2, or 3-digit Office Code and each station in the PBX is assigned a 2, 3, or 4-digit Station Number, as shown in Figure 2. Normally, when calling another station, the calling station dials as follows:

P+/-	**xxx-**	**xxxx**	
Access Code	Office Code	Station Number	
		+:	2nd DT
		-:	No Tone
		x:	0 - 9
		p:	0 - 9



- 1st 1 or 2 digits indicate the OFFICE LOCATION

Figure 1. Numbering Plan - Station Numbers

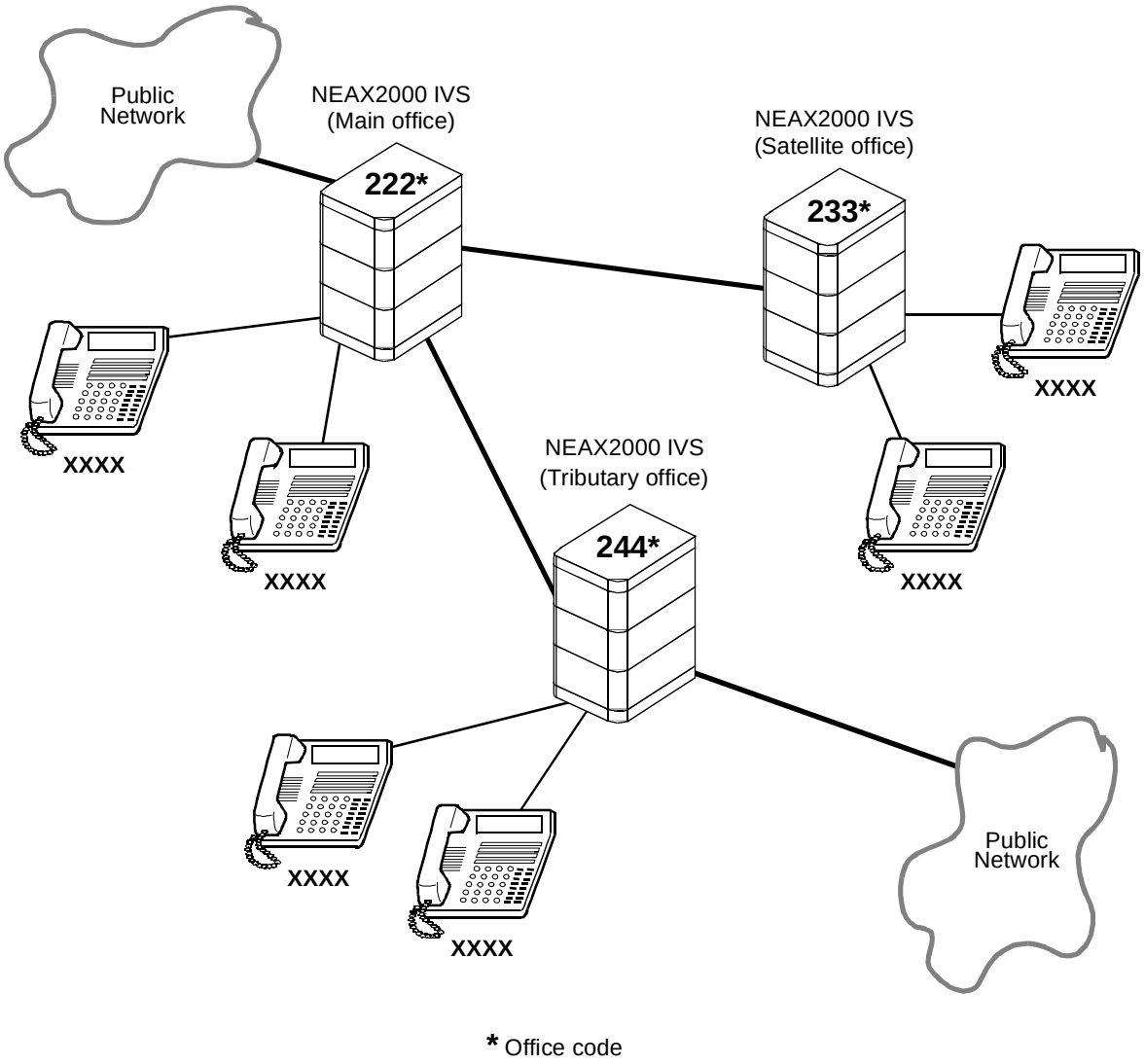
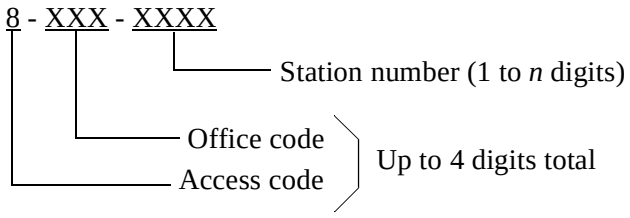


Figure 2. Numbering Plan - Office Code and Station Numbers

Service Conditions

1. In case of pattern (a), the location of the PBX is identified by either the first digit, or first 2 digits, of the Station Number.

2. In case of pattern (b), the total number of digits of the Access Code plus the Office Code can be a maximum of 4, which must be assigned within the network. However, assignment of station numbers of different lengths is allowed, as shown below:



Example:
8-222-4XXX
8-222-3XX
8-244-4XXX
8-244-2XX
8-233-3XXX
8-233-4XX

3. In case of Pattern (b), within the same PBX, a station-to-station call can be performed only by dialing the Station Number.
4. For outgoing calls from a Data Port using a "DATA" key on a Multiline Terminal, a voice call must be established first, then data can be activated.

Variable Timing Parameters

General Description

This feature gives the IVS the versatility to change timing duration using the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT). All timing parameters are set initially in the Resident System Program. These timing parameters can be changed according to the customer's requirements.

Station Application

Not applicable.

Operating Procedure

Refer to the NEAX2000 IVS Feature Programming Manual for programming instructions.

Service Conditions

The IVS Feature Programming Manual contains instructions on how to change the following timing durations:

Parameter	Duration (in sec. unless otherwise marked)	
	Standard timing	Variable timing
Automatic Recall of Attendant transferred Camp-On and unanswered calls	31.2 - 33.6	0.0 - 124.8 (2.4-sec. increments in 2.4 - 33.6 sec. 9.6-sec. increments in 28.8 - 124.8 sec.)
Elapsed time before Call Forward - No Answer for incoming trunk calls or Attendant Overflow activation	32 - 36	0 - 120 (4-sec. increments)
Station Message Detail Recording (SMDR) valid call timer	20 - 24	8 - 40
Disconnect recognition time for trunks	0.96 - 1.44	0 - 6.72 (0.48-sec. increments)
Recall timing for Exclusive Hold	236 - 240	0 - 396 (4-sec. increments)
Recall timing for Nonexclusive Hold and Call Park	60 - 64	0 - 396 (4-sec. increments)
Recall timing after station release for Call Transfer	24 - 28	0 - 120 (4-sec. increments)
Periodic Time Indication Tone interval	180 - 184	32 - 724 (60-sec. increments)
Automatic cancel time for unanswered external paging calls	300	60-900 (60-sec. increments)
Reorder tone timeout to enter Line Lockout state and Off-Hook Alarm	28-32	4 to 32 (4-sec. increments)
Ringing duration of Automatic Wake Up call (Timed Reminder)	28-32	0 - 32 (4-sec. increments)
Single digit dialing timer (Timing Start)	4-5	2-8 (1-sec. increments)
Maximum Automatic/Uniform Call Distribution (ACD/UCD) call waiting time before answer or abandonment for Peg Count	44-52	12-136 (4-sec. increments)

Parameter	Duration (in sec. unless otherwise marked)	
	Standard timing	Variable timing
Automatic recall of Camp-On	24-32	8-128 (8-sec. increments)
Timing before unanswered Automated Attendant call forwards	32-36	0-120 (4-sec. increments)
Interval time between attempts for Timed Queue	120-124	44-124 (4-sec. increments)
Duration of call by Timed Queue	28-32	16-124 (4-sec. increments)
Programmable pause for System and Station Speed Dialing	1.5	1.5, 3, 4.5, 6, 8, 10, or 12
Night Service announcement timer	60-64	0-120 (4-sec. increments)
Timing of Multiple Call Forwarding - No Answer (after second forwarding)	32-36	0-120 (4-sec. increments)
Interval time of UCD delay announcement	32-36	0-120 (4-sec. increments)
Automatic Recall of Attendant-held calls	31.2-33.6	0.0-124.8 (2.4-sec. increments in 2.4-33.6 sec. 9.6-sec. increments in 38.4-124.8 sec.)
Elapsed Time before Call Forward-No Answer for internal and assisted calls	32-36	0-120 (4-sec. increments)
Message Replay Timer for Automatic Wake-Up/ Timed Reminder	60-64	0-396 (4-sec. increments)
Message Relay Timer for Announcement Service	60-64	0-396
Forced Disconnection Timer on Tandem Connection	204-238 minutes	136-544 minutes (34-minute increments)

Voice Guide

General Description

This feature provides a station user with an announcement that informs:

1. The result of the operation when the station user set or canceled the service feature, instead of service set tone.
2. Identifies which service has been set to the station; such as, Call Forwarding – All Calls, Do Not Disturb or Message Waiting, when the station goes off-hook, instead of special dial tone.

Station Application

All stations.

Operating Procedure

No manual operation is required.

Service Conditions

Announcement for the result of the operation when the station user set or canceled the service feature

1. The announcement is provided when the following service features are set or canceled.
   - Call Forwarding – All Calls/ – Busy Line/ – No Answer
   - Split Call Forwarding – All Calls/ – Busy Line/ – No Answer
   - Do Not Disturb
   - UCD – Busy Out (**Note**)
   - Return Message Schedule Display
   - Call Back

   Note: *When UCD - Busy Out is set or canceled by the function key of a Multiline Terminal, the announcement is not provided.*
2. A Digital Announcement Trunk (DAT) card is required.
3. After the announcement is provided, the station user will hear reorder tone. The duration of announcement is specified by the system data programming.
4. This service is effective on the system-wide basis.

Announcement for the status of a station set Call Forwarding – All Calls/Do Not Disturb/Message Waiting

1. There are two separate programmable station status announcements that can be provided to a station User, after going off-hook. Features are related as below:
   - Station has set Call Forward All, Split Call Forward All, or is in Do Not Disturb.
   - Station has received a Message Wait or Message Reminder notification.
2. A Digital Announcement Trunk (DAT) circuit is required for each announcement.
3. When a station user goes off-hook and feature status requires both announcements, the Message Wait announcement will be heard.

4. This service is effective on the system-wide basis.
5. A station can originate a call while receiving the status announcement.

Voice Mail Integration

General Description

This feature is used to interface the NEAX2000 IVS with a locally provided stand-alone type Voice Mail System (VMS). The VMS, connected to the NEAX2000 IVS single line circuit (LC), is controlled by sending/receiving DTMF signals using this LC.

The NEAX2000 IVS can provide the other two types of genuine VMS. The NEAXMAIL AD-16 is a stand-alone type VMS, and is connected via a digital line circuit (DLC). The NEAXMail AD-8 is a circuit card type VMS, and is directly accommodated into the Port Interface Module (PIM) with no interface card.

The VMS's voice mail feature can be used by accessing this VMS directly from an extension. If a station sets its call forwarding destination to the VMS, calls to this station are connected to the VMS, and the messages can be registered according to the VMS instruction. In addition, the Message Waiting lamp of the station can be turned on automatically by the VMS.

Station Application

All stations.

Operating Procedure

To originate a voice mail message

■ From a Single Line Telephone

1. Go off hook and receive dial tone.
2. Dial the voice mail extension number and receive ringback tone.
3. Follow the instructions given by the voice mail system.

■ From a Multiline Terminal with One Touch keys

1. Go off hook and receive dial tone.
2. Depress the One Touch key, to send “voice mail extension number + DTMF signal after the Voice Mail System answered (such as mail box number or password)”.
3. Follow the instructions given by the voice mail system.

To set call forwarding to a voice mail system

- Call Forwarding - All Calls
- Call Forwarding - Busy Line
- Call Forwarding - No Answer

1. Go off hook and receive dial tone.
2. Dial the call forwarding feature access code and receive feature dial tone.
3. Dial the voice mail extension number and receive service set tone.
4. The LCD displays:

   [SET xxxx]

   VMS: Voice mail extension number

Connection when an extension line number whose call forwarding is set to a voice mail system is called from another station

1. Go off hook and receive dial tone.
2. Dial the desired station number and receive ringback tone. The LCD displays:

   [FDA xxx]

   VMS: Voice mail extension number
3. Follow the instructions given by the voice mail system.

To retrieve a voice mail message from the voice mail system

1. Go off hook and receive dial tone.
2. Dial the voice mail extension number or the Message Waiting/Message Reminder retrieve code and receive ringback tone. The LCD displays:

   [xxx]

   VMS: Voice mail extension number
3. Follow the instructions given by the voice mail system.

Service Conditions

1. The voice mail system is interfaced to the NEAX2000 IVS through the PN-4LCD card. (The PN-4LCD provides disconnect supervision in the form of a momentary loop open.)
   The NEAXMAIL AD-16 is interfaced to the NEAX2000 IVS through the DLC card.
   The NEAXMail AD-8 requires no interface card.
2. The NEAX2000 IVS transfers only DTMF signals to the connected Voice Mail System. It cannot transfer dial pulses to the system.
3. Messages can be retrieved from any Multiline Terminal, DTMF telephone, or the Attendant Console, but not from DP telephones.
4. When the calling party is connected to the Voice Mail System, only DTMF signals can be sent to the Voice Mail System for registering a message, DP telephones cannot be used.
5. Stations can set Call Forwarding-All Calls, Call Forwarding-No Answer, and Call Forwarding-Busy Line to the Voice Mail System. The system sends out a mail box number to the Voice Mail System. Calling a station which has Call Forwarding set to the VMS is automatically answered by the Voice Mail System.
6. The DTMF signal prepause, Inter-Digit Pause, and DTMF signal width of the station number automatically sent out to the VMS from the NEAX2000 IVS are as follows:
   - Prepause: Variable from 1sec to 12 sec in 1 second increments
   - Inter-Digit Pause: Variable from 32 ms to 240 ms
   - DTMF signal width: Fixed at 64 ms or 128 ms
7. A special number of up to 4 digits (including an Inter-Digit Pause) can automatically be added, both before and after, to the station number that is sent to the VMS from the NEAX2000 IVS. This can be used for a variety of identification codes as required. Two types of Inter-Digit Pauses can be set per system. One is fixed at 1.5 sec, and the other is programmable from 1.5 sec to 16 sec.
8. The Voice Mail System can control the Message Waiting Lamp of the Station set by using the Message Waiting/Message Reminder feature. The retrieval access code for Message Waiting/Message Reminder is variable and can be set from 1 to 3 digits, in system programming.
9. When the Voice Mail System is All Busy (assuming the following condition):

Station A (or outside party)....Calling Party

Station B....Called Party

Station B sets Call Forwarding-All Calls, Call Forwarding-Busy Line or Call Forwarding-No Answer to the VMS.

Station A (or outside party) makes a call to Station B.

a) Call Forwarding-All Calls
   - Station A hears reorder tone.
   - Outside party hears busy tone.

b) Call Forwarding-Busy Line
   - Station A hears busy tone, and can set any busy service to station B.
   - Outside party hears busy tone.

c) Call Forwarding-No Answer
   - Station B continues to ring until the VMS becomes idle even after the predetermined time for Call Forwarding-No Answer has elapsed. When the VMS becomes idle, station A is connected to the VMS.

d) Direct access to VMS
   - If station A or outside party accesses the VMS directly, the calling party hears busy tone. Station A can set call back to the VMS.

10. Multiple Call Forwarding to VMS: When the final destination for any combination of Multiple Call Forwarding is the VMS, calls can be transferred to the VMS. The first forwarded station's number (forwarded to the VMS) is sent to the VMS. For example, a call is received by station A, which is forwarded to Station B, which is forwarded to C, which is forwarded to VMS. The number of station A is sent to the VMS.
11. Ringing Transfer to an Attendant via the VMS: The NEAX2000 IVS allows the VMS to transfer the station or outside party to the Attendant and releases before the Attendant answers.
12. When the VMS is recalled, by transferring the call to an unanswered station, the system may be programmed to send the recalling extension number to the VMS.
13. A maximum of 26 digit extension numbers including DTMF signal after the VMS answered can be programmed to a One Touch key of a Multiline Terminal.

Voice Mail Private Password

General Description

Voice Mail Password can be prevented from displaying in LCD of D^{term}s when connected to the Voice Mail System.

Station Application

All Display D^{term}s

Operating Procedure

Normal password entry to VMS.

Service Conditions

1. When any connection to Voice Mail (VM) is established, each press of the Dial Key pad will display an * on the LCD of the D^{term}.
2. This feature is assigned on a per tenant basis for VMS ports only.

Voice Mail Transfer

General Description

This feature has two functions that provide streamlined transfer access to voice mail.

1. One touch access to VMS

   When an Attendant transfers an external call to a station, and if the station is busy or unanswered, the Attendant can transfer the call to a VMS by dialing "9" or by pressing a function key provided for this feature.

2. Transferring Camp-On call to VMS

   When an Attendant sets Camp-On to a busy destination station for an external call, and if the destination station does not answer by predetermined time, the call can be automatically transferred to a VMS.

Station Application

All stations

or

All Attendant Consoles.

Operating Procedure

To transfer a call to a VMS with one touch access from a Single Line Telephone

1. While answering an external call, press FLASH key (or momentarily press the hook switch) and receive a feature dial tone.
2. Dial a desired station number and receive a ringback tone or a busy tone.
3. Dial "9" or press a function key assigned for transferring a call to a VMS.
4. Restore the handset.

To transfer a call to a VMS with one touch access from a Multiline Terminal

1. While answering an external call, press TRF key and receive a feature dial tone.
2. Dial a desired station number and receive a ringback tone or a busy tone.
3. Dial "9" or press a function key assigned for transferring a call to a VMS.
4. Restore the handset.

To transfer a call to a VMS with one touch access from an Attendant

1. While answering an external call, dial a desired station number and receive a ringback tone or a busy tone.
2. Dial "9" or press a function key assigned for transferring a call to a VMS.
3. Press the RELEASE key.

To transfer a Camp-on call from an Attendant to a VMS

1. While answering an external call, dial a desired station number and receive a busy tone.
2. Press the RELEASE key.
3. A Camp-On tone is sent and Camp-On is set.
4. If the Camp-On call is not answered by predetermined time, the call will be automatically transferred to the VMS.
5. Press the RELEASE key.

Service Conditions

1. If all ports in the VMS UCD group are busy (assuming the following conditions):

   Station A (or outside party)....Calling Party

   Station B....Called Party

   Station C....Destination of Call Transfer from Station B.

   Station C **does not set** Call Forward All, Call Forward Busy, or Call Forward No Answer to the VMS.

   Station A (or outside party) calls Station B. Station B presses TRF key and dials Station C.

   a) Station C is **busy**, Station B hears Busy Tone ("BSY" appears in display), and then presses VM transfer button (or dials 9).
      - Station A (or outside party) hears Music on Hold source.
      - Station B hears ROT and **does not see** "FDB" in display as if it would if a VM port were available. Station B must press TRF key to return to Calling Party.

   b) Station C is **idle**, Station B hears Ringback Tone and presses VM transfer button (or dials 9).
      - Station A (or outside party) hears Music on Hold until Station B goes on hook. When Station B goes on hook, Station A (or outside party) hears Ringback Tone.
      - Station B **does not see** "FDN" in display as if it would if a VM port were available, but Station B sees Station C number in display instead. If Station B goes on hook, the call from Station A (or outside party) is transferred to Station C and continues to ring at Station C until Station Transfer Recall occurs. The call will return to Station B.

2. If all ports in the VMS UCD group are busy (assuming the following conditions):

   Station A (or outside party)....Calling Party

   SN-610 Attendant Console....Called Party

   Station C....Destination of Call Transfer from SN-610 Console.

   Station C **does not set** Call Forward All, Call Forward Busy, or Call Forward No Answer to the VMS.

   Station A (or outside party) calls SN-610 Console. SN-610 Console dials Station C.

   a) Station C is **busy**, SN-610 Console hears Busy Tone ("BSY" appears in display), and then presses VM transfer button.
      - Station A (or outside party) hears Music on Hold source.
      - SN-610 Console **does not see** "FDB" in display as if it would if a VM port were available. If SN-610 presses RLS key, the call will Camp-on to Station C. If it is allowed in system programming (CM08-428) **and** a VM port becomes available, the Calling Party will automatically transfer to the VMS when the Attendant Camp-on Recall timer occurs. If no VM port is available or if VMS Transfer with Camp-on is not allowed, the Calling Party will recall the SN-610 Console when the Attendant Recall timer occurs.

b) Station C is **idle**, SN-610 Console hears Ringback Tone and presses VM transfer button.

- Station A (or outside party) hears Music on Hold until SN-610 Console presses RLS key. When SN-610 Console presses RLS key, Station A (or outside party) hears Ringback Tone.
- SN-610 Console **does not see** "FDN" in display as if it would if a VM port were available, but SN-160 Console sees Station C number in display instead. If SN-610 Console presses RLS key, the call from Station A (or outside party) is transferred to Station C and continues to ring at Station C until Attendant Transfer Recall occurs. The call will return to SN-610 Console.

3. "Transferring Camp-on calls to VMS" is available only from SN-610 Attendant Consoles.

Whisper Page

General Description

This feature allows a secretary to interrupt the boss in a private way. By pressing a feature key or dialing an Access Code, the secretary station can voice override the conversation between the boss and another party (station or trunk). When the conversation is interrupted, the boss can hear the secretary but the other party is unaware of the Voice Override.

Station Application

All stations.

Operating Procedure

To activate the Whisper Page

1. Receive Busy tone after dialing a station.
2. Press the Whisper Page feature access key or press the TRANSFER key and dial access code for the Whisper Page feature.
3. Set Tone is heard. You can hear the conversation and speak to the station that you called.

To answer the Whisper Page

1. The called party (the boss) presses the ANS key (or presses the hookswitch) while the whisper page is in progress, the original call is put on hold. A holding tone is not transmitted to the other party of the original call.
2. The called station can then privately talk to the calling station (the secretary).
3. The called station re-presses the ANS key (or presses the hook switch).
4. The called station will return to the original call, while the calling station is put on hold.

If the called station (boss) hangs up while the Whisper Page is in progress, the original call will be released. Then a RBT is transmitted to the calling station and the called station can hear a ringing tone.

If the calling station (secretary) or the other party of the original call hangs up while the Whisper Page is in progress, the call turns into a two-party connection.

Service Conditions

1. This feature enables a maximum of 16 stations to access simultaneously including the other conference features.
2. The calling station and the called station can be defined as the Service Restriction Class.
3. Whisper Page cannot be made from or to an Attendant Console.
4. Whisper Page cannot be set to a station which is calling from an Attendant Console or a station which is set on Privacy.

5. Whisper Page can be set to a call in progress with the primary extension, sub-line, or trunk line appearance.
6. Whisper Page cannot be set to a call in progress with the sub-line to which Camp-On has been set.
7. When station-C interrupts the conversation between Station-A and Station/Trunk-B, Station-C can hear Station-A, but can not hear Station/Trunk-B. Station-C can only talk with Station-A. Station/Trunk-B cannot hear the conversation between Station-A and Station-C.

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
i						2.6	2.7	
ii		2.2			2.5	2.6	2.7	
iii		2.2	2.3		2.5	2.6	2.7	
iv		2.2	2.3			2.6	2.7	
v		2.2	2.3			2.6	2.7	2.8
vi		2.2	2.3		2.5	2.6	2.7	2.8
vii		2.2	2.3	2.4	2.5	2.6	2.7	2.8
viii		2.2	2.3	2.4	2.5	2.6	2.7	2.8
ix		2.2	2.3	2.4	2.5	2.6	2.7	2.8
x		2.2	2.3	2.4	2.5	2.6	2.7	2.8
xi		2.2	2.3	2.4	2.5	2.6	2.7	2.8
xii		2.2	2.3	2.4	2.5	2.6	2.7	2.8
xiii		2.2	2.3	2.4	2.5	2.6	2.7	2.8
xiv		2.2	2.3	2.4	2.5	2.6	2.7	2.8
xv		2.2	2.3	2.4	2.5	2.6	2.7	2.8
xvi		2.2	2.3	2.4	2.5	2.6	2.7	2.8
1								
2								
3							2.7	
4								
5								
6								
7					2.5			
8					2.5		2.7	
9								
10						2.6		
11								2.8
12								2.8
12-1								2.8
12-2								2.8
13								
14								
15								
16								
17								
18								
19								
20						2.6		

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
20-1						2.6	2.7	
20-2						2.6		
21						2.6		
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								2.8
46	2.1			2.4				2.8
47								
48								
49								
50								
51				2.4				
52								
53								
54								2.8
55								
56								

ADDENDUM-001		ADDENDUM-002		ADDENDUM-003		ADDENDUM-004	
DATE	FEBRUARY, 1996	DATE	MARCH, 1996	DATE	OCTOBER, 1996	DATE	APRIL, 1997
ADDENDUM-005		ADDENDUM-006		ADDENDUM-007		ADDENDUM-008	
DATE	OCTOBER, 1997	DATE	NOVEMBER, 1997	DATE	AUGUST, 1998	DATE	FEBRUARY, 1999

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
57								
58								
59								
60								
61								
62								
62-1					2.5			
62-2					2.5			
63								
64								
65								
66								
67								
68								
69								
70					2.5	2.6		
70-1					2.5			
70-2					2.5			
71								
72								
73						2.6		
74						2.6	2.7	
75							2.7	
76						2.6	2.7	
77						2.6	2.7	
78						2.6	2.7	
78-1							2.7	
78-2							2.7	
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
89								
90								2.8
91								
92								
93								
94	2.1							
94-1	2.1							
94-2	2.1							
95								
96								
96-1						2.6		
96-2						2.6		
97								
98								
98-1		2.2						
98-2		2.2						
98-3						2.6		2.8
98-4						2.6		2.8
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111	2.1							
112	2.1							
112-1	2.1							
112-2	2.1							
113								
114								
115								
116								

ADDENDUM-001		ADDENDUM-002		ADDENDUM-003		ADDENDUM-004	
DATE	FEBRUARY, 1996	DATE	MARCH, 1996	DATE	OCTOBER, 1996	DATE	APRIL, 1997
ADDENDUM-005		ADDENDUM-006		ADDENDUM-007		ADDENDUM-008	
DATE	OCTOBER, 1997	DATE	NOVEMBER, 1997	DATE	AUGUST, 1998	DATE	FEBRUARY, 1999

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
117								
118								
119								
120								
121								
122								
123								
124								
125								
126								
127								
128								
129							2.7	
130								
131								
132								
133	2.1							
134								
135								
136								
137							2.7	
138								
139								
140								
141								
142								
143								
144								
145								
146								
147								
148								
149								
150								
150-1			2.3					
150-2			2.3					
151								
152								

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
153								
154								
155								
156								
157								
158						2.6		
159								
160								
161								
161-1							2.7	
161-2							2.7	
161-3							2.7	
161-4							2.7	
162								
163								
164								
165								
166								
167								
168								
169								
170								
171								
172								
173								
174								
175								
176								
177								
178								
179								
180								
181				2.4				
182								
183								
184								
185								
186								

ADDENDUM-001		ADDENDUM-002		ADDENDUM-003		ADDENDUM-004	
DATE	FEBRUARY, 1996	DATE	MARCH, 1996	DATE	OCTOBER, 1996	DATE	APRIL, 1997
ADDENDUM-005		ADDENDUM-006		ADDENDUM-007		ADDENDUM-008	
DATE	OCTOBER, 1997	DATE	NOVEMBER, 1997	DATE	AUGUST, 1998	DATE	FEBRUARY, 1999

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
187							2.7	
188								
189								2.8
190								
191								
192								
193								
194								
195								
196								
197								
198								
199								
200								
201								
202								
203								
204								
205								
206								
207					2.5			
208					2.5			
208-1					2.5			
208-2					2.5			
209								
210								
211								
212								
213								2.8
214								2.8
215								2.8
216								2.8
217								2.8
218								2.8
219								
220								
221								
222								

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
223								
224								
225								
226	2.1							
227								
228								
229								
230								
231								
232								
233								
234								
235								
236								2.8
237								
238								
239								
240								
241								
242								
243								
244								
245								
246								
247								
248	2.1				2.5			
248-1	2.1						2.7	
248-2	2.1						2.7	
249	2.1						2.7	
250								
251							2.7	
251-1							2.7	
251-2							2.7	
252							2.7	
253								
254								
255								
255-1					2.5			

ADDENDUM-001		ADDENDUM-002		ADDENDUM-003		ADDENDUM-004	
DATE	FEBRUARY, 1996	DATE	MARCH, 1996	DATE	OCTOBER, 1996	DATE	APRIL, 1997
ADDENDUM-005		ADDENDUM-006		ADDENDUM-007		ADDENDUM-008	
DATE	OCTOBER, 1997	DATE	NOVEMBER, 1997	DATE	AUGUST, 1998	DATE	FEBRUARY, 1999

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
255-2					2.5		2.7	
255-3					2.5		2.7	2.8
255-4					2.5			
256					2.5			
257								
257-1					2.5	2.6		2.8
257-2					2.5			2.8
257-3								2.8
257-4								2.8
258								
259			2.3					
260	2.1							
261	2.1							
262	2.1							
263								
264								
265								
266								
267								
268								
269								
270								
271								
272								
273								
274								
275								
276							2.7	
277							2.7	
278								
279								
280								
281								
282								
283	2.1							
283-1	2.1							
283-2	2.1							
284	2.1							

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
285	2.1							
285-1	2.1		2.3					
285-2	2.1		2.3					
286								
287								
288								
289								
290								
291								
292								
293								
294								
295								
296								
297								
298								
299						2.6		
299-1						2.6		
299-2						2.6		
300								
301								
302								
303	2.1							
304								
305								
306								
307								
308								
309								
310								
311								
312								
313								
314								
315								
316								
316-1						2.6	2.7	
316-2						2.6	2.7	

ADDENDUM-001		ADDENDUM-002		ADDENDUM-003		ADDENDUM-004	
DATE	FEBRUARY, 1996	DATE	MARCH, 1996	DATE	OCTOBER, 1996	DATE	APRIL, 1997
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PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008
317	2.1		2.3	2.4		2.6	2.7	
318	2.1		2.3	2.4			2.7	
319	2.1		2.3	2.4		2.6	2.7	
319-1							2.7	
319-2							2.7	
320								
320-1				2.4				
320-2				2.4				
321			2.3	2.4		2.6	2.7	2.8
322				2.4			2.7	2.8

PAGE No.	ADD. No.							
	001	002	003	004	005	006	007	008

ADDENDUM-001		ADDENDUM-002		ADDENDUM-003		ADDENDUM-004	
DATE	FEBRUARY, 1996	DATE	MARCH, 1996	DATE	OCTOBER, 1996	DATE	APRIL, 1997
ADDENDUM-005		ADDENDUM-006		ADDENDUM-007		ADDENDUM-008	
DATE	OCTOBER, 1997	DATE	NOVEMBER, 1997	DATE	AUGUST, 1998	DATE	FEBRUARY, 1999