NITSUKO AMERICA
TELECOM DIVISION

Digital System DS

Feature and Terminal Programming Manual

Contents

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- Programming
- Automatic Route Selection
- Charts
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Automatic Route Selection

- Description
- Software Configuration
- Program Entry
- Operation
- Command Structure

NITSUKO AMERICA
TELECOM DIVISION

This manual describes your system's features and programming. It is intended for system administrators (system programmers) and service technicians using a programming terminal. If you are programming a Businesscom DS01 from the telephone, refer to your Administrator's Guide.

Digital System DS

Feature and Terminal Programming Manual

Includes Three-Cabinet (24 x 72) System

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This manual has been developed by Nitsuko America. It is intended for the use of its customers and service personnel, and should be read in its entirety before attempting to install or program the system. Any comments or suggestions for improving this manual would be appreciated. Forward your remarks to:

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- For Your Notes -

Before Reading This Section

This section provides detailed information on the system's features. If you don't know what the various features are, review the feature summary provided as part of this section's Table of Contents. After reviewing the feature summary, turn back to this section for the specifics.

Using This Section

The features in this section are in alphabetical order, like a dictionary. This section subdivides each feature definition into headings as follows:

Description tells what the feature is and describes its benefits. Along with the Description are the *Conditions* and *Default Configuration.* Conditions provides the feature's operational limits (if any). Default Configuration outlines how the feature works with the default programming. When initially installed, the system uses the default configuration.

Programming explains the system programming that lets you customize the feature. Some features require programming; others don't. You ***must*** customize the *Required Programming* to make the feature work. *Other Programming* lists additional programs you should consider when setting up the feature. If you decide to customize a feature, use Section 2 to:

- Enter the change in the system
- Record the change on the Program Record Form (PRF)

Refer to the System Programmable Options chart at the end of this manual for a handy Feature-to-Program troubleshooting reference.

Related Features presents the feature interaction.

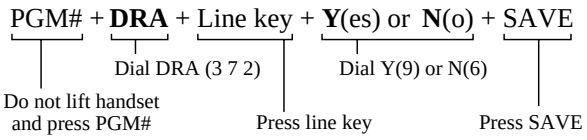
Feature Operation consists of instructions on how to use each feature and what the user should hear while performing the steps. This tells the user what to expect before and after each instruction step.

Example: Listen for: Dial tone

The tables that follow show the various flash and ring rates and system tones for each feature (Tables 1 through 3).

User-Programmable Features

With the correct access level, a user can customize selected features from the telephone. The user-programmable features are abbreviated in this manual:



User-programmable features include (refer to the system Administrator's Guide for the specifics):

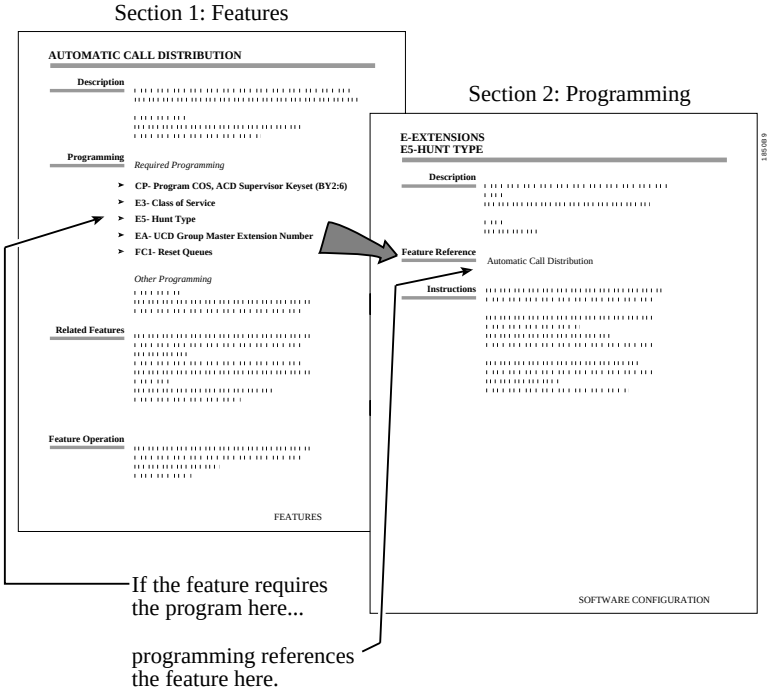
Call Coverage Keys	Off-Hook Signaling
Central Office Calls, Answering	Paging
Intercom	Prime Line Selection
Group Call Pickup	Ringing Line Preference
Headset Compatibility	Speed Dial
Hotline	Time and Date Setting
Night Answer	

INTRODUCTION

How to Use This Section With Section 2

Section 1, Features, works closely with Section 2, Programming (see the Illustration below).

- If a feature has a required program, go to Section 2 for the details on the program.
- The *Feature Reference* heading in Section 2 lists all the features for which that program is required.



The Abbreviated Number Plan Foldout

The Abbreviated Number Plan chart shows the numbers for:

- Extensions
- Trunks
- Ports
- Ring Groups
- Selectable Display Messages
- Speed Dial Blocks
- Unfold this chart (see the illustration below) when reading Sections 1 and 2.

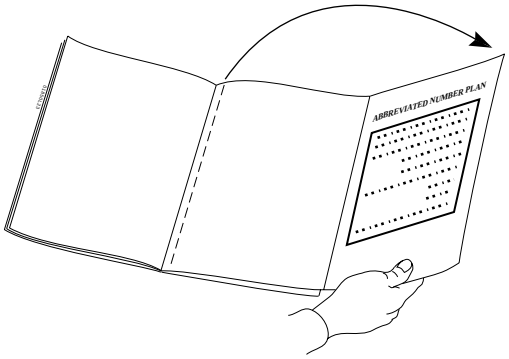
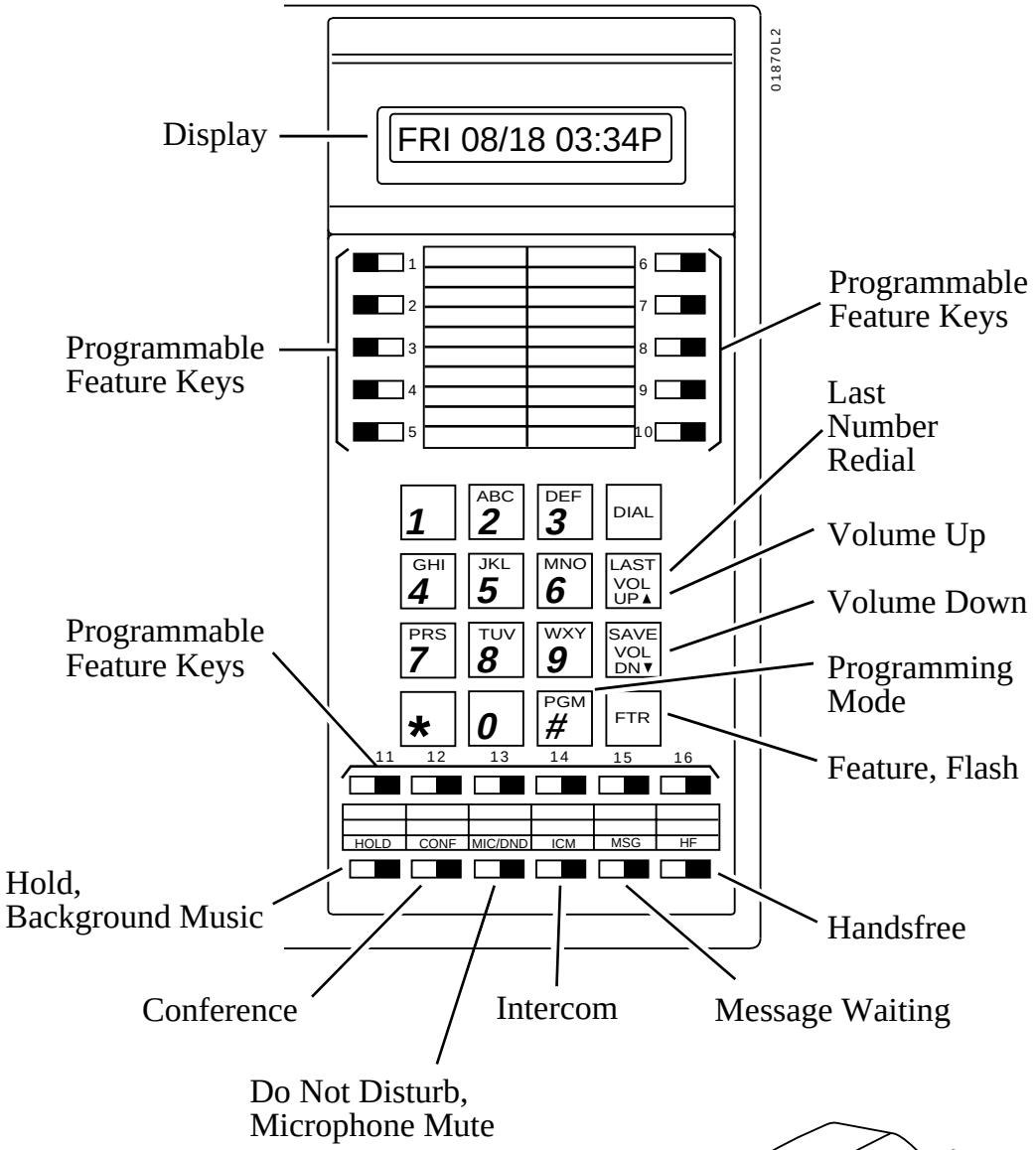
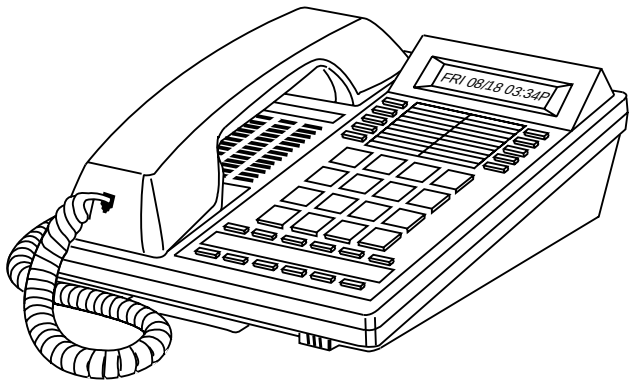


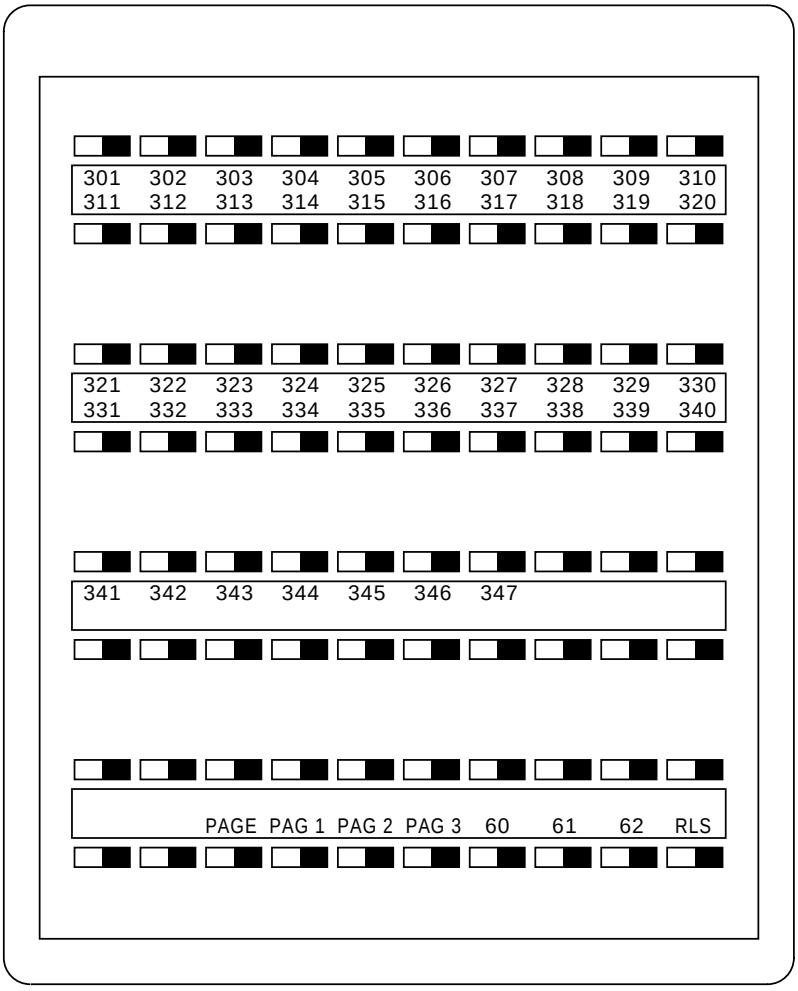
Figure 1 KEYSET TELEPHONES





Note: Programmable keys and feature keys have patents pending.

FIGURE 2 DSS CONSOLE



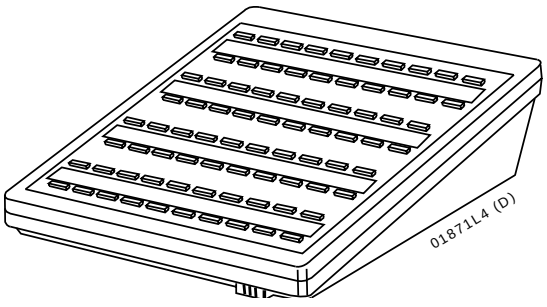


Figure 3 ELECTRONIC SINGLE LINE (ESL) TELEPHONE

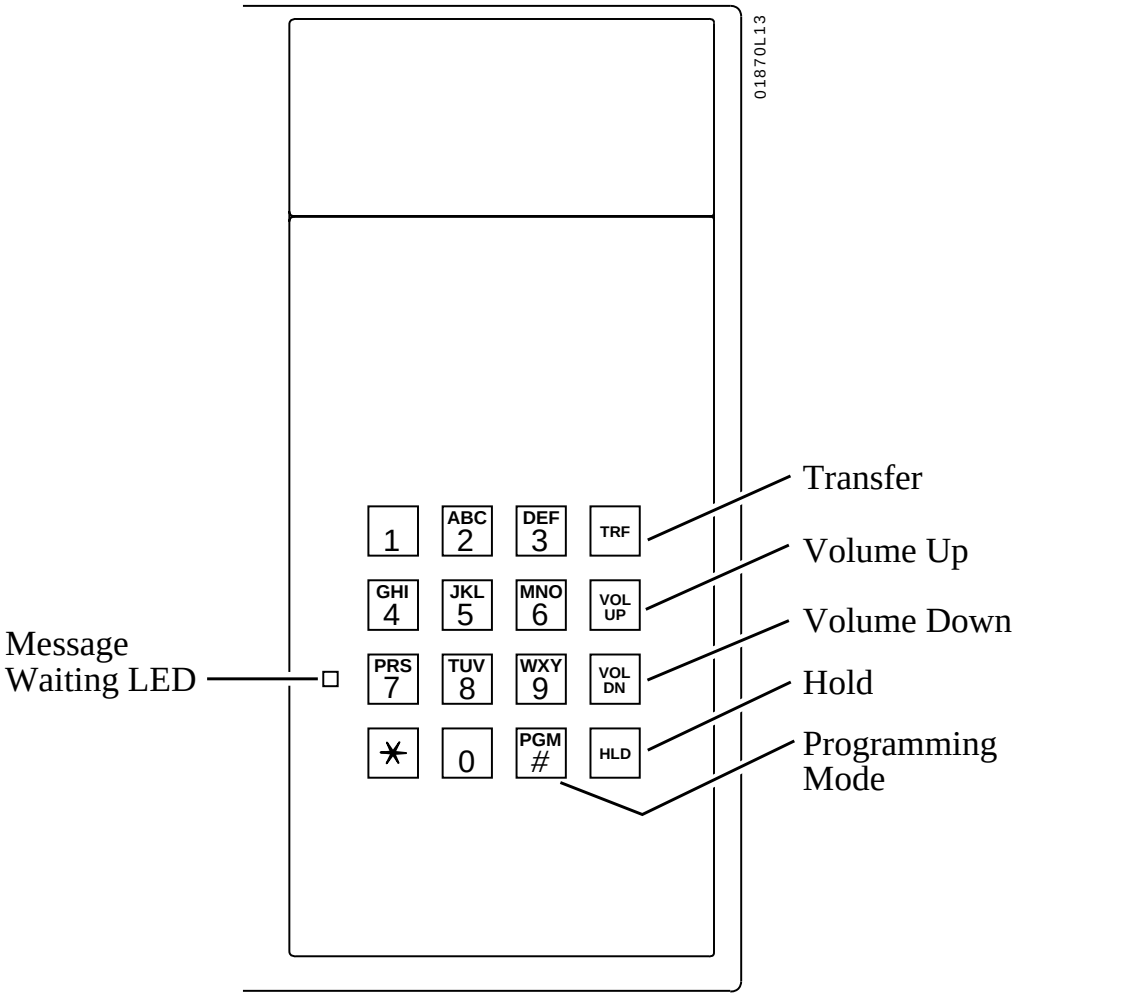


Figure 4 ANALOG STATION INTERFACE

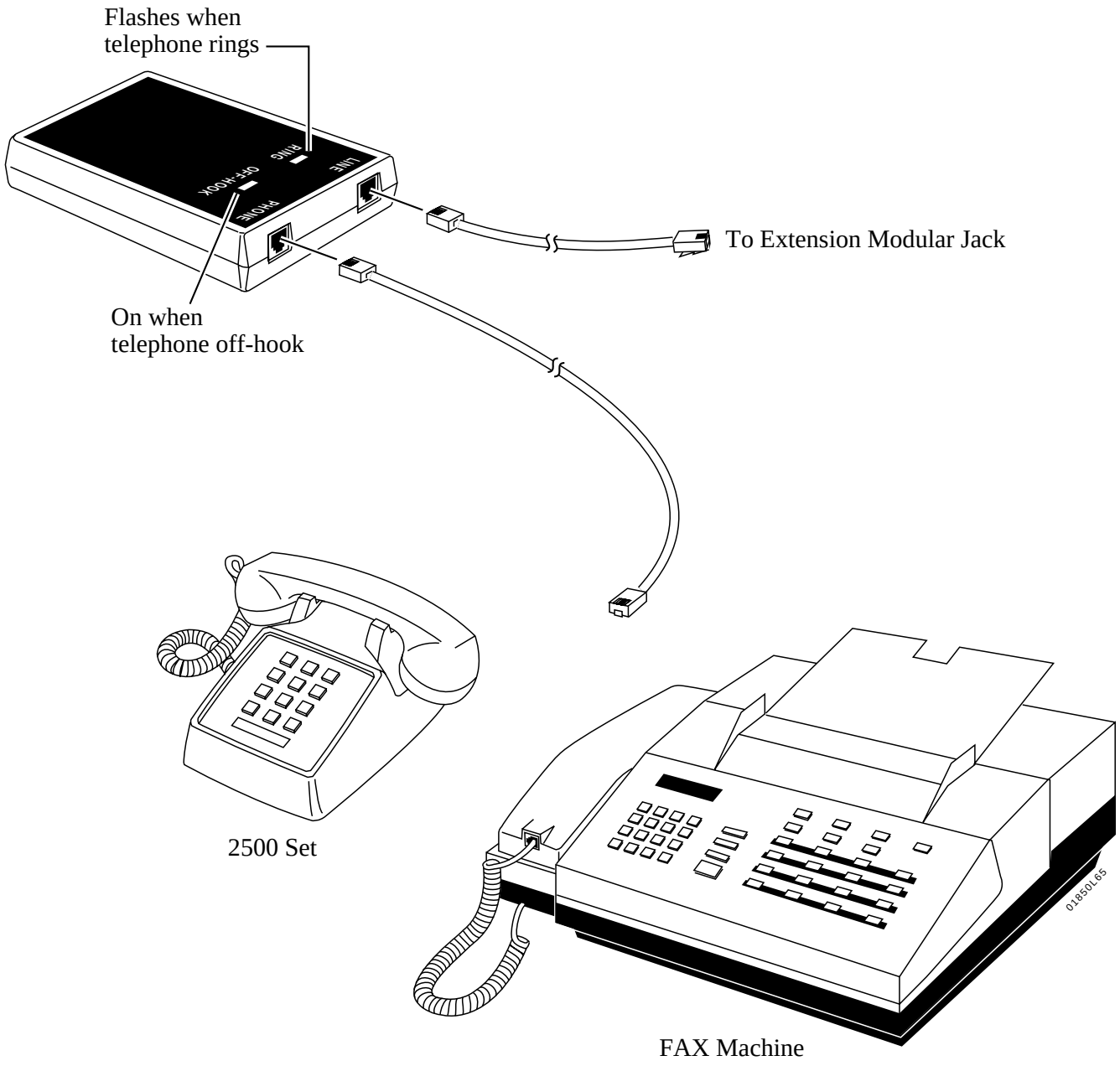


Table 1 SYSTEM FLASH RATES

Your phone is idle (not on a call)	All LEDs out (dark)
An outside line is busy	The line key is **On Red**
An outside call is ringing your phone	The line key flashes **Slowly Red** if it's shared, **Off** then **Quickly Flashing Green** if it's just for you
And then you answer it	The line key is **On Green**
Or answer it with Privacy released	The line key flashes **Quickly Green**
You place the outside call on Hold	The line key is **On** then **Slowly Flashing Green**
Or a co-worker places it on Hold	The line key flashes **Moderately Red**
Or you place the outside call on Exclusive Hold	The line key is **On** then **Quickly Flashing Green**
If a call on Hold recalls to you	The line key is **Off** then **Quickly Flashing Green**
An Intercom call rings your phone	ICM flashes **Slowly Green**
You answer the Intercom call	ICM flashes **Quickly Red**
You place the Intercom call on Hold	HOLD flashes **Quickly Green** then **On**
And then it recalls to you	ICM flashes **Slowly Green**
You activate Microphone Mute	MIC/DND is **On Red**
You activate Do Not Disturb	MIC/DND flashes **Quickly Red**
You have a Message Waiting	MSG flashes **Quickly Red**
You activate Call Forwarding, Personal Greeting or Selectable Display Messaging	MSG flashes **Slowly Green**

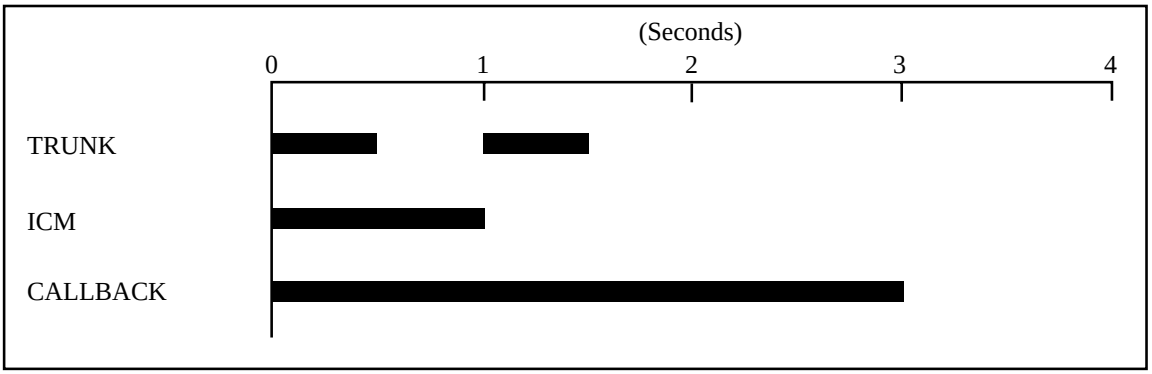
Table 1 SYSTEM FLASH RATES

Your phone is idle (not on a call)	All LEDs out (dark)
An outside line is busy	The line key is **On**
An outside call is ringing your phone	The line key flashes **Slowly** if it's shared, **Off** then flashing **Quickly** if it's just for you
And then you answer it	The line key is **On**
Or answer it with Privacy released	The line key flashes **Quickly**
You place the outside call on Hold	The line key is **On** then flashing **Moderately**
Or a co-worker places the call on Hold	The line key flashes **Moderately**
Or you place the outside call on Exclusive Hold	The line key is **On** then flashing **Quickly**
If a call on Hold recalls to you	The line key is **Off** then flashing **Quickly**
An Intercom call rings your phone	ICM flashes **Slowly**
You answer the Intercom call	ICM flashes **Quickly**
You place the Intercom call on Hold	HOLD is **ON** then flashes **Quickly**
And then it recalls to you	ICM flashes **Slowly**
You activate Microphone Mute	MIC/DND is **On**
You activate Do Not Disturb	MIC/DND flashes **Quickly**
You have a Message Waiting	MSG flashes **Quickly**
You activate Call Forwarding, Personal Greeting or Selectable Display Messaging	MSG flashes **Slowly**

Table 1 SYSTEM FLASH RATES

All programmed extensions idle (not on a call)	All LEDs out (dark)
An outside line is busy	The line key on **ON Red**
You place an Intercom call	DSS key being called flashes **Quickly Red**
You place the Intercom call on Hold	HOLD flashes **Moderately Red**
An extension activates Do Not Disturb	DSS key for that extension flashes **Quickly Red**

Table 2 SYSTEM RING RATES



Note: Each group of four extensions rings with different tones. This is called Distinctive Ringing. For example, extension 300 rings differently than extension 301. Extension 301 rings differently than extension 302.

Every fourth extension, the Distinctive ringing pattern repeats. For example, extension 300 rings the same as extension 304. Extension 301 rings the same as extension 305, and so on.

Table 3 SYSTEM TONES

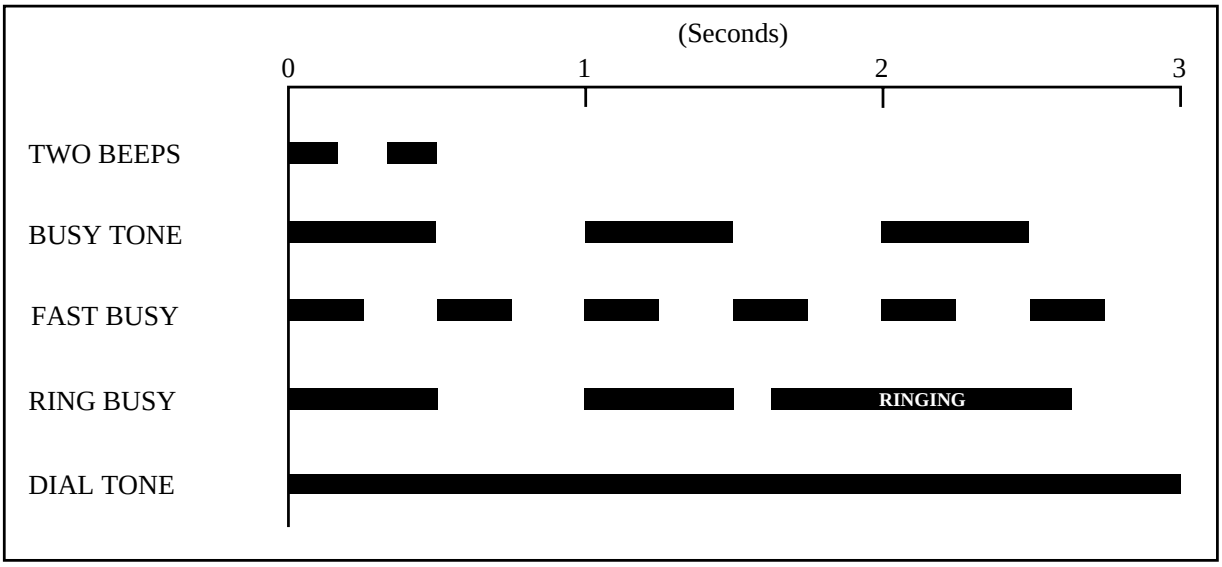


Table 4 SYSTEM NUMBER PLAN	
	Note: All the functions below are from Intercom dial tone (except where noted).
Code	**Function**
	Account Codes
#+10 dig.	Account Code Number
	Automatic Call Distribution
4#	ACD agent puts self back in service
6#	ACD agent removes self from service
#+6+8+6+9 or 6	Erase OPA/ACD messages (dial 9) or abort procedure (dial 6)
#+DSS Con.+4	ACD supervisor puts agent back in service
#+DSS Con.+7	ACD supervisor removes agent from service
	Call Forwarding
#	Cancel Call Forwarding
#+0	Forward calls to main attendant
#+ext+1	Call Forwarding option 1 (ring no answer)
#+ext+2	Call Forwarding option 2 (ring no answer and busy)
#+ext+3	Call Forwarding option 3 (all calls)
#+ext+4	
	Call Parking
60-69	Park Orbits
*560-*569	At ASI/OPX, transfer call to Park Orbits 60-69
	Call Timer
#8	Call Timer On/Off
	Call Waiting
*2	Call Waiting (answering a waiting call from an ESL set)
	Callback
2	When hearing busy/ring busy, dial 2 and hang up to leave Callback
*FTR	Cancel Callback left at own extension
#*	Cancel all Callbacks at own extension
	Central Office Calls (Trunk Numbers and Access Codes)
348-363	Trunk numbers (without AUX)
372-395	Trunk numbers (with AUX)
801-808	DS01 trunk access codes (without AUX)
801-824	DS01 trunk access codes (with AUX)
9	Single digit access to group 1 (90)
90-98	Trunk group access (groups 1-9)
	Conference
11,12	Meet-Me Conference
*#	Retrieve or establish Conference from Hold at ASI/OPX/ESL
	Dialing Number Preview
* or FTR	While idle, dial * or FTR to activate Dialing Number Preview

Table 4 SYSTEM NUMBER PLAN	
	Note: All the functions below are from Intercom dial tone (except where noted).
Code	**Function**
	Digital Door Box
310,311,322, 323	Digital Door Box extension numbers
FTR	At keyset, press and hold FTR to activate the associated Relay Box relay
*	At ASI/OPX/ESL, press (do not hold) * to activate the associated Relay Box relay
	Directed Call Pickup
*300-*347	Directed Call Pickup codes for one and two cabinet systems
*300-*371	Directed Call Pickup codes for three cabinet systems
	Directory Dialing
3	While idle, dial 3 to activate Directory Dialing
32	While idle, dial 32 to access the Company-Wide Directory
34	While idle, dial 34 to access the Directory
37	While idle, dial 37 to access the Personal Speed Dial directory
	Forced Line Disconnect
#	While hearing busy, dial # to disconnect trunk
	Flash
FTR	Flash the trunk
	Group Call Pickup
*1	Group Call Pickup
#+key+3	From idle, assign delayed ringing to pickup key
#+key+5	From idle, assign lamp-only (no ringing) to pickup key
#+key+7	From idle, assign immediate ringing to pickup key
	Group Ring
364-371	Ring Groups (without AUX)
396-403	Ring Groups (with AUX)
	Hold
*7	Retrieve a call from Hold from an ESL or ASI
*801-*808	Retrieve trunk call from Hold (without AUX)
* 801-*824	Retrieve trunk call from Hold (with AUX)
	Intercom
l + ext	Intercom call, forced ringing
300-323	Extension numbers (without AUX)
300-371	Extension numbers (with AUX)
0	Your attendant
01-04	Attendants 1-4
#0	While idle, incoming Voice Announce off
#1	While idle, incoming Voice Announce on
	Intrusion
4	When hearing busy/ring busy, dial 4 to intrude

Table 4 SYSTEM NUMBER PLAN	
	Note: All the functions below are from Intercom dial tone (except where noted).
Code	**Function**
	Last Number Redial
**	Last Number Redial
DIAL+LAST	From idle, redial last number dialed
	Message Waiting
6	While hearing busy tone at ASI/OPX/ESL set, dial 6 to send message
*6	Retrieve Message Waiting
#*	Cancel all Messages Waiting left at own extension
	Night Answer
*0	Pick up night mode call ringing External Paging
	Operator Assistance
#6+8+02-07	Record OPA message 02-07
#6+8+5+02-07	Listen to previously recorded message 02-07
#6+8+#+9 or 6	Erase OPA/ACD messages (dial 9) or abort procedure (dial 6)
	Paging
1*	All Call Paging
2*	Page Zone 1
3*	Page Zone 2
4*	Page Zone 3
5*	Page Zone 4
6*	Page Zone 5
7*	Page Zone 6
8*	Page Zone 7
	Removing Lines and Extensions from Service
#+ext+0	Remove extension from service
	Save
DIAL SAVE	Steps for saving the last number dialed or dialing a saved number
	Selectable Display Messages
#600-#615	Select messages 600-615
	Silent Monitor
#+ext+6	Activate Silent Monitor for extension dialed
6	When busy/ring busy, dial 6 to activate Silent Monitor
	Speed Dial
20-29	Personal Speed Dial bins (second 10 bins)
50-59	Personal Speed Dial bins (first 10 bins)
70-7999	System Speed Dial bins
#20-#29	Program Personal Speed Dial (second 10 bins)
#50-#59	Program Personal Speed Dial (first 10 bins)
#70-7999	Program System Speed dial bins
#+key	From idle, program One-Touch Speed Dial key

Table 4 SYSTEM NUMBER PLAN	
	Note: All the functions below are from Intercom dial tone (except where noted).
Code	**Function**
DIAL+key	From idle, dial Speed Dial number stored under key
	Split
*7	Retrieve second call
	Time and Date
#8	Set Time
#9	Set Date
6	While idle, dial 6 to hear the extension number
8	While idle, dial 8 to hear the time
	Walking Class of Service
##	Digits dialed before Walking Class of Service code
	Miscellaneous
#+0	From attendant, set baud rate of serial port (see page 283)
0-5	After attendant dials #+0+1, 0-5 sets baud rate (see page 283)

Description

Account Codes are user-dialed codes associated with trunk calls. An extension user may enter an Account Code while placing a call or any time while on a call. The system administrator uses Account Codes to restrict and classify trunk calls. The Account Codes print along with the other call data on the SMDR record after the call completes. Account Codes can be up to 10 digits long, using the digits 0-9.

There are two modes of Account Code Operation:
- Mandatory
- Verifiable

With Mandatory Account Codes, a user must enter an Account Code when placing a trunk call. If the user fails to enter the code, the system cuts off the call.

With Verifiable Account Codes, a user must enter an Account Code from the Verifiable Account Code list when placing a trunk call. If the user fails to enter the code (or enters a code not on the list), the system cuts off the call. The system administrator can enter up to 400 Verifiable Account Codes into system memory. A Verifiable Account Code must be at least two digits long. You must have an AUX Module to have Verifiable Account Codes.

10-Digit Inter-Lata Calls

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

The system accommodates Forced Account Codes for 10-digit inter-lata local calls. This is important for users on the fringe of an area code that can place two types of local calls:
- 10-digit local calls into the adjacent area code
- 7-digit local calls within their own area code

In the above referenced software releases, the system requires Forced Account Codes only if the user dials a leading 1 before their 7- or 10-digit call. In previous software versions, the system would require Forced Account Codes for all 10-digit calls.

Conditions

(A.) Users can enter Account Codes for incoming calls. However, the system cannot make these codes Mandatory or Verifiable.
(B.) The system never requires a user to enter an Account Code for a 911 call.

Default Configuration

Mandatory and Verifiable Account Codes disabled. Users can optionally enter unverified Account Codes.

Programming

Required Programming

➢ **"QI- Verifiable Account Code List"**
Enter up to 601 codes into the Verifiable Account Code List. The codes must be at least two digits long. [A=Add, D=Delete, Z=Delete All, L=List]

➢ **"QL- ARS/Account Codes, Mandatory Account Codes"**
Enable/disable Mandatory Account Codes. [Y=enable, N=disable]

➢ **"QL- ARS/Account Codes, Verifiable Account Codes"**
Enable/disable Verifiable Account Codes. [0=Not Inst'd, 2=ARS Inst'd]

➢ **"QL- ARS/Account Codes, Acct Codes for Toll Calls Only"**
Enable/disable Mandatory Account Codes for all outside calls or just for toll (1+) calls. [Y=enable, N=disable]

➢ **"QL- ARS/Account Codes, Min. COS for Account Codes"**
Set the minimum COS number that requires Mandatory Account Codes. For example, if you enter 00, COSs 00-27 must enter Account Codes. [00-27, 30 for operators]

Other Programming

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign a Class of Service to each extension. See QL- ARS/Account Codes, Minimum COS for Mandatory Account Codes. [00-27, 30 for operators]

Related Features

"Automatic Route Selection"
The system can require Account Codes and ARS Authorization Codes for the same call. If you want to use Account Codes with ARS, make sure you enable Mandatory Account Codes in the QL option.

"Central Office Calls, Placing"
Users can dial Account Codes while placing calls. The system may require Account Code Entry.

"Speed Dial"
A extension user can have One-Touch Speed Dial keys for simplified Account Code entry. However, the user cannot then implement Last Number Redial or Save to redial the call.

"Station Message Detail Recording"
After a user enters an Account Code, dialing #, additional digits and another # may change the SMDR Account Code entry.

Feature Operation

To enter an Account Code when placing an outside call:

If you use a One-Touch Speed Dial key instead of the procedure below, the system will reverify your account code (if verification is applicable).

1. Place call.

   If you have the Account Code in a One-Touch Speed Dial key, you can press the key instead of using steps 2-4.
2. Press PGM# immediately after dialing the number.
3. Enter Account Code.
4. Press PGM# again.

   Entering # again, additional digits and another # may change your Account Code.

To enter an Account Code for the call you are on:

If you use a One-Touch Speed Dial key instead of the procedure below, the system will reverify your account code (if verification is applicable).

1. Do not hang up.
2. Press ICM.

   If you have ESL Set, press HLD instead.

   Listen for: *Dial tone*
3. Press PGM#.

   Listen for: *Dial tone stops*
4. Enter Account Code.
5. Press PGM# again.
6. Press HOLD (HLD).

   Listen for: *You return to the call*

Description

Each Display Telephone has a 16-character alphanumeric display that provides various feature status messages. These messages (Tables 5 through 7) help the display telephone user process calls, identify callers and customize features. Note that Time and Date always display when the extension is idle.

There are four categories of Alphanumeric Displays:

- Attendant Displays (Table 5), which can occur only at attendant extensions
- ACD Supervisor Displays (Table 6), which can occur only at the ACD supervisor extensions
- Other Telephone Displays (Table 7), which can occur at any display telephone
- Telephone programming displays. Refer to the Administrator's Guide for the specifics.

A display keyset user can adjust the brightness of their telephone's display (see Feature Operation).

Conditions

None

Default Configuration

None

Table 5 ATTENDANT DISPLAYS

This display...	Appears when using...	And shows...
0-5=300-19200	Terminal Programming	Attendant has dialed ICM, #, 0,selected port to program (1 or 2), and system is asking for port speed entry
300	Terminal Programming	Port speed of 300 baud selected
1200	Terminal Programming	Port speed of 1200 baud selected
2400	Terminal Programming	Port speed of 2400 baud selected
4800	Terminal Programming	Port speed of 4800 baud selected
9600	Terminal Programming	Port speed of 9600 baud selected
19200	Terminal Programming	Port speed of 19,200 baud selected
ABORTED	Selectable Display Messages	Attendant has dialed N to abort the procedure which cancels all Selectable Display Message selections
ALT OPR ASSIGNED	Alternate Operator	Attendant just enabled Alternate Operator
CANCEL ALT OPR	Alternate Operator	Attendant pressed MIC/DND to cancel Alternate Operator
COMPLETED	Selectable Display Messages	Attendant has dialed Y to cancel all Selectable Display Message selections
DELETE ALL MSG ?	ACD/Personal Greeting/OPA	Attendant/supervisor dialed ICM #68# to cancel all messages
EXPD KSU FAILED	Automatic Fault Reporting	Shows attendant that expansion KSU has failed
LINE nnn FAILED	Automatic Fault Reporting	Trunk circuit nnn failed
MAJOR ALARM	Automatic Fault Reporting	Major alarm(s) has occurred in system
MAJOR/MINOR ALRM	Automatic Fault Reporting	Both major and minor alarms have occurred in system
MINOR ALARM	Automatic Fault Reporting	Minor alarm(s) has occurred in system
NIGHT MODE OFF	Night Answer	Attendant pressed MIC/DND to disable Night Mode operation
NIGHT MODE ON	Night Answer	Attendant pressed MIC/DND to enable Night Mode operation
PARKED IN nn	Park	Attendant parked call in orbit nn
STA nnn FAILED	Automatic Fault Reporting	Extension nnn failed

Table 6 ACD SUPERVISOR DISPLAYS		
This display...	**Appears when using...**	**And shows...**
02 X-304 1:23	Automatic Call Distribution	Two calls are waiting and extension 304 has the longest waiting call (1 minute, 23 seconds)
01 L-01 3:21	Automatic Call Distribution	Line 01 has one call waiting for 3:21
4=INST,7=REMOVE	Automatic Call Distribution	ACD Supervisor dialed ICM # and pressed DSS Console key for member extension
ABORTED	Selectable Display Messages	ACD supervisor has dialed N to abort the procedure which cancels all Selectable Display Message selections
COMPLETED	Selectable Display Messages	ACD supervisor has dialed Y to cancel all Selectable Display Message selections
DELETE ALL MSG ?	Selectable Display Messages	ACD supervisor dials ICM #68# to cancel all Selectable Display Message selected by extension users

ALPHANUMERIC DISPLAY

Table 7 TELEPHONE DISPLAYS		
This display..	**Appears when using...**	**And shows...**
0,1,PK,SPD KEY	Intercom, Speed Dial	Options when programming Intercom Voice Announce, Group Call Pickup ringing and One-Touch Speed Dial keys
A-Y,0=SPACE,Q,Z	Speed Dial	In the Speed Dial programming mode, user has dialed Y to program Speed Dial names
A-Y,0=QZ,#=ALL	Directory Dialing	After dialing I, P or C for Directory Dialing, user dials * for options
ACCESS DENIED	Directory Dialing	User tries to use company-wide directory (System Speed Dial) from a restricted phone
AUTHORIZATION NO	ARS	User places an outside call and ARS requests an Authorization Code
AUTO TIMER ON	Call Timer	User activates Call Timer
AUTO TIMER OFF	Call Timer	User deactivates Call Timer
B Assigned name	Transfer	User answered Trunk recalling from busy extension (with indicated name) after an incomplete Transfer
BUSY RECALL nnn	Transfer	User answered Trunk recalling from busy extension nnn after an incomplete Transfer
CALL FROM nnn	Call Waiting, Intercom ,Hotline, Station Call Coverage	Intercom call from extension nnn
CALL FROM Lnn	Central Office Calls, Answ.	User presses a line key to answer a trunk without an assigned name
CALL FROM ORBIT	Park	Call retrieved from Orbit
CALL WAITING	Call Waiting	Caller (with programmed name) waiting
Callers name	Call Waiting, Intercom, Hotline, Station Call Coverage, Central Office Calls	Call from extension or trunk with indicated name
CFWD FROM nnn	Call Forwarding	Call forwarded from extension nnn
COMPANY WIDE DIR	Directory Dialing	User dialed C for company-wide directory
CONFERENCE CALL	Conference, Privacy	User established Conference or joined a call using Privacy Release
Date and Time	Time and Date Setting	The current date and time (while the extension is idle)
DELAYR,RING,LAMP	Station Call Coverage	User is programming ringing options for a Call Coverage key
DIAL PREVIEW	Dialing Number Preview	User dialed * to activate Dialing Number Preview
Digits	Central Office Calls, Last Number Redial, Save, Speed Dial	Digits as trunk call dials out
DIRECTORY I,P,C	Directory Dialing	User dials D when extension is on hook to view Directory Dialing options
DND OFF	Do Not Disturb	User disabled DND
DND ON	Do Not Disturb	User enabled DND

Table 7 TELEPHONE DISPLAYS		
This display..	**Appears when using...**	**And shows...**
DO NOT DISTURB	Intercom, Station Call Coverage	User called extension in DND
DSS LAMP FIELD	Intercom, Direct Station Selection	User pressed ICM and enabled DSS keys
DSS,EXT,6,9,8 ?	Call Forwarding, DSS, Selectable Display Messages	User dialed ICM # and system shows selection options
ENTER A/C CODE	ARS	User places an outside call and system requests and Account Code
ENTER BIN #	Speed Dial	User is programming Speed Dial bins
ENTER FEAT. CODE	Speed Dial	User is programming Intercom Feature in a Speed Dial bin (or under a One-Touch Speed Dial key)
EXT	Call Forwarding Selectable Display Messages	User (with DSS suppressed) dials ICM # and system shows selection options
F Assigned name FWD TO nnn	Call Forwarding, Intercom	User placed Intercom call to extension forwarded to extension nnn
GROUP-R PICK-UP	Group Ring	User answered an outside call ringing a Ring Group (of which the user's extension is not a member)
HF CIRCUIT BUSY	Intercom	User tries to use Handsfree and no system Speakerphone circuits are available
HOLD RECALL nnn	Hold	User picks up a call abandoned on Hold by extension nnn
HOLD/WAIT xx/yy	Transfer	User is Transferring a call to a busy extension that has xx calls on Hold and yy calls camped-on (waiting)
ICM ANNOUNCE ON	Intercom	User dialed #1 to allow incoming Intercom voice announcements
ICM ANNOUNCE OFF	Intercom	User dialed #0 to block incoming Intercom Voice announcements
ICM DIRECTORY	Directory Dialing	User dialed I for Intercom directory
LINE [01-31,9X]	Speed Dial	User is programming a Speed Dial bin or One-Touch Speed dial key, and system is asking for a trunk number
LINE nn	Central Office Calls	User placing an outside call has seized trunk nn
MIKE MUTED	Microphone Mute	User pressed MIC/DND to mute the phone's mic
MSG. FRM. nnn	Message Waiting	User is viewing messages, and has Message Waiting from extension nnn
Name	Central Office Calls, Intercom, Hotline, Message Waiting, Station Call Coverage	User is placing a call, answering a call,or viewing a message for an extension with a programmed name
NO RAM INSTALLED	Directory Dialing	User trying to use Directory Dialing in a system without an AUX Module

ALPHANUMERIC DISPLAY

Table 7 TELEPHONE DISPLAYS		
This display..	**Appears when using...**	**And shows...**
NO SPEED DIAL	Speed Dial	User is trying to enter the users Personal Directory with no Speed Dial blocks assigned in programming
NO. OF MSG=nn	Voice Mail Compatibility	User pressed MSG to check the number of Voice Mail messages waiting
ORBIT RECALL nnn	Park	Call user parked is recalling user extension (nnn)
P Assigned name	Directed Call Pickup, Group Pickup	User has picked up a call from extension with assigned name
PARKED IN nn	Park	User Parks call in orbit
PERSONAL DIR.	Directory Dialing	User dialed P for personal directory
PICKUP FROM nnn	Group Call Pickup	User picked up a call ringing extension nnn
PRIVACY	Privacy Release Groups	User presses line key to have privacy
PRIVATE CALL	Privacy Release Groups	User pressed line key for trunk that has Privacy enabled by Hotline partner. Trunk normally must have Privacy released.
PROGM NAME Y/N	Speed Dial	User is programming Speed Dial and system is asking for a name entry
PROG MESSAGE	Personal Greeting	User is programming a Personal Greeting
R Assigned name	Hold, Park, Transfer	User answered recalling trunk call from extension with assigned name
RELEASE PRIVACY	Privacy	User pressed a line key to release privacy on a call where privacy was previously established
RING NO ANS nnn	Hold, Park, Transfer	User answered trunk call recalling from extension nnn
SELECTED IDLE LINE	Dialing Number Preview	After entering number, user pressed DIAL to place call
SET DATE MMDDYY	Time and Date Setting	User is setting system date
SET TIME HHMMSS	Time and Date Setting	User is setting system time
SPEED DIAL BINS	Speed dial	User presses DIAL to program or use Speed dial
Speed Dial name	Speed Dial	User dialing out a Speed Dial with a stored name
TEL NUMBER?	Speed Dial	User is programming Speed Dial and the system is requesting a number
UNLISTED NAME	Directory Dialing	User tries to access Directory Dialing, and the system has no names programmed
VACANT NUMBER	Direct Station Selection	User has pressed an undefined DSS Console key
WELCOME		Initial message after system start-up or reset

Programming

Required Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
Assign circuit type 02 to each Display Telephone.

Other Programming

None

Related Features

"Direct Station Selection, Extension"
"Intercept of Calls"
"Intercom"
Additionally, refer to the features indicated in Tables 5 through 7.

Feature Operation

Refer to the features indicated in Tables 5 through 7.

To adjust the brightness of your telephone's display (if you have a non-modular keyset):

1. Press VOL UP or VOL DN while telephone is idle.

Your phone must be idle (not ringing), with Background Music off.

ALTERNATE ATTENDANT

Description

Alternate Attendant lets the attendant forward calls to another keyset extension. This is useful when the attendant must temporarily leave the phone but does not want calls to go unanswered. After activating Alternate Attendant, outside calls that ring the attendant also ring the alternate. Intercom calls to the attendant normally ring only at the Alternate Attendant. If the alternate is busy, however, Intercom calls ring the attendant. After activating Alternate Attendant, the attendant may still place calls and use other attendant features.

Conditions

For maximum performance, the Alternate Attendant should be a display telephone.

Default Configuration

Alternate Attendant allowed.

Programming

Required Programming

➢ **"CP- Inhibit Call Forwarding (BY0:6)"**
Enable or disable Call Forwarding capability. To allow Alternate Attendant, this bit should always be 0 in COS 00. [0=allow Call Forwarding, 1=prevent Call Forwarding]

Other Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
The Alternate Attendant must by a keyset. [type 01-04]

Related Features

"Attendant Positions"
The Alternate Attendant cannot be another attendant.

"Automatic Fault Reporting/Remote Maintenance"
Attendant alarm indications do not display at the Alternate Attendant.

"Call Forwarding"
The system cancels Call Forwarding at the extension the attendant designates as the alternate. In addition, the alternate cannot forward calls once designated as the alternate.

"Do Not Disturb"
The system cancels Do Not Disturb at the extension the attendant designates as the alternate. If an Alternate Attendant enables Do Not Disturb, the system cancels the Alternate Attendant assignment.

"Removing Trunks and Extensions From Service"
The Alternate Attendant cannot remove trunks and extensions from service.

"Speed Dial"
The attendant can have a One-Touch Speed Dial key or Personal Speed Dial bin for the Alternate Attendant code.

Feature Operation

To reroute calls to the Alternate Attendant:

1. Lift handset.
   You can press a One-Touch Speed Dial key instead of using Steps 2-5.
2. Press ICM.
   Listen for: *Dial tone*
3. Dial PGM#.
   Listen for: *Dial tone stops*
4. Dial the alternate's extension number.
5. Dial 3.
   MIC/DND Slow Flash (red)
6. Hang up.

To cancel the Alternate Attendant routing (and return your calls to you):

1. Do not lift handset.
2. Press MIC/DND
   MSG and MIC/DND go out.

ANALOG STATION INTERFACE (ASI)

Description

ASI Modules

The Analog Station Interface (ASI) module (P/N 89749) provides standard 2500 set DTMF service at any extension port. Install the ASI when the site requires a limited number of analog interfaces -- without reducing the number of Line/Trunk ports. This lets the installer easily connect auxiliary equipment such as Integrated Voice Messaging. The ASI module can also support on-premise 2500 type telephones. The system requires an ASI module for each 2500 type port.

ASI P/N 89749 does not require a system DTMF receiver for outgoing calls as each ASI has its own integral DTMF receiver.

Conditions

(A.) ASI modules do not support Dial Pulse (500 type) telephones.

(B.) The device connected to the ASI *must* meet the FCC Part 68 requirements for Type B ringers (with a REN of 1.0 or less). For outdialing, the device connected must provide standard DTMF signals. Do not connect a telephone with an electro-mechanical ringer.

(C.) Do not install a telephone connected to an ASI off-premise. Wiring from the system to the ASI's modular jack should not exceed 2500 feet using 22 AWG two-pair twisted wire. Wiring from the modular jack to the analog device should not exceed 100 feet using 22 AWG two-pair twisted wire.

(D.) Analog devices which use automated dialing should incorporate dial tone detection, particularly in applications with heavy dialing traffic.

Default Configuration

None

Programming

Required Programming

(ASI extensions use E- Extension programming for features, not E- Trunk programming.)

➢ **E- Extensions, "E2- Extension Circuit Type"**

Assign type 51 for ASI P/N 89749.

Other Programming

None

Related Features

"Automatic Call Distribution"

To have an ASI ring for several lines:

- Terminate lines to the UCD master
- Have the ASI be the only member of a UCD
- Give other phones access and Call Coverage for the UCD master

"Call Parking"

A 2500 set connected to an ASI or OPX has Call Parking capability.

"Flash"

AUX Module $\geq$ 02.10 allows single line sets connected to an ASI to flash an outside line.

"Group Ring (Ring Groups)"

An ASI can not be a member of a ring group.

"Off-Premise Extension (OPX)"

A 2500 set connected to an ASI offers the same features as an Off-Premise Extension. Refer to the Off-Premise Extension feature for more details.

"Paging"

Single line (2500 type) telephones can make Page announcements. Single line telephones cannot, however, receive Page announcements.

"Special Services and OCC Compatibility"

The system always allows Continued Dialing for ASI and OPX extensions and DISA callers.

"Voice Mail Compatibility (Integrated Voice Messaging)"
ASIs can provide the DTMF interface for Voice Messaging.

"Volume Controls"
Single line sets connected to ASIs or OPX ports do not have volume controls. The system sets their Intercom volumes at a nominal level.

Feature Operation

Refer to the Off-Premise Extension feature.

ATTENDANT POSITIONS

Description

The attendant is the focal point for call processing within the system. The system can have up to four attendants. To maximize call handling efficiency, the attendant should have a display telephone and a DSS Console. (Refer also to the Direct Station Selection, Console feature.)

In addition to the features of a standard keyset, the attendant also has several unique features (see below). Go to the feature descriptions for the specifics.

- Automatic Fault Reporting (i.e., viewing and clearing alarms)
- Automatic Hold (refer to the Hold feature)
- Alternate Attendant
- Forced Trunk Disconnect
- Removing Trunks and Extensions from Service

The following features are not available to attendants:

- Automatic Call Distribution (member)
- Call Forwarding
- Callback
- Do Not Disturb
- Group Listen
- Handsfree and Monitor
- Line (Trunk) Queuing
- Message Waiting
- Off-Hook Signaling
- Paging (Receive)
- Personal Greeting

Conditions

The system's main attendant should be port 00 (usually extension 300). The attendant should always have the first extension in the QA- Number Plan, Block of First 100 Extensions Digit program. Note: Changes made to this program will affect the universal eraser (default: 300) in addition to any other features that use the attendant's extension in programming.

Default Configuration

The system has one attendant, located at port 00 (extension 300).

Programming

Required Programming

➢ **"QC- Operator Programming, Operator Extensions"**
Designate additional attendant extensions (other than port 00/extension 300).

Other Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
Assign a circuit type to the attendant's extension.

➢ **E- Extensions, "E8- Line Access Options, Off-Hook Ringing"**
Allow Off-Hook Ringing for each attendant. [Y=enable, N=disable]

➢ **E- Extensions, "E9- Attendant (Operator) Assignment"**
Assign the attendant reached when the extension user dials 0.

Related Features

"Automatic Handsfree"
Attendant extensions cannot have Automatic Handsfree

"Background Music"
BGM does not play at attendant extensions.

"Call Coverage Keys"
An attendant cannot program Call Coverage Key ringing options from their telephone.

"Call Forwarding"
An Attendant cannot use Call Forwarding.

"Callback"
An attendant cannot leave a Callback request. Since attendants are never busy, a user cannot leave a call-back request for an attendant.

"Central Office Calls, Answering" / "Central Office Calls, Placing"
The attendant has the same flexibility for placing and answering calls as does a non-attendant keyset.

"Class of Service"
Attendant's extensions always use COS 30. This COS follows the programming options of COS 0. If you remove an attendant (in QC), use the E3- Class of Service option to change the extension to a non-attendant COS (00-27).

"Direct Station Selection, DSS Console"
To maximize call processing efficiency, each attendant should have a DSS Console.

"Directed Call Pickup"
This feature will pick up a call ringing an attendant only if the user dials the attendant's extension number (e.g., 300).

"Flexible Numbering Plan"
Flexible numbering allows the System Administrator to change the operator access digit (normally 0) to any other digit (1-9).

"Group Call Pickup"
Attendants cannot change ringing for their Pickup Group calls.

"Group Listen"
Attendants cannot use Group Listen.

"Group Ring (Ring Groups)"
Attendants cannot be in Ring Groups.

"Handsfree (Speakerphone) and Monitor"
Attendants do not have Handsfree or Monitor.

"Hold"
The attendant has Automatic Hold for all calls.

"Intercom"
Attendants cannot receive voice-announced Intercom calls.

"Intrusion (Barge-In)"
Since an attendant is never busy, an extension user cannot intrude on an Attendant.

"Line (Trunk) Queuing"
An attendant cannot queue for a trunk.

"Message Waiting"
An extension user cannot leave a Message Waiting at an attendant.

"Microphone Mute"
Not available to attendants.

"Night Answer (Off-Hours Ringing)"
Two attendants can be in a Circular Hunt Group (consisting only of themselves) for special night mode operation. Both attendants must activate Night Answer to put their trunks in the night mode. Following is an example for attendants 300 and 304:

Ext	E4	E5
300	304	02
304	300	02

"Off-Hook Signaling"
An attendant should have off-hook ringing. This allows the attendant extension to ring while it displays alarms.

"Paging"
An attendant cannot receive a Page announcement.

"Personal Greeting"
The attendant cannot record a Personal Greeting. Also, an extension user should not have Personal Greeting automatically Call Forward to an attendant.

"Prime Line Selection"
Prime Line Selection does not apply to an attendant in the headset mode.

"Ringing Line Preference"
Intercom calls to an attendant follow Ringing Line Preference programming.

"Station Message Detail Recording" / "System Identification" / "Traffic Management Reporting"
The attendant may change the baud rates for the serial port. See page 283.

"Tenant Service"
Tenants can share the same Attendant Position.

"Toll Restriction"
An extension in a tenant group can have night mode restriction (e.g., CP- Allow Only Intercom Calls at Night [BY0:2] is 1). The restriction takes effect when the extension's operator activates Night Answer.

"Transfer"
Calls transferred to an attendant do not recall the extension that initially transferred the call. The call also never diverts to extensions with ring and access for the trunk.

Feature Operation

To call an attendant:

1. Lift handset.
   If you have an ESL set, skip to step 3.
2. Press ICM
   Listen for: *Dial tone*
3. Dial attendant code.
   You can dial:
   0 (for your operator) or 01 for main attendant
   02-04 for attendants 2, 3 and 4
   Attendant's extension number
   Listen for: *Ringing*
   In a multiple attendant system, the system waits four seconds for a second digit. Your call then goes through to the main operator.

Description

Automatic Call Distribution (ACD) uniformly distributes incoming calls among members of a programmed ACD group. Each ACD group consists of member extensions, called agents, and a master number. When a call rings the master number, the system automatically routes the call to the agent that has been idle (on hook) the longest. The call can be a transferred call or Intercom call to the master number. ACD obsoletes the need to have a receptionist or attendant screen and route calls to group members.

Supervisor Functions

Each ACD group can have a supervisor extension. The supervisor must have a display telephone with a DSS Console. This lets the supervisor monitor the status of the ACD group and each agent extension. When all ACD agents are busy, the supervisor's display shows:[1]

- The number of calls waiting
- The trunk or extension that has been waiting the longest (this is the next extension/trunk in the ACD queue)
- How long the trunk or extension has been waiting

The supervisor can also take agent extensions in and out of service as traffic into the ACD group changes. ACD agents can also remove and reinstall their own extensions. However, the supervisor can always reinstall an extension if it was removed by an agent.

The supervisor's DSS Console should have a Hotline key for each ACD agent. This shows at a glance the status of each agent.

When DSS key is...	**Agent is...**
Off	Idle
On	Busy
Flashing	Removed from service
DND Flash	In Do Not Disturb

Optionally, the supervisor's DSS Console can have a Hotline key for the ACD master number. This shows the status of the entire ACD group. When all ACD agents are busy, the key for the ACD master number lights. As soon as an agent becomes free, the DSS key for the ACD master number goes out.

The ACD supervisor displays require an AUX Module. If the system doesn't have an AUX module, the supervisor's display does not show how long a call has been waiting for an available agent.

All Agents Busy Announcement

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Callers into the ACD group can optionally hear an All Agents Busy announcement. This announcement occurs when all ACD agents are busy and the system automatically queues the call for a free agent. The announcement is a one-time message only. The system processes the queued calls on a first-in, first-out basis. The supervisors and attendant can customize the All Agents Busy announcement, if desired. The announcement cannot exceed 16 seconds. The system provides one All Agents Busy announcement, shared by all ACD groups.

[1] Also see the Alphanumeric Display feature.

AUTOMATIC CALL DISTRIBUTION

The system can have any number of ACD groups, with any number of agents within each group. An agent can only be a member of one ACD group.

The ACD busy announcement requires a VMU with AUX Module ≥02.10.

Conditions

The maximum call waiting time that displays on the supervisor's extension is 4:15 (four minutes, 15 seconds).

Default Configuration

No ACD Groups programmed.

Note:
For a less enhanced feature similar to ACD, refer to Uniform Call Distribution Hunting (UCD) on page 111.

Programming

Required Programming

- **"CP- ACD Supervisor Keyset (BY2:6)"**
  Set the Supervisor Keyset bit for the supervisor's extension. [1=enabled, 0=disabled]
- **E- Extensions, "E2- Extension Circuit Type "**
  Program the master extension number with type X (uninstalled). The master extension must be a port that has no phone connected to it.
- **E- Extensions, "E3- Extension Class of Service"**
  Assign a unique COS with BY2:6 set for the supervisor's extension.
- **E- Extensions, "E5- Hunt Type "**
  Assign hunt type 06 to:
  - Each member agent in the ACD group.
  - The ACD group master extension.

  Make sure the supervisor extension has hunt type 00. The supervisor should never be an ACD group member.
- **E- Extensions, "EA- UCD Group Master Extension Number"**
  Assign the master extension number to:
  - Each member agent
  - The supervisor extension
  - The ACD group master extension
- **"FC1- Reset System Queues"**
  Reset system queues after initial ACD programming.

Other Programming

- **E- Extensions, "E4- Next Extension in Hunt Group"**
  For the master ACD number, designate an extension or another ACD group as the overflow destination. The overflow cannot be an ACD supervisor. With no overflow, Camp-On is indefinite. Also, enter 300 for this option for all group members.
- **"QT- System Timers, Camp-On Time"**
  Enter the interval a call to a busy ACD group should Camp-On before routing to the overflow extension. [0-970 seconds]
- **"QT- System Timers, Number of Rings Before Recall"**
  Set how long a call rings an extension in an ACD group before ringing the next group member. [3-15 rings]

➢ **"KD- Programming Keys for DSS Consoles "**
Program the supervisor's DSS Console to have a Hotline key for each agent and the ACD master number. This automatically makes the console's E9 assignment the supervisor.
[Choose key #, enter hotline extension #]

Related Features

"Call Coverage Keys" / "Hotline"
A Call Coverage or Hotline key for the ACD master extension provides an ACD group BLF and simplified Transfer. Call Coverage activates when all group members are busy. This option requires an AUX Module.

"Call Forwarding"
If an extension is in an ACD Group, forwarding calls at that extension disrupts normal ACD operation. An extension user can, however, forward calls to an ACD master number.

"Central Office Calls, Answering"
DILs to an ACD group ring extensions in the group directly.

"Direct Inward Line (DIL)"
Trunks terminated to the ACD group master number ring the group directly.

"Direct Inward System Access (DISA)"
To allow the DISA caller to record the ACD message, enable the following in the DISA trunk's COS:
- Call Forwarding (BY0:6=0)
- ACD Supervisor (BY2:6=1)

"Direct Station Selection, DSS Console"
A DSS Console can have a Hotline key to an ACD/UCD master number. The key lights when the entire ACD/UCD group is busy. This also simplifies Transfer into the group. Additionally, the ACD supervisor should have a DSS Console.

"Do Not Disturb"
Putting an extension in Do Not Disturb temporarily removes it from it's ACD group.

"Extension Hunting"
A terminal hunt can route to an ACD master number.

"Group Ring (Ring Groups)"
Ring Group calls do not activate ACD or hunting.

"Hold"

Available in Software Levels:	
Base	**AUX**
> 02.00	≥ 02.10

If an ACD Agent has a headset installed and programmed, they hear silence when they place a call on Hold. This makes call processing more pleasant. In previous software versions, the agent with a headset heard dial tone when they put a call on Hold.

"Operator Assistance (OPA)"
An ACD supervisor can also record the OPA messages.

"System Reports, Diagnostics and Maintenance Utilities"
The system reports provide data on ACD group agent and incoming call activity. The reports also show details on calls received while all agents were busy.

"Traffic Management Reporting"
If an ACD caller hangs up while listening to the ACD all agents busy announcement, the call is not logged in the TMS report as Aborted.

"Transfer"
Any user can Transfer a call to the ACD master number.
Any user on a Base ≥ 02.00/Aux 02.10 can transfer a call to an ACD agent. If the agent doesn't pick up the call, it recalls the extension that initially transferred it. It will not follow the agents hunting as in previous software versions.

"Voice Module Unit (VMU)"
An ACD supervisor can also record the VMU messages.

Feature Operation

To remove or install a member agent (from the supervisor's extension):

1. Lift handset.
2. Press ICM
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Press DSS Console key for agent you want to change.
5. Dial 7 to remove an agent; 4 to install.
6. Hang up.

To remove or install yourself as an agent (from your agent extension):

1. Lift handset.
2. Press ICM
   Listen for: *Dial tone*
3. Dial 6 to remove yourself as an agent; 4 to install.
   Listen for: *Dial tone stops*
4. Press PGM# and hang up.

To record the ACD All Agents Busy announcement (from a supervisor or attendant extension):

1. Lift handset.
2. Press ICM
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial 686.
   Listen for: *Voice message, "Please start recording."*
5. Record message when you hear the tone.
6. Hang up when you are done.

To erase the ACD All Agents Busy announcement (from your attendant or ACD Supervisor extension):
This also erases all the system's Operator Assistance messages and Personal Greetings.

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial 68.
5. Press PGM#.
   Listen for: *Dial tone*
6. - Press 9 to delete the announcement.
   OR
   - Press 4 to abort the procedure and leave the announcement unchanged.

AUTOMATIC FAULT REPORTING/REMOTE MAINTENANCE

Description

The system constantly monitors the status of extensions and trunks, and automatically reports faults if they occur. Automatic Fault Reporting provides alarm indications at the attendant's extension.

The system constantly monitors the status of extensions, trunks and the expansion CEU. It does not monitor or report on the status of individual modules.

Attendant's Alarm Indications
There are three categories of alarms displayed on the attendant's extension: major alarms, minor alarms and major/minor alarms.[1] The system reports a minor alarm if an extension or trunk fails. The system reports a major alarm if an extension or trunk module fails. Major/minor alarms include both major and minor alarms.

After viewing the alarms, the attendant can selectively remove extensions or trunks from service. (See the Removing Lines and Extensions from Service feature.) This allows the system to operate normally, bypassing the affected port. In a multiple-attendant system, each attendant must independently clear their alarms. Once viewed, the same alarm will not display again.

Remote Programming
If the off-site service center has the Backup and On-Line Program (P/N 88216) installed on an IBM compatible PC, the off-site technician can:

- Use modem commands to call a remote system
- Program the remote system's database
- Backup the system's database on the service center's PC
- Upload a database from the service center's PC to the remote system

The installer can also use the Backup and On-Line Program on-site, in lieu of a programming terminal. Refer to the system hardware manual for more details.

The system also allows Remote Programming through the main CEU AUX Module serial port.

Conditions

None

Default Configuration

- Attendant's Alarm Indications always occur.

Programming

Required Programming

➢ **J- Communications Port Parameters, "Port Speed"**
Set the baud rate for the AUX Module serial port to match the connected device. (The attendant can set these options from the telephone. See page 283.)
[0=300, 1=1200, 2=2400, 3=4800, 4=9600, 5=19.2k baud rate]

➢ **"QC- Operator Programming, Suppress Operator Alarms"**
Suppress/allow alarm indications at attendant extensions. [Y=suppress alarms, N=allow alarms]

➢ **"QK- CEU Identification"**
Enter the text that identifies the system to the off-site service center. [17 characters per line]

[1] Also see the Alphanumeric Display feature.

Other Programming

➢ **"QZ- SMDR Setup, SMDR Printout All The Time"**
If you connect the Backup and On-Line Program PC to the AUX Module serial port, you must disable this option to use the LOAD and BACKUP options. [Y=enable, N=disable]

Related Features

"Off-Hook Signaling"
When an alarm displays, the attendant's phone does not ring normally for incoming calls. If the extension has Off-Hook Ringing, it rings with a single beep (repeated). If the attendant's extension does not have Off-Hook Ringing, calls do not ring while the alarm displays.

"Release Key"
The attendant can use the RLS key on the DSS Console to clear the alarm display.

"Removing Trunks and Extensions from Service"
The attendant's alarm display can indicate faulty extensions or trunks.

"System Identification"
The system sends the System Identification before transmitting fault information to the off-site service center.

"System Reports, Diagnostics and Maintenance Utilities"
After calling the remote system, the remote service center technician can use the various reports and diagnostics to troubleshoot the system.

"Traffic Management Reporting"
The Backup and On-Line Program also backs up and restores the TMS report data. During restore, the system overwrites the existing TMS data.

Feature Operation

To view alarms (at your attendant keyset):

1. Do not lift handset.
2. Press MSG.

   Press MSG again to view additional alarms.

   Lift and replace handset to return to normal time and date display.

To clear alarms (at your attendant keyset):

1. Do not lift handset.
2. - Press RLS on DSS Console.

   OR

   - Lift and replace handset.

Description

Automatic Handsfree allows a keyset user to place or answer a call Handsfree by just pressing a key. There is no need to press HF first. The system always provides Automatic Handsfree for:

- Dialing Number Preview
- Directory Dialing
- Intercom (when user presses ICM)
- Last Number Redial
- One-Touch Speed Dial
- Save
- Speed Dial (when user presses DIAL)

Automatic Handsfree is programmable system-wide for:

- Central Office Calls (for all types of line keys)
- Group Call Pickup (with a pickup key)
- Paging (with a Page key)
- Park (with an orbit key)
- Station Call Coverage (with a call coverage key)

Conditions

(A.) If an extension does not have handsfree, the user can implement Automatic Handsfree but must lift the handset to speak.

(B.) The system allows 12 simultaneous Handsfree conversations per cabinet.

Default Configuration

Automatic Handsfree enabled.

Programming

Required Programming

➢ **"QE- Automatic Handsfree"**
Enable/disable Automatic Handsfree system-wide. [Y=enable, N=disable]

Other Programming

➢ **"KS- Programming Keys for Keysets"**
Define a keyset's programmable keys. (see page 439)

Related Features

"Attendant Positions"
Attendant extensions cannot have Automatic Handsfree.

"Call Coverage Keys"
If the system has Automatic Handsfree, the extension user can just press the Call Coverage key.

"Central Office Calls, Answering"
An extension user can answer a trunk call just by pressing the line key.

"Central Office Calls, Placing"
An extension user can place a call by just pressing a line key before dialing.

"Handsfree (Speakerphone) and Monitor"
Automatic Handsfree allows a keyset user to place or answer a call by just pressing a key--without pressing HF first. Users with Monitor must lift the handset to speak.

"Headset Compatibility"
An extension with Headset Compatibility cannot also have Automatic Handsfree.

"Private Line"
If enabled, an extension user can answer the Private Line by pressing the line key.

AUTOMATIC HANDSFREE

"Ringing Line Preference"

An extension user can press HF to answer a ringing call if their extension has Automatic Handsfree.

Feature Operation

To use Automatic Handsfree:

1. Do not lift handset.
2. Press key for desired feature.

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥02.10

With Automatic Ringdown, an ESL or ASI/OPX extension automatically calls a programmed destination when the user lifts the handset. This would be helpful, for example, in a hotel lobby with dedicated reservation phones. As soon as the caller lifts the handset, the phone rings the reservation desk. The ringdown phone cannot access any system features The phone can, however, receive calls.

Conditions

Automatic Ringdown is only available with ESL (type 00) and ASI/OPX (type 05/51) extensions.

Default Configuration

- No Automatic Ringdown destination programmed.
- Automatic Ringdown disabled.

Programming

Required Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
Automatic Ringdown is only available to ESL (Type 00) and ASI/OPX type (05/51) extensions.

➢ **E- Extensions, "E9- Attendant (Operator) Assignment"**
Attendant (Operator) Assignment - Enter the Automatic Ringdown destination. The destination can be a keyset, ESL or ASI/OPX extension, a Ring Group or an ACD/UCD master extension number. Enter 300 for no Ringdown destination.

➢ **E- Extensions, "E9- Ring Down"**
Enable/disable Automatic Ringdown. [Y=enable/N=disable]

Other Programming

None

Related Features

"Intercom"
Automatic Ringdown follows Intercom Voice-Announce programming.

Feature Operation

To use Automatic Ringdown:

1. Lift handset.

Listen for: Two beeps or ringing
If you hear ringing, wait for called party to answer.
If you hear two beeps, you may begin speaking.

AUTOMATIC ROUTE SELECTION

Description

Automatic Route Selection (ARS) provides call routing and call restriction based on the digits a user dials. ARS lets the system administrator obtain the most cost-effective use of the system's connected long distance carriers.

ARS is an on-line call routing program that the system administrator can customize from the programming terminal. The program accommodates over 8,000 call routing choices -- without a custom-ordered rate structure database. ARS allows the system administrator to make modifications to the routing choices quickly and easily. This is often necessary as the cost structure of the connected services change.

ARS provides:

Call Routing
ARS can apply 3-digit (Area Code) and 6-digit (Area Code and Exchange) analysis to every number

Dialing Translation (Special Dialing Instructions)
ARS can automatically execute stored dialing instructions when it chooses a route for a call

Time of Day Selection
The system administrator can program route selection according to the time of day/day of week.

Hierarchical Class of Service Control
ARS allows or denies call route choices based on an extension's Class of Service.[1]

Forced Authorization Code
Designated routes may require the user to enter an Authorization Code before ARS allows routing. This code is verifiable and is enforced by an extension's Class of Service.

Separate Routing for Operator Assisted, International and Equal Access Calls
To provide unique control, the system administrator may program separate routing instructions for Operator Assisted, International and Equal Access calls.

Independently Programmed Restriction for Exchanges 976 and 555
Restriction for these exchanges is hierarchical according to an extension's Class of Service.

Inter-Lata Dialing
ARS accommodates 10-digit inter-lata local calls. As the telco adds area codes to a dialing area, local calls can be either seven or 10 digits long. This occurs when the telco has to use NNX type numbers (e.g., 223) as area codes. A 10-digit call from one part of the adjacent area code may be a local call. However, the same call dialed from a more distant part of the adjacent area code may be a toll call.

In AUX Module ≥02.10, the system can wait six seconds after the last digit dialed before routing the call through ARS. This will occur if the first three digits dialed look like an area code (NPA) and the total number of digits dialed is 7 or 10. You must program ARS routing to accommodate the 10-digit local call.

In previous software versions, the system would dial out after the user entered 7 of the 10 digits for their inter-lata local call. After ARS routed the call, the user would then have to manually dial the last three digits.

[1] Class of Service options may interact with ARS. For example, If CP-Allow Only Intercom Calls at Night (BY0:2) is enabled (1), the extension cannot use ARS at night.

Outdialing Forced Account Codes

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

A system with ARS can delay outdialing a Forced Account Code. You may want to enable this option if the selected carrier uses call accounting on a per-call basis. The delay provides the carrier with adequate time to set up their DTMF detection circuits. Without the delay, the system could outdial the Account Code digits before the carrier was ready to receive them.

After the user dials their outside call and Account Code as usual, the system:

- Routes the call through ARS to the appropriate carrier.
- Outdials the digits the user dials. (The ARS Dial Treatment may modify these digits.)
- Waits a programmable interval and then dials the Account Code.

To program this option:

- Make sure Forced Account Codes are enabled (QL- Mandatory Account Codes = Y).
- Set the length of the delay in QT- System Timers, Centrex-Type Feature Key Delay (5-99, in 100 mS increments [5 = 500 mS]).
- In QX- Suppress # When Speed Dialing,
  Enter Y for Suppress # Key Tone
  Enter Y for Transmit Acct. Code

Automatic Route Selection requires an AUX Module. If desired, you can program up to 64 ARS Authorization codes. (The large systems have 184 codes.)

For complete details on ARS, including instructions for using the ARS editor (GA command), refer to Appendix A.

Conditions

(A.) Do not use ARS behind a Centrex/PBX. In addition, ARS is intended for areas that use the North American Number Plan (NANP).
(B.) ARS requires an AUX Module.
(C.) When a telephone number is manually dialed the DTMF on tones = 250 mS. When the system redials the DTMF on tones = 135 mS.

Default Configuration

ARS not programmed.

Programming

Required Programming

➢ **E- Trunks, "E4- Next Trunk in Outbound Rotary (Hybrid Only)"**
ARS requires outbound trunk rotaries. This prompt determines the selection sequence for trunks within each rotary.

➢ **E- Trunks, "E7- Trunk Service Number"**
Assign a Service Number to each trunk used for ARS. ARS routes calls to Service Numbers, not individual trunks. [01-10]

➢ **E- Trunks, "EA- Trunk Group Assign. (First Trunk in Group), Hybrid"**
Group trunks in rotaries by assigning each one the same First Trunk in Group number.

➢ **"GA- ARS Editor"**
Program the ARS options. Refer to Appendix A for complete details.

- **"QL- ARS/Account Codes, ARS Enable (Hybrid Only)"**
  Enter 2 to enable ARS. Do not enter 2 without programming trunks and services.
- **"QL- ARS/Account Codes, Number of Services"**
  Designate how many services (trunk rotaries) ARS will use. [01-10]
- **"QL- ARS/Account Codes, Service Line Numbers"**
  Indicate the trunk rotary master number for each of the rotaries used by ARS. This should correspond to the EA- First Trunk in Group entry. If the Service Line Number is entered as 00, or left at default (00), this will deny calls using that Service Number.

Other Programming

- **E- Extensions, "E3- Extension Class of Service "**
  ARS routing is based on an extension's Class of Service number. [00-27, 30 for operators]
- **E- Extensions, "E8- Line Access Options, Allow Line Code Dial-Up"**
  If enabled, users may be able to dial trunk access codes (e.g., 801) to bypass ARS.
  [Y=allow, N=deny]
- **E- Extensions, "E8- Line Access Options, Access to Groups 90-95"**
  Allow access to group 90 (the ARS access code). If you allow access to 91-95, users may be able to dial these codes to bypass ARS. Users can always dial groups 96-98. [Y=allow, N=deny]
- **E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"**
  If enabled, user may be able to press a line key to bypass ARS. [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  An extension must have access to the trunks selected by ARS. [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  An extension must have Call-Out to the trunks selected by ARS. [Y=allow, N=deny]
- **E- Trunks, "E2- Trunk Circuit Type"**
  Trunks within each ARS Service Group should have the same circuit type. (see page 394)
- **"KS- Programming Keys for Keysets"**
  An extension can have a loop key for ARS access.
  ["9"=switched loop, "9" and a line group # (0-8)=fixed loop]
- **"QC- Operator Programming, Operator Extensions"**
  Make sure the main operator is port 00 (normally extension 300).
- **"QF- Line Grp Access (First Trunk in Group), Hybrid Only"**
  Correlate the first trunk in a trunk rotary (e.g., 801) to one of nine trunk rotary numbers (90-98). The system requires this correlation when setting up trunk rotaries. Use the trunk access code (e.g., 801 or L01) that corresponds to the EA- First Trunk in Group entry.
- **"QQ- '1' Prefix Required for NPA Calls"**
  If the system is in a conflict area, enter Y. Enter N if the system is not in a conflict area. In an area with a 10-digit numbering plan and this option is enabled (Y), then create a Dial Treatment that strips the "1" prefix. See Appendix A for more details.
- **"QT- System Timers, Dialtone Detection Counter"**
  Set the length of the dial tone detection interval. ARS Dial Treatments (option P) use this interval. See Appendix A for more details. [1-6]
- **"QW- ARS Authorization Codes"**
  If required, enter ARS Dial Treatment Authorization codes. See Appendix A for more details.
  [10 digits maximum]
- **"QX- Suppress '#' When Speed Dialing"**
  If ARS Dial Treatments outdial the # digit, enter N. To suppress outdialing the #, enter Y. See Appendix A for more details.
- **"QY- Single Digit Line Access"**
  If enabled, users can dial 9 (instead of 90) for ARS. [Y=allow, N=deny]

Related Features

"Account Code Capability"
ARS can optionally utilize the system's Account Codes.

"Caller ID"
ARS can block outgoing Caller ID information. You may need to block Caller ID for certain sites (such as crisis centers) that need to keep their identity confidential. To do this, insert the Caller ID block code (e.g., *67) in the ARS Dial Treatments.

"Central Office Calls, Placing"
ARS may restrict the numbers a user may dial.

"Direct Trunk Access"
Direct Trunk Access bypasses ARS.

"Equal Access Compatibility"
ARS has a unique way of handling these calls. Refer to the feature for the specifics.

"Forced Trunk Disconnect"
The system subjects the call on the released trunk to normal ARS routing or Toll Restriction.

"Last Number Redial"
Unless the user preselects a trunk, the system enforces ARS for Last Number Redial calls.

"Line (Trunk) Queuing"
If the system has ARS, Line Queuing queues for the least costly route.

"NANP Compatibility"
The North American Numbering Plan may affect ARS programming in your region.

"PBX/Centrex Compatibility"
Do not use ARS behind a Centrex/PBX.
A PBX trunk should not normally be in an ARS service group. For ARS to route calls to PBX lines:

- Place the PBX lines in unique service groups
- Have digit insertion (Dial Treatments) insert the PBX access codes for each number dialed

"Private Line"
The system applies the same ARS to Private Lines as it applies to other trunks.

"Save"
The system subjects a saved number to the same routing and restriction as if the user manually dialed.
The system always routes a saved number through ARS, unless the user manually selects a trunk.

"Special Services and OCC Compatibility"
ARS can have digit insertion/dialing translation capabilities. This makes selecting special services for outgoing calls transparent to extension users.

"Speed Dial"
Speed Dial can route calls through ARS or optionally bypass ARS routing.

"Tenant Service"
Each system can have only one ARS package, shared by all tenants.

"Time and Date Setting"
ARS uses time and date when routing calls.

"Toll Restriction"
When a user dials 9 or 90 for ARS, ARS overrides Toll Restriction.

"Volume Controls"
With AUX Module $\geq$ 02.10, pressing VOL UP or VOL DN while listening to ARS dial tone has no effect on the dial tone volume. The ARS dial tone volume is preset to an optimum level in system software. It cannot be adjusted by the user.

AUTOMATIC ROUTE SELECTION

Feature Operation

To place a call using ARS:

For more information on placing calls using ARS, refer to Appendix A.

1. Lift handset.

   If you have an ARS loop key, press it and skip to step 4.

2. Press ICM.

   Listen for: *Dial tone*

3. Dial ARS access code (9 or 90).

   Listen for: *Another (higher pitched) dial tone*

4. Dial number.

Description

Background Music (BGM) sends music from a customer-provided music source to the speakers in keysets and ESL telephones. If an extension user activates it, BGM plays whenever the user's extension is idle. Incoming calls and Page announcements override BGM. Optionally, BGM can also play over the external paging zones. Background Music requires a customer-provided music source. BGM disables the main CEU's 4th CO line circuit.

Conditions

(A.) Background Music disables the fourth trunk circuit on the first CO Module in the main CEU. Although you connect to the CEU MOH terminals, you cannot use the fourth trunk circuit for trunks. The music source (tape deck, receiver, etc.) must be compatible with the following system specifications.

Input Imepdance	100K Ohms
Maximum Input	-10 dBm (244 mV AC)

(B.) A system reset turns off BGM at all extensions.

Default Configuration

BGM trunk not assigned.

Programming

Required Programming

➢ **E- Trunks, "E2- Trunk Circuit Type"**

The trunk used for BGM must be circuit type X. If you want to use the BGM trunk later on for another function, remember to:

- Enter N for QM- BGM
- Change the trunk to the desired circuit type (using the E2 option)
- Perform a side tone test on the trunk (using the IS- Side Tone Test option)

➢ **"QM- Music/Relay Control, BGM"**

Enter Y(es) - this will also enable MOH for internal calls.

Other Programming

➢ **"QM- Music/Relay Control, BGM on External Page Zones"**

Allow/disallow BGM to play over the external paging zones. For proper operation, access the Paging zone once after enabling this option. [Y=allow, N=deny]

Related Features

"Attendant Positions"

BGM does not play at attendant extensions.

"Do Not Disturb"

When a user activates DND, BGM turns off. Once the user deactivates DND, BGM remains off.

"Music on Hold"

BGM and Music on Hold can share the same music source, if desired. Enabling BGM also enables MOH for internal calls.

"Paging"

The External Paging zones can also broadcast Background Music.

BACKGROUND MUSIC

Feature Operation

To turn Background Music on or off:

1. Do not lift handset.
2. Press HOLD.

To adjust the volume of Background Music:

1. Press VOL UP or VOL DN while feature is active or telephone is idle.

   This also affects your incoming ringing and Paging announcements.

BATTERY BACKUP

Description

Battery Backup allows the system to operate normally during AC power failures and brownouts. For each CEU, Battery Backup requires the installation of an optional Battery Backup Unit. The Valcom VB260 Battery Backup Unit is recommended. Battery Backup will power a fully loaded system for about two hours.

The system also provides short-term backup of system memory and the system time and date (Real Time Clock). These options are stores in Random Access Memory (RAM). The system retains the options stored in RAM memory for at least one week without AC power.

The Real Time Clock is only available in systems with an AUX Module. The Real Time Clock maintains the correct date and time for at least one week without AC power. If the system doesn't have an AUX Module, it stores the time of the power failure in memory. The system starts from that stored time when power is restored.

Conditions

The AUX Module uses a permanently installed "supercap" capacitor.

Default Configuration

None

Programming

None

Related Features

"Time and Date Setting"

Feature Operation

If installed, Battery Backup is automatic during AC power failures and brownouts.

CALL COVERAGE KEYS

Description

A Call Coverage key gives an extension user one-touch call pickup, Transfer and Intercom for the assigned extension. This simplifies phone operation for co-workers that frequently cover each other's calls. Additionally, each extension user can program the ringing options for their Call Coverage keys.

A Call Coverage key also shows the status of the covered extension:

When the key is...	**The covered extension is...**
Off	Idle
On	Busy
Flashing slowly	Ringing
Flashing fast	DND

Conditions

None

Default Configuration

No Call Coverage Keys programmed.

Programming

Required Programming

➢ **"KS- Programming Keys for Keysets"**
Designate programmable keys as Call Coverage keys. Also, program the ringing option for Call Coverage Keys (no ring, delayed ring or immediate ring). ["S" + Extension #]

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
To intercept outside calls, the extension must have access to the covered extension's trunks. [Y=allow, N=deny]

➢ **"QT- System Timers, Delayed Ring Interval"**
Set the Delayed Ring Interval for Call Coverage Keys with delayed ringing. [1-10]

Related Features

"Attendant Positions"
A keyset can be programmed to have a Call Coverage Key for an attendant. Unlike other extensions, an Attendant cannot program Call Coverage Key ringing options from their telephone.

"Automatic Call Distribution" / "Extension Hunting"
An extension can have a Call Coverage key for an ACD/UCD hunt group. Designate a programmable key as a Call Coverage key using the ACD/UCD master extension number. The key activates only when all group members are busy. This can only occur if the system has an AUX Module.

"Automatic Handsfree"
If the system has Automatic Handsfree, the extension user can just press the Call Coverage key.

"Call Forwarding"
Call Forwarding does not reroute calls ringing a Call Coverage Key.

"Digital Door Box"
An extension can have a Call Coverage Key for a Door Box. This gives the extension a BLF, one button calling and one button answering for the Door Box.

"Directed Call Pickup"
Directed Call Pickup will not pick up a call ringing a Call Coverage Key.

"Group Ring (Ring Groups)"
A Station Call Coverage key can pickup up a Ring Group call.

"Intercom"
Extension users can use Call Coverage Keys as an alternative to dialing Intercom calls.

"Off-Hook Signaling"
Call Coverage keys always activate Off-Hook Signaling (if allowed at the destination). In addition, an extension with Off-Hook Signaling receives off-hook signals for calls to its covered extensions.

"Ringing Line Preference"
A ringing Call Coverage Key will not activate Ringing Line Preference.

Feature Operation

To place a call to your covered extension:

1. Lift handset.
2. Press Call Coverage key.
3. - If you hear two beeps, go ahead and speak.
   OR
   - If you hear ringing, wait for the called part to answer.

To Transfer a call to a covered extension:

1. Press Call Coverage key.
2. - If you hear two beeps, announce call.
   OR
   - If you hear ringing, wait for called party to answer.
   OR
   - If you hear busy or fast busy, hang up to have the call wait at the covered extension.
   You can also press the line key to return to the call.
   OR
   - Hang up to Transfer the call unannounced.
   Your phone may start ringing again, depending on your Call Coverage key ring options.

To pick up a call ringing a covered extension:

Listen for: *(Optional) Trunk or ICM Ring*

1. Press flashing Call Coverage key.

Listen for: *Conversation with calling party*

To program ringing for your Call Coverage keys:

User-Programmable Feature...
Use this procedure to change the ringing for your keyset's Call Coverage keys.

Ring Assignment
PGM# + RA + Line key + Y(es) or N(o) + SAVE

Delayed Ring Assignment
PGM# + DRA + Line key + Y(es) or N(o) + SAVE

You can change the assignment for your Call Coverage keys.
PGM# + DSS + DSS key + ext. + SAVE

CALL FORWARDING

Description

Call Forwarding permits an extension user to redirect their calls to another extension. This ensures that the user's calls are covered when they are away from their work area. Optionally, the user can also redirect calls to an outside telephone number (Off-Premise Call Forwarding).

Note that only the extension receiving the forwarded calls can place an Intercom call to the forwarding extension.

Conditions

(A.) Off-Premise Call Forwarding requires either ground start trunks or loop start trunks with disconnect supervision. Up to eight extensions can forward their calls off-premise at the same time.
(B.) A power failure cancels Call Forwarding. A system reset also cancels Call Forwarding.
(C.) Extension users can chain their Call Forwarding (e.g., 304 forwards to 306, who then forwards to 310). The system prevents the chain from looping back to the first extension (e.g., 304).

Default Configuration

Call Forwarding allowed at all extensions except the operator's extension.

Programming

Required Programming

- **"CP- Inhibit Call Forwarding (BY0:6)"**
  For each COS, allow or deny Call Forwarding. [0=allow Call Forwarding, 1=deny Call Forwarding]
- **"CP- Allow Off-Premise Call Forwarding (BY0:3)"**
  For each COS, allow or deny Off-Premise Call Forwarding. [1=allow, 0=deny]
- **E- Extensions, "E3- Extension Class of Service "**
  Assign a COS to each extension. [00-27, 30 for attendants]

Other Programming

- **E- Extensions, "ED- Trunk Control, Access Control"**
  The extension activating Off-Premise Call Forwarding must have access for the trunk selected. The caller to the forwarded extension must also have access (unless Transferred). [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  The extension calling an Off-Premise Extension must have call-out for the selected trunk (unless transferred). If not, the call won't go through. The extension activating the forwarding does not need call-out for the selected trunk. [Y=allow, N=deny]
- **"QJ- Intercom Call Control, Alerts (Call Forwarding)"**
  Allow or deny the Call Forwarding hourly reminder message. [Y=deny, N=allow]
- **"QT- System Timers, Number of Rings Before Recall"**
  Set how many times a call should ring an extension with type 1 or 2 Call Forwarding before rerouting. Extended Ringing may override this timer. [3-15]
- **E- Trunks, "EI- Tandem Trunk"**
  Enable Tandem Trunking for trunks used for Off-Premise Call Forwarding. (See Transfer in Related Features).
  [Y=allow, N=deny]

Related Features

"Alternate Attendant"
An extension cannot use Call Forwarding if activated as an Alternate Attendant.

"Attendant Positions"
An Attendant cannot use Call Forwarding.

"Automatic Call Distribution"
An extension user can forward calls to an ACD master number.

"Call Coverage Keys"
Call Forwarding does not reroute calls ringing a Call Coverage Key.

"Central Office Calls, Answering"
Call Forwarding does not reroute calls ringing line or loop keys (except DILs).

"Central Office Calls, Placing"
An extension user can forward calls off-premise only over lines to which the user normally has access and call-out.

"Direct Inward Line (DIL)"
Call Forwarding reroutes DILs.

"Do Not Disturb"
Activating Do Not Disturb cancels Call Forwarding.

"Extension Hunting"
If an extension is in a Hunt Group, forwarding calls at that extension disrupts normal hunting. An extension user can, however, forward calls to a UCD master number.

"Group Ring (Ring Groups)"
Call Forwarding does not reroute Ring Group Calls.

"Line (Trunk) Rotaries (Hybrid Only)"
An extension user should not forward calls off-premise using a trunk group (codes 9 or 90-98).

"Microphone Mute"
Turning off Microphone Mute (if enabled) automatically cancels Call Forwarding.

"Paging" / "Personal Greeting" / "Selectable Display Messages"
Call Forwarding cancels a Personal Greeting or Selectable Display Message in effect at an extension. Any programming or user action that affects Call Forwarding also affects Selectable Display Messages.

"Private Line"
An extension user cannot forward a Private Line. If you need to forward private calls, consider using a Direct Inward Line with restricted access.

"Removing Trunks and Extensions From Service"
Removing an extension from service, and then returning it to service cancels Call Forwarding (if activated).

"Speed Dial"
An extension user can have Call Forwarding codes stored with a One-Touch Speed Dial key.

"Transfer"
An extension user can Transfer a call to an extension with Off-Premise Call Forwarding activated. To abort the procedure, the user can return to the initial call. If an attendant does this, the system places the trunk used for dialing the off-premise destination on Hold.
When making a screened Transfer of a trunk call to an extension with Off-Premise Call Forwarding, implement Tandem Trunking when the off-premise user answers.

"Voice Prompting Messages"
A voice message can announce hourly when an extension's calls are forwarded. For Off-Premise Call Forwarding, a voice prompt plays when the system reroutes the call.

"Voice Mail Compatibility (Integrated Voice Messaging)"
An extension can forward calls to the Voice Messaging System.

CALL FORWARDING

Feature Operation

To forward your calls to another extension:

1. Lift handset.

   If you have a One-Touch Speed Dial key, you can press the key instead of using steps 2-5.

2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.

3. Press PGM#.

   Listen for: *Dial tone stops*

4. - Dial extension number to receive your calls.

   You can optionally press a DSS Console Hotline key or dial an operator (0 or 01-04). If you dial an operator, the system automatically inserts code 3 in the next step.

   OR

   - Press MSG to forward your calls to your mailbox

   skip to step 6.

5. - Dial 1 to forward ringing calls you do not answer.

   OR

   - Dial 2 to forward ringing calls you do not answer *and* calls to your phone when it is busy.

   OR

   - Dial 3 to forward all your calls.

6. Hang up.

To forward your calls off-premise:

1. Lift handset.

   If you have a One-Touch Speed Dial key, you can press the key instead of using steps 2-6.

2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.

3. Press PGM#.

   Listen for: *Dial tone stops*

4. Dial 1.
5. Select the trunk your forward will use.

   You can dial the trunk number (e.g., 01) or trunk extension number (e.g., 480).

6. Dial telephone number that will receive your calls.
7. Hang up.

To cancel your Call Forwarding:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.

3. Press PGM#.

   Listen for: *Dial tone stops*

4. Hang up.

Description

The attendant may simultaneously cancel all Call Forwards in the system. The attendant may want to do this at the end of the business day or business week. This ensures that the system directs calls normally at the start of the next business day.

Conditions

None

Default Configuration

None

Programming

Required Programming

➢ **"QC- Operator Programming, Operator Extensions"**
Designate extensions as operators.

Other Programming

None

Related Features

"Do Not Disturb" / "Personal Greeting" / "Selectable Display Messages"
Cancelling Call Forwarding also cancels DNDs, Personal Greetings and Selectable Display Messages system-wide.

Feature Operation

To cancel Call Forwarding system-wide from your attendant's extension:

1. Lift handset.
2. Press ICM.
   Listen for: *Dial Tone*
3. Press PGM#.
   Listen for: *Dial Tone stops*
4. Dial *.
   Listen for: *Dial tone*
5. Hang up.

CALL PARKING

Description

Call Parking places an outside call in a waiting state (called a Park orbit) so that any extension user may pick it up. There are two types of Park orbits: System Park and Personal Park. With System Park, a user may Park a call in one of ten system orbits (numbered 60-69). With Personal Park, a user may park a call at an extension. After parking the call, the user can Page the person receiving the call and hang up. The paged party just dials the orbit code from any extension to pick up the call. With Park, it is not necessary to locate a person to handle their calls.

If a call remains parked longer than the Park Orbit Recall interval, it recalls the extension that initially parked it. If still unanswered, the call recalls all extensions that normally ring for the trunk.

The system allows only one call at a time to be parked in the same System Park orbit. However, any number of users can park a call in the same Personal Park orbit. The user retrieves the Personal Parked calls on a first in - first out (FIFO) basis. A call in Personal Park goes on Exclusive Hold at the destination and at the extension that parked it. The call does not ring the destination.

Conditions

(A.) Park Orbits 68 and 69 have a five-minute fixed recall interval.

(B.) The code to retrieve a Personal Park is the same as Directed Call Pickup and remote Hold Retrieve. When a user dials the code, the system picks up calls at the dialed extension in the following order:

1. Ringing Intercom calls (see Directed Call Pickup)
2. Personal Park calls (see Call Park)
3. Ringing outside calls and DILs (see Directed Call Pickup)
4. Calls on Hold (see Hold)

Default Configuration

Park enabled.

Programming

Required Programming

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
An extension can only pick up a parked call on trunks to which it has access. Program access for each desired trunk. [Y=access, N=deny access]

➢ **"QT- System Timers, Park Orbit Recall Time"**
For Park Orbits 60-67, set the Park Orbit Recall Time. [0-970 seconds]

Other Programming

➢ **"QA- Number Plan, Park Orbit Access Digit"**
If desired, change the first digit of the Park Orbit codes (factory set at 6). [0-9 (also affects ACD, Message Waiting, Paging, Selectable Display Messages)]

➢ **"KS- Programming Keys for Keysets"**
Designate programmable keys as Park Orbit keys. [Orbit # (60-69)]

Related Features

"Analog Station Interface (ASI)" / "Off-Premise Extension (OPX)"
A 2500 set connected to an ASI or OPX has Call Parking capability.

"Direct Station Selection, DSS Console"
An extension user with a DSS Console can have a Park Orbit number stored with a DSS key.

"Speed Dial"
An extension user can have the Park functions stored with a One-Touch Speed Dial Key.

"Transfer"

Instead of transferring a call to an extension, a user can place it in a Park Orbit instead.

Feature Operation

To Park your call in a system Park Orbit:

If you have a One-Touch Speed Dial Key or a DSS key with a stored Park Orbit, you can press the key instead of using steps 1-3.

1. - At a keyset, press ICM.

   Listen for: *Dial Tone*

   - At ESL set, press TRF.

   Listen for: *Dial tone*

2. Dial Park Orbit code (60-69).

   If you hear busy tone, press ICM and try another orbit.

   Optionally, you can press a DSS Console key.

3. Page party to receive call and announce the Park Orbit code.
4. Hang up.

To Park your call at an extension (Personal Park):

If you have a One-Touch Speed Dial Key or a DSS key, you can press the key instead of using steps 1-3.

1. - At a keyset, press ICM.

   Listen for: *Dial Tone*

   - At ESL set, press TRF.

   Listen for: *Dial tone*

2. Dial *.

   Listen for: *Dial tone stops*

3. Dial extension number where you want call parked.

   If you hear busy tone, press ICM and try another extension.

   Optionally, you can press a DSS Console key.

4. Page party to receive call and announce the extension number.
5. Hang up.

   At your extension and at the extension where you parked the call:

To pick up a parked call:

Listen for announced Park code.

1. Lift handset.

   If you have a One-Touch Speed Dial key or a DSS Console key, you can press the key instead of using steps 2 and 3.

2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.

3. (Personal Park only) Dial *.

   Listen for: *Dial tone stops*

4. Dial announced Park code (60-69 or extension number).

Description

Call Timer lets a display keyset user time their outside calls on the telephone display. This helps users that must keep track of their time on the phone.

Call Timer is only available to extensions with Call Timer keys. The user can press it any time before placing or answering a call, or while on a call. The Timer key also allows the user to time Intercom calls, or use the idle telephone as a stopwatch. There are two types of Call Timer keys, Auto Timer and Manual Timer. A keyset can have one type of timer key or the other, not both.

If an extension has an Auto Timer key, the Auto Timer key lights and the timer starts when the user places or answers a call. The timer runs until the user hangs up or presses the Auto Timer key, whichever comes first. The user can also press the Auto Timer key while idle to use it as a Manual Timer key.

With a Manual Timer key , the user can activate the timer in two ways: by dialing the Timer code or by pressing a special Timer key. If the user dials the Timer code before placing or answering an outside call, the timer starts automatically after the call connects. The Timer key offers more flexibility.

Conditions

None

Default Configuration

- No Timer keys programmed.

Programming

Required Programming

➢ **"KS- Programming Keys for Keysets"**
Assign a programmable key as a Timer key. The options are TA (Auto Timer) and TM (Manual Timer). Each keyset should have a Timer key.

Other Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
Assign a Circuit Type to each extension.

Related Features

"Station Message Detail Recording"
The SMDR report also helps users keep track of their time on the phone.

Feature Operation

To start the Call Timer (if you have a TM timer key):

You can start the Call Timer before you place or answer your call -- or while your phone is idle.

1. Press Timer key.

To stop the Call Timer (if you have a TM timer key):

You can stop the timer before or after you hang up.

1. Press Timer key.

   The timer will run up to 59 minutes and 59 seconds and then turn off or to restart the timer from 00:00, press the Timer key again.

CALL WAITING (CAMP-ON)

Description

With Call Waiting, an extension user may call a busy extension and wait in line (Camp-On) without hanging up. When the user camps-on, the system signals the busy extension with two beeps indicating the waiting call. The call goes through when the busy extension becomes free. Call Waiting helps busy extension users know when they have additional waiting calls. It also lets callers wait in line for a busy extension without being forgotten.

Outside calls may also automatically send Call Waiting tones to a busy extension. The tones occur if:

- Another user transfers the outside call to the busy extension (see Transfer)
- The outside call is directly terminated to the busy extension (see Direct Inward Lines)
- The outside call normally rings a key at the busy extension (See Central Office Calls)

An extension with Direct Trunk Access capability can Camp-On to a busy trunk. When the trunk becomes free, the user gets a new dial tone and can place a call. Trunk Camp-On does not send Call Waiting tones to the trunk.

Conditions

(A.) For ASI extensions, ESL sets and keysets with calls stacked up behind a trunk loop key, the system services camped-on calls on a first in-first out basis.

(B.) A busy extension only receives Call Waiting tones from the first camped-on call.

Default Configuration

- All extensions can send Call Waiting tones.
- Extensions other than the attendant cannot Camp-On to trunks.
- Transferred calls Camp-On to ESL sets and ASIs for 60 seconds before recalling.
- Transferred calls Camp-On to keysets for 5 rings before recalling.

Programming

Required Programming

➢ **"CP- Inhibit Camp-On (BY0:5)"**
Allow or deny an extension's capability to send Call Waiting (Camp-On) tones when the user dials 2. This will not affect, however, the attendant's ability to send Call Waiting (Camp-On) tones to extensions. [0=allow Call Waiting tones, 1=deny Call Waiting tones]

➢ **"CP- Direct Trunk Access and Trunk Camp-On (BY2:0)"**
An extension user with Direct Trunk Access can camp-on to a busy trunk. [1=enable, 0=disable]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for attendants]

➢ **"QJ- Intercom Call Control, Alerts (Call Waiting)"**
Allow or deny audible Call Waiting indications system wide. [N=allow, Y=deny]

Other Programming

➢ **E- Extensions, "E8- Line Access Options, Off-Hook Ringing"**
If enabled, the system automatically converts Camp-On requests to Off-Hook Signaling rings. [Y=allow, N=deny]

➢ **"QT- System Timers, Camp-On Time" (Single Line Set)**
Set how long a transferred call should Camp-On to a busy ESL Set or ASI before recalling the transferring party. [0-970 seconds]

➢ **"QT- System Timers, Number of Rings Before Recall"**
Set how many times a transferred call rings an idle or busy keyset before recalling the transferring party. [3-15]

Related Features

"Callback" / "Line (Trunk) Queuing"
If an extension user Camps-On and then hangs up, the system converts the Camp-On to a Callback/Line Queue.

"Digital Door Box"
An extension cannot receive off-hook signals from a Door Box unless the system has AUX Module ≥ 02.10.

"Direct Station Selection, Extension"
After hearing busy tone, a DSS caller can camp-on to a busy extension.

"Direct Trunk Access"
An extension user with Direct Trunk Access can dial 2 to camp-on to a busy trunk.

"Do Not Disturb"
An extension user cannot dial 2 to send Camp-On tones to a busy extension in Do Not Disturb.

"Group Ring (Ring Groups)"
An Intercom caller or trunk cannot send Call Waiting tones to a Ring Group. The call just waits for an extension in the group to become free.

"Intercom"
After placing an Intercom call to a busy extension, the user can:
- Leave a Callback request
- Camp-on (wait in line off hook)
- Send an off-hook signal

"Off-Hook Signaling"
If an extension has off-hook ringing enabled (in E8), it automatically converts incoming Call Waiting beeps to off-hook ringing.

"Privacy"
Privacy blocks Call Waiting (Camp-On) tones.

"Ringing Line Preference"
A keyset with Ringing Line Preference answers camped-on calls on a first in-first out basis.

"Split"
Call Waiting lets an extension user know when they have a call waiting.

"Toll Restriction"
Trunk Camp-On bypasses Toll Restriction.

"Transfer"
When transferring a call to a busy extension, the transferring extension user can Camp-On and wait to make an announcement. Or, the user can hang up and have the transferred call wait at the busy extension.

Feature Operation

To send a Call Waiting tone to a busy extension:

Listen for: Busy tone

1. Dial 2.

   Listen for: ICM Ring

   If you hear Ring/Busy, the called extension converts your Camp-On to off-hook ringing.

2. Wait off hook for called party to answer.

   If you hang up, you leave a Callback at the busy extension.

CALL WAITING (CAMP-ON)

To Camp-On to a busy trunk:

Listen for: *Busy tone*

1. Dial 2.

   Listen for: *Busy tone stops*

2. Wait off-hook for the trunk to become free.

   When you hear dial tone, place your new call.

   If you hang up, the Camp-On converts to a Trunk Queue.

To answer a Call Waiting tone at a keyset:

Listen for: *Two beeps*

If an Intercom call is waiting, your display shows the first waiting call.

1. Press flashing key.

   To save your initial call, place it on Hold first. If your ICM key continues flashing, you have additional calls waiting. You will not hear two beeps again.

   To switch (alternate between the calls), refer to the Split feature.

To answer a Call Waiting tone at an ESL set:

Listen for: *Two beeps*

1. - Press HOLD.
   - Dial * 2.

   To switch (alternate between the calls), refer to the Split feature.

   If you hear two beeps again, you have an additional call waiting.

   OR

   - Hang up and lift handset when phone rings.

Description

When an extension user calls a busy extension, the user may leave a Callback request for a return call. The user does not have to repeatedly call the busy extension back, hoping to find it idle.

The system processes Callbacks as follows:

1. Caller at extension A leaves a Callback at busy extension B.
   Caller A can place or answer additional calls in the meantime.
2. When caller B becomes idle (for at least four seconds), the system rings caller A. This is called the Callback ring.
   Caller B can place or answer additional calls before four seconds and not affect the Callback.
3. Once caller A answers the Callback ring, the system rings (formerly busy) caller B.
   If caller A does not answer the Callback ring (within five rings - this is fixed and is not able to be changed), the system cancels the Callback.
4. As soon as caller B answers, the system sets up an Intercom call between A and B.
   If caller A places another call (and caller B hears busy), the system reinstates the callback when caller B hangs up.

An extension user can only leave one Callback request at a busy extension. The user can, however, leave Callbacks at any number of extensions at the same time. Additionally, more that one extension can leave a Callback at a single busy extension. The system queues these Callbacks and processes them on a first in-first out basis.

Conditions

(A.) A power failure or system reset cancels all Callback requests.

Default Configuration

Callback allowed.

Programming

Required Programming

None

Other Programming

- **"CP- Allow Callback Priority (BY1:7)"**
  Allow/deny trunk Callback queueing priority for extensions with this COS. [1=allow, 0=deny]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]

Related Features

"Attendant Positions"

An attendant cannot leave a Callback request. Since attendants are never busy, a user cannot leave a Callback request for an attendant.

"Call Waiting (Camp-On)"

Call Waiting lets a user wait off-hook for a busy extension to become free.

"Do Not Disturb"

An extension user cannot leave a Callback at an extension in Do Not Disturb.

"Intercom"

After placing an Intercom call to a busy extension, the user can:

- Leave a Callback request
- Camp-on (wait in line off hook)
- Send an off-hook signal

CALLBACK

"Line (Trunk) Queuing"
Line Queuing lets an extension user leave a Callback request for a trunk.
"Off-Hook Signaling"
An extension user cannot leave a Callback after initiating a Whisper Page.

Feature Operation

To request a Callback (after calling a busy extension):
Listen for: *Busy Tone or Ring Busy tone*

1. Do not hang up.
2. Dial 2.
   Listen for: *Ringing*
3. Hang up.

To answer when Callback rings you back:
Listen for: *Callback Ring*

1. Lift handset.
   Listen for: *Two beeps or Ringing*
2. - If you hear ringing, wait for called party to answer.
   OR
   - If you hear two beeps, you can begin speaking.

To cancel a Callback request at a specific extension:

1. Call busy extension again.
   Listen for: *Busy tone*
2. Press *.
   Listen for: *Dial tone*
3. Hang up.

To cancel all your Callbacks simultaneously:
This also cancels all your Line Queuing requests.

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
   If you have an ESL set, skip this step. At an ESL set, this also cancels your trunk Callbacks and Messages Waiting.
3. - At a keyset, press * FTR.
   OR
   - At an ESL set, press # *.
4. Hang up.

Description

Available in Software Levels:		
Base	**AUX**	**SAUX/XAUX**
> 02.00	≥ 02.10	≥08

Caller ID allows a display keyset to show an incoming caller's telephone number (called the Directory Number or DN) and optional name. The Caller ID information is available as either a post-answer or pre-answer display. Normally, the system provides the Caller ID post-answer display. With the post-answer display, the user sees the incoming caller's number/name after they answer the call. With the pre-answer display, the user can preview the caller's number before picking up the ringing line. The pre-answer display is only available if the system has Automatic Handsfree disabled.

Caller ID supports the telco's Called Number Identification (CNI) and Called Number Delivery (CND) service, when available. These services provide the Caller ID information (i.e., messages) between the first and second ring burst of an incoming call. There are two types of Caller ID message formats currently available: Single Message Format and Multiple Message Format. With Single Message Format, the telco sends only the caller's phone number (DN). The DN is either 7 or 10 digits long. In Multiple Message Format, the telco sends the DN and the caller's name. The DN for this format is also 7 or 10 digits long, and the name provided consists of up to 15 ASCII characters. The system temporarily stores the DN data in NP- Programming Names and Messages for the ringing trunk. The data remains stored for the duration of the call.

In addition to displaying the DN and name, Caller ID can also display several unique messages received from the telco:

Message	Description
PRIVATE	Caller has blocked Caller ID. Telco will not pass the DN.
OUT OF AREA	Caller has dialed from an area that does not support Caller ID.
UNAVAILABLE	Telco's Caller ID is out of service.

If installed (see *Hardware Considerations* below), Caller ID is enabled for all types of outside calls, including:

- Calls ringing all phones with ring and access (i.e., key ring)
- Calls transferred from another extension
- Calls transferred from Operator Assistance (via the Voice Module Unit)
- Calls transferred from Voice Mail (screened or unscreened)
- Direct Inward Lines (DILs)
- Assigned Night Answer (ANA) Calls

Caller ID: Trunk Display
The system provides unique displays for incoming Caller ID (CND) and non-Caller ID (non-CND) trunks. The information a display keyset user sees depends on the type of incoming trunk call and the type of trunk. The following chart describes the telephone display for each type of incoming CND and non-CND trunk call.

	CND Trunk	Non-CND Trunk
Unscreened Transfers	Caller ID data for the incoming trunk.	The name/number for the incoming trunk.
Screened Transfers	The screening extension's name/number, followed by the Caller ID data for the incoming trunk.	The screening extension's name/number (even after the screening caller hangs up).
Calls Transferred by Voice Mail	The Caller ID data for the transferred trunk.	The transferring Voice Mail port's name/number.
Key Ring (post-answer) & Direct Inward Lines	Caller ID data for the incoming trunk.	Name/number for the incoming trunk.

Prior to software version 02.10, the display telephone always showed the incoming trunk's Caller ID information (CND trunks) or programmed name (non-CND trunks).

Caller ID: Enhanced Display
The Caller ID display for 10-digit numbers on incoming CND trunks is consistent with the 7-digit display formats. The chart below shows the format of the display for each CND call type.

Type of Call	Format of Display
7-digit	NNX-nnnn
10-digit	NPA NNX-nnnn

Prior to AUX Module 02.20, the Caller ID display for incoming CND trunk calls had brackets around the area code (NPA).

Caller ID and the SMDR Report

The system identifies incoming Caller ID calls on the SMDR report (see the sample below). If a system user answers a Caller ID call, the SMDR NUMBER DIALED field shows the caller's 7- or 10-digit number (DN) followed by *. If the call is unanswered, the NUMBER DIALED field shows the DN followed by **. For Caller ID calls in the Multiple Message format, SMDR prints two consecutive records. The first record is the DN followed either * or **. The second record is the caller's name (up to 15 ASCII characters). The STA, LIN, START, ELAPSE, COST and S# fields are identical for both records.

SMDR Report with Caller ID

STATION MESSAGE DETAIL RECORDING
02/24/94 09:57:06

STA	LIN	NUMBER DIALED	ACCT	START	ELAPSE	COST	S#	
384	13	2039299115**		09:51:44	00:00:11	$00.00	01	= RNA CND
308	14	2039299115**		09:51:44	00:00:31	$00.00	01	= ANS CND
305	04	9268871		09:51:45	00:00:31	$00.00	01	= Outgoing
307	06	-		09:52:45	00:00:03	$00.00	01	= Non-CND
309	05	22102		09:52:41	00:00:08	$00.00	01	= Outgoing
308	01	5045554321*	123456789	09:56:06	00:00:30	$00.00	01	= Multi CND

308 | 01| SMITH, JOHN M.| | 09:56:06 | 00:00:30 | $00.00 | 01 = CND name

Hardware Considerations

Caller ID requires the installation of at least one ID/4CO Caller ID Module (P/N 88512). The Caller ID Module is a standard 4 CO Module with four trunk circuits and added Caller ID capability. Each module provides Caller ID service for the trunks connected to it. For example, the inside Caller ID Module in the Main CEU provides Caller ID capability for trunks 1-4. The system can have up to six Caller ID Modules, providing Caller ID capability to all 24 trunks.

Conditions

Caller ID requires AUX Module software version 02.10 or higher, SAUX/XAUX Module software version 08 or higher and Base 2.00 or higher. Do not install Caller ID Modules in a system that uses software prior to version 02.10. Caller ID is compatible, however, with older system databases. This allows you to upgrade existing sites without initializing the system.

Default Configuration

Caller ID enabled automatically after the installation of Caller ID Modules.
Caller ID pre-answer display disabled (Automatic Handsfree Enabled).

Programming

➢ **"QE- Automatic Handsfree"**
The system can have the Caller ID pre-answer display only if you disable (N) Automatic Handsfree.

Related Features

"Automatic Route Selection"
ARS can block outgoing Caller ID information. You may need to block Caller ID for certain sites (such as crisis centers) that need to keep their identity confidential. To do this, insert the Caller ID block code (e.g., *67) in the ARS Dial Treatments.

"Station Message Detail Recording"
To allow for the temporary storage of Caller ID trunk names, the SMDR buffer now holds 108 records (reduced from 120).

Feature Operation

To answer a Caller ID call (with the pre-answer display disabled):

1. Lift handset or press flashing line/loop key.

To answer a Caller ID call (with the pre-answer display enabled):

1. Press the flashing line/loop key to display the incoming caller's number.
   You can optionally press another line/loop key instead of displaying the incoming caller's name in step 3.
2. Press the flashing line/loop key again to display the incoming caller's name (if available).
   You can optionally press another line/loop key instead of answering the call in step 3.
3. Lift the handset to answer the call.
   If you previewed many ringing lines, this step answers the most recently pressed line key.

To redisplay the Caller ID information for the call you are on:

1. Press the line key for the call.

CENTRAL OFFICE CALLS, ANSWERING

Description

The system administrator can customize the routing of incoming CO (trunk) calls to meet the exact site requirements. This lets trunk calls ring and be answered at any combination of system extensions. CO trunks can only be loop start.

Conditions

None

Default Configuration

The attendant has ringing and access for trunks 1-16 on programmable keys 1-16. Trunks 17-24 (three-cabinet systems only) are not on keys and ring the phone directly.

All keyset users have lamp only and access for trunks 1-16 on programmable keys 1-16. Trunks 17-24 (three-cabinet systems only) are not on keys. The user has access to these trunks as well.

Programming

Required Programming

- **E- Extensions, "ED- Trunk Control, Ring Control"**
  For each keyset, designate the ringing options for each trunk. If you enter D, see QT- System Timers, Delayed Ring Interval in Other Programming below. You normally program the attendant with ringing for each trunk. This gives unanswered calls and recalls at least one destination in the system.
  [R=immediate ring, D=delayed ring, L=lamp only (no ring), R=night ring]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  For each extension, assign access for the lines the extension should be able to answer. You normally program the attendant with access for each trunk. [Y=access, N=no access]
- **E- Trunks, "E2- Trunk Circuit Type"**
  Program circuit type for each trunk. (see page 394)
- **E- Trunks, "E9- Direct Trunk Termination"**
  Enter 300 to have extensions ring according to their ED programming assignments.
- **"KS- Programming Keys for Keysets"**
  Program the types of keys that will ring the extension. Additionally, make sure that every keyset has at least one fixed or switched loop key. This ensures that an incoming call will ring a key somewhere on the keyset. On key systems, loop keys are for incoming calls only. Only switched loop keys are available. (see page 439)

Other Programming

- **E- Extensions, "EK- Retain Trunk Volume Setting "**

Available in Software Levels:	
Base	**AUX**
N/A	≥Y 2.0

Enter Y if the system should apply the user-set volume for trunk calls. Enter N if the system should apply a median volume level for each new trunk call.

- **"NP- Programming Names and Messages"**
  Assign names to incoming trunks. The name displays after a display set user answers a call on the trunk. [16 digits maximum]
- **"QE- Line Gain Table, Gain"**
  Set the gains for each trunk.
  [+6 dB gain, +3 dB gain, 0 dB, -3dB loss, -6 dB loss, -9 dB loss, -12 dB loss]
- **"QE- Manual Sidetone"**
  You can adjust the sidetone manually for each trunk. This lets you fine tune each trunk's sidetone level, if necessary. [Y=enable, N=disable]
- **"QT- System Timers, Delayed Ring Interval"**
  Set the delayed ring interval for trunks with delayed ringing. This is the D option in E, Extensions, ED-Trunk Control, Ring Control. [1-10]
- **"QT- System Timers, Loop Disconnect Time"**

Available in Software Levels:	
Base	**AUX**
> Y5.0	≥ Y2.0

Set the disconnect interval for trunks. [0-99]

Related Features

"Attendant Positions"
The attendant has the same flexibility for answering calls as does a non-attendant keyset.

"Automatic Call Distribution"
DILs to an ACD group ring extensions in the group directly.

"Automatic Handsfree"
If the system has Automatic Handsfree, an extension user can answer a trunk call just by pressing the line key.

"Call Forwarding"
Call Forwarding does not reroute calls ringing line or loop keys (except DILs).

"Direct Inward Line (DIL)"
A Direct Inward Line rings its programmed destination extension directly.

"Direct Station Selection, DSS Console"
DSS Consoles can have line keys for answering calls.

"Distinctive Ringing, Tones and Flash Patterns"
In Aux Module Y2.0/Base Y5.0 and later, selected trunks can have Distinctive Ringing.

"Extension Hunting"
DILs to a UCD hunt group ring extensions in the group directly.

"Group Ring (Ring Groups)"
DILs to a Ring Group ring all extensions in the ring group directly.

"Intrusion (Barge-In)"
An extension user cannot Intrude on a busy trunk.

"Night Answer (Off-Hours Ringing)"
Night Answer lets specified trunks ring an extension at night (off hours).

"Operator Assistance (OPA)"
An OPA call rings the destination extension on the line key that corresponds to the trunk that the OPA answered. If the extension has no line key for the trunk, the call rings the extension's loop key.

"Personal Greeting"
Outside calls ringing an extension directly (either DILs or via Transfer) hear the Personal Greeting, if enabled. The outside call then rings the specified extension. If there is no specified extension, the call rings all extensions with ringing for the trunk. Outside calls ringing a line key don't activate Personal Greeting.

"Ringing Line Preference"
A keyset user can answer a ringing call by just lifting the handset.

"Split"
Extension users can Split on any trunk they can use for placing calls.

"Voice Module Unit (VMU)"
A VMU call rings the destination extension on the line key that corresponds to the trunk that the VMU answered. If the extension has no line key for the trunk, the call rings the extension's loop key.

Feature Operation

To answer a trunk call:

Listen for: *(Optional) Trunk Ring*

1. Lift handset.

   If you have an ASI/OPX/ESL set, you automatically answer the call.

2. If not connected to the call, press flashing programmable key.

Description

The system administrator can customize the way each extension user places outgoing trunk calls. A user can place a call by:

- Pressing a line key (keyset only)
- Dialing a trunk access code (e.g., 801)
- Dialing a trunk group code (9 or 90-98)
- Dialing a trunk extension number (e.g., 480)

System programming lets the administrator customize the call placing options to meet site requirements and each individual's needs. CO trunks can only be loop start.

Conditions

(A.) On power up, the system automatically does a side tone test on each trunk. Refer to **IS- Side Tone Test** for more information.

Default Configuration

- All keyset users can place calls on trunks 1-16 via programmable keys 1-16.
- All users can place calls by dialing trunk access codes (e.g., 801).
- Placing calls via trunk groups is not available.

Programming

Required Programming

➢ **E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"**
If enabled, keyset user can press a line key to place a call (if also allowed by ED programming). [Y=enable, N=disable]

➢ **E- Extensions, "E8- Line Access Options, Allow Line Code Dial-Up"**
If enabled, user can dial trunk access code (e.g., 801) to access trunks (if also allowed by ED programming). [Y=enable, N=disable]

➢ **E- Extensions, "E8- Line Access Options, Access to Groups 90-95" (not on key systems)**
If enabled, user can dial 90-95 to access trunk groups 1-6. [Y=enable, N=disable]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
Assign access for each trunk on which the user should be able to place calls. [Y=enable, N=disable]

➢ **E- Extensions, "ED- Trunk Control, Call-Out Control"**
Enable call-out for each trunk on which the user should be able to place calls. [Y=enable, N=disable]

➢ **E- Trunks, "E2- Trunk Circuit Type"**
Program the correct circuit type for each trunk. (see page 394)

➢ **"KS- Programming Keys for Keysets"**
Program the types of keys that allow the extension user to place trunk calls. (see page 439)

Other Programming

➢ **E- Extensions, "EK- Retain Trunk Volume Setting"**

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Enter Y if the system should apply the user-set volume for trunk calls. Enter N if the system should apply a median volume level for each new trunk call.

➢ **"QA- Number Plan, Trunk Access Digit"**
Specify the first digit a user dials to place a call on a specific trunk. [0-9 (also changes Paging and Time/Date features]

➢ **"QE- Line Gain Table, Gain"**
Set the gain for trunks. [+6 dB gain, +3 dB gain, 0 dB, -3 dB loss, -6 dB loss, -9 dB loss, -12 dB loss]

➢ **"QE- Manual Sidetone"**
You can adjust the sidetone manually for each trunk. This lets you fine tune each trunk's sidetone level, if necessary. [Y=enable, N=disable]

➢ **"QT- System Timers, Loop Disconnect Time"**

Available in Software Levels:	
Base	**AUX**
> Y5.0	≥ Y2.0

Set the disconnect interval for trunks. [0-99]

Related Features

"Account Code Capability"
Users can dial Account Codes while placing calls. The system may require Account Code Entry.

"Attendant Positions"
The attendant has the same flexibility for placing and answering calls as does a non-attendant keyset.

"Automatic Handsfree"
If the system has Automatic Handsfree, an extension user can place a call by just pressing a line key before dialing.

"Automatic Route Selection"
ARS may restrict the numbers a user may dial.

"Call Forwarding"
An extension user can forward calls off-premise only over lines to which the user normally has access and call-out.

"Dialing Number Preview"
Dialing Number Preview lets a user dial, review and correct a number before the system dials it out.

"Direct Inward Line (DIL)"
Extension users can place calls on DIL trunks.

"Direct Inward System Access (DISA)"
If a DISA caller places an outgoing call over a Dial Pulse trunk, the system outdials both DTMF and Dial Pulse digits. Some COs may not be compatible with this type of signaling.

"Direct Station Selection, DSS Console"
DSS Consoles can have line keys for placing calls.

"Direct Trunk Access"
Direct Trunk Access lets an extension user place a call by dialing the trunk number.

"Equal Access Compatibility"
Users access trunks for Equal Access calls in the normal way. All trunk programming applies to Equal Access calls.

"Intrusion (Barge-In)"
An extension user cannot Intrude on a busy trunk.

"Last Number Redial" / "Save" / "Speed Dial"
These features give extension users convenient options to dialing manually.

"Line (Trunk) Queuing"
A user can queue for an available trunk if all trunks are busy.

"Line (Trunk) Rotaries (Hybrid Only)"
The system administrator can group trunks into rotaries for placing outside calls.

"Non-Blocking Architecture"
The system has 56 dialing buffers. An extension uses a dialing buffer when dialing digits for Intercom or trunk calls. This means that a total of 56 extensions can dial digits simultaneously.

"Split"
Extension users can Split on any trunk they can use for placing calls.

"Toll Restriction"
Toll Restriction may restrict the numbers a user may dial.

Feature Operation

To place an outside call using a line key:

1. Lift handset.
2. Press line key

   Listen for: *Dial tone*
3. Dial number.

   Listen for: *Digits dialing out*

To place a call using dial-up codes:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial Tone*
3. Dial code.

   You can dial:

   A trunk extension number (See Direct Trunk Access)

   A trunk access code (e.g., 801)

   Trunk group access code - 9 or 90-98 (See Line Rotaries)

CENTREX COMPATIBLE FEATURE KEYS

Description

Centrex Feature Keys are programmable keys customized with Centrex/PBX functions. If the system is installed behind a Centrex/PBX, these keys give extension users one-touch access to complex Centrex/PBX functions. A Centrex feature key can contain any combination of:

- Digits 0-9, * or #
- Delay (D)
- Flash (F)
- Pause (P)

The Centrex code can be up to 10 entries long. The system allows a total of 41 Centrex Feature Keys. Only systems with AUX Modules can have Centrex Feature Keys.

Conditions

The system ignores the Flash option if F is the first key entry and the user is not on an established trunk call.

Default Configuration

No Centrex feature keys programmed.

Programming

Required Programming

➢ **"FC4- Reset All Keyset Feature Keys"**
Before programming Centrex Feature Keys for the first time, reset the system memory used for Centrex feature keys.

➢ **"KS- Programming Keys for Keysets"**
Assign keys as Centrex keys. For Centrex keys, the system requests a trunk number before you enter the Centrex code.
["F" + line # + definition (0-9, *, #, P=pause, ,D=delay, F=flash]

Other Programming

➢ **"QT- System Timers, Flash Response Time"**
Set the flash (open circuit) interval. [1-25]

➢ **"QT- System Timers, Dialtone Detection Counter"**
Set how long the system waits for dialtone. The system waits three times this interval to detect second dialtone. [1-6]

➢ **"QT- System Timers, Centrex-Type Feature Key Delay"**
Set the Centrex delay interval. This is the interval that corresponds to a D entry when programming Centrex keys.
[5-99]

➢ **"QX- Suppress '#' When Speed Dialing"**
Allow or prevent the system from outdialing a # if stored with a Centrex feature key.
[Y=prevents #, N=allows #]

Related Features

"Flash"

Available in Software Levels:	
Base	**AUX**
> 02.00	≥02.10

The flash, delay, and pause features are able to be stored in Centrex Keys and in Speed Dial numbers.

"PBX/Centrex Compatibility"
The system administrator must program trunks for operation behind a Centrex/PBX.

"Station Message Detail Recording"

If applicable, the SMDR report will list the codes D (delay), F (Flash) and P (pause) in the 'Number Dialed' field.

Feature Operation

To use a Centrex feature key:

1. (Optional) Lift handset.

   If you are already on a call, skip this step.

2. Press Centrex feature key.

   The stored function automatically executes. If the function contains a trunk code and you are already on a trunk, the system strips out the trunk code.

CLASS OF SERVICE

Description

Class of Service (COS) sets various features and dialing options for extensions (and certain types of trunks). An extension can have only one COS; however, any number of extensions may share the same COS. Class of Service lets the system administrator tailor the dialing options for each user.

The system organizes Class of Service options into bytes. There are four COS bytes: 0, 1, 2, and 3. Each byte has eight individual options called bits (0-7). To change a COS option, you change the bit of a specific byte. This manual abbreviates the COS nomenclature. For example, byte 0 bit 7 is BY0:7.

The system supports 28 Classes of Service. Extensions normally use Classes of Service 01-27. The system permanently assigns attendants Class of Service 30, which cannot be changed. However, COS 30 follows the programming for COS 00. The system administrator can change the options for COS 30 by changing COS 00.

The chart below correlates each Class of Service option to the feature it affects. It also shows the default setting for COS 01, which is the standard COS for all extensions. Refer to the individual feature description for more information. COS 30 (for attendants) has the same default as COS 1, except:

- COS 30 allows Break In (BY0:4)
- COS 30 allows Direct Trunk Access (BY2:0)

Feature	**COS Option**	**Byte/Bit**	**COS 1 Default**
Automatic Call Distribution	ACD Supervisor Keyset [1]	BY2:6	0-No
Call Forwarding	Inhibit Call Forwarding	BY0:6	0-No
	Allow Off-Premise Call Forwarding [1]	BY0:3	0-No
	Allow Remote Call Forwarding	BY3:4	0-No
Call Waiting	Inhibit Camp-On	BY0:5	0-No
Callback	Allow Callback Priority [1]	BY1:7	0-No
Direct Trunk Access	Direct Trunk Access/Trunk Camp-On	BY2:0	0-No
Distinctive Ringing	Single Ring OPX [1]	BY2:7	0-No
Flash	Inhibit Flash for Single Line Sets [1]	BY2:6	0-No
Intrusion	Allow Break-In (Intrusion)	BY0:4	0-No
OPA	Inhibit OPA Transfers to Extension	BY0:1	0-No
Paging	Inhibit Access to Page Zone 3	BY2:4	0-No
	Inhibit Access to Page Zone 2	BY2:3	0-No
	Inhibit Access to Page Zone 1	BY2:2	0-No
	Inhibit Access to All Call Paging	BY2:1	0-No
Privacy	Allow Privacy [1]	BY1:6	0-No
Silent Monitor	Allow Silent Monitor	BY2:5	0-No
Speed Dial	Inhibit System Speed Dial	BY0:7	0-No
Toll Restriction	Allow Only Intercom Calls at Night	BY0:2	0-No
	Allow Only Local Calls at Night	BY1:4	0-No
	Allow Only Local Calls (Day or Night)	BY1:3	0-No

	Extension Toll Restriction Level	BY1:1	0
Transfer	Allow Extended Ring [1]	BY1:5	0-No
Voice Mail Personal Answering Machine Emulation	Only CO Calls Forward to Voice Mail	BY3:6	0-No

1 These features are not available to attendants.

Conditions

None

Default Configuration

- All extensions have COS 01.
- All trunks have COS 00.
- The attendant has COS 30.
- See chart above for details.
- Data Ports with permanent Receive/Transmit Connection have COS 29. Refer to the Data Products Manual.

Programming

Required Programming

➢ **"C- Class of Service"**
Set the Class of Service options.

➢ **E- Extensions, "E3- Extension Class of Service" / E- Trunks, "E3- Trunk Class of Service"**
Assign a Class of Service to trunks (where applicable) and extensions. [00-27, 30 for operators]

Other Programming

None

Related Features

"Direct Inward System Access (DISA)"
Since DISA trunk callers can use many extension features, this trunk should have a COS.

"Equal Access Compatibility"
Equal Access calls follow all Class of Service dialing restrictions.

"Intrusion (Barge-In)"
An extension's COS sets its Intrusion options.

"Loop Keys" / "Prime Line Selection"
If an extension's COS has CP- Allow Only Intercom Calls at Night (BY0:2=1), the extension cannot use loop keys or Prime Line Selection at night.

"Time and Date Setting"
Only extensions with COS 00 can set the Time and Date.

Feature Operation

Refer to the features referenced above.

CONFERENCE

Description

Conference lets an extension user add an additional party to their conversation. With Conference, a user may join in a three-way telephone meeting without leaving the office. The added call may be an Intercom or outside call.

In addition to Conference, the following features also allow three-party calls:

- Intrusion
- Meet-Me-Conference
- Privacy Release Groups
- Tandem Calls

Conditions

(A.) Conferencing trunk calls requires either loop start trunks with disconnect supervision.
(B.) The system supports eight simultaneous three-party Conferences.

Default Configuration

Conference allowed at all extensions.

Programming

Required Programming

None

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
When Conferencing with a trunk, only the extension initiating the Conference needs access to the trunk. [Y=allow, N=deny]

Related Features

"Intrusion (Barge-In)"
An extension's COS sets its Intrusion options.

"Meet-Me Conference"
Conference lets an extension user add an additional party to their conversation. Conference has an initiator (controller): Meet-Me Conference does not.

"Music On Hold"
While an extension users sets up a Conference, MOH plays to their initial caller.

"Privacy Release Groups"
A Privacy Release Group member cannot join a Conference call.

"Tandem Calls (Tandem Trunking)"
Tandem Calls lets a user Conference with two trunk calls and then leave the Conference. The two trunk calls remain connected.

Feature Operation

To set up a Conference at a keyset:

1. Place or answer first call.

   Listen for: *Conversation with caller*

2. Press CONF.

   Listen for: *Dial tone*

   If you were on an outside call, a line key flashes also. If all Conference circuits are busy, you hear fast busy tone.

3. Place or answer second call.

   Listen for: *Conversation with caller*

4. Press CONF.

   Listen for: *Conversation with both parties*

   If the Conference includes at least one Intercom caller, the other parties remain connected if you hang up.

To set up a Conference at an ESL set:

1. Place or answer first call.

   Listen for: *Conversation with caller*

2. Press HLD.

   Listen for: *Dial tone*

3. Place or answer second call.

   Listen for: *Conversation with caller*

4. Press HLD, *, #.

   Listen for: *Conversation with both parties*

   If the Conference includes at least one Intercom caller, the other parties remain connected if you hang up.

DATA

Description

The system provides internal and external RS-232-C data communications. Using the optional Data Products (listed below), the system can link (network) computers, printers, terminals and other RS-232-C devices. The Data Products have unique installation and programming requirements. Refer to the Data Products Manual (P/N N1850DMG01) for the specifics.

Data Products	**Part Number**
Data Module Companion module for keyset that lets user connect an RS-232-C data device	88400
Mini Data Unit Small "desk-top" version of the Data Rack that accepts two Dataport PCBs, two Modem Pooling PCBs or one of each. Requires AUX Module.	89408
Mini Data Unit Power Supply Separate power supply for Mini Data Unit	89409
Dataport PCB Plugs into the Mini Data Unit and connects up to two RS-232-C data devices	89460
Modem Pooling PCB Plugs into the Mini Data Unit and allows system users to place data calls outside of the system. Each PCB contains two 103/212A modems.	89465
DCE/DCE Adaptor Adaptor required when connecting a modem type (DCE) device to a Data Module or Dataport PCB.	89079

Conditions

None

Default Configuration

Data communications is always available if the additional data equipment is installed and programmed.

Programming

Required Programming

Refer to the Data Products Manual (P/N N1850DMG01).

Other Programming

Refer to the Data Products Manual (P/N N1850DMG01).

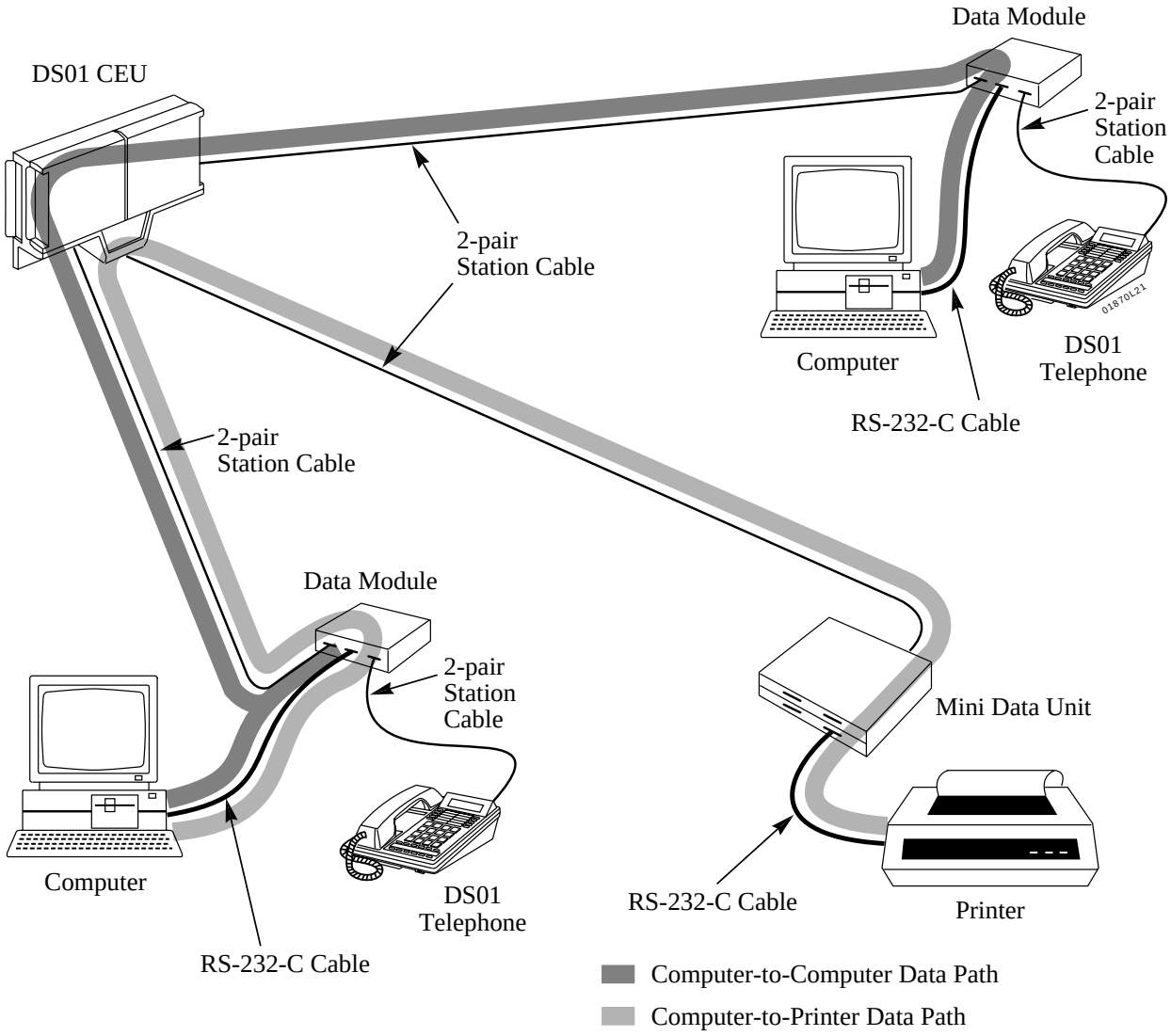
Related Features

Refer to the Data Products Manual (P/N N1850DMG01).

Feature Operation

Refer to the Data Products Manual (P/N N1850DMG01) and the Data Products Feature Handbook (P/N N1850DFH01).

Sample Data Installation



DP AND DTMF COMPATIBILITY

Description

The system administrator can program each trunk for Dual Tone Multifrequency (DTMF) or Dial Pulse (DP) dialing. This allows the system to connect to any combination of DTMF or DP trunks.

DP/DTMF Compatibility also provides Pulse to Tone Conversion. Pulse to Tone Conversion lets a user change their extension's dialing mode while placing a call. For systems in a DP area, this permits users to access dial-up OCCs (e.g., MCI or GTE Sprint) from a DP area. The user can, for example:

- Place a call to an OCC over DP trunks.
- Wait six seconds after dialing the OCC's local number.
- Dial the OCC security code and desired number. The system dials the digits after the six-second wait as DTMF.

Conditions

None

Default Configuration

- All trunks have loop start DTMF signaling.
- Since all COSs have Toll Restriction Level 0, all COSs allow Pulse to Tone Conversion. Continued dialing is always allowed by COS 0. Continued Dialing is switchable (by Toll Level) for all other COSs.

Programming

Required Programming

➢ **E- Trunks, "E2- Trunk Circuit Type"**
Assign a circuit type that matches the signaling for each connected trunk. If a trunk has both DP and DTMF signaling, program it for DTMF. (see page 342)

Other Programming

➢ **"AP- Allow Active Dial Pad"**
Enable for each Toll Restriction level that should allow Pulse to Tone Conversion. [Y=allow, N=deny]

➢ **"CP- Extension Toll Restriction Level (BY1:0-2)"**
Assign a Toll restriction level to each COS. [0-7]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign a COS to each extension. [00-27, 30 for operators]

Related Features

"Special Services and OCC Compatibility"
After a special service answers, it requires DTMF signaling. Pulse to Tone Conversion lets a user dial a special service from a DP area.

"Speed Dial"
If a Speed Dial number uses a DP trunk and contains a pause, Pulse to Tone Conversion can be automatic. The digits before the pause dial out DP. The digits after the pause dial out DTMF.

Feature Operation

To Convert your dialing from pulse to tone:

Your outside call must initially use pulse signaling.

1. Place initial call.
2. Wait six seconds.
3. Dial additional digits.

These digits dial as DTMF.

Description

Dialing Number Preview allows display keyset users to dial, review and correct a number before the system dials it out. DNP helps the display keyset user avoid dialing errors.

Conditions

None

Default Configuration

Dialing Number Preview functions at all display keysets.

Programming

Required Programming

None

Other Programming

- **E- Extensions, "E2- Extension Circuit Type"**
  Make sure that display keysets have circuit type 02.
- **E- Extensions, "ED- Trunk Control, Access Control" / "ED- Trunk Control, Call-out Control"**
  After using Dialing Number Preview, the extension must have access/call-out for the selected trunk to complete the call. [Y=allow, N=deny]

Related Features

"Automatic Route Selection" / "Toll Restriction"
The system places normal routing and restriction on calls placed using Dialing Number Preview.

"Central Office Calls, Placing"
Dialing Number Preview lets a user dial, review and correct a number before the system dials it out.

"Prime Line Selection"
If an extension has Prime Line Selection, the system selects the Prime Line when the user presses DIAL (step 5 below).

DIALING NUMBER PREVIEW

Feature Operation

To use Dialing Number Preview:

If you are an attendant, lift handset before going to step 1.

1. Press *.
2. Dial number.
3. (Optional) Edit the number you dial.

   Press VOL DN to move the cursor left to the incorrect digit. If you go too far, press VOL UP to move the cursor to the right.

   Dial correct digit(s). The cursor moves one digit to the right with each digit you enter.
4. Press FTR.

   This moves the cursor all the way to the right. Dialing Number Preview only dials the digits up to the cursor.
5. Press DIAL.

   If you have Prime Line Selection or if ARS is programmed, the system selects the trunk for you.
6. Press line key.

   Listen for: *Digits dialing out*

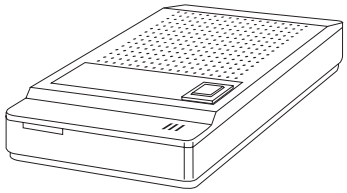
To exit Dialing Number Preview without dialing:

1. Press HF.

Description

Available in Software Levels:	
Base	**AUX**
> Y5.0	≥ Y2.0

The Digital Door Box (P/N 88545) is a self-contained Intercom unit typically used to monitor an entrance door. A visitor at the door can press the Door Box call button (like a door bell). The Door Box then sends chime tones to all extensions programmed to receive chimes. To answer the chime, the called extension user just lifts the handset. This lets the extension user talk to the visitor at the Door Box. The Door Box is convenient to have at a delivery entrance, for example. It is not necessary to have company personal monitor the delivery entrance; they just answer the Door Box chimes instead.



The system can have up to four Door Boxes, installed at extensions 310, 311, 322 and 323. Each Door Box has a distinctive chime pattern as follows:

Extension		**Chime Pattern**		
310	High	Low		
311	High	High		
322	High	Low	High	Low[1]
323	High	High	High	High[1]

1 The chimes for extensions 322 and 323 are twice as fast as the chimes for 310 and 311.

The Relay Box provides relay contacts for up to four Door Box locations. A relay typically enables an electric strike on an entrance door next to a Door Box. After answering the Door Box chimes, the extension user can press a dial pad key to enable the associated relay. The visitor at the door can then enter without having an employee open the entrance for them. The Relay Box should be installed at extension 309. The Relay Box has a normally open (NO) and normally closed (NC) contact for each Door Box. Refer to Relay Box Installation Instructions (P/N N1853REL04) for installation information.

Conditions

(A.) The Door Box is a weather-tight unit, with an operating temperature range of -20yC to 60yC (-4yF to 140yF). It is not intended for outdoor installation.

(B.) Ringing and Paging affect the way a Door Box alerts an extension:
- Incoming ringing stops the chimes (if sounding) or prevents the chimes (if ringing occurs before the chimes sound).
- Paging turns off an active chime. Conversely, an incoming chime turns off a Page announcement in progress.

Default Configuration

No Door Boxes installed.

DIGITAL DOOR BOX

Programming

Required Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
Assign each Door Box circuit type "X".

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign each Door Box COS 28.

➢ **"QV- Peripheral Ports, Alert Programming"**
For each extension, entering Y lets the phone receive chime tones from the door boxes. Entering N prevents chime tones from alerting the phone.

Other Programming

➢ **"KS- Programmable Keys"**
Program a Hotline or Call Coverage key to answer Door Box calls.

➢ **"QT- System Timers, Door Box Alert Time"**
Set how long an extension user has to answer Door Box chimes. The user can answer the Door Box only if they respond within this interval. [0-970 seconds]

Related Features

"Call Waiting (Camp-On)" / "Off-Hook Signaling"
An extension cannot receive off-hook signals from a Door Box unless the system has AUX Module ≥ 02.10.

"Call Coverage Keys" / "Hotline" (recommended option)
An extension can have a Call Coverage or Hotline key for a Door Box. This gives the extension a BLF, one button calling and one button answering for the Door Box.

When the key is...	**The Door Box is...**
Off	Idle
On	Busy
Slow Flash	Calling (ringing) in

"Directed Call Pickup"
Directed Call Pickup cannot pick up a Door Box call at another extension.

"Message Waiting"
An extension user cannot leave a Message Waiting at a Door Box.

"Volume Controls"
An extension user cannot adjust the volume of the Door Box chimes.

Feature Operation

To use the Door Box:

1. Press and release the Door Box button.
This sends distinctive chimes to the phones programmed to receive chimes.

To answer the Door Box chimes (from your phone):

Listen for: *Distinctive Door Box chimes*

1. Lift handset.

   If you have a keyset, you may also be able to press HF instead.

   If busy on another call, you can press your Door Box Call Coverage/Hotline key to answer the Door Box.

2. If a Relay Box is installed, you can press and hold FTR to allow the person to enter.

   The relay activates as long as you hold down the FTR key (up to 60 seconds).

   *ESL sets must press * instead. (Do not hold down the * key. The relay activates for six seconds and then automatically releases.)*

To call the Door Box:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have a Call Coverage or Hotline key for the Door Box, press it instead. Skip the next step.

3. Dial Door Box extension number.

   Listen for: *Your call goes through*

DIRECT INWARD LINE (DIL)

Description

A Direct Inward Line (DIL) is a trunk that directly rings an extension, ACD group, UCD group or Ring Group. DILs give the system administrator additional routing options for incoming calls.

A call will ring the DIL destination. It follows the programmed number of rings, and if not answered, will convert to key ring. For example, a Sales Manager can have a DIL for a new sales campaign's calls. When a caller dials the sales campaign number, the call rings the Sales Manager's phone. If the Sales Manager does not answer, the call then rings all the other phones with programmed ringing for that trunk.

Conditions

None

Default Configuration

No DILs programmed.

Programming

Required Programming

- **E- Trunks, "E9- Direct Trunk Termination"**
  Assign the DIL destination: extension, ACD/UCD group master number or Ring Group.
- **"KS- Programming Keys for Keysets"**
  A DIL to a keyset should ring a key [line #]. If the trunk doesn't have a line key, it will ring a loop key. [9=switched loop, "9" and a line group # (0-8)=fixed loop]

Other Programming

- **E- Extensions, "ED- Trunk Control, Ring Control"**
  An unanswered DIL diverts to all extensions with ringing for the trunk. Initially, the DIL ignores the ED programming. This step is not available to ESL phones. [R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  A user must have access to the trunk to pick up a diverted DIL. For Private Line type operation, deny access to all but the DIL destination. [Y=allow, N=deny]
- **E- Trunks, "EI- Night Call Routing"**
  A DIL to an extension in DND routes to the programmed EI night mode destination.
- **"NP- Programming Names and Messages"**
  Assign names to DILs. The name displays after a display telephone user answers the DIL. [16 digits maximum]
- **"QT- System Timers, Camp-On Time"**
  Set how long a DIL Camps-On to a busy ESL set. [0-970 seconds]
- **"QT- System Timers, Number of Rings Before Recall"**
  Set how long a DIL Camps-On to a busy keyset. [3-15]

Related Features

"Automatic Call Distribution"
A DIL terminated to an ACD group master number rings the agent that has been idle longest.

"Call Forwarding"
A DIL activates Call Forwarding.

"Central Office Calls, Answering"
After a programmed interval, an unanswered DIL diverts to all extensions with Ringing for the trunk. A user can answer a DIL flashing their line key. The trunk will never ring (unless diverted from the DIL destination).

"Central Office Calls, Placing"
Extension users can place calls on DIL trunks.

"Do Not Disturb"
A DIL to an extension in DND routes to the programmed EI night mode destination.

"Extension Hunting"
A DIL terminated to a UCD master number rings the member that has been idle longest.
A DIL terminated to an extension in a Circular or Terminal Hunt group initiates hunting.

"Group Call Pickup"
A DIL ringing a Pickup Group member activates Pickup Group coverage for the member extensions.

"Group Ring (Ring Groups)"
A DIL terminated to a Ring Group rings all members in the group during the day. The trunk never diverts to all extensions with programmed ring and access. The trunk rings the programmed EI destination at night.

"Line (Trunk) Rotaries (Hybrid Only)"
A DIL can be a member of a trunk rotary (for placing calls). While busy on an outgoing call, the DIL is unavailable for incoming calls.

"Night Answer (Off-Hours Ringing)"
A DIL ignores ANA (E- Trunks, EI) programming (unless the destination extension is in DND).

"Personal Greeting"
Outside calls ringing an extension directly (either DILs or via Transfer) hear the Personal Greeting, if enabled. The outside call then rings the specified extension. If there is no specified extension, the call rings all extensions with ringing for the trunk. Outside calls ringing a line key don't activate Personal Greeting.

"Private Line"
A Private Line is a trunk reserved for a single or group of keysets for placing and answering calls.

"Tenant Service"
You can have unanswered DILs recall to all tenant groups or only to the DIL's extension tenant group.

Feature Operation

None

DIRECT INWARD SYSTEM ACCESS (DISA)

Description

DISA permits outside callers to dial a special telephone number and directly access system extensions, trunks and features. For example, DISA helps sales people who are away from the office but want to use the company's trunks for long distance calls.

To use DISA, the outside caller:

- Dials the telephone number that rings a DISA trunk
- Waits for the DISA trunk to automatically answer
- Dials the DISA password (access code)
- Hears system Intercom dial tone
- Can implement many of the system features that use dial pad keys (digits 0-9, # and *)

DISA calls ring system extensions like any other outside call (i.e., on a line or loop key).

The system supports four types of DISA connections:

- DISA Day or Night, DTMF
  The trunk receives inbound DISA calls in the day or night mode, and is DTMF when used for outgoing calls.
- DISA Day or Night, Dial Pulse (DP)
  The trunk receives inbound DISA calls in the day or night mode, and is DP when used for outgoing calls.
- DISA Night Only, DTMF
  The trunk receives inbound DISA calls only at night, and is DTMF when used for outgoing calls. The trunk is a normal DTMF trunk when the system is in the day mode.
- DISA Night Only, Dial Pulse (DP)
  The trunk receives inbound DISA calls only when the system is in the night mode, and is DP when used for outgoing calls. The trunk is a normal DP trunk when the system is in the day mode.

DISA trunks must be ***supervised*** loop start.

Conditions

(A.) The DISA caller must use a 2500 type (DTMF) telephone. DISA is compatible with calling devices that meet the DTMF signaling requirements of EIA Specification RS-464. Additionally, DISA requires system DTMF receivers. The system must have a PCU Module programmed for DTMF decoding (QV-PCU Circuit Type = 2).

(B.) DISA requires disconnect supervision from telco.

Default Configuration

No DISA trunks programmed.

Programming

Required Programming

➢ **E- Trunks, "E2- Trunk Circuit Type"**
Program each DISA trunk with one of the following circuit types:
12 DISA, DTMF, Day or Night
13 DISA, DP, Day or Night
14 DISA, DTMF, Night Only
15 DISA, DP, Night Only

➢ **"QG- DISA Code"**
Program the DISA access code (up to eight digits).

➢ **"QG- Ground Start DISA Trunk"**
Set DISA trunks for loop start operation. [N=loop start]

Other Programming

DISA trunks use the following extension programming:

➢ **"C- Class of Service"**
The following Class of Service options apply to DISA trunks.

Feature	**COS Option**	**Byte/Bit**	**Default**
Call Waiting	Inhibit Camp-On	BY0:5	0-No
Direct Trunk Access	Direct Trunk Access/Trunk Camp-On	BY2:0	0-No
Intrusion	Allow Break-In (Intrusion)	BY0:4	0-No
Paging	Inhibit Access to Page Zone 3	BY2:4	0-No
	Inhibit Access to Page Zone 2	BY2:3	0-No
	Inhibit Access to Page Zone 1	BY2:2	0-No
	Inhibit Access to All Call Paging	BY2:1	0-No
Speed Dial	Inhibit System Speed Dial	BY0:7	0-No
Toll Restriction	Allow Only Intercom Calls at Night	BY0:2	0-No
	Allow Only Local Calls at Night	BY1:4	0-No
	Allow Only Local Calls (Day or Night)	BY1:3	0-No
	Extension Toll Restriction Level	BY1:1	0-No

➢ **E- Extensions, "E8- Line Access Options, Allow Line Code Dial-Up"**
If enabled, DISA caller can dial a trunk access code (e.g., 801 for trunk 1). [Y=enable, N=disable]

➢ **E- Extensions, "E8- Line Access Options, Access to Groups 90-95"**
If enabled, DISA caller can dial 90-95 to access trunk groups 1-6. [Y=enable, N=disable]

➢ **E- Extensions, "EB- Personal Speed Dial Block"**
Assign a Speed Dial block to a DISA trunk so the DISA caller can access personal Speed Dial numbers. (see page 367)

➢ **E- Extensions, "EC- Extension Call Pickup Group"**
Assign the DISA trunk to a Pickup Group. (See the Group Call Pickup feature.) This activates Group Call Pickup for Night Only DISA trunks if a call rings in on the trunk during the day. [01-23]

➢ **E- Extensions, "ED- Trunk Control, Ring Control"**
Make sure the attendant has ringing enabled (in the ED option) for the DISA trunk. This ensures that the attendant's phone will ring if the DISA caller dials 0.
[R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
Assign access for each trunk on which the DISA caller should be able to place calls. [Y=allow, N=deny]

➢ **E- Extensions, "ED- Trunk Control, Call-Out Control"**
Enable call-out for each trunk on which the DISA caller should be able to place calls. [Y=allow, N=deny]

➢ **E- Trunks, "E3- Trunk Class of Service"**
Assign Class of Service to DISA trunks. [00-27, 30 for operators]

- **E- Trunks, "E4- Next Trunk in Outbound Rotary (Hybrid Only)"**
  Program the next trunk in the rotary. (See the Line Rotaries feature.) This options pertains to DISA trunks when accessed by extension users for outgoing calls.
- **E- Trunks, "E7- Trunk Service Number"**
  Assign the DISA trunk to a service group. ARS require the service number for routing when the system uses the DISA trunk for normal outgoing calls. Refer to Appendix A for ARS details. [1-10]
- **E- Trunks, "E9- Direct Trunk Termination"**
  Enter 300. The main operator controls the night mode on the DISA trunk. DISA callers reach the main operator or UNA (night bell) when they dial 0.
- **E- Trunks, "EA- Trunk Group Assign. (First Trunk in Group), Hybrid"**
  Use this option to assign the First Trunk in Group number to the DISA trunk. This is required so system users can access the DISA trunk as part of a trunk group. (See the Line Rotaries feature.)
- **E- Trunks, "EI- Night Call Routing"**
  Assign the termination for the DISA trunk if the called extension is in Do Not Disturb.
- **"NP- Programming Names and Messages"**
  Assign names to DISA trunks. The name displays after a display telephone user answers a DISA call. [16 digits maximum]
- **"QF- Line Grp Access (First Trunk in Group), Hybrid Only"**
  For outgoing calls, correlate the first trunk in a trunk rotary (e.g., 801) to one of nine trunk rotary numbers (90-98). The system requires this correlation when setting up trunk rotaries. (See the Line Rotaries feature.) Use the trunk access code (e.g., 801 or L01) that corresponds to the EA- First Trunk in Group entry.

Related Features

"Automatic Call Distribution" / "Operator Assistance (OPA)"
To allow the DISA caller to record ACD/OPA messages, enable the following in the DISA trunk's COS:
- Call Forwarding (BY0:6=0)
- ACD Supervisor (BY2:6=1)

"Central Office Calls, Placing"
If a DISA caller places an outgoing call over a Dial Pulse trunk, the system outdials both DTMF and Dial Pulse digits. Some COs may not be compatible with this type of signaling.

"Class of Service"
Since DISA trunk callers can use many extension features, this trunk should have a COS.

"Operator Assistance (OPA)"
To allow the DISA caller to record, erase or listen to OPA messages, enable the following in the DISA trunk's COS:
- Call Forwarding (BY0:6=0)
- ACD Supervisor (BY2:6=1)

"Silent Monitor"
This feature is not available on DISA calls.

"Special Services and OCC Compatibility"
The system always allows Continued Dialing for ASI and OPX extensions and DISA callers.

"Tenant Service"
All tenants share the same DISA code.

"Toll Restriction"
If a DISA caller places an outgoing call, the system restricts and/or routes the call according to the Class of Service of the DISA trunk.

"Voice Module Unit (VMU)"
To allow the DISA caller to record, erase or listen to VMU messages, enable the following in the DISA trunk's COS"
- Call Forwarding (BY0:6=0)
- ACD Supervisor (BY2:6=1)

"Walking Class of Service"
The system uses the DISA code for Walking Class of Service.

Feature Operation

To place a DISA call (from a telephone outside the system):

1. Dial telephone number for DISA trunk.

   Listen for: *Ringing, then dial tone from the system*

2. Dial DISA access code.

   Listen for: *A second system dial tone*

3. Dial code for system feature.

   For example, you can dial an extension number or a code for a trunk.

   If you hear busy tone after dialing an extension, you can dial another extension

   If you hear busy tone after dialing a trunk code or feature, hang up and try again.

DIRECT STATION SELECTION, DSS CONSOLE

Description

A Direct Station Selection (DSS) Console gives a keyset user 80 keys for one-button access to extensions and selected features. This saves time for users that do a lot of call processing. A keyset user can have DSS Console keys for:

- Hotline (to extensions)
- Park orbits
- Outside lines
- Page zones
- DSS Console Speed Dial (refer to Speed Dial)
- Release (always on key 80)

When programmed as a Hotline key, a DSS key shows at a glance the status of the associated extension:

When the key is...	**The extension is...**
Off	Idle
On	Busy
Medium Flash	An ACD agent out of service
DND Flash	DND

If a line key, a DSS key shows at a glance the status of the associated trunk:

When the key is...	**The trunk is...**
Off	Idle
On	Busy
DND Flash	On Hold (at DSS Console)
Slow Flash	Ringing
Hold Flash	On Hold (at another extension)
Medium Flash	Held line recalling (Hold Recall)

If an orbit key, a DSS key shows the status of the associated Park orbit:

When the key is...	**The Park orbit is...**
Off	Idle
Hold	In use

Page zone and Speed Dial keys are on when the feature is active; off when feature is idle.

CAUTION:
Do not put a DSS Console in the expansion CEU.

Conditions

The DSS Console is a dual port device, using adjacent even and odd numbered ports. The system accepts as many DSS Consoles as there are available dual ports, but only four DSS Consoles are allowed per extension. The system allows only 4 unique DSS Console key configurations. See Required Programming below.

Default Configuration

- DSS Console automatically enabled (circuit type 06) when you plug it in
- Each DSS Console assigned to extension 300
- Each DSS Console uses block (configuration) 01, with key assignments as follows:

Key	**Assignment**
1-47	Extensions 301-347
48-72	Undefined
73-76	Page zones 0-3
77-79	Park orbits 60-62
80	Release

Programming

Required Programming

➢ **E- Extensions, "E2- Extension Circuit Type "**
Program each DSS Console with circuit type 06 (even numbered ports only). DSS Consoles are dual port devices. The DSS Console is automatically enabled when you plug it in.

➢ **"KD- Programming Keys for DSS Consoles"**
Designate the function for each DSS Console key. The system allows four unique configurations. Each DSS Console initially uses block 01.
[3-digit ext. #=hotline, 60-69=system parking orbits, 3-digit trunk #=Central Office Calls, Placing, "P" + (0-7)=page zone, "S" + speed dial bin (1-80)=speed dial, "U"=undefined]

Other Programming

➢ **E- Extensions, "EB- Personal Speed Dial Block"**
Assign a Speed Dial block to each DSS Console that should have DSS Speed Dial bins. This actually selects four consecutive (higher numbered) Speed Dial blocks. If these blocks were assigned to extensions, the extensions and the DSS Console share the blocks. Reassign the extensions' blocks to prevent this. (see page 367)

Related Features

"Attendant Positions"
To maximize call processing efficiency, each attendant should have a DSS Console.

"Automatic Call Distribution" / "Extension Hunting"
A DSS Console can have a Hotline key to an ACD/UCD master number. The key lights when the entire ACD/UCD group is busy. This also simplifies Transfer into the group. Additionally, the ACD supervisor should have a DSS Console.

"Call Parking"
An extension user can have the Park functions stored with a One-Touch Speed Dial key.

"Central Office Calls, Answering" / "Central Office Calls, Placing"
DSS Consoles can have line keys for answering or placing calls.

"Hold"
For attendants, pressing a DSS Console key always activates Automatic Hold. For non-attendant keysets, pressing a DSS key never activates Automatic Hold. The keyset user must press HOLD, ICM or CONF first.

"Speed Dial"
If the DSS Console is predominantly for Speed Dial, it should have four consecutive Speed Dial blocks (programmed in EB). This prevents other extension users from sharing the console's Speed Dial numbers. If these blocks were assigned to extensions, the extensions and the DSS Console share the blocks. Reassign the extensions' blocks to prevent this.

DIRECT STATION SELECTION, DSS CONSOLE

Feature Operation

To use your DSS Console keys:

1. Lift handset.
2. Press DSS Console key for desired function.

   The function executes.

To use your DSS Console Hotline keys to Transfer your outside call:

You cannot Transfer an Intercom call.

1. Press ICM.

   Listen for: Dial tone

   If you are an attendant, skip this step unless you want to Transfer unscreened.

2. Press DSS Console Hotline key.

   Listen for: Two beeps, ringing or busy

   If you hear two beeps, you can announce the call.

   If you hear ringing, you can wait for called party to answer or hang up to send the call unannounced.

   If you hear busy tone, you can return to the call or hang up to have the call wait at the busy extension.

To use your DSS Console Hotline keys to Transfer your outside call to a mailbox:

Available in Software Levels:	
Base	**AUX**
> 02.00	≥ 02.10

1. Press MSG.
2. Press DSS Console Hotline key.

Description

Direct Station Selection (DSS) gives a keyset user simplified access and call Transfer to the extensions assigned to their DSS keys. DSS also provides a Busy Lamp Field for the assigned extensions. With DSS, the user can call or Transfer just by pressing ICM and a DSS key. All keyset users have DSS capability on keys 1-15. Each extension user assigns their own DSS keys from their phone.

Once the user presses the ICM key, the DSS keys show at a glance (for about six seconds) the status of the associated extension:

When the key is...	**The extension is...**
OFF	Idle
On	Busy
Fast Flash	DND

Conditions

None

Default Configuration

- DSS capability allowed at each keyset.
- All extension DSS keys access extension 300.

Programming

Required Programming

➢ **E- Extensions, "EH- Suppress DSS Lamps"**
Allow/deny DSS capability at each extension. [Y=deny DSS, N=allow DSS]

Other Programming

None

Related Features

"Alphanumeric Display"
If an extension has DSS denied in EH programming, the user does not see the display, "DSS LAMP FIELD" after pressing ICM.

"Call Waiting (Camp-On)"
After hearing busy tone, a DSS caller can camp-on to a busy extension.

"Intercom"
Extension users can use these features as an alternative to dialing Intercom calls.

"Off-Hook Signaling"
An extension's DSS keys always activate Off-Hook Signaling (if allowed at the destination).

DIRECT STATION SELECTION, EXTENSION

Feature Operation

To program your DSS keys:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If your extension has DSS denied in EH programming, ICM does not light.
3. Press PGM/#.

   Listen for: *Dial tone stops*
4. Press DSS key you want to program.
5. Dial extension number you want DSS key to call.

   Listen for: *Dial tone stops*

   *To clear a DSS key, press * instead of dialing the extension number.*

User-Programmable Feature...
You can also use the procedure below to assign your keyset's DSS keys.
PGM# + DSS + DSS key + ext. + SAVE

To call another extension using your DSS keys:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   Your DSS keys now function as a Busy Lamp Field for the assigned extensions.

   If your extension has DSS denied in EH programming, ICM does not light.
3. Press DSS key.

   Listen for: *Two beeps*

   If you hear ringing, wait for the called party to answer before speaking.

   If you hear busy, you can dial 2 to Camp-On (i.e., send a Call Waiting signal).

Description

Direct Trunk Access lets an extension user access (seize) an individual trunk. After seizing the trunk, the user can dial any outside telephone number without toll restriction. An extension's Class of Service allows or denies Direct Trunk Access. The system administrator typically permits Direct Trunk Access for attendants and selected extensions. In addition to providing unrestricted dialing, Direct Trunk Access lets maintenance personnel test individual trunks.

Conditions

None

Default Configuration

- Direct Trunk Access disabled for COS 01-27
- Direct Trunk Access allowed for COS 00 and 30 (attendants).

Programming

Required Programming

➢ **"CP- Direct Trunk Access and Trunk Camp-On (BY2:0)"**
Enable/disable Direct Trunk Access in Class of Service. [1-enable, 0=disable]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for operators]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
Assign access for each trunk that the user should be able seize using Direct Trunk Access. [Y=allow, N=deny]

➢ **E- Extensions, "ED- Trunk Control, Call-Out Control"**
Enable call-out for each trunk that the user should be able to seize using Direct Trunk Access. [Y=allow, N=deny]

Other Programming

None

Related Features

"Automatic Route Selection"
Direct Trunk Access bypasses ARS.

"Call Waiting (Camp-On)"
An extension user with Direct Trunk Access can dial 2 to camp-on to a busy trunk.

"Central Office Calls, Placing"
Direct Trunk Access lets an extension user dial, review and correct a number before the system dials it out.

"Forced Trunk Disconnect"
An extension user with Direct Trunk Access can use Forced Trunk Disconnect.

"Line (Trunk) Queuing"
An extension user with Direct Trunk Access can dial 2 to camp-on to a busy trunk.

"Removing Trunks and Extensions From Service"
If Direct Trunk Access uncovers a defective trunk, the attendant can remove it from service.

"Speed Dial"
An extension with Direct Trunk Access can program System Speed Dial numbers.

"Toll Restriction"
The system will not restrict calls placed using Direct Trunk Access.

DIRECT TRUNK ACCESS

Feature Operation

To directly access a trunk for an outside call:

1. Lift handset.
2. Press ICM

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Dial trunk extension number (e.g., 480).

   Listen for: *Dial tone*

DIRECTED CALL PICKUP

Description

Directed Call Pickup permits an extension user to intercept a call ringing another extension. This allows a user to conveniently answer a co-worker's call from their own telephone.

Conditions

The code to retrieve a Personal Park is the same as Directed Call Pickup and remote Hold Retrieve. When a user dials the code, the system picks up calls at the dialed extension in the following order:

1. Ringing Intercom calls
2. Personal Park calls (see Call Park)
3. Ringing outside calls and DILs
4. Calls on Hold (see Hold)
5. Universal Night Answer(UNA) calls (see Night Answer)

Default Configuration

Directed Call Pickup allowed.

Programming

Required Programming

None

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
An extension can only intercept calls to which it has access. [Y=enable, N=disable]

Related Features

"Attendant Positions"
Directed Call Pickup will pick up a call ringing an attendant only if the user dials the attendant's extension number (e.g., 300).

"Call Coverage Keys"
Directed Call Pickup will not pick up a call ringing a Call Coverage Key.

"Digital Door Box"
Directed Call Pickup cannot pick up a Door Box call at another extension.

"Group Call Pickup"
An extension user can implement Directed Call Pickup to answer a call ringing another extension. The user must know the ringing phone's extension number.

"Group Ring (Ring Groups)"
An extension user can use Directed Call Pickup to pick up a call ringing another extension's ring group. However, the extension must have access to the trunk (in ED).

Feature Operation

To intercept a call using Directed Call Pickup:

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
   If you have an ESL set, skip this step.
3. Dial *.
4. Dial number of ringing extension.
   Listen for: *Conversation with caller*
5. Dial 0 for UNA calls.

DIRECTORY DIALING

Description

Directory Dialing lets a display keyset user call a Speed Dial or Intercom number by selecting the name associated with the number. The user does not have to dial the number -- the user selects the displayed name instead. There are three types of directories:

- Intercom (I), which dials Intercom numbers
- Personal (P), which dials the user's Personal Speed Dial numbers
- Company-wide (C), which dials the first 100 System Speed Dial numbers
-

The directories consist of the names assigned to Speed Dial numbers and to the system extensions. The system administrator using a programming terminal can assign names for Intercom, Personal and Company-wide directories. Selected users (normally attendants) can also assign names for the Company-wide directory. Any user can assign names for their own Personal directory.

Note:
Directory Dialing follows all the programmed options and conditions for Speed Dial and Intercom. Refer to these features for the specifics.

Conditions

(A.) Full Directory Dialing is only available if the system has an AUX Module. If the system doesn't have an AUX Module, it only has Intercom Directory Dialing.

Default Configuration

- Directory dialing allowed.
- No names programmed.

Programming

Required Programming

None

Other Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
Assign each display keyset with circuit type 02.

➢ **"NP- Programming Names and Messages"**
Assign names to extensions. [16 digits maximum]

➢ **"SP- Programming Extension/System Speed Dial Numbers"**
Program Speed Dial numbers and assign Speed Dial names.
[trunk # (e.g. 801) or trunk group # (90-98) or I (intercom) + telephone # (up to 32 digits) + name (up to 16 characters)]

Related Features

"Intercom"
Extension users can use Directory Dialing as an alternative to dialing Intercom calls.

"Speed Dial"
An extension user can implement Directory Dialing instead of dialing System and Personal Speed Dial numbers.

Feature Operation

To use Directory Dialing:

1. Lift handset.
2. Dial letter for directory.

   I (digit 4) for Intercom

   P (digit 7) for Personal

   C (digit 2) for Company-wide

   If you want to scroll through the directory you select, skip to step 5.
3. Dial first letter of directory name.

   For example, to call Tim dial T.

   When you dial T you see, "1=T, 2=U, 3=V."
4. Dial 1, 2 or 3 to specify the exact letter you want.

   The display shows you the first name that begins with the letter you select. If the name you want displays, skip to step 6.
5. Press VOL DN or VOL UP to scroll through the directory.
6. When your phone's display shows the name you want, press DIAL.

To exit Directory Dialing at any time:

1. Hang up.

DISTINCTIVE RINGING, TONES AND FLASH PATTERNS

Description

Distinctive Ringing, Tones and Flash Patterns provide extension users with audible and visual call status signals. This lets users tell the types of calls by listening to the ring/tones and watching the keys. It also helps the users monitor the progress of their calls. The following tables (at the beginning of this section) illustrate the various ringing, tones and flash patterns.

Table 1-1 System Flash Rates
Table 1-2 System Ring Rates
Table 1-3 System Tones

Distinctive Ringing for OPX Type Circuits
Extensions and trunks with circuit types 05 and 51 can have Distinctive Ringing enabled or disabled in their Class of Service. Auxiliary devices connected to type 05/51 ports may not be compatible with Distinctive Ringing. If you disable Distinctive Ringing, Intercom and outside calls have a single one-second ring followed by a pause. If you enable Distinctive Ringing, trunk calls have two short rings (repeated) followed by a pause. Intercom calls have a single-one second ring followed by a pause.

Distinctive Ringing for Trunks
Trunk calls can ring an extension with two high-pitched tones, rather than normal ringing. The extension user can differentiate between ringing trunks just by listening to the ring pitch. This is helpful, for example, if the system has a customer-provided Door Box connected to a trunk circuit. The Distinctive Ring tells users when a visitor is at the door. The Distinctive Ring always has precedence over normal ringing trunks.

CAUTION:
Do not enable Distinctive Ringing for trunks if any extensions have headsets.

Ringback Tone
The ringback tone the system plays to outside callers is one second on and five seconds off. The system plays ringback for transferred calls and OPA/Voice Messaging System transfers

Conditions

None

Default Configuration

Distinctive Ringing, Tones and Flash Patterns always enabled.

Programming

Required Programming

- **"CP- Single Ring OPX (BY2:7)"**
  Enable (0) or disable (1) Distinctive Ringing for type 05/51 circuits.
- **E- Extensions, "E3- Extension Class of Service"**
  Assign COS to circuit types 05/51. [00-27, 30 for operators]
- **E- Trunks, "E3- Trunk Class of Service"**

Available in Software Levels:	
Base	**AUX**
> Y5.0	≥ Y2.0

Assign COS 20 to each trunk that should have Distinctive Ringing.

Other Programming

None

Related Features

"Central Office Calls, Answering"

With Aux Module ≥ Y2.0/Base Y5.0 and later, selected trunks can have Distinctive Ringing.

"Headset Compatibility"

Do not enable Distinctive Ringing for trunks if any extensions have headsets.

"Voice Mail Compatibility (Integrated Voice Messaging)"

ASI ports programmed as VX ports (in EK) do not have Distinctive Ringing. All calls ring with the ICM cadence.

Feature Operation

Refer to each feature.

DO NOT DISTURB

Description

At a keyset, Do Not Disturb (DND) blocks Page announcements, ringing and incoming voice announcements. DND permits an extension user to work by the phone undisturbed by these system audibles. When the user activates DND, incoming trunk calls still flash the line keys. The user may use the phone in the normal manner for placing and processing calls.

A user calling an extension in DND hears reorder tone or the voice message, "Please do not disturb." The attendant or Hotline partner (with or without a DSS Console) can override an extension's DND.

Conditions

None

Default Configuration

DND allowed at each keyset.

Programming

Required Programming

➢ **E- Extensions, "EK- Do Not Disturb (DND)"**
Allow/disallow DND at each extension. [Y=allow, N=deny]

Other Programming

➢ **"KS- Programming Keys for Keysets"**
To override DND, use this option to assign Hotline partners. [enter extension # for hotline]

Related Features

"Alternate Attendant"
When the attendant assigns an Alternate Attendant, the system cancels DND for the Alternate. Attendants cannot place their phones in DND.

"Automatic Call Distribution"
An ACD supervisor can cancel an agent extension's DND by returning it to service.

"Background Music"
When a user activates DND, BGM turns off. Once the user deactivates DND, BGM remains off.

"Call Forwarding"
Activating Call Forwarding cancels DND.

"Call Forwarding Cancel"
When the attendant cancels all Call Forwarding, the system also cancels all DNDs.

"Call Waiting (Camp-On)"
An extension user cannot dial 2 to send Camp-On tones to a busy extension in Do Not Disturb.

"Callback"
An extension user cannot leave a Callback at an extension in Do Not Disturb.

"Direct Inward Line (DIL)"
A DIL to an extension in DND routes to the programmed EI night mode destination.

"Extension Hunting"
The system treats as busy a hunt group member extension that has DND activated.

"Hotline"
An extension user can use Hotline to override their partner's Do Not Disturb.

"Intrusion (Barge-In)"
Intrusion lets an extension user override another extension's DND.

"Microphone Mute"
If a keyset is in DND, turning Microphone Mute on cancels DND.

"Night Answer (Off-Hours Ringing)"
An attendant must have DND capability in order to put the system in the night mode. If a trunk has a DIL (E9) termination and an ANA (EI) termination, the trunk follows the ANA termination only when the extension user activates DND.

"Off-Hook Signaling" / "Paging"
DND blocks Off-Hook Signaling and Paging announcements.

"Voice Prompting Messages"
Voice Prompting Messages provide the message, "Please do not disturb." Voice Prompting Messages require an AUX Module $\geq$ 02.10 with a VMU.

Feature Operation

To put your extension in DND:

1. Do not lift handset.
2. Press DND until it flashes.

To cancel DND at your extension:

1. Do not lift handset.
2. Press DND until it goes out.

To override an extension's DND using a Hotline key:

You have a Hotline key or DSS Console Hotline key.

1. Lift handset (Optional with a keyset Hotline key).
2. Press Hotline key twice.

   Listen for: *Ringing*

To override an extensions DND by dialing codes:

1. Place Intercom call to extension in DND.
2. Dial 4.

   Listen for: *Ringing*

EQUAL ACCESS COMPATIBILITY

Description

The system's Toll Restriction package provides Equal Access dialing compatibility. With Equal Access, the system administrator selects the primary toll carrier at installation. This allows the administrator to obtain the most cost-effective service for leading 1 toll calls.

In addition, Equal Access permits users to access other carriers by dialing specific 10XXX codes.1 Toll Restriction screens the 10XXX codes dialed and compares the dialed code against a programmed Equal Access list. The list can either selectively allow or deny the dialed code. Assume, for example, that the Equal Access list is programmed as an allow list. If the user dials a code that is in the list, the system allows the call. If the code is not included in the programmed list, the system denies the call.

Note:
Equal Access is a facility of the local telco. To have this capability, the system must be installed in an Equal Access area.

New Requirements

Available in Software Levels:	
Base	**AUX**
> Y5.0	≥ Y2.0

The system complies with the new FCC requirements for Equal Access (effective 4/17/92). The system does not prevent use of Equal Access. It can, however, Toll Restrict the telephone number a user dials after the Equal Access digits. The separate Equal Access List is eliminated.

Conditions

None

Default Configuration

Equal Access dialing allowed -- no equal access codes programmed.

Programming

Required Programming

➢ **"AP- Allow Equal Access"**

NOT Available in Software Levels:	
Base	**AUX**
> Y5.0	≥ Y2.0

For each Toll Restriction Level, allow Equal Access system-wide and program the Equal Access Code list. [A=allow, D=deny]

➢ **"CP- Extension Toll Restriction Level (BY1:0-2)"**
Assign a Toll Restriction Level to each Class of Service.

[1] The local telephone company assigns these special dialing codes at installation. X may be any digit, 0-9.

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to each extension. [00-27, 30 for operators]

➢ **"QQ- No. of Digits in Equal Access Code"**

Available in Software Levels:	
Base	**AUX**
> Y5.0	≥ Y2.0

Specify the number of digits in the Equal Access Codes [5-9]. For example, 10XXX is a 5-digit code.

Other Programming

➢ **"CP- Allow Only Intercom Calls at Night (BY0:2)"**
➢ **"CP- Allow Only Local Calls at Night (BY1:4)"**
➢ **"CP- Allow Only Local Calls (Day or Night) (BY1:3)"**
If enabled (1), any one of these options can prevent calls allowed by the Equal Access Code list. [1=enable, 0=disable]

Related Features

"Automatic Route Selection"
ARS has a unique way of handling Equal Access calls. Refer to these features for the specifics.

"Central Office Calls, Placing"
Users access trunks for Equal Access calls in the normal way. All trunk programming applies to Equal Access calls.

"Class of Service"
Equal Access calls follow all Class of Service dialing restrictions.

"Speed Dial"
Toll Restriction does not restrict Equal Access calls placed using Speed Dial. However, the system administrator must enter the normally restricted Speed Dial numbers at the programming terminal.

"Toll Restriction"
Toll Restriction does not restrict Equal Access calls (except according to the Equal Access list). Note that with an Aux Module ≥ Y2.0/Base Y5.0, the Equal Access list is eliminated. If an extension's Toll Restriction level doesn't have Active Dial Pad enabled, the system turns off the dial pad six seconds after dialing the last digit. For example, if a user dials an Equal Access code and waits more than six seconds, dialing cannot continue.

"Walking Class of Service"
Toll Restriction does not restrict Equal Access calls placed using Walking Class of Service.

Feature Operation

None

EXTENDED RINGING

Description

Extended Ringing forces an unanswered call to ring 15 times at an extension before being rerouted (Camp-On calls do not apply). This helps users that cannot readily get to their phones to pick up calls (for example, a warehouse worker). An extension's Class of Service enables/disables Extended Ringing. If an extension has Extended Ringing:

- An Extension Hunting call or Transfer rings 15 times before the system reroutes it
- A call the extension user has placed on Hold and forgotten recalls for 15 rings before the system reroutes it
- An unanswered forwarded call (Call Forwarding type 1 or 2) rings 15 times before the system reroutes it
- A DIL rings its terminated extension 15 times before the system reroutes it

NOTE:
Voice mail will only allow a call to ring 5 times. The Extended Ringing will not override the voice mail's programming.

Conditions

Extended Ringing overrides QT- System Timers, Number of Rings Before Recall.

Default Configuration

Extended Ringing disabled in all Classes of Service.

Programming

Required Programming

➢ **"CP- Allow Extended Ringing (BY1:5)"**
Enable/disable Extended Ringing for each Class of Service. [1=enable, 0=disable]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign a Class of Service to each extension. [00-27, 30 for operators]

Other Programming

None

Related Features

"Transfer"

Feature Operation

None

Description

Extension Hunting routes calls to a predefined group of hunt group member extensions. A call rings in sequence through the hunt group until answered at a member extension. Extension Hunting is helpful, for example, for a group of co-workers that share responsibility for answering calls. Each call cycles through the group until an available member picks it up.

There are three types of Extension Hunting:

- Circular Hunting
- Terminal Hunting
- Uniform Call Distribution (UCD) Hunting

The system administrator uses the programming terminal to designate hunt groups and the conditions that cause hunting. There is no limit to the number of extensions that can be in a hunt group, or the total number of hunt groups in the system. However, an extension can be in only one hunt group.

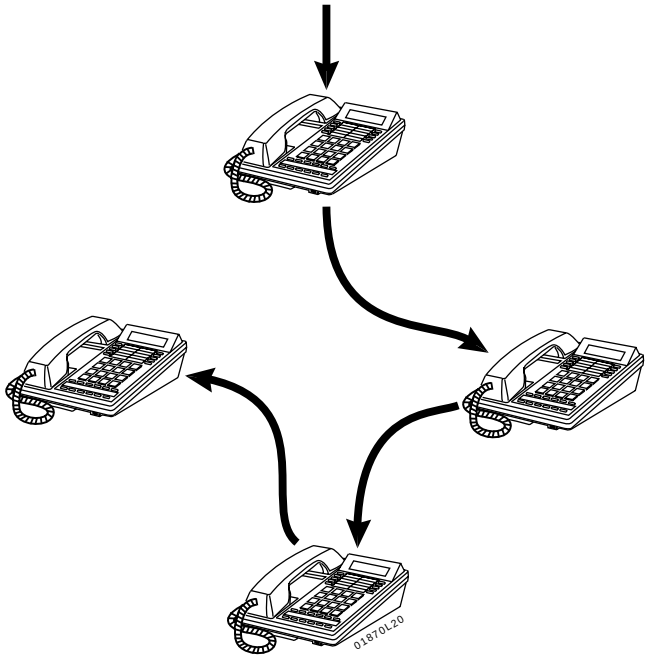
Circular Hunting

A Circular Hunt group consists of a group of extensions programmed into a Circular Hunting list. A call unanswered at a member extension rings the next extension in the programmed list. If still unanswered, the call rings all the remaining list members. If not picked up after ringing all group members:

- An Intercom call continues to ring the last extension in the group
- A trunk call rings the attendant

Note:

Refer to the Extension Hunting Operational Matrix in Section 2 for hunting specifics. See E- Extensions, E5- Hunt Type.

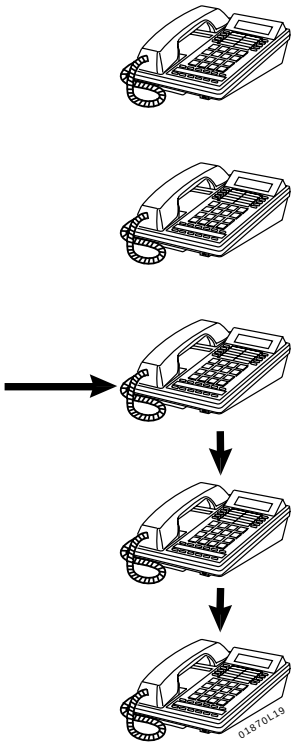


Circular Hunting

EXTENSION HUNTING

Terminal Hunting
As in Circular Hunting, a Terminal Hunt group also consists of a group of extensions programmed into a hunt list. A call unanswered at a member extension rings the next extension in the programmed list. If still unanswered, the call rings the remaining extensions until it reaches the bottom of the list. The system will not cycle the call back to the top of list. The call then continues to ring the last extension or rings the attendant (depending on programming).

Note:
Refer to the Extension Hunting Operational Matrix in Section 2 for hunting specifics. See E- Extensions, E5- Hunt Type.



Terminal Hunting

Uniform Call Distribution (UCD) Hunting
Like Circular and Terminal Hunting, a UCD Hunt group also consists of a group of extensions programmed into a hunt list. Each member of the group is additionally associated with a UCD Master Extension Number. To activate UCD, an incoming call must route to the UCD master number. Typically, the incoming call is a Direct Inward Line (DIL) to the master number.

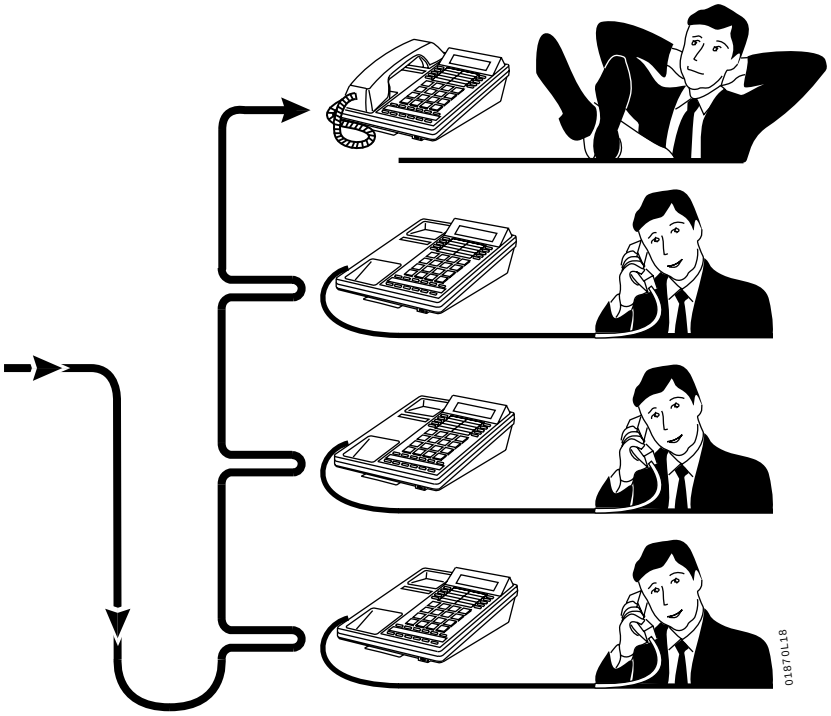
The system routes calls into a UCD group according to the frequency of use of the member extensions. The first extension rung is the member that has been idle the longest. The last extension rung is the member that has been idle the shortest. Note that if a UCD member places a call on Hold, that member could receive another call during the period of time the call is on Hold. If all UCD members are busy, the system may (depending on programming):

- Have the call wait in queue for an available member. The caller may hear (if enabled), "Please hold on, all lines are busy. Your call will be answered when a line becomes free."
- Route the call to a special Overflow Destination extension.

The UCD busy announcement requires an AUX Module $\geq$ 02.10 using a VMU.

Note:
Refer to the Extension Hunting Operational Matrix in Section 2 for hunting specifics. See E- Extensions, E5- Hunt Type.

Note:
For an enhanced feature similar to UCD, refer to Automatic Call Distribution (ACD) on page 31.



UCD Hunting

EXTENSION HUNTING

Conditions

The system administrator can link hunt groups together. For example, the UCD master extension can be the last member of a Terminal Hunting group. Also, the master extension can be the overflow destination of another UCD Hunting group.

Default Configuration

No hunt groups configured.

Programming

Required Programming

For Circular and Terminal Hunting

- **E- Extensions, "E4- Next Extension in Hunt Group"**
  Use this option to link extensions into a hunting list. For Circular Hunting, make sure your last member loops back to the first. For Terminal Hunting, enter 300 for the last member.
- **E- Extensions, "E5- Hunt Type"**
  Designate a hunt type for each member of the hunting group. The choices are:
  - 00 Extension not in a hunt group. If the last member in a Terminal Hunt group is type 00, the hunt stays at the last member in the hunt list. If the last member is type 01-03, the call rings the attendant.
  - 01 Unanswered outside calls and calls to busy member cause hunting
  - 02 Unanswered outside/Intercom calls and outside/Intercom calls to a busy member cause hunting
  - 03 Only unanswered outside calls cause hunting

For UCD Hunting

- **E- Extensions, "E2- Extension Circuit Type"**
  Program the master extension number with type X (uninstalled). The master extension must be a port that has no phone connected to it.
- **E- Extensions, "E4- Next Extension in Hunt Group"**
  For the master extension number only, use this option to designate the Overflow Destination. Enter 300 for all other UCD members.
- **E- Extensions, "E5- Hunt Type"**
  Enter a hunt type for each member of the hunting group and the master extension number. The hunt type should be the same for each member. The choices are:
  - 00 Extension not in a hunt group
  - 04 UCD hunting with no overflow and no group busy voice message
  - 05 UCD hunting with overflow and no group busy voice message
  - 06 UCD hunting with overflow and group busy voice message. (The caller will hear ringing or, if programmed, MOH to calls while in queue.)
- **E- Extensions, "EA- UCD Group Master Extension Number"**
  Assign the master extension number to each group member and the master extension number.
- **"FC1- Reset System Queues"**
  Reset the system queues after initial UCD programming.

Other Programming

- **"EF- Incoming Voice Call Through Telephone Speaker"**
  For type 2 Circular/Terminal Hunting, enter N. This allows an Intercom call to an idle extension to hunt.
- **"QT- System Timers, Camp-On Time"**
  Enter the interval a call to a busy UCD group should Camp-On before routing to the overflow extension. [0-970 seconds]
- **"QT- System Timers, Number of Rings Before Recall"**
  Set how long a call rings an extension in a Circular or Terminal hunt group before ringing the next group member. [3-15 rings]

Related Features

"Analog Station Interface (ASI)"

To have an ASI ring for several lines:

- Terminate lines to the UCD master
- Have an ASI be the only member of the UCD
- Give the other phones access and Call Coverage for the UCD master

"Automatic Call Distribution"

ACD also uniformly distributes incoming calls among members of a programmed group.

"Call Coverage Keys" / "Hotline"

A Call Coverage or Hotline key for the UCD master extension provides a UCD group BLF and simplified Transfer.

"Call Forwarding"

If an extension is in a Hunt Group, forwarding calls at that extension disrupts normal hunting. An extension user can, however, forward calls to a UCD master number.

"Central Office Calls, Answering"

DILs to a UCD hunt group ring extensions in the group directly.

"Data"

Do not include Modem Pooling ports or Data Modules in a "voice" hunt group.

"Direct Inward Line (DIL)"

Trunks terminated to the UCD group master number ring the group directly.

"Direct Station Selection, DSS Console"

Do not include DSS Consoles in a hunt group.

"Do Not Disturb"

Putting an extension in Do Not Disturb temporarily removes it from its hunt group. If a Circular Hunt group extension is in DND, a trunk call continually cycles through the group. The call never rings the attendant.

"Group Ring (Ring Groups)"

Ring Group calls do not activate ACD or hunting.

"Intercom"

Voice-announced Intercom calls do not initiate hunting.

"Night Answer (Off-Hours Ringing)"

Two attendants can be in a Circular Hunt Group (consisting only of themselves) for special night mode operation. Both attendants must activate Night Answer to put their trunks in the night mode. Following is an example for attendants 300 and 304:

Ext	E4	E5
300	304	02
304	300	02

"Off-Hook Signaling"

Circular or Terminal Hunting members cannot have Whisper Page capability.

"System Reports, Diagnostics and Maintenance Utilities"

The system reports provide data on UCD group call activity. The reports also show details on calls received while all members were busy.

"Transfer"

Any user can Transfer a call to the UCD master number.

Feature Operation

None

EXTERNAL ALERTING DEVICES

Description

The system has external relays which the installer can connect to customer-provided alerting devices. The devices are typically bells or ringers that provide loud ringing in large or noisy areas. Depending on programming, the relays can activate for:

- A call ringing the system at night
- A call ringing a specific extension, trunk, OPX, ACD/UCD Group or Ring Group

The system administrator can program two relays - one in each CEU. Relay 0 is AUX on the main CEU. Relay 1 is AUX on the expansion CEU. The relays can provide a steady or interrupted closure, and are normally open. The relays never close for Paging.

Conditions

The devices connected to the relays must be compatible with the following relay specifications:

Maximum Load:	60 mA @ 30 V dc 10 mA @ 90 V ac
Maximum Initial Contact Resistance:	50 m Ohms

Default Configuration

Relays activate for night ringing and paging.

Programming

Required Programming

➢ **"QM- Music/Relay Control, Interrupted Ring Relays"**
Enable/disable interrupted relay closure. If enabled, relay pulses one second closed/three seconds open when activated. If disabled, relay has continuous closure when activated. [Y=enable, N=disable]

For each relay (0 and 1):

➢ **"QM- Music/Relay Control, Relay Control-Pageowner"**
Assign the Pageowner for ringer and page control.

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
An extension can only pick up a call ringing an External Alerting Device if it has access to the trunk. [Y=enable, N=disable]

Related Features

"Group Ring (Ring Groups)"
The Pageowner can be a ring group number. The relay activates for calls to the ring group.

"Night Answer (Off-Hours Ringing)"
Under certain conditions, night mode ringing can also activate the external relays.

"Paging"
The system administrator can use the external relays to activate external paging amplifiers. Refer also to the system hardware manual.

Feature Operation

To answer a call you hear ringing over the External Alerting Device:

1. Lift handset.
2. Press flashing line key.

   Listen for: *Conversation with caller*

   OR

   - Press ICM.
     Listen for: *Dial tone*
   - Dial *.
     Listen for: *Dial tone stops*
   - Dial 0 or 01-04.
     Listen for: *Conversation with caller*

   If you hear Reorder tone, you cannot pick up the call from your extension.

   If the owner is not the attendant, dial the owner's extension or group number.

FLASH

Description

Flash allows a keyset or ESL extension user to access certain CO or PBX features by interrupting trunk loop current. Flash lets an extension user take full advantage of whatever features the connected telco or PBX offers. The system administrator must set the Flash parameters for compatibility with the connected telco.

Conditions

None

Default Configuration

The default flash for a keyset is 7 tenths of a second (700 mS).

Programming

Required Programming

- **"CP- Inhibit Flash for Single Line Telephones (BY2:6)"**
  Enable/disable Flash for single line sets. Enter 1. Note that this disables Flash at ESL sets with the same Class of Service. To disable flash for 2500 sets connected to ASIs, enter 0.
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]
- **"QT- System Timers, Flash Response Time"**
  Set the length of the loop current interruption the system provides to a trunk (1-25 tenth seconds). Enter 0 to deny Flash system-side. This option applies to flash from a keyset only.

Other Programming

- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  An extension must have callout enabled in order to Flash incoming calls. [Y=enable, N=disable]

Related Features

"Analog Station Interface (ASI)"

An AUX Module $\geq$ 02.10 allows a single line (2500 type) telephone connected to an ASI to flash an outside line.

"Centrex Compatible Feature Keys" / "Speed Dial"

Available in Software Levels:	
Base	**AUX**
> 02.00	$\geq$ 02.10

The flash, delay, and pause features are able to be stored in Centrex Keys and in Speed Dial numbers.

"Off-Premise Extension (OPX)"

OPX users cannot flash a trunk. The system provides a Flash timer that applies only to OPX extensions. OPX flash is the loop current interruption that occurs when the OPX user hookflashes. This operation places a trunk on Hold, it does not flash the trunk.

"PBX/Centrex Compatibility"

If the system is behind a PBX, Flash normally gives the extension user access to many PBX features.

"Toll Restriction"

The system applies Toll Restriction (if applicable) to the number a user dials after flashing a trunk.

Feature Operation

To flash the trunk you are on (from your keyset):

1. Press FTR or MSG.

To flash the trunk you are on (from your ESL set):

1. Press and release hookswitch (approximately 1/2 second).

To flash the trunk you are on (from your single line /2500 set):

1. Press and release hookswitch and dial 7*.

   If CP- BY2:6 is 0 for your extension's Class of Service, this step will Page into Internal Paging zone 6.

FLEXIBLE NUMBERING PLAN

Description

Flexible Numbering Plan lets the system administrator change the digits users dial to access features. This helps the administrator customize the standard number plan (shown in Table 4, page 11) for each customer. Assume, for example, that extension users are accustomed to an older system with extension numbers in the 500s and 600s. The system administrator can change the first digit used to access extensions so users can still dial familiar numbers.

CAUTION:
Do not change the standard numbering plan unless absolutely necessary. Changing the standard plan affects many feature operations as well as programming operations, including the universal eraser (usually 300).

The following chart shows some of the features affected when the administrator changes the System Numbering Plan. Refer to Table 4 (page 11) for additional number plan information.

Changing this digit...	**Affects the operation of this feature...**
1	Group Call Pickup Intercom (Forced Ringing) Meet-Me Conference (Conference codes) Paging (All Call)
2	Paging (Zone 1) Call Waiting (answering waiting call at ESL set) Speed Dial (Personal Speed Dial bins) Central Office Calls (Trunk access codes)
3	Intercom (first 100 extensions) Paging (Zone 2)
4	Automatic Call Distribution (putting agents in service) Group Ring Intercom (Second 100 extensions) Paging (Zone 3)
5	Call Parking (from ASI/OPX) Paging (Zone 4) Speed Dial (Personal Speed Dial bins)
6	Automatic Call Distribution (agents putting themselves out of service) Call Parking (first access digit) Message Waiting (access digit) Paging (Zone 5) Selectable Display Messages (first access digit)
7	Automatic Call Distribution (supervisor putting agents out of service) Paging (Zone 6) Speed Dial (System Speed Dial first access digit) Split (retrieve second call at ESL set)
8	Central Office Calls (trunk access codes) Paging (Zone 7) Time and Date (setting the time)
9	Central Office Calls (trunk group numbers and single-digit access) Time and Date (setting the date)
0	Attendant Positions (attendant access digit) Night Answer (pick up call ringing External Paging)

Conditions

(A.) The system prohibits the administrator from changing the digits * and #.
(B.) Flexible Numbering Plan requires an AUX Module.

Default Configuration

Refer to the Table 4, System Number Plan (page 11).

Programming

Required Programming

- **"QA- Number Plan, Ringdown Digit"**
- **"QA- Number Plan, 2nd Ten Speed Dial Bin Digit"**
- **"QA- Number Plan, Block of First 100 Extensions Digit"**
- **"QA- Number Plan, Block of Second 100 Extensions Digit"**
- **"QA- Number Plan, 1st Ten Speed Dial Bin Digit"**
- **"QA- Number Plan, Park Orbit Access Digit"**
- **"QA- Number Plan, System Speed Dial Access Digit"**
- **"QA- Number Plan, Trunk Access Digit"**
- **"QA- Number Plan, Trunk Grp Access Digit (Hybrid Only)"**
- **"QA- Number Plan, Operator Digit"**
- **"QA- Number Plan, Feature and Program Access Digits"**

  Customize the function of digits 0-9 for the above programming [0-9].

Other Programming

None

Related Features

"Voice Mail Compatibility (Integrated Voice Messaging)"
Also, refer to Table 4, System Number Plan (page 11).

Feature Operation

Refer to Table 4, System Number Plan (page 11).

FORCED TRUNK DISCONNECT

Description

An extension user can implement Forced Trunk Disconnect to disconnect (release) another extension's active outside call. The user can then place a call on the released trunk. When a trunk is released, it will not apply toll restriction. Forced Trunk Disconnect lets a user access a busy trunk in an emergency, when no other trunks are available. Maintenance technicians can also use Forced Trunk Disconnect to release a trunk on which there is no conversation. This can happen if a trunk does not properly disconnect when the outside party hangs up.

The system administrator normally permits Forced Trunk Disconnect only at attendants and selected extensions.

Conditions

None

Default Configuration

Forced Trunk Disconnect allowed for attendants and extensions with COS 00.

Programming

Required Programming

- **"CP- Direct Trunk Access and Trunk Camp-On (BY2:0)"**
  Assign Direct Trunk Access to each extension that should have Forced Trunk Disconnect capability. [1=enable, 0=disable]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]

Other Programming

- **E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"**
  If enabled, user can press a line key to place a call (if also allowed by ED programming). [Y=enable, N=disable]
- **E- Extensions, "E8- Line Access Options, Allow Line Code Dial-Up"**
  If enabled, user can dial 801-873 to access trunks 1-72. [Y=enable, N=disable]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  Assign access for each trunk on which the user should be able to place calls. [Y=enable, N=disable]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  Enable call-out for each trunk on which the user should be able to place calls. [Y=enable, N=disable]
- **"KS- Programming Keys for Keysets"**
  Program the types of keys that allow the extension user to place trunk calls. (see page 439)

Related Features

"Automatic Route Selection" / "Toll Restriction"
The system subjects the call on the released trunk to normal ARS routing or Toll Restriction.

"Direct Trunk Access"
Forced Trunk Disconnect requires that the extension have Direct Trunk Access capability.

"Speed Dial"
An extension with Forced Trunk Disconnect/Direct Trunk Access can also program System Speed Dial numbers.

Feature Operation

To disconnect a busy trunk (by dialing a code):

1. Lift handset.
2. Press Intercom.
   Listen for: *Dial tone*
   If you have an ESL set, skip this step.
3. Dial trunk extension number (e.g., 480) or trunk access code (e.g., 801), or press line key.
   Listen for: *Busy tone*
   If you dial the trunk access code, wait for voice prompt to complete.
4. Dial PGM#.
   Listen for: *Dial tone*
   To place a call on the trunk you just disconnected, repeat step 3.

To disconnect a busy trunk (by pressing a line key):

1. Lift handset.
2. Press illuminated line key.
   Listen for: *Busy tone*
3. Dial PGM#.
   Listen for: *Dial tone*
   To place a call on the trunk you just disconnected, press line key again.

- For Your Notes -

Description

Group Call Pickup lets an extension user answer a call ringing an extension in their assigned pickup group. This permits co-workers in the same pickup group to easily answer each other's ringing calls. System programming allows a maximum of 23 pickup groups, with an unlimited number of extensions in each group. However, an extension can be a member of only one pickup group.

To answer a pickup group call, the user just dials a pickup code. Optionally, a keyset user can press a special programmable pickup key. The keyset user can also assign ringing options for their pickup keys:

- Immediate ringing for calls to pickup group members
- Delayed ringing for calls to pickup group members
- No ringing for calls to pickup group members

A trunk can also be a member of a pickup group. A call ringing the trunk activates Group Call Pickup coverage for the programmed group.

Conditions

An extension with a programmable pickup key does not have to be a member of a pickup group.

Default Configuration

No pickup groups assigned.

Programming

Required Programming

➢ **E- Extensions/Trunks, "EC- Extension Call Pickup Group" / "EC- Trunk Call Pickup Group"**
For extensions and trunks, assign the Group Call Pickup number (01-23).

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
An extension can only pick up trunks to which it has access. [Y=enable, N=disable]

➢ **"KS- Programming Keys for Keysets"**
Assign a pickup group to a programmable key [G + group number]. An extension can have more than one pickup key. Also, program ringing option for pickup group calls (no ring, immediate ring or delayed ring).

➢ **"QT- System Timers, Delayed Ring Interval"**
Set the Delayed Ring Interval for Group Call Pickup calls with delayed ringing. [1-10]

Related Features

"Attendant Positions"
Attendants cannot change ringing for their Pickup Group calls (see Feature Operation).

"Direct Inward Line (DIL)"
A DIL ringing a Pickup Group member activates Pickup Group coverage for the member extensions.

"Directed Call Pickup"
An extension user can implement Directed Call Pickup to answer a call ringing another extension. The user must know the ringing phone's extension number.

"Group Ring (Ring Groups)"
Group Call Pickup cannot pick up a Ring Group call.

"Ringing Line Preference"
A ringing group Call Pickup key will not activate Ringing Line Preference.

"Silent Monitor"
An extension can only monitor other extensions in their Pickup Group. An extension not assigned to a group (00) can monitor any system extension.

"Speed Dial"
An extension user can have Group Call Pickup codes stored with a One-Touch Speed Dial key.

GROUP CALL PICKUP

Feature Operation

To answer a call you hear ringing another extension in your pickup group (if you don't have a pickup key):

1. Lift handset.
2. Press ICM

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Press *.

   Listen for: *Dial tone stops*
4. Dial 1.

   Listen for: *Conversation with caller*

To answer a call you hear ringing your pickup key (keyset only):

1. Lift handset.
2. Press pickup group key.

   Line key On (red/green) if an outside call

   Listen for: *Conversation with caller*

User-Programmable Feature...
You can assign ringing to your keyset's pickup group keys.
Ring Assignment
PGM# + RA + Line key + Y(es) or N(o) + SAVE
Delayed Ring Assignment
PGM# + DRA + Line key + Y(es) or N(o) + SAVE

Description

With Group Listen, a keyset user can talk on the handset and have the caller's voice broadcast over the telephone speaker. Group Listen lets others in the user's work area listen to the conversation.

Conditions

None

Default Configuration

Group Listen allowed at all keysets.

Programming

Required Programming

➢ **E- Extensions, "EF- Headset Mode"**
Disable headset mode for all extensions that should have Group Listen. [Y=enable, N=disable]

Other Programming

None

Related Features

"Attendant Positions"
Attendants cannot use Group Listen.

"Headset Compatibility"
An extension with Headset Compatibility cannot use Group Listen.

Feature Operation

To initiate Group Listen:

1. Place or answer call using handset.
   Listen for: *Conversation with caller*
2. Press HF, but do not hang up.
   Your caller's voice comes through your handset and your telephone speaker.

To cancel Group Listen (without hanging up on your call):

1. Do not hang up.
2. Press HF.
   Listen for: *Your caller's voice in your handset only*

GROUP RING (RING GROUPS)

Description

Group Ring permits the system administrator to arrange extensions into groups for answering calls. When a call comes into the Ring Group, all extensions in the group ring simultaneously. Any user in the Ring Group can answer the call by just lifting the handset. The ringing call can be:

- A Direct Inward Line to the Ring Group
- An outside call transferred to the Ring Group
- An Intercom call to the Ring Group

During programming, the system administrator assigns extensions to Ring Groups. The system automatically assigns each group a DIL number (for programming purposes) and an Intercom number.

System	Group Number	DIL Number	Intercom Number
Base	01-08	364-371	364-371
AUX ≥ Y3.00	01-08	396-403	396-403

Any changes made to the numbering plan may affect the above features.

Conditions

None

Default Configuration

No Ring Groups programmed.

Programming

Required Programming

➢ **E- Extensions, "EE- Ring Group"**
Assign a Ring Group number (01-08) for each extension. Do not assign more than 30 extensions in a CEU to the same Ring Group. If the ring group must have more than 30 members, use extensions in an expansion cabinet (if available).

Other Programming

None

Related Features

"Analog Station Interface (ASI)"
An ASI can't be a member of a Ring Group.

"Attendant Positions"
Attendants cannot be in Ring Groups.

"Automatic Call Distribution " / "Extension Hunting"
Ring Group calls do not activate ACD or hunting.

"Automatic Handsfree"
An extension user cannot use Automatic Handsfree to answer a Ring Group call.

"Call Coverage Keys"
A Station Call Coverage key can pick up a Ring Group call. When programming, make sure to use the extension number of the phone to be covered, not the Ring Group's intercom number.

"Call Forwarding"
Call Forwarding does not reroute Ring Group calls.

"Call Waiting (Camp-On)"
An Intercom caller or trunk cannot send Call Waiting tones to a Ring Group. The call just waits for an extension in the group to become free.

"Central Office Calls, Answering"
DILs to a Ring Group ring all extensions in the ring group directly.

"Direct Inward Line (DIL)"
DILs can terminate at a Ring Group during the day. A call ringing the DIL causes all phones in the group to ring. The trunk rings the programmed EI destination at night.

"Directed Call Pickup"
An extension user can use Directed Call Pickup to pick up a call ringing another extension's ring group. However, the extension must have access to the trunk (in ED).

"External Alerting Devices"
A Ring Group can be an external relay Pageowner. Calls to the Ring Group activate the associated relay.

"Group Call Pickup"
Group Call Pickup cannot pick up a call ringing a Ring Group.

"Hotline"
A Ring Group cannot be programmed as a Hotline key.

"Night Answer (Off-Hours Ringing)"
An ANA call to a ring group rings all members of the group. The trunk never diverts to all extensions with programmed ring and access.

"Ringing Line Preference"
If an extension with Ringing Line Preference has a Group Ring call and an outside call ringing, the extension answers the Group Ring call first.

"Speed Dial"
An extension can have a Ring Group number in a One-Touch Speed Dial key.

"Transfer"
A call transferred to a Ring Group will not recall the transferring extension. The call continues to ring the group until answered or until the calling party hangs up.

Feature Operation

To place a call to a Ring Group:

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
   If you have an ESL set, skip this step.
3. Dial Ring Group number.
   Listen for: *Ringing*

To answer a call ringing your Ring Group:
Listen for: *Trunk or ICM ring*

1. Lift handset.
   Listen for: *Conversation with caller*
   If you have a loop key for the call, the key lights only after you answer the call.

To answer a call ringing someone else's Ring Group:

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
   If you have an ESL set, skip this step.
3. Press *.
   Listen for: *Dial tone stops*
4. Dial the Ring Group number.
   Listen for: *Conversation with caller*

HANDSFREE (SPEAKERPHONE) AND MONITOR

Description

With Handsfree (Speakerphone), keyset users may process calls using the speaker and microphone in the telephone (instead of the handset). Handsfree is a convenience for workers who don't have a free hand to pick up the handset. For example, a terminal operator could continue to enter data with both hands while talking on the phone. The system allows 12 simultaneous Handsfree conversations per base unit. In addition, Handsfree requires a keyset with Handsfree (Speakerphone) capability.

Monitor, like Handsfree, also allows on-hook monitoring of calls. However, with Monitor the keyset user must lift the handset to speak. Monitor occurs on keysets that do not have Handsfree capability. The system allows any number of extensions to Monitor calls simultaneously.

Conditions

None

Default Configuration

- All keysets with Handsfree capability have Handsfree.
- All keysets without Handsfree capability have Monitor.

Programming

Required Programming

➢ **E- Extensions, "EF- Headset Mode"**
Disable Headset Compatibility for each extension that should have Handsfree or Monitor.
[Y=enable, N=disable]

Other Programming

None

Related Features

"Attendant Positions"
Attendants do not have Handsfree.

"Automatic Handsfree"
Automatic Handsfree allows a keyset user to place or answer a call Handsfree by just pressing a key -- without pressing HF first. Users with Monitor must lift the handset to speak.

"Headset Compatibility"
A keyset with Headset Compatibility does not have Handsfree or Monitor.

"Intercom"
Depending on system programming, any keyset user can answer an Intercom voice announcement Handsfree. This function does not require Handsfree capability. However, an extension must have a speakerphone to initiate a voice-announced Intercom call Handsfree.

"Microphone Mute"
An extension user can turn off the phone's microphone at any time.

"Non-Blocking Architecture"
The system allows 12 simultaneous Handsfree (speakerphone) calls per cabinet.

"Off-Hook Signaling"
While on a Handsfree call, an extension user may hear an off-hook signal (single beep, repeated).

Feature Operation

Where the instructions in this manual tell you to lift handset, you can press HF instead.

To find out if your phone has Handsfree:

1. Do not lift handset.
2. Press HF.

   If MIC/DND lights, your phone doesn't have Handsfree or all system Handsfree circuits are busy. The HF key doesn't light for incoming voice-announced Intercom calls.

   If MIC/DND doesn't light, your phone has Handsfree. The HF key also lights for incoming voice-announced Intercom calls.

To talk Handsfree:

1. Speak toward phone.

To hang up a Handsfree call:

1. Press HF.

To change a handset call into a Handsfree call:

1. Press HF.
2. Hang up.

To change a Handsfree call into a handset call:

1. Lift handset.

HEADSET COMPATIBILITY

Description

A keyset or ESL user can utilize a customer-provided headset in place of the handset. Like using Handsfree, using the headset frees up the user's hands for other work. However, headset operation also provides privacy not available from Handsfree.

While in the headset mode, the keyset user can hear the following system signals muted in the headset:

- Ringing
- Paging
- Background Music (BGM)

The recommended headset is the Plantronic Supra Star Mate (Model MH0530-1).

CAUTION:
Use of a headset on an extension that is not properly programmed may be harmful to the user. Ringing signals produced by the headset may be painfully loud.

CAUTION:
Do not enable Distinctive Ringing for trunks if any extensions have headsets.

Conditions

An attendant keyset with a headset should also have a DSS Console (see Feature Operation).

Default Configuration

Headset operation disabled.

Programming

Required Programming

➢ **E- Extensions, "EF- Headset Mode"**
Enable Headset Compatibility for each keyset that has a headset. [Y=enable, N=disable]

Other Programming

None

Related Features

"Automatic Handsfree"
An extension with Headset Compatibility cannot also have Automatic Handsfree.

"Distinctive Ringing, Tones and Flash Patterns"
Do not enable Distinctive Ringing for trunks if any extensions have headsets.

"Group Listen"
Headset mode disables Group Listen.

"Handsfree (Speakerphone) and Monitor"
Enabling the headset at an extension always disables Handsfree.

"Intercom"
Headset mode disables incoming Intercom voice announcements.

"Microphone Mute"
Headset mode disables Microphone Mute.

"Paging"
Headset users hear Paging announcements in the headset.

"Prime Line Selection"
Prime Line Selection does not apply to an attendant in the headset mode.

"Release Key"
If a non-attendant keyset is in the headset mode, the HF key functions as the Release key. Attendants must use the RLS key to hang up calls.

"Ringing Line Preference"
An attendant with a headset should not also have Ringing Line Preference.

"Volume Controls"
The user can also adjust the volume of the signals in a customer-provided headset.

Feature Operation

To install the headset:

1. Make sure your phone is idle and programmed for headset operation.
2. Unplug the handset.
   Leave the handset in the handset cradle.
3. Plug in the headset.

To operate the headset (except for attendants):

1. - Press HF whenever you see the instruction, "Lift handset."
   OR
   - Press HF whenever you see the instruction, "Hang up."
   The HF key functions as a Release key.

To answer a call using the headset (attendants only):

1. Press RLS on DSS Console.
   If you have Ringing Line Preference, this answers the call.
2. Press the flashing line or Intercom loop key.
   Listen for: Conversation with caller

To place a call using the headset (attendants only):

1. Press RLS on DSS Console.
2. Press the flashing line or Intercom loop key.
   If you have Ringing Line Preference, press the line or Intercom loop key before pressing RLS.
   Listen for: Dial tone

User-Programmable Feature...
You can allow or deny Headset operation for your keyset.
PGM# + HS + Y(es) or N(o) + SAVE

HOLD

Description

Hold lets an extension user put a call in a temporary waiting state. The caller on Hold hears silence or Music on Hold, not conversation in the extension user's work area. While the call waits on Hold, the extension user may process other calls or use a system feature.

There are three types of Hold:
- Hold (also called System Hold)
- Exclusive Hold
- Automatic Hold

Regular Hold
With regular Hold, an outside call a user places on Hold flashes the line key (if programmed) at all other keysets. Any keyset user with the flashing line key can pick up the call. An extension user can also place an Intercom call on Hold. However, Intercom calls on Hold do not indicate at any other extensions.

Exclusive Hold
When a user places a call on Exclusive Hold, only that user can pick up the call from Hold. The trunk appears busy to all other keysets that have a key for the trunk. For keysets, Exclusive Hold always occurs for outside calls unless the keyset has a line key, loop key or DSS Console line key. Note that ESL sets can only place outside calls on Exclusive Hold.

Automatic Hold
Automatic Hold occurs when a user initiates another feature while already on a call. The system places a call on Hold automatically when the user presses:
- ICM
- CONF
- A line, Call Coverage, Hotline or Page key

Calls left on Hold recall the extension which placed them on Hold after the Hold Recall interval. If still unretrieved, abandoned outside calls ring all extensions that normally receive ringing for the trunk.

Conditions

The code to retrieve a Personal Park is the same as Directed Call Pickup and remote Hold Retrieve. When a user dials the code, the system picks up calls at the dialed extension in the following order:
1. Ringing Intercom calls (see Directed Call Pickup)
2. Personal Park calls (see Call Park)
3. Ringing outside calls and DILs (see Directed Call Pickup)
4. Calls on Hold (see Hold)

Default Configuration

Hold allowed at all extensions. The Hold Recall interval is 30 seconds.

Programming

Required Programming

➢ **"QT- System Timers, Hold Recall Time"**
Set the Hold Recall interval. [0-970 seconds]

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Ring Control"**
An extension must have access to a trunk to pick it up from Hold.
[R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]

➢ **"KS- Programming Keys for Keysets"**
Assign a loop key to every keyset. Otherwise, calls without an appearance go on Hold under the HOLD key.

["9"=switched loop, "9" and a line group # (0-8)=fixed loop]

Related Features

"Attendant Positions"

The attendant has Automatic Hold for all calls.

"Direct Station Selection, DSS Console"

For attendants, pressing a DSS Console key always activates Automatic Hold. For non-attendant keysets, pressing a DSS key never activates Automatic Hold. The keyset user must press HOLD, ICM or CONF first.

"Intercom"

An extension user should not hang up after placing a Handsfree or Voice-Announced Intercom call on Hold. If the user hangs up, the system cuts off the call.

"Music on Hold"

If installed, MOH provides music to callers on Hold.

Feature Operation

To place an Intercom or outside call on Hold:

If you have an ESL set, this procedure places outside calls on Exclusive Hold.

1. Press HOLD.
2. Hang up.

If the called party answers without using the handset, the system disconnects the call if you hang up.

To place an outside call on Exclusive Hold:

This procedure does not apply to Intercom calls or ESL sets.

1. Press HOLD twice.
2. Hang up.

To retrieve an outside call on Hold:

If the call has been left on Hold too long (past the Hold Recall time):

1. Lift handset.
2. - At a keyset, press flashing line key.

   OR

   - At an ESL set, press HOLD.

To retrieve an outside call on Hold at another extension:

This is useful for a call that is not on one of your line keys.

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Dial *.
4. Dial trunk access code (e.g., 801) or extension number.

   Listen for: *Conversation with previously held party.*

To retrieve an Intercom call from Hold:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL step, skip this step.
3. Press HOLD.

   Listen for: *Conversation with party previously on Hold*

Description

Hotline gives a keyset user one-button calling and Transfer to another extension (the Hotline partner). Hotline helps co-worker's that work closely together. The Hotline partners can call or Transfer calls to each other just by pressing a single key.

In addition, the Hotline key shows the status of the partner's extension:

When the key is...	**The extension is...**
OFF	Idle
On	Busy or ringing
Fast Flash	DND

Conditions

None

Default Configuration

No Hotline keys assigned.

Programming

Required Programming

➢ **"KS- Programming Keys for Keysets"**
Assign an extension's Hotline keys. An extension can have more than one Hotline partner.
[Enter extension # for Hotline]

Other Programming

None

Related Features

"Digital Door Box "
An extension can have a Call Coverage or Hotline key for a Door Box. This gives the extension a BLF, one button calling and one button answering for the Door Box.

"Do Not Disturb"
An extension user can use Hotline to override their partner's Do Not Disturb.

"Extension Hunting"
A Call Coverage or Hotline key for the UCD master extension provides a UCD group BLF and simplified Transfer.

"Group Ring (Ring Groups)"
A Ring Group cannot be programmed as a Hotline key.

"Intercom"
Extension users can use this feature as an alternative to dialing Intercom calls.

"Off-Hook Signaling"
An extension's Hotline keys always activate Off-Hook Signaling (if allowed at the destination).

"Transfer"
Hotline provides one-button call Transfer.

HOTLINE

Feature Operation

To place a call to your Hotline partner:

1. Lift handset.

   To make the call handsfree, skip this step.

2. Press Hotline key.

   Listen for: *Two beeps*

   If the Hotline key is lit, this automatically activates Off-Hook Signaling.

   If the Hotline is flashing fast (in DND), press Hotline again to make your partner's phone ring (i.e., override DND). The attendant can also use this feature to override any DND in the system.

To Transfer your outside call to your Hotline partner:

1. Press Hotline key.

   Listen for: *Two beeps*

   If the Hotline key is lit, this automatically activates Off-Hook Signaling.

   If the Hotline is flashing fast (in DND), press Hotline again to make your partner's phone ring (i.e., override DND).

2. - Announce call and hang up.

   OR

   - Hang up to have the call wait at your Hotline partner unannounced.

   If unanswered, the call recalls like a normal transferred call.

To answer a call from your Hotline partner:

Listen for: *Two beeps*

1. - Speak toward phone.

   OR

   - Lift handset for privacy.

User-Programmable Feature...

If you have a Hotline key, you can change your keyset's Hotline assignment.
PGM# + HL + Hotline Key + ext. + SAVE

Description

The system may intercept (prevent) certain calls a user places. Intercept can occur when:

- The user dials an invalid code
- The user places a call to an unassigned (uninstalled) extension
- The user places an outside call not allowed by Automatic Route Selection or Toll Restriction

After intercepting the call, the system sends fast busy tone to the user (refer to Table 3, page 10). If the system has Voice Prompting Messages, a voice message also plays. Additionally, the display on a keyset display telephone may show explanatory messages.

Conditions

None

Default Configuration

Intercept always occurs when appropriate.

Programming

Required Programming

None

Other Programming

None

Related Features

"Alphanumeric Display"

The display on a display telephone may show explanatory messages when the system intercepts a call.

"Voice Prompting Messages"

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

A VMU module is required for Voice Prompting Messages.

Feature Operation

None

INTERCOM

Description

Intercom gives every extension user dial access to every other extension. This provides the system with complete internal calling capability. The system universally allows Intercom calling.

Intercom calls can ring or voice-announce at the called extension. Depending on system programming and extension user options, any keyset or ESL set can receive a voice-announced Intercom call. The system administrator can:

- Enable/disable voice-announced Intercom calls system-wide
- Enable/disable handsfree reply system-wide
- If allowed system-wide, enable/disable incoming voice-announced Intercom calls for each extension

Each extension user can:

- Force Intercom calls they place to ring the called extension, regardless of other programming
- If allowed system-wide, enable/disable voice-announce for their incoming Intercom calls

Conditions

None

Default Configuration

Intercom calls always allowed. All Intercom calls voice-announce at the called extension.

Programming

Required Programming

None

Other Programming

- **E- Extensions, "E9- Attendant (Operator) Assignment"**
  Assign the attendant reached when the user dials 0.
- **E- Extensions, "EF- Incoming Voice Call Through Telephone Speaker"**
  For each extension, enable/disable voice-announced Intercom calls. [Y-enable, N=disable]
- **"NP- Programming Names and Messages"**
  Program a name for each extension. [16 digits maximum]
- **"QA- Number Plan, Ringdown Digit"**
  If desired, change the digit used to activate Forced Intercom Ringing (also affect Group Call Pickup, Meet-Me Conference, and Paging).
- **"QA- Number Plan, Block of First 100 Extensions Digit" / "QA- Number Plan, Block of Second 100 Extensions Digit"**
  If desired, change the digits that define the first digit of extension numbers (also affects Call Waiting and Paging).
- **"QC- Operator Programming, Operator Extensions"**
  Assign extensions as attendants (01-04).
- **"QJ- Intercom Call Control, Voice Call"**
  Enable/disable voice-announced Intercom calls system-wide. [Y-enable, N=disable]
- **"QJ- Intercom Call Control, Handsfree Reply"**
  Enable/Disable handsfree reply to voice-announced Intercom calls system-wide. [Y-enable, N=disable]

Related Features

"Alphanumeric Display"
The display on the display telephone shows the caller's Intercom number or name (if programmed).

"Attendant Positions"
Attendants cannot receive voice-announced Intercom calls.

"Call Coverage Keys" / "Direct Station Selection, Extension" / "Hotline"
Extension users can use these features as an alternative to dialing Intercom calls.

"Call Waiting (Camp-On)" / "Callback" / "Off-Hook Signaling" (Whisper Page)
After placing an Intercom call to a busy extension, the user can:

- Leave a Callback request
- Camp-on (wait in line off hook)
- Send an off-hook signal or Whisper Page to a handset

"Directory Dialing"
Extension users can use Directory Dialing as an alternative to dialing Intercom calls.

"Extension Hunting"
Voice-announced Intercom calls do not initiate hunting.

"Handsfree (Speakerphone) and Monitor"
An extension must have a speakerphone to initiate a voice-announced Intercom call Handsfree.

"Headset Compatibility"
Extensions in the headset mode cannot receive voice-announced Intercom calls.

"Hold"
An extension user should not hang up after placing a Handsfree or Voice-Announced Intercom call on Hold. If the user hangs up, the system cuts off the call.

"Message Waiting"
An extension user can leave a Message Waiting request at a busy or unanswered extension.

"Microphone Mute"
If an extension has Microphone Mute enabled, the incoming voice-announce beeps are farther apart than when Microphone Mute is disabled.

"Non-Blocking Architecture"
The system has 56 dialing buffers. An extension uses a dialing buffer when dialing digits for Intercom or trunk calls. This means that a total of 56 extensions can dial digits simultaneously.

"Ringing Line Preference"
If an extension has an Intercom and an outside call ringing, Ringing Line Preference answers the intercom call.

"Silent Monitor"
When monitoring Intercom calls, the monitoring user hears only the conversation into the busy extension. The monitoring user does not hear the busy extension user's voice.

"Speed Dial"
A user can have an Intercom number stored at a One-Touch Speed Dial key. If the user stores the digit 1 before the extension number, the key forces Intercom ringing at the called extension.

"Tenant Service"
Members of one tenant group can place Intercom calls to members of another tenant group.

"Toll Restriction"
An extension in a tenant group can have night mode restriction (e.g., CP- Allow Only Intercom Calls at Night [BY0:2] is 1). The restriction takes effect when the extension's operator activates Night Answer.

INTERCOM

Feature Operation

To place an Intercom call:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   ESL, OPX and ASIs skip this step.
3. Dial extension number, 0 for main attendant or 01-04 for other attendants.

   Listen for: *Two beeps or ringing*

   To force your Intercom call to ring the called extension, dial 1 before the extension number. If you don't lift the handset in step 1, and your phone doesn't have Handsfree, your call always rings the destination.
4. - If You hear two beeps, you can begin speaking.

   OR

   - If you hear ringing, wait for called party to answer.

To answer an Intercom call if you hear two beeps:

Listen for: *Two beeps*

If the two beeps are spaced far apart, your phone has Microphone Mute enabled or the system has handsfree reply disabled.

1. Speak toward phone.

To answer an Intercom call that rings your phone:

At keysets and ESL sets...

Listen for: *ICM ring*

At attendants...

Listen for: *Trunk ring*

1. Lift handset.

   Listen for: *Conversation with caller*

   If you are an attendant and you don't have Ringing Line Preference, you must also press HF.

To have Intercom calls voice-announce at your extension (if allowed in system programming):

1. Do not lift handset.
2. Press PGM#.
3. Dial 1.

   Listen for: *Dial tone*
4. Press HF.

   Listen for: *Dial tone stops*

User-Programmable Feature...

You can enable or disable voice-announced Intercom calls to your keyset.
PGM# + VA + Y(es) or N(o) + SAVE

Description

Intrusion permits an extension user to break into another extension user's established call. This sets up a three-way conversation between the intruding extension and the two parties on the initial call. With Intrusion, an extension user can get a message through to a busy co-worker right away.

In addition to Intrusion, the following features also allow three-party calls:

- Conference
- Meet-Me-Conference
- Privacy Release Groups
- Tandem Calls

CAUTION:
Unauthorized intrusion on calls using this feature may be interpreted as an invasion of privacy.

Conditions

The system supports eight simultaneous Conferences (three-party conversations). Under certain conditions, this may prevent an Intrusion.

Default Configuration

Intrusion disabled in all Classes of Service.

Programming

Required Programming

➢ **"CP- Allow Break-In (Intrusion) (BY0:4)"**
Enable/disable Intrusion for each Class of Service. [1=enable, 0-disable]

➢ **"CP- Allow Privacy (BY1:6)"**
Enable/disable Privacy for each Class of Service. If an extension has Privacy, another extension cannot Intrude on its calls. [1=enable, 0=disable]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for operators]

Other Programming

None

Related Features

"Attendant Positions"
Since an attendant is never busy, an extension user cannot intrude on an Attendant.

"Central Office Calls, Answering" / "Central Office Calls, Placing"
An extension user cannot Intrude on a busy trunk.

"Class of Service"
An extension's COS sets its Intrusion options.

"Conference"
An extension user cannot Intrude on a Conference call.

"Do Not Disturb"
An extension user can implement Intrusion to override another extension's Do Not Disturb.

"Privacy"
An extension user cannot Intrude on an extension with Privacy.

"Tandem Calls (Tandem Trunking)"
An extension user cannot Barge-In on a Tandem Call.

INTRUSION (BARGE-IN)

Feature Operation

To intrude on a busy extension:

Listen for: *Busy or Ring/Busy*

1. Dial 4.

At your extension:

Listen for: *After four seconds, interrupt call in progress*

At the called extension:

Listen for: *Two bursts of Busy tone -- After four seconds, hear interruption from intruding party*

Description

Last Number Redial allows an extension user to quickly redial the last number dialed. For example, a keyset user may recall a busy or unanswered number without manually dialing the digits.

Last Number Redial saves in system memory the last 24 digits a user dials. The number can be any combination of digits 0-9, # or *. The system remembers the digits regardless of whether the call was answered, unanswered or busy. Normally, the system uses the same trunk (or rotary) for Last Number Redial as the user selected for the initial call. The keyset user can, however, select a different trunk before implementing Last Number Redial.

Conditions

(A.) A power failure or system reset erases all stored Last Number Redial numbers.
(B.) If a user waits more than six seconds between digits while dialing, Last Number Redial remembers only the digits after the pause.
(C.) When a telephone number is manually dialed the DTMF on tones = 250 mS. When the system redials the DTMF on tones = 135 mS.

Default Configuration

Last Number Redial always enabled.

Programming

Required Programming

None

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Access Control" / "ED- Trunk Control, Call-Out Control"**
You must have access and call-out for a trunk to use it for Last Number Redial. [Y=allow, N=deny]

➢ **"QX- Suppress '#' When Speed Dialing"**
Allow or prevent the system from outdialing a # if dialed as part of the initial call. [Y=deny #, N=allow #]

Related Features

"Automatic Route Selection"
Unless the user preselects a trunk, the system enforces ARS for Last Number Redial calls.

"Central Office Calls, Placing"
This feature gives extension users convenient options to dialing manually.

"Line (Trunk) Queuing"
If an extension user implements this feature and hears busy tone, they can queue for a trunk. The call dials automatically when the user answers the Callback ring.

"Save"
Last Number Redial simplifies recalling a busy or unanswered call.

"Speed Dial"
Last Number Redial can redial Speed Dial numbers.

"Toll Restriction"
The system applies Toll Restriction to all Last Number Redial calls. If you don't dial enough digits (as determined by your Toll Restriction programming), Last Number Redial will not retain your last call.

"Walking Class of Service"
If an extension user implements Walking Class of Service to place a call, Last Number Redial can redial it.

LAST NUMBER REDIAL

Feature Operation

To use Last Number Redial (at a keyset):

1. Lift handset.

   To preselect a trunk, press a line key before lifting the handset.

   To activate Handsfree, skip this step.

2. Press DIAL.

   Listen for: *Dial tone*

3. Press LAST.

   Listen for: *Digits dialing out*

   If you hear busy tone, press an idle line key. Your call dials out automatically.[1]

To use Last Number Redial (at an ESL/ASI /OPX set):

1. Lift handset.

   Listen for: *Dial tone*

2. Press * *.

   Listen for: *Digits dialing out*

[1] To do this, you must have:

- Line/ loop keys programmed (see KS-Programming Keys for Keysets)
- Key access to outbound trunks (see E8-Access to Groups 90-95)
- (Optional) Access to Trunk Groups (see E8-Access to Groups 90-95)

Description

Trunk Queuing (Callback) permits an extension user to queue (wait in line) for a busy trunk or trunk group to become free. The system recalls the queued extension as soon as a trunk is available. The user does not have to manually retry their call later. Trunk Queuing lets the caller know when the call can go through.

Any number of extensions may simultaneously queue for the same trunk or trunk group. When a trunk becomes free, the system recalls the extensions in the order that the queues were left. If the extension does not answer the Callback ring, the system:

- Rings the next extension in queue
- Removes an unanswered extension from the queue and cancels its Callback

  OR

  Skips a busy extension and retries it later on

Selected extensions can have Callback priority, set in the extension's Class of Service. When multiple extensions queue for a trunk, those with priority receive Callback first.

Conditions

A power failure or system reset cancels all Trunk Queuing requests.

Default Configuration

Callback enabled.

Programming

Required Programming

None

Other Programming

- **"CP- Allow Callback Priority (BY1:7)"**
  Enable/disable Callback Priority for extensions with this COS. [1=allow, 0=deny]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  Assign access for each trunk on which the user should be able to queue. [Y=enable, N=disable]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  Enable call-out for each trunk on which the user should be able to queue. [Y=enable, N=disable]

Related Features

"Attendant Positions"
An attendant cannot queue for a trunk.

"Automatic Route Selection"
If the system has ARS, Line Queuing queues for the least costly route.

"Call Waiting (Camp-On)"
If an extension user Camps-On and then hangs up, the system converts the Camp-On to a Callback/Line Queue.

"Callback"
Line Queueing lets an extension user leave a Callback request for a trunk.

"Central Office Calls, Placing"
A user can queue for an available trunk if all trunks are busy.

"Direct Trunk Access"
An extension user with Direct Trunk Access can dial 2 to camp-on to a busy trunk.

LINE (TRUNK) QUEUING

"Last Number Redial" / "Save" / "Speed Dial"

If an extension user implements these features and hears busy tone, they can queue for a trunk. The call dials automatically when the user answers the Callback ring.

"Line (Trunk) Rotaries (Hybrid Only)"

The user can queue for an available trunk if all trunks in the group are busy.

"Voice Prompting Messages"

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

A user queuing for a busy trunk group hears, "All lines are busy. For automatic Callback, please press the Callback key." This requires the installation of a VMU module.

Feature Operation

To queue for a busy trunk:

Listen for: *Busy tone*

If you queued for a trunk group, you may hear a voice message before you hear busy tone.

1. Dial 2.
2. Hang up.

To answer the Callback ring:

Listen for: *Callback ring*

1. Lift handset.

   Listen for: *Dial tone*

2. Dial number.

To cancel a Line Queuing request you placed (before the system calls you back):

1. Try to access busy trunk again.

   Use the same procedure you used when trying your initial call.

2. Dial *

   Listen for: *Dial tone*

To simultaneously cancel all your Line Queuing requests (and also cancel your Callbacks):

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.

3. - At a keyset, press * FTR.

   OR

   - At an ESL set, press # *.

4. Hang up.

LINE (TRUNK) ROTARIES (HYBRID ONLY)

Description

A trunk rotary is a programmed group of trunks used for outgoing calls. The system allows up to nine trunk rotaries, numbered 90-98. The rotaries should consist of trunks of the same type (e.g., WATS band 5 or WATS band 3). Users can select trunk rotaries when placing outside calls. To select a rotary, the user dials the trunk (rotary) group code. The system then selects the first available trunk from the group.

The system administrator can use rotaries to help control the cost of outside calls. By restricting access to certain rotaries, the administrator can force users to select lower cost lines when placing calls.

If your system has trunk rotaries, the FCC classifies it as a hybrid. You must use FCC registration number BJ286G-10094-MF-E. If your system doesn't use trunk rotaries, the FCC classifies it as a key system. Use FCC registration number BJ286G-16856-KF-E.

Conditions

None

Default Configuration

No trunk rotaries configured.

Programming

Required Programming

- **E- Extensions, "E8- Line Access Options, Access To Groups 90-95"**
  Allow/deny access to each of the first 6 trunk groups (90-95). You cannot program this option for trunk groups 96-98. [Y=allow, N=deny]
- **E- Trunks, "E4- Next Trunk in Outbound Rotary (Hybrid Only)"**
  This determines the selection sequence for trunks within the rotary. Make sure the last trunk in the rotary is terminated to that trunk's operator (e.g., 300).
- **E- Trunks, "EA- Trunk Group Assign. (First Trunk in Group), Hybrid"**
  Group trunks together by assigning each one the same First Trunk in Group number.
- **"QF- Line Grp Access (First Trunk in Group), Hybrid Only"**
  Correlate the first trunk in a trunk rotary (e.g., 801) to one of nine trunk rotary numbers (90-98). The system requires this correlation when setting up trunk rotaries. Use the trunk access code (e.g., 801) that corresponds to the EA- First Trunk in Group entry.

Other Programming

- **E- Extensions, "ED- Trunk Control, Access Control" / "ED- Trunk Control, Call-Out Control"**
  To use a rotary, an extension must have access and call-out for the trunks in the rotary.
  [Y=enable, N=disable]
- **E- Trunks, "E2- Trunk Circuit Type"**
  Trunks within the rotary should have the same circuit type. (see page 394)
- **"KS- Programming Keys for Keysets"**
  Loop keys simplify access to rotaries. ["9"=switched loop, "9" and a line group # (0-8)=fixed loop]
- **"QA- Number Plan, Trunk Grp Access Digit (Hybrid Only)"**
  Designate the trunk group (rotary) access digit (normally 9).
  [0-9 (This also affect ARS and Time/Date setting)]
- **"QY- Single Digit Line Access"**
  Allow/deny users the capability to access trunk group 1 (code 90) by dialing 9. If you allow dial 9 capability, users cannot dial access groups 91-98. [Y=enable, N=disable]

LINE (TRUNK) ROTARIES (HYBRID ONLY)

Related Features

"Call Forwarding"
An extension user should not forward calls off-premise using a trunk group (codes 9 or 90-98).

"Central Office Calls, Placing"
The system does not search a rotary for an idle trunk when the user dials a trunk access code (e.g., 801).

"Direct Inward Line (DIL)"
A DIL can be a member of a trunk rotary (for placing calls). While busy on an outgoing call, the DIL is unavailable for incoming calls.

"Line (Trunk) Queuing"
The user can queue for an available trunk if all trunks in the group are busy.

"Loop Keys"
Loop keys use the programmed trunk rotaries.

"PBX/Centrex Compatibility"
Place PBX lines in their own trunk rotaries.

"Speed Dial"
Speed Dial bins can use trunk groups instead of specific trunks.

"System Reports, Diagnostics and Maintenance Utilities"
The HC- System Queues report displays the trunk rotary queues. The HE/HF- Traffic Management Summary option summarizes the trunk group call activity.

Feature Operation

To place a call using trunk group dial-up codes:

1. Lift handset.
2. Press ICM.
   Listen for: *Dial Tone*
3. Dial code (9 or 90-98).

Description

Loop keys are programmable keys that simplify the way extension users place and answer outside calls. There are two types of loop keys: fixed loop keys and switched loop keys. Fixed loop keys give the user single key access to a specific trunk group. Switched loop keys give the user simplified access to any trunk group. Switched loop keys are primarily used by extensions that answer a large amount of calls.

Loop keys are also important for answering calls. An incoming call not assigned to a key rings the first available loop key. This ensures a key appearance for any call ringing an extension. For this reason, ***each extension should have at least one loop key.*** On key systems, loop keys are for incoming calls only. Only switched loop keys are available.

Conditions

An incoming call without an assigned key rings the first available loop key. The system searches the keys in the following order looking for a loop key: 1-15, 21-24 then 16-20.

Default Configuration

No loop keys programmed.

Programming

Required Programming

- **"KS- Programming Keys for Keysets"**
  Designate programmable keys as Fixed or Switched loop keys.
  ["9"=switched loop, "9" and a line group # (0-8)=fixed loop]

Other Programming

- **E- Extensions, "E8- Line Access Options, Access To Groups 90-95"**
  Allow/deny access to each of the first 6 trunk groups (90-95). [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Ring Control"**
  Assign ringing for each trunk that should ring a switched loop key.
  [R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  An extension user must have access to a trunk before using it to place or answer a call.
  [Y=enable, N=disable]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  An extension user must have call-out enabled for a trunk before using it to place a call.
  [Y=enable, N=disable]
- **E- Trunks, "E4- Next Trunk in Outbound Rotary (Hybrid Only)"**
  This determines the selection sequence for trunks within the rotary. Make sure the last trunk in the rotary does not loop back to the first.
- **E- Trunks, "EA- Trunk Group Assign. (First Trunk in Group), Hybrid"**
  Group trunks together by assigning each one the same First Trunk in Group number.
- **"QF- Line Grp Access (First Trunk in Group), Hybrid Only"**
  Correlate the first trunk in a trunk rotary (e.g., 801) to one of nine trunk rotary numbers (90-98). The system requires this correlation when setting up trunk rotaries. Use the trunk access code (e.g., 801) that corresponds to the EA- First Trunk in Group entry.

Related Features

"Class of Service" / "Night Answer (Off-Hours Ringing)" / "Toll Restriction"
If an extension's COS has CP- Allow Only Intercom Calls at Night (BY0:2=1), the extension cannot use loop keys at night.

LOOP KEYS

"Line (Trunk) Rotaries (Hybrid Only)"
Loop keys use the programmed trunk rotaries.

Feature Operation

To place a call using a switched loop key (Hybrid only):

1. Lift handset.
2. Press fixed loop key.
   Listen for: *Dial Tone*
3. Dial second digit of trunk group code (0 for 90, 1 for 91).
4. Dial number.

To place a call using a fixed loop key (Hybrid only):

1. Lift handset.
2. Press fixed loop key.
   Listen for: *Dial Tone*
3. Dial number.

To answer a call ringing a loop key:
Listen for: *CO Ring*

1. Lift handset.
2. Press flashing loop key.
   Listen for: *Conversation with caller*

Description

With Meet-Me Conference, an extension user can set up a Conference with up to two other inside parties. Each party joins the Conference by dialing a Meet-Me Conference access code (within one minute). Meet-Me Conference lets three extension users have a telephone meeting -- without leaving the office.

In addition to Meet-Me Conference, the following features also allow three-party calls:

- Conference
- Intrusion
- Privacy Release Groups
- Tandem Calls

Conditions

The system supports two Meet-Me Conferences (at codes 11 and 12). The system supports eight simultaneous three-party conversations.

Default Configuration

Meet-Me Conference always allowed.

Programming

Required Programming

None

Other Programming

None

Related Features

"Conference"

Conference lets an extension user add an additional party to their conversation. Conference has an initiator (controller): Meet-Me Conference does not.

MEET-ME CONFERENCE

Feature Operation

To set up a Meet-Me Conference:

1. Page desired parties and announce Meet-Me Conference code (11 or 12).
2. Press ICM.
   Listen for: *Dial tone*
3. Dial Meet-Me Conference access code (11-12).
   Listen for: *Conversation with Conference members*

To join a Meet-Me Conference:

1. Lift handset.
2. Press ICM
   Listen for: *Dial tone*
3. Dial Meet-Me Conference access code (11 or 12).
   Listen for: *Conversation with Conference members*

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Available in Voice Mail Software Levels:	
NVM-202	**NVM-2000**
> 1.03	≥2.06

A Message Center is a shared mailbox available to any keyset user with a programmed Message Center key. Any keyset user with a Message Center key can leave a message in the Message Center or listen to messages others have left. For example, a Service Department dispatcher could have Message Center keys for each of the company's products. When all technicians are busy, the dispatcher could send any additional calls to the Message Center assigned to the specific product. As technicians become available, they can select the messages for the product group they want to service first.

Since each Message Center requires an uninstalled (phantom) extension port, the system allows as many Message Centers as there are available uninstalled extensions. In addition, a keyset can have as many Message Center keys as it has available programmable keys.

Conditions

The NVM-202/2002 must have a subscriber mailbox that corresponds to the Message Center phantom extension number.

Programming

- **E- Extensions, "E2- Extension Circuit Type"**
  Enter circuit type X for the uninstalled extension used as the Message Center phantom extension.
- **E- Extensions, "EA- UCD Group Master Extension Number"**
  Enter 300 (unassigned) for the Message Center phantom extension.
- **"KS- Programming Keys for Keysets"**
  For each extension that should have a Message Center key, program a Call Coverage Key (S+ext.) for the Message Center phantom extension. Enter any ring option for the Call Coverage key; the system ignores the ring option programming.

  Note: After programming the options for Message Center, turn off the phone system - wait a few seconds - then turn it back on.

Feature Operation

To call the Message Center:

1. Lift the handset or press HF.
2. Press the Message Center key.

When the Message Center has messages waiting, your Message Center key flashes at a unique rate called the DND flash rate. You log into the mailbox of the Message Center phantom extension. You have all the options available to any other mailbox subscriber. You cannot, however, press the MSG key while idle to obtain the number of messages waiting in the Message Center.

MESSAGE WAITING

Description

With Message Waiting, an extension user can leave an indication at a busy or unanswered extension requesting a return call. The indication is a flashing MSG key and an optional hourly voice reminder message. Answering the Message Waiting automatically calls the extension which left the indication. Message Waiting ensures that a user will not have to recall an unanswered extension. It also ensures that a user will not miss calls when their extension is busy or unattended.

Additionally, Message Waiting lets extension users:

- Cancel all the messages they left at other extensions
- Cancel all messages left at their extensions
- View and selectively answer messages left at their extensions (display keyset only)

An extension user can leave Messages Waiting at any number of extensions. Also, any number of extension users can leave a Message Waiting at the same extension.

Note:
In AUX Module $\geq$ 02.10 this feature works slightly different. If a user places a call to an extension that has left them a Message Waiting, the Message Waiting indication remains in force after they hang up. This prevents the user from inadvertently deleting Message Waitings. For example, John at extension 304 could leave a Message Waiting for Beth at extension 305. If Beth should call John for some other reason (i.e., not returning the Message Waiting), the Message Waiting stays in effect. Beth's Message Waiting cancels only if she presses ICM and MSG to return John's call. In previous software versions, Beth's Message Waiting would cancel as soon as she called John.

This enhancement also helps a display telephone user who normally scrolls through their Messages Waiting. The user can scroll through their messages and place an Intercom call to the party they want to call back. The Message Waiting remains unless the user specifically cancels it. In previous software versions, the Message Waiting would cancel automatically.

Note:
An extension user cannot cancel messages they have left at other extensions. In previous software versions, the user could do this by calling the extension at which they left the message waiting.

Conditions

A power failure or system reset cancels all active Messages Waiting. Answering the message also cancels the Message Waiting. This is true if the called extension doesn't answer, is busy or is in Do Not Disturb.

Default Configuration

Message Waiting and reminder message allowed.

Programming

Required Programming

None

Other Programming

- **"QJ- Intercom Call Control, Alerts (Message)"**
  Enable/disable the periodic Message Waiting reminder. [N=allow, Y=deny]
- **"QP- Voice Mail, Mailbox Installed"**
  When voice mail is not installed, this must be set to N(o).

Related Features

"Attendant Positions" / "Digital Door Box"

An extension user cannot leave a Message Waiting at an attendant or at a Door Box.

"Intercom"

An extension user can leave a Message Waiting request at a busy or unanswered extension.

"Off-Hook Signaling"

An extension user cannot leave a Message Waiting while using Whisper Page.

"Voice Mail Compatibility (Integrated Voice Messaging)"

Message Waiting will not function if the system has a voice messaging system installed. The Message Waiting procedures access extension's Subscriber Mailbox.

"Voice Prompting Messages"

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

The Message Waiting reminder voice message requires a VMU module.

Feature Operation

To leave a Message Waiting (an at extension that is busy or does not answer):

Listen for: *Busy, Ring/Busy, Ringing or two beeps*

1. - At a keyset, press MSG.

   OR

   - At an ESL set, dial 6.

   Listen for: *Dial tone*

2. Hang up.

   The MSG key flashes fast (green) at the called extension (if it is a keyset).

To cancel a Message Waiting you left:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Dial number of extension where you left the message and hang up.

To cancel all messages left at your phone simultaneously:

This also cancels your Callback and Line Queuing requests.

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Press # *.
4. Hang up.

To answer a Message Waiting:

Listen for: *Periodic reminder message*

1. Lift handset.
2. - At a keyset, press MSG.
   - At an ESL set, press * and dial 6.

   Listen for: *Two beeps or ringing*

   If you have a keyset and your MSG key continues to flash fast, you have additional messages waiting.

To view and then selectively answer your messages (display telephone only):

Listen for: *Periodic reminder message*

1. Do not lift handset.
2. Press MSG.

   Your phone's display shows the first extension that left you a message. Press MSG repeatedly to see all your messages.
3. When you see the extension you want to call back:
   - Lift handset
   - Press MSG.

   Listen for: *Two beeps or ringing*

   If you have a keyset and your MSG key continues to flash fast, you have additional messages waiting.

Description

Microphone Mute lets a keyset user turn off their phone's handsfree microphone at any time. When activated, Microphone Mute prevents the caller from hearing conversations in the user's work area. The user may turn off the microphone while his telephone is idle, busy on a call or ringing. The microphone stays off until the user turns it back on.

Conditions

None

Default Configuration

Microphone Mute allowed at all keysets.

Programming

Required Programming

None

Other Programming

None

Related Features

"Attendant Positions"

Microphone Mute is not available to attendants.

"Call Forwarding" / "Personal Greeting" / "Selectable Display Messages"

Turning off Microphone Mute (if enabled) automatically cancels these features.

"Do Not Disturb"

If a keyset is in DND, turning Microphone Mute on cancels DND.

"Handsfree (Speakerphone) and Monitor"

If an extension has Microphone Mute enabled, the user can listen Handsfree but cannot respond.

"Headset Compatibility"

Microphone Mute is not available to keysets in the headset mode.

"Intercom"

If an extension has Microphone Mute enabled, it broadcasts two long beeps for an incoming voice-announced Intercom call. The receiving extension has Handsfree reply disabled.

Feature Operation

To activate Microphone Mute:

1. Press MIC/DND until it lights (green).

   You can do this while on a call or when your phone is idle.

To deactivate Microphone Mute:

1. Press MIC/DND until it goes out.

   If MIC/DND flashes fast, your phone is in Do Not Disturb.

MUSIC ON HOLD

Description

Music On Hold (MOH) sends music to calls on Hold, parked calls and calls transferred to a busy extension. The music lets the caller know that his call is waiting, not forgotten. Without Music On Hold, the system provides silence to these types of calls. Music on Hold requires a customer-provided music source (i.e., tape deck, receiver, etc.) and an unused trunk circuit.

Note:
In accordance with U.S. copyright law, a license may be required from the American Society of Composers, Authors and Publishers (ASCAP) or other similar organizations, if radio, television broadcasts or music and other material not in the public domain are transmitted through the Music-On-Hold feature of telecommunications systems. Nitsuko America hereby disclaims any liability arising out of the failure to obtain such a license.

Conditions

(A.) Music On Hold (for internal extensions) disables the fourth trunk circuit on the first CO Module in the main CEU. You cannot use the fourth trunk circuit for trunks. (Music on Hold for outside calls does not use the trunk circuit.) If you want MOH for trunks 9-16, connect the MOH terminals on the main CEU to the MOH terminals on the expansion CEU. For MOH, the system provides:

Input Impedance	100K Ohms
Maximum Input	-10 dBm (244 mV AC)

Refer to the system Hardware Manual for additional installation details.

Default Configuration

Music on Hold not available.

Programming

Required Programming

➢ **E- Trunks, "E2- Trunk Circuit Type"**
The MOH trunk port must be (circuit type X).

➢ **"QM- Music/Relay Control, BGM"**
To enable internal MOH, enter Y(es).

➢ **"QM- Music/Relay Control, MOH"**
To enable MOH for trunk calls, enter Y(es).

Other Programming

➢ **"QM- Music/Relay Control, MOH on Transfer"**
If enabled (Y), transferred callers can hear Music on Hold. If disabled (N), transferred callers hear ringback tone.
To use the MOH trunk for another function, remember to:

- Enter N for QM- MOH
- Change the trunk to the desired circuit type (using the E2 option)
- Perform a side tone test on the trunk (using the IS- Side Tone Test option)

Related Features

"Background Music"
Background Music and Music on Hold can share the same music source.

"Conference"
While an extension user sets up a Conference, MOH plays to their initial caller.

"Hold"
If installed, MOH provides music to callers on Hold.

Feature Operation

None

NANP COMPATIBILITY

Description

Available in Software Levels:	
Base	**AUX**
> 02.40	≥ 02.40

Bell Communications Research (Bellcore), the administrator of the North American Numbering Plan, has issued several important NANP rule changes that could affect your phone system. If your software level is the same or higher as the versions listed above, the system will accommodate the new dialing requirements with only a few programming changes.

1. Area (NPA) Codes and Central Office Codes can be interchangeable . . .
In order to increase the number of available area codes, there is no longer a distinction made between the numbers used for NPAs and central office codes. This new rule is necessary to help those growing regions that are using up all the available central office codes within an NPA. Previously, Bellcore issued additional NPAs to those regions before they "exhausted" their central office codes.

Since there are no longer any unassigned NPAs in the North American Numbering Plan, that solution is no longer possible. Instead, Bellcore has chosen to make the numbering plan interchangeable. For example, the code 520 can be either an NPA or a central office code, depending on how it is implemented within the dialing area. The challenge for Automatic Route Selection and/or Toll Restriction in the telephone system is to determine the proper routing and restriction for the call the user dials.

How the system handles Interchangeable Codes . . .
The system complies with the Interchangeable Code requirements. Just use the following guidelines when setting up the system:

- To use NPAs as central office codes, enable (Y) the **QQ- '1' Prefix Required for NPA Call** (or for phone programming, Program 3) and **GA- Conflict Area** options. The system assumes the three digits immediately following a leading 1 are an NPA.
- To use office codes as NPAs, disable the **QQ- 0 or 1 Required in Second Digit of NPA Code** option[1]. (You'll also have to reinitialize ARS.)
- Do not use the "global" CP options **Allow Only Local Calls at Night (BY1:4)** and **Allow Only Local Calls (BY1:3)**.

The Problem of 7-Digit vs. 10-Digit Call Ambiguity . . .
In some dialing areas, Interchangeable Codes are combined with 7- and 10-digit local dialing. Local calls within the home NPA may be 7 digits long, while local calls to an adjacent area code (called a foreign NPA) may be 10 digits long. This creates the problem of Call Ambiguity since neither call is preceded by a '1'. The phone system must be able to differentiate the foreign NPA from the local office code.

How the system handles ambiguity . . .
The system uses the Timing Method to resolve Call Ambiguity. After the caller dials their last digit, the system waits six seconds (to be sure they have finished dialing) and then routes the call according to the digits dialed. Although this is automatic, you must program the 3- and 6-Digit Tables in ARS to properly route the call. The Timing Method not only facilitates ARS, but SMDR Account Codes as well.

Bellcore has warned that failure to comply with the Interchangeable Codes requirements may result in any or all of the following:

- Non-compliant telephone systems may have to be replaced, or
- Toll Restriction and ARS may have to be disabled to allow callers to reach parties in areas using Interchangeable Codes.

[1] This option requires an AUX Module.

2. The 950 (Feature Group B) services will be expanded . . .
Under the new rules, 7-digit 950 numbers can be more widely implemented. This may be used as an alternative to the current 800 service, which is more difficult to dial and takes the network longer to set up. Previously, 950 numbers were always in the format 950-WXXX, where W had to be a 0 or a 1. Since the available XXX numbers will soon be exhausted, Bellcore has decided to allow ***any*** four digits after the 950 exchange. In addition, 950 service no longer requires the use of special trunks.

Will the system accept the new 950 Services?
Yes. Just remember to set central office code 950 as unrestricted (toll-free) in Toll Restriction and ARS.

3. More Equal Access (Feature Group D) codes will become available . . .
As the number of available Equal Access (10XXX) codes threatens to run out, Bellcore has decided to change the Equal Access format. With today's rules, a caller uses Equal Access by dialing 10 followed by the 3-digit number that identifies the carrier (called the Carrier Identification Code - or CIC). To allow for future expansion, callers will use Equal Access by dialing 101 followed by a 4-digit CIC. This will make Equal Access codes increase from five to seven digits.

Is the system ready for 7-digit Equal Access?
Yes. The option **QQ- No. of Digits in Equal Access Code** lets you specify the length of the Equal Access codes users can dial, up to nine digits. The system ***cannot*** under the rules prevent users from dialing the Equal Access codes, but ***can*** restrict the numbers that users dial after the codes.

4. International calls can be up to 15 digits long . . .
At midnight on December 31, 1996 (called *Time T* by Bellcore), international calls can be up to 15 digits long. This change has implications outside of the NANP, but really doesn't affect domestic users at all. International calls must still be preceded by 011, and the current ARS and Toll Restriction constraints will remain in effect.

Programming

Required Programming

- **"QQ- '1' Prefix Required for NPA Calls"**
  Enable [Y] to use NPAs as central office codes for Interchangeable Codes.
- **"GA- ARS Editor"**
  Enable [Y] Conflict Area to use NPAs as central office codes for Interchangeable Codes.
- **"QQ- 0 or 1 in Second Digit of NPA"**
  To use office codes as NPAs, disable [N] this option.
- **"CP- Allow Only Local Calls at Night (BY1:4)"**
  Do not use this option.
- **"CP- Allow Only Local Calls (Day or Night) (BY1:3)"**
  Do not use this option.
- **"QQ- No. of Digits in Equal Access Code"**
  Specify the length of the Equal Access codes. [5-9]

Other Programming
None

Related Features

"Automatic Route Selection"/ "Toll Restriction"
NANP may affect ARS and Toll Restriction programming in your region.

Feature Operation

None

NIGHT ANSWER (OFF-HOURS RINGING)

Description

Night Answer lets the attendant put the system in the night mode. Night Answer redirects calls to their night mode destination, as determined by Universal and Assigned Night Answer. The attendant typically activates Night Answer after normal working hours, when most employees are unavailable to answer calls. The system comes up in the day mode.

Assigned Night Answer
With Assigned Night Answer (ANA), night mode calls directly ring extensions, Ring Groups and ACD/UCD hunt groups. Assigned Night Answer provides an answering point for night mode calls. For certain applications, this may be more appropriate than Universal Night Answer. For example, the system administrator could program trunks to ring at the security station's telephones during off hours.

Universal Night Answer
Universal Night Answer (UNA) allows an extension user to answer incoming night mode calls ringing over the external Paging speakers. With UNA, an employee can:

- Go to any telephone
- Dial the UNA code
- Answer the incoming call

UNA requires external amplifiers and an unused trunk circuit. UNA disables the fourth trunk circuit on the first CO Module in the main CEU. You connect to the main CEU PA terminals. Refer to the system Hardware Manual for External Paging installation details.

Conditions

The External Paging equipment connected to the UNA trunk port must be compatible with the following system specifications:

Output Impedance	600 Ohms
Maximum Input	3 dBm (1.09 V AC)

Default Configuration

- Attendants can activate Night Answer. ANA and UNA not programmed.

Programming

Required Programming

Night Answer

➢ **E- Extensions, "EK- Do Not Disturb (DND)"**
Allow DND at each attendant that should be able to activate Night Answer. [Y=allow, N=deny]

➢ **E- Trunks, "E9- Direct Trunk Termination"**
Assign an operator to each trunk. For each trunk, Night Answer activates when that trunk's operator goes into the night mode. (You also use this option to assign DILs. Refer to the Direct Inward Line feature.)

Night Answer, Assigned Night Answer

➢ **E- Extensions, "ED- Trunk Control, Ring Control"**
For each keyset, designate the ringing options for each trunk. Use the N option to have the trunk only ring the keyset at night. [R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
For each extension, assign access for lines the extension should be able to answer (day or night). [Y=allow, N=deny]

➢ **E- Trunks, "EI- Night Call Routing"**
Define the night call route (extension or Ring Group) for each trunk. EI programming overrides ED programming at night. The EI option also lets night mode calls ring non-keyset extensions.

Night Answer, Universal Night Answer

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
An extension has UNA pickup only for trunks to which it has access. (ED- Ring Control programming has no effect on UNA answering.) [Y=allow, N=deny]

➢ **E- Trunks, "E2- Trunk Circuit Type"**
The unused trunk circuit assigned in QM below must have circuit type X.

➢ **E- Trunks, "E9- Direct Trunk Termination" / "EI- Night Call Routing"**
Terminate each trunk to the main attendant (extension 300/port 00).

➢ **"QM- Music/Relay Control, Enable External Zone 1"**
Enter Y to enable night audible. An incoming call will activate ringing on the night audible port if:
- The ringing trunk is terminated (in E9) to the main attendant (300)
- The main attendant is in the night mode

➢ **"QM- Music/Relay Control, Inhibit Audible Ring"**
Enable audible ring on the night audible port. [N=enable Audible Ring, Y=disable Audible Ring]

Other Programming

For Assigned Night Answer

➢ **"QT- System Timers, Number of Rings Before Recall"**
When the system is in the night mode, an incoming call rings the EI termination for this interval. The call then diverts to all extensions that normally ring for the call (programmed in ED- Ring Control). [3-15]

Related Features

"Attendant Positions"
If an attendant is in the night mode, another extension user cannot place an Intercom call to that attendant.

"Direct Inward Line (DIL)"
DILs ring the extension day or night, overriding ANA programming. To activate Night Answer for the DIL, put the DIL's extension in DND.

"Extension Hunting"
If a trunk is a DIL to an ACD/UCD master number, the trunk goes into night mode when the master's operator activates Night Answer.
Two attendants can be in a Circular Hunt Group (consisting only of themselves) for special night mode operation. Both attendants must activate Night Answer to put their trunks in the night mode. Following is an example for attendants 300 and 304:

Ext	E4	E5
300	300	02
304	304	02

"External Alerting Devices"
Under certain conditions, night mode ringing can also activate the external relays. Refer to External Alerting Devices for the specifics.

"Group Ring (Ring Groups)"
An ANA call to a ring group rings all members of the group. The trunk never diverts to all extensions with programmed ring and access.

"Loop Keys" / "Prime Line Selection"
If an extension's COS has CP- Allow Only Intercom Calls at Night (BY0:2=1), the extension cannot use loop keys or Prime Line Selection at night.

"Paging"
Night ringing can broadcast over the All Call External Page port.

"Ringing Line Preference"
Ringing Line Preference lets a keyset user answer a night mode call just by lifting the handset.

"Tenant Service"
An attendant can place only its own trunks in night answer (according to E9- Direct Trunk Termination programming).

"Toll Restriction"
An extension in a tenant group can have night mode restriction (e.g., CP- Allow Only Intercom Calls at Night [BY0:2] is 1). The restriction takes effect when the extension's operator activates Night Answer.

NIGHT ANSWER (OFF-HOURS RINGING)

Feature Operation

To activate Night Answer (attendant only):

1. Do not lift handset.
2. Press MIC/DND.

To deactivate Night Answer (attendant only):

1. Do not lift handset.
2. Press MIC/DND.

To answer an ANA call ringing your extension:

Listen for: *Trunk ring*

1. Lift handset.

   If you have an ESL set, this answers the call. Skip step 2.
2. Press flashing line key.

   Listen for: *Conversation with caller*

To answer a UNA call ringing the External Paging equipment:

Listen for: *Trunk ring over the External Paging equipment*

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Press *.

   Listen for: *Dial tone stops*
4. Dial 0.

   Listen for: *Conversation with caller*

User-Programmable Feature...

You can change the lines that ring your keyset at night.
PGM# + NR + Line key + Y(es) or N(o) + SAVE

NON-BLOCKING ARCHITECTURE

Description

The system has a non-blocking architecture. This means that the number of transmission paths is greater than the number of extension and trunk ports. In other words, all extensions and trunks can be on calls simultaneously, without blocking or interfering with each other.

Conditions

None

Default Configuration

The system always has non-blocking architecture.

Programming

Required Programming

None

Other Programming

None

Related Features

"Analog Station Interface (ASI)"

ASI P/N 89749 does not require a system DTMF receiver for outgoing calls.

"Central Office Calls, Placing" / "Intercom"

The system has 56 dialing buffers. An extension uses a dialing buffer when dialing digits for Intercom or trunk calls. This means that a total of 56 extensions can dial digits simultaneously.

"Handsfree (Speakerphone) and Monitor"

The system allows 12 simultaneous Handsfree (speakerphone) calls per base units.

Feature Operation

None

OFF-HOOK SIGNALING

Description

With Off-Hook Signaling, a user can send an off-hook indication to a busy keyset. This tells the busy keyset user that they have another call waiting. Off-Hook signaling helps important callers get through -- without waiting in line for the called extension to become free.

There are two types of Off-Hook Signaling: Off-Hook Ringing and Whisper Page. With Off-Hook Ringing, you hear ringing through your speaker when a new call comes in. You can answer the waiting call. With Whisper Page, you hear the caller's voice in your handset. Only you can hear the incoming voice. Also, you can respond without your original caller listening.

Off-Hook Signaling also lets you signal a busy extension (after you hear ring/busy tone), indicating you want to get through. If the busy party is on a handset call, they receive Off-Hook Ringing or Whisper Page. The party can answer the Off-Hook Signal, then talk to their initial caller.

Conditions

The system takes six seconds to set up an outgoing call. After dialing a call, an extension user cannot receive a Whisper Page until six seconds have elapsed.

Default Configuration

No off-hook ringing -- Whisper Page allowed

Programming

Required Programming

- **E- Extensions, "E8- Line Access Options, Off-Hook Ringing"**
  Enable or disable incoming off-hook ring for each extension. [Y=allow, N=deny]
- **E- Extensions, "EF- Incoming Whisper Page Off-Hook Signals"**
  Enable or disable incoming Whisper Page signaling for each extension. If enabled, this option overrides E8- Off Hook Ringing. [N=enable, Y=disable]

The following chart shows the interaction between E8 and EF programming for the destination extension.

Caller	Dest.	E8	EF	Result after dialing 1
Handset	Handset	N	N	Whisper Page to destination
Handset	Handsfree	N	N	No Off-Hook Signaling
Handsfree	Handset	N	N	No Off-Hook Signaling
Handsfree	Handsfree	N	N	No Off-Hook Signaling
Handset	Handset	N	Y	No Off-Hook Signaling
Handset	Handsfree	N	Y	No Off-Hook Signaling
Handsfree	Handset	N	Y	No Off-Hook Signaling-
Handsfree	Handsfree	N	Y	No Off-Hook Signaling
Handset	Handset	Y	N	Whisper Page to destination
Handset	Handsfree	Y	N	Off Hook ringing
Handsfree	Handset	Y	N	No Off-Hook Signaling
Handsfree	Handsfree	Y	N	Off-hook ring if dest. has HF- otherwise no Off-Hook Signals
Handset	Handset	Y	Y	Off-hook ringing
Handset	Handsfree	Y	Y	Off-hook ringing
Handsfree	Handset	Y	Y	Off-hook ringing
Handsfree	Handsfree	Y	Y	Off-hook ringing

Other Programming

None

Related Features

"Analog Station Interface (ASI)"/ "Off-Premise Extension (OPX)"
ASI and OPX extensions cannot receive Whisper Page or off-hook ringing.

"Attendant Positions"
An attendant should have off-hook ringing. This allows the attendant extension to ring while the phone displays alarms. An attendant cannot receive Whisper Page.

"Automatic Fault Reporting/Remote Maintenance"
When an alarm displays, the attendant's phone does not ring normally for incoming calls. If the extension has Off-Hook Ringing, it rings with a single beep (repeated). If the attendant's extension does not have Off-Hook Ringing, calls do not ring while the alarm displays.

"Call Coverage Keys"
Call Coverage Keys always activate Off-Hook Signaling (if allowed at the destination). In addition, an extension with Off-Hook Signaling receives off-hook signals for calls to its covered extension.

"Call Waiting (Camp-On)"
If an extension has off-hook ringing enabled (in E8), the system automatically converts Call Waiting beeps to off-hook ringing.

"Callback"
An extension user cannot leave a Callback after initiating a Whisper Page.

"Digital Door Box"
An extension cannot receive off-hook signals from a Door Box, unless the system has AUX Module $\geq$ 02.10.

"Direct Station Selection, Extension"
An extension's DSS keys always activate Off-Hook Signaling (if allowed at the destination).

"Do Not Disturb"
DND blocks Off-Hook Signaling.

"Extension Hunting"
Always disable Whisper Page for extensions in Terminal and Circular Hunt Groups (type 02).

"Handsfree (Speakerphone) and Monitor"
While on a Handsfree call, an extension user may hear an off-hook signal (single beep, repeated).

"Hotline"
Hotline always activates Off-Hook Signaling (if allowed at the destination).

"Intercom"
Intercom callers to a busy extension with off-hook signaling capability hear ring/busy instead of busy.

"Message Waiting"
An extension user cannot leave a Message Waiting while using Whisper Page.

"Privacy"
Privacy does not block Off-Hook Signaling.

"Split"
These features let an extension user know when they have a call waiting.

"Transfer"
If an extension tries to Transfer a call and hears ring/busy, the user can dial 1 to initiate Off-Hook Signaling.

OFF-HOOK SIGNALING

Feature Operation

To signal an off-hook extension by dialing the extension number:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial Tone*

   If you have an ESL set, skip this step.
3. Dial extension number.

   Listen for: *Ring/Busy*

   If you don't hear Ring/Busy, you can't send an off-hook signal.

   If you press a DSS key instead, skip to step 4 (without dialing 1).
4. Dial 1.

   Listen for: *Two beeps (for Whisper Page) or Ringing (for off-hook ringing)*
5. - If you hear two beeps, you can begin speaking.

   OR

   - If you hear ringing, wait for called party to answer before speaking.

To signal an off-hook extension by pressing a Hotline key:

1. Lift handset.
2. Press Hotline key.

   Listen for: *Two beeps (for Whisper Page) or Ringing (for off-hook ringing)*
3. - If you hear two beeps, you can begin speaking.

   OR

   - If you hear ringing, wait for called party to answer before speaking.

To signal an off-hook extension by pressing a Call Coverage key:

1. Lift handset.
2. Press Call Coverage key.

   Listen for: *Ring/Busy*

   If you don't hear Ring/Busy, you can't send an off-hook signal.
3. Dial 1.

   Listen for: *Two beeps (for Whisper Page) or Ringing (for off-hook ringing)*
4. - If you hear two beeps, you can begin speaking.

   OR

   - If you hear ringing, wait for called party to answer before speaking.

To respond to a Whisper Page signal you hear in your handset:

Listen for: *Two beeps in your handset.*

1. Press and hold MIC/DND.

   While you hold down MIC/DND, you can talk to the party sending you the Whisper Page. Your other caller cannot hear your voice.
2. Release MIC/DND to return to your initial caller.

To respond to off-hook ringing you hear over your speaker:

If you are on an outside call -

Listen for: *One beep (repeated)*

If you are on an Intercom call -

Listen for: *One beep (repeated)*

1. (Optional) Press HOLD.

   If you are on an Intercom call, this saves your first call. If you are on an outside call, hold is automatic when you go to step 2.

2. Press flashing ICM.

   Listen for: *Conversation with second caller*

   To switch (alternate) between the calls, use the Split feature.

User-Programmable Feature...

You can allow or deny incoming Whisper Page for your keyset.
PGM# + VO + Y(es) or N(o) + SAVE

OFF-PREMISE EXTENSION (OPX)

Description

The system provides connections for Off-Premise Extensions (OPXs). With OPX support, the system can use equipment that requires a standard Dial Pulse (500 type) or DTMF (2500 type) interface. This equipment includes:

- Telco OPX circuits
- On-premise single line telephones
- Equipment that requires a single line telephone connection (such as a voice messaging system).

To operate an OPX single line set, refer to **Feature Operations** below. For more about each feature, refer to the feature descriptions in this manual.

OPX trunks require the installation of a Dual OPX/ASI Module (P/N 88750). Each Dual OPX/ASI Module supports two OPX circuits.

Conditions

(A.) Dial Pulse OPXs cannot use any features accessed using dial pad keys * or #.
(B.) The Dual OPX/ASI Module circuits meet the requirements of EIA Specification RS-464-A for OPS class C (loop resistance to 3,300 ohms, loop current = 15mA or greater).

Default Configuration

No OPXs programmed.

Programming

Required Programming

(Except for E2- Circuit Type, OPX extensions use E- Extension programming for features, not E- Trunk programming.)

➢ **E- Trunks, "E2- Trunk Circuit Type"**
OPX extensions use circuit type 51 when used with a Dual ASI (P/N 88750). Remember that OPX extensions use trunk numbers.

Other Programming

➢ **"QT- System Timers, OPX Incoming Flash Timer"**
Enter the duration of the OPX loop current interruption that occurs when an OPX device hookflashes. Make sure that the entry you select coincides with the loop current interruption provided by the device connected to the OPX circuit. Note that OPX hookflash always puts an outside call on Hold.
[2=1-10 (100 mS to 1 sec.), 3=3-11 (300 mS to 1.1 sec.), 4=4-12 (400 mS to 1.2 sec.), 5=5-13 (500 mS to 1.3 sec.), 6=6-14 (600 mS to 1.4 sec.), 7=7-15 (700 mS to 1.5 sec.)]

Related Features

"Analog Station Interface (ASI)"
The Analog Station Interface (ASI) module (P/N 89749) provides standard 2500 set DTMF service at any extension port. The feature operations for Off-Premises Extensions also apply to a 2500 set connected to an ASI.

"Call Parking"
A 2500 set connected to an ASI or OPX has Call Parking capability.

"Flash"
OPX users cannot flash a trunk. The system provides a Flash timer that applies only to OPX extensions. OPX flash is the loop current interruption that occurs when the OPX user hookflashes. This operation places a trunk on Hold, it does not flash the trunk.

"Off-Hook Signaling"
ASI and OPX extensions cannot receive Whisper Page or off-hook ringing.

"Paging"
Single line (2500 type) telephones can make Page announcements. Single line telephones cannot, however, receive Page announcements.

"Special Services and OCC Compatibility"
The system always allows Continued Dialing for ASI and OPX extensions and DISA callers.

"Volume Controls"
Single lines sets connected to ASIs or OPX ports do not have volume controls. The system sets their Intercom volumes at a nominal level.

Feature Operation

Note:
When these instructions tell you to Hookflash, press the hookswitch for about 1/2 second and release it.

ACCOUNT CODE CAPABILITY
To enter an Account Code when placing an outside call:

1. Place call.
2. Press # immediately after dialing the number.
3. Enter Account Code.
4. Press # again.

To enter an Account Code for the call you are on:

1. Do not hang up.
2. Hookflash.
   Listen for: *Dial tone.*
3. Press #.
   Listen for: *Dial tone stops*
4. Enter Account Code.
5. Press # again.
   Listen for: *Dial tone*
6. Dial * 7.
   Listen for: *You return to the call*

CALL FORWARDING
To forward your calls to another extension:

1. Lift handset.
   Listen for: *Dial tone*
2. Press #.
   Listen for: *Dial tone stops*
3. Dial extension number to receive your calls.
   If you dial 0, the system automatically inserts code 3 in the next step.
4. - Dial 1 to forward ringing calls you do not answer.
   OR
   - Dial 2 to forward ringing calls you do not answer and calls to your phone when it is busy.
   OR
   - Dial 3 to forward all your calls.
5. Hang up.

OFF-PREMISE EXTENSION (OPX)

To forward your calls off-premise:

1. Lift handset.
   Listen for: *Dial tone*
2. Press #.
   Listen for: *Dial tone stops*
3. Dial 1.
4. Select the trunk your forward will use.
   You can dial the trunk number (e.g., 01) or trunk extension number (e.g., 480).
5. Dial telephone number that will receive your calls.
6. Hang up.

To cancel your Call Forwarding:

1. Lift handset.
   Listen for: *Dial tone*
2. Press #.
   Listen for: *Dial tone stops*
3. Hang up.

CALL PARKING
To Park your call:

1. Hookflash.
2. Dial *.
   Listen for: *Dial Tone*
3. Dial Park Orbit code (extension number or 5 + 60-69).
   Listen for: *Dial tone*
   If you hear busy tone, hookflash and try another orbit.
4. Page party to receive call and announce the Park Orbit code.
5. Hang up.

To pick up a parked call:
Listen for announced Park Orbit code.

1. Lift handset.
   Listen for: *Dial tone*
2. Dial announced Park Orbit code (60-69 or * + extension number).

CALL WAITING (CAMP-ON)
To send a Call Waiting tone to a busy extension:
Listen for: *Busy tone*

1. Dial 2.
   Listen for: *ICM Ring*
   If you hear Ring/Busy, the called extension converts your Camp-On to off-hook ringing.
2. Wait off hook for called party to answer.

To answer a Call Waiting tone:

Listen for: *Two beeps*

1. - Hookflash.
   - Dial * 2.

   To switch (alternate between the calls), refer to the Split feature.

   OR

   - Hang up and lift handset when phone rings.

CALLBACK

To request a Callback (after calling a busy extension):

Listen for: *Busy Tone*

1. Do not hang up.
2. Dial 2.

   Listen for: *Ringing*

3. Hang up.

To answer when Callback rings you back:

Listen for: *Callback Ring (ASI)*
Trunk ring (OPX)

1. Lift handset.

   Listen for: *Ringing*

2. Wait for called party to answer, then begin speaking.

To cancel a Callback request at a specific extension:

1. Call busy extension again.

   Listen for: *Busy tone*

2. Press *.

   Listen for: *Dial tone*

3. Hang up.

To cancel all your Callbacks simultaneously:

This also cancels all your Line Queuing requests.

1. Lift handset.
2. Dial # *.
3. Hang up.

CENTRAL OFFICE CALLS, ANSWERING

Listen for: *Trunk ring*

To answer an outside call:

1. Lift handset.

   Listen for: *Conversation with calling party*

CENTRAL OFFICE CALLS, PLACING
To place an outside call:

1. Lift handset.
   Listen for: *Dial Tone*
2. Dial code.
   You can dial:
   A trunk extension number (e.g., 480 - See Direct Trunk Access)
   A trunk access code (e.g., 801)
   Trunk group access code - 9 or 90-98 (See Line Rotaries)

CONFERENCE
To set up a Conference:

1. Place or answer first call.
   Listen for: *Conversation with caller*
2. Hookflash.
   Listen for: *Dial tone*
3. Place or answer second call.
   Listen for: *Conversation with caller.*
4. Hookflash.
   Listen for: *Dial tone*
5. Dial * #.
   Listen for: *Conversation with both parties*
   If the Conference includes at least one Intercom caller, the other parties remain connected if you hang up.

DIRECT TRUNK ACCESS
To directly access a trunk for an outside call:

1. Lift handset
   Listen for: *Dial tone*
2. Dial trunk extension number (e.g., 480).
   Listen for: *Dial tone*

DIRECTED CALL PICKUP
To intercept a call using Directed Call Pickup:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial *.
   Listen for: *Dial tone stops*
3. Dial number of ringing extension.
   Listen for: *Conversation with caller*

FORCED TRUNK DISCONNECT
To disconnect a busy trunk:

1. Lift handset.
2. Dial trunk number (e.g., 480) or trunk access code (e.g., 801).
   Listen for: *Busy tone*
   If you dial the trunk access code, wait for voice prompt to complete.
3. Dial #.
   Listen for: *Dial tone*
   To place a call on the trunk you just disconnected, repeat step 2.

GROUP CALL PICKUP
To answer a call you hear ringing another extension in your pickup group:

1. Lift handset.
   Listen for: *Dial tone*
2. Press *.
   Listen for: *Dial tone stops*
3. Dial 1.
   Listen for: *Conversation with caller*

GROUP RING (RING GROUPS)
To place a call to a Ring Group:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial Ring Group number.
   Listen for: *Ringing*

To answer a call ringing your Ring Group:
Listen for: *ICM ring*

1. Lift handset.
   Listen for: *Conversation with caller*

HOLD
To place an Intercom or outside call on Hold:
This procedure places outside calls on Exclusive Hold.

1. Hookflash.
   Listen for: *Dial tone*
2. Hang up.
   If your caller is a keyset user utilizing Handsfree, the system disconnects the call if you hang up.

To retrieve a call on Hold:

1. Lift handset.
2. Dial * 7.

To retrieve an outside call on Hold at another extension:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial *.
   Listen for: *Dial tone stops*
3. Dial trunk access code (e.g., 801) or extension number.
   Listen for: *Conversation with previously held party*

INTERCOM
To place an Intercom call:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial extension number, 0 for your attendant or 01-04 for other attendants.
   Listen for: *Ringing*
   Intercom calls always ring the called extension.
3. Wait for called party to answer.

To answer an Intercom call that rings your phone:
Listen for: *ICM ring*

1. Lift handset.
   Listen for: *Conversation with caller*

INTRUSION (BARGE-IN)
To intrude on a busy extension:
Listen for: *Busy or Ring/Busy*

1. Dial 4.
   After four seconds, you can begin speaking.

LAST NUMBER REDIAL
To use Last Number Redial:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial * *.
   Listen for: *Digits dialing out*

LINE (TRUNK) QUEUING
To queue for a busy trunk:
Listen for: *Busy tone*
If you queued for a trunk group, you may hear a voice message before you hear busy tone.

1. Dial 2.
   Listen for: *Dial tone stops*
2. Hang up.

To answer the Line Queuing ring:

Listen for: *Callback Ring (ASI)*
Trunk ring (OPX)

1. Lift handset.
   Listen for: *Dial tone*
2. Dial number.

To cancel a Line Queuing request you placed (before the system calls you back):

1. Try to access busy trunk again.
   Use the same procedure you used when trying your initial call.
2. Dial *
   Listen for: *Dial tone*

To simultaneously cancel all your Line Queuing requests (and also cancel your Callbacks):

1. Lift handset.
   Listen for: *Dial tone*
2. Dial # *.
   Listen for: *Dial tone*
3. Hang up.

MEET-ME CONFERENCE
To set up a Meet-Me Conference:

1. Page desired parties and announce Meet-Me Conference code (11 or 12).
2. Hookflash.
   Listen for: *Dial tone*
3. Dial Meet-Me Conference access code (11-12).
   Listen for: *Conversation with Conference members*

To join a Meet-Me Conference:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial Meet-Me Conference access code (11 or 12).
   Listen for: *Conversation with Conference members*

NIGHT ANSWER (OFF-HOURS RINGING)
To answer an ANA call ringing your extension:

Listen for: *Trunk ring*

1. Lift handset.
   Listen for: *Conversation with caller*

To answer a UNA call ringing the External Paging equipment:

Listen for: *Trunk ring over the External Paging equipment*

1. Lift handset.

   Listen for: *Dial tone*

2. Dial * 0.

   Listen for: *Conversation with caller*

OFF-HOOK SIGNALING

To signal an off-hook extension by dialing the extension number:

1. Lift handset.

   Listen for: *Dial tone*

2. Dial extension number.

   Listen for: *Ring/Busy*

   If you don't hear Ring/Busy, you can't send an off-hook signal.

3. Dial 1.

   Listen for: *Two beeps (for Whisper Page) or Ringing (for off-hook ringing)*

4. - If you hear two beeps, you can begin speaking.

   OR

   - If you hear ringing, wait for called party to answer before speaking.

PAGING

To make an All Call Page or a Zone Page:

1. Lift handset.

   Listen for: *Dial tone*

2. Dial Page Zone access code, as follows:

Page Zone	Access Code
All Call	1*
1	2*
2	3*
3	4*
4	5*
5	6*
6	7*
7	8*

   Listen for: *Two beeps*

3. Make announcement.

   If the zone you request is busy. Try again later. An All Call Page overrides a Zone Page already in progress.

4. Hang up.

PERSONAL GREETING
To record a Personal Greeting:

If you already have a Personal Greeting recorded, the new greeting replaces the old one.

1. Lift handset.
   Listen for: *Dial tone*
2. Dial #.
   Listen for: *Dial tone stops*
3. Dial 68.
4. Dial Personal Greeting option:
   The options are:
   2 *All Calls*
   4 *Intercom Calls*
   A voice message asks you to start recording.
5. Start recording when you hear the beep.
   Your Personal Greeting cannot be longer than 16 seconds.
6. Hang up.

To cancel your Personal Greeting:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial #.
   Listen for: *Dial tone stops*
3. Hang up.
   If you want to use Personal Greeting again, you'll have to record a new greeting.

SELECTABLE DISPLAY MESSAGES
To select a Display Message:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial #.
   Listen for: *Dial tone stops*
3. Dial 6.
4. Dial the number of the Selectable Display Message (00-63).
   If you select a message from 00-06, you can add digits to the message. The total message (including the digits you add) cannot exceed 16 digits.
5. Hang up.

To cancel a Selectable Display Message you enabled for your extension:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial #.
   Listen for: *Dial tone stops*
3. Hang up.

SILENT MONITOR
To use Silent Monitor to listen to the conversation received by another extension:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial #.
   Listen for: *Dial tone stops*
3. Dial number of extension you want to monitor.
   Listen for: *Busy tone*
4. Dial 6.

To cancel Silent Monitor:

1. Hang up.

SPEED DIAL
To store a Speed Dial Number:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial #.
   Listen for: *Dial tone stops*
3. Dial the Speed Dial bin number.
   Personal Speed Dial bins are 50-59 and 20-29. System Speed Dial bins are normally 700-799. You must have Direct Trunk Access capability to store System Speed Dial numbers.
4. Dial the trunk code (e.g., 01).
   From a hybrid system, you can optionally enter a trunk group code (9, 90-98).
5. Dial the telephone number.
6. Hang up.

To call a Personal Speed Dial number:

1. Lift handset.
2. Dial Personal Speed Dial bin number (20-29, 50-59).
   *If Speed Dial number contains a pause, you may have to press * to continue dialing.*

To call a System Speed Dial number:

1. Lift handset.
   Listen for: *Dial tone*
2. Dial System Speed Dial bin number (normally 700-799).
   Listen for: *Stored number dialing out*
   *If Speed Dial number contains a pause, you may have to press * to continue dialing.*

SPLIT
To Split between your active call and a call on Hold:

1. Hookflash to put current call on Hold.
   Listen for: *Dial tone*
2. Dial * 2 to answer waiting call.
   Listen for: *Conversation with new caller*
3. Hookflash.
   Listen for: *Dial tone*
4. Press *.
   Listen for: *Dial tone stops*
5. Dial 7.
   You answer the call on Hold. Your previous call now goes on Hold instead.
   Repeat steps 3 - 5 to continue alternating between the calls.

TANDEM CALLS
To set up a Tandem Call:

1. Place or answer first call.
   Listen for: *Conversation with caller*
2. Hookflash.
   Listen for: *Dial tone*
3. Place or answer second call.
   Listen for: *Conversation with caller*
4. Hookflash and dial *, #.
   Listen for: *Conversation with both parties*
5. Hang up.

TRANSFER
To Transfer your call:

1. Do not hang up.
2. Hookflash.
   Listen for: *Dial tone*
3. Dial extension number.
   Listen for: *Ringing*
4. Wait for called party to answer, then announce call.
   To transfer the call unannounced, skip this step.
   If the extension you called doesn't pick up the call, it recalls to you. If you in turn don't pick it up, it rings all extensions that normally ring for the trunk.
5. Hang up.
   Your Transfer goes through.

To return to your outside call (if the called party doesn't want your Transfer):

1. Hookflash.
2. Dial * 7.

To receive a Transfer (if you get an Intercom call announcing it):

1. Stay on the line.
   The Transfer goes through when calling party hangs up.

To answer a transferred call ringing your phone:

Listen for: *Trunk ring*

1. Lift handset.

   Listen for: *Conversation with caller*

WALKING CLASS OF SERVICE

To use Walking Class of Service to place an outside call:

1. Lift handset.

   Listen for: *Dial Tone*

2. Press # twice.

   Listen for: *Dial tone stops*

3. Dial Walking Class of Service code.

   Listen for: *Second dial tone*

4. Dial code for outside call.

   You may be able to dial:

   A trunk extension number (See Direct Trunk Access)

   A trunk access code (e.g., 801)

   Trunk group access code - 9 or 90-98 (See Line Rotaries)

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Operator Assistance (OPA) automatically answers calls on designated trunks and provides dialing options to callers. With OPA, callers can dial extensions and hunt groups directly, without human intervention. OPA saves system users call processing time and provides immediate call answering to outside callers. Operator Assistance provides:

- Caller Dialing Options
  - Direct dialing to any extension, ring group or ACD/UCD hunt group
  - Single-digit access to selected extensions, ring groups or ACD/UCD huntgroups
- Simultaneous call answering
- Programmable OPA messages
- Automatic attendant overflow

Caller Dialing Options
When a call rings a trunk, OPA answers the call (if programmed) and plays a pre-recorded message to the caller. The message normally provides a company greeting and describes the options the caller may dial. For example, a caller may hear, "Hello. You have reached XYZ Corporation. Dial 4 for Technical Service or 5 for Sales." The outside caller listens to the message (up to 16 seconds long) and dials accordingly. The caller may then dial.[1]

- Leading digit 3 plus any three-digit extension, ring group or ACD/UCD hunt group number. (In AUX Module ≥ 2.0/Base 5.0, the leading digit can be any digit from 1-9).
- A single digit for an extension, ring group or ACD\UCD hunt group. Allowed single-digit options are 1, 2, and 4-9.

Simultaneous Call Answering
OPA can answer up to two calls simultaneously, using two separate OPA ports or three separate VMU ports. If all OPA or VMU ports are busy, the call queues for an idle port and the outside caller hears ringing. If the internal extension dialed is busy, the outside caller hears a special message describing additional dialing options.

Programmable OPA Messages
The system allows the attendant to record six Operator Assistance messages, numbered 02-07. In programming, the system administrator can assign an incoming call to any one of these messages. This allows OPA to answer an incoming call and play the appropriate message to the caller.

Automatic Attendant Overflow
Operator Assistance also provides call overflow for attendants. With call overflow, an unanswered call to an attendant routes to an OPA message after a programmed interval. The caller can then use the announced options.

Hardware Requirements
Operator Assistance requires the installation of a Voice Module Unit (as the inside station module in the main CEU) and an AUX Module (for terminal programming). This feature is not available for AUX Module software levels before 02.10. The VMU provides three integral DTMF receivers (one for each port).

[1] If the caller does not dial a digit, the call rings all extensions with programmed ringing for the trunk. This is the only option available to Dial Pulse (DP) telephone callers.

OPERATOR ASSISTANCE (OPA)

Conditions

(A.) Operator Assistance is compatible with calling devices that meet the DTMF signaling requirements of EIA specification RS-464.
(B.) Operator Assistance requires loop start trunks with disconnect supervision.

Default Configuration

Operator Assistance not installed.

Programming

Required Programming

Note:
After programming OPA for the first time, you must clear (erase) the OPA messages. Refer to, "To erase all OPA messages" in Feature Operation.

To have OPA answer the trunk...

➢ **E- Trunks, "E9- Direct Trunk Termination"**
Terminate the trunk to extension 404. Intercept occurs after the first ring.

➢ **E- Trunks, "EI- Night Call Routing"**
To have OPA intercept incoming calls on a trunk at night only, enter extension 404. Intercept occurs after the first ring.

To configure the OPA dialing and message options...

➢ **"CP- Inhibit OPA Transfers to Extension (BY0:1)"**
Allow/deny OPA Transfers to extensions with this Class of Service. [0=allow transfer, 1=deny transfer]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for operators]

➢ **"QH- OPA Configuration, OPA Group Routing"**
Assign the termination (destination) for each OPA access digit (1, 2, and 4-9). Callers reach the termination when they dial the digit. The termination can be an extension, ring group or an ACD/UCD master number. The recorded messages (see Feature Operation below) should describe the terminations reached by these single digits. Don't assign an OPA access code to an extension with BY0:1 set (1).

In AUX Module $\geq$ 02.10, you can enter X for any OPA access digit (1-9). When you enter X, the digit becomes the leading digit for dialing Intercom calls. For example, if OPA GROUP #9=X, dialing 9304 will ring extension 304. You cannot have single digit access to Ring Group 555.

➢ **"QH- OPA Configuration, Line n Day and Night Message"**
For each trunk, indicate the message (2-7) that the caller hears after the OPA answers the trunk in the day and night modes.

To set Automatic Attendant Overflow...

➢ **"QC- Op. Programming, VX Overflow Ring Count"**
Set the number of rings after which Voice Mail overflow occurs (1-255 for VX, 0 for VAU).

➢ **"QH- OPA Configuration, Overflow MSG for Operator (1-4)"**
For each operator, designate the OPA message (2-7) for overflow calls. To disable call overflow to the OPA, enter 0.

➢ **"QT- System Timers, OPA Overflow Ring Control"**
Indicate the number of rings (3-15) before operator overflow to the OPA occurs. This pertains only to operator overflow calls.

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Ring Control"**
For operator overflow, designate the ringing options for each trunk. Also, designate ring for timed-out calls. [R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]

- **E- Extensions, "ED- Trunk Control, Access Control"**
  For operator overflow, assign access for the lines the attendant should be able to answer. Also, designate access for timed-out calls. [Y=enable, N=disable]
- **E- Trunks, "E3- Trunk Class of Service"**
  Assign COS 09 to trunks that should provide the 900 Service Alert to incoming callers. [00-27, 30 for operators]
- **"KS- Programming Keys for Keysets"**
  For operator overflow, program the types of keys that will ring the attendant. (see page 439)
- **"QT- System Timers, Number of Rings Before Recall"**
  An OPA call to an extension ring for this interval. After this interval expires, the call rings all extensions with ring and access for the trunk. [3-15]

Related Features

"Automatic Call Distribution"
An ACD supervisor can also record the OPA messages.

"Central Office Calls, Answering"
An OPA call rings the destination extension on the line key that corresponds to the trunk that the OPA answered. If the extension has no line key for the trunk, the call rings the extension's loop key.

"Direct Inward System Access (DISA)"
To allow the DISA caller to record, erase or listen to OPA messages, enable the following in the DISA trunk's COS:
- Call Forwarding (BY0:6=0)
- ACD Supervisor (BY2:6=1)

"Voice Mail Compatibility (Integrated Voice Messaging)"
A Voice Messaging system may contend for the DTMF receivers required by Operator Assistance. Keep this in mind when installing both OPA and Voice Messaging in the same system. To minimize contention, use ASI P/N 89749 for Voice Messaging.

"Voice Module Unit (VMU)"
Operator Assistance is provided by the VMU in AUX Module $\geq$ 02.10.

"Voice Prompting Messages"
For AUX Module $\geq$ 02.10, the VMU provides the Voice Prompting Messages.

Feature Operation

To erase all OPA messages (if you are an attendant or ACD Supervisor):
This also erases the ACD All Agents Busy message and Personal Greetings. ***You must initialize all messages after you first install the VMU.***

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial 68.
5. Press PGM#.
6. Dial 9.
   Listen for: *Dial tone*
   If you change your mind, dial 6 to cancel this procedure.

To record an OPA message (if you are an attendant or ACD Supervisor):

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*
3. Press PGM#.

   Listen for: *Dial tone stops*
4. Dial 68.
5. Dial OPA message number (01-07).

   Message 02 is the error message. A caller dialing an incorrect code hears message 02. Make sure you program this message.

   Message 00 is the ACD/UCD overflow message. Refer to Automatic Call Distribution.

   Message 01 is the "All lines are busy..." message. Even though you can record message 01, the system uses the preset "All lines are busy..." message instead.
6. Wait for voice instructions, then begin recording.

   You can record a message up to 16 seconds long. The system indicates if your message is too long.

To listen to a previously recorded OPA message (from your attendant or ACD Supervisor extension):

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*
3. Press PGM#.

   Listen for: *Dial tone stops*
4. Dial 685.
5. Dial OPA message number (00-07).

To call into the system using Operator Assistance:

1. Dial system telephone number.
2. After OPA answers your call, dial announced option:
   - Dial single-digit option.

     OR
   - Dial 3 plus the extension number you wish to reach.

   The incoming call rings the destination extension on a line or loop key (at the Trunk ring rate). If unanswered, an OPA call to an extension rings all extensions with ring and access for the trunk.

Description

With Paging, extension users may broadcast announcements to other keyset/ESL extensions and external Paging amplifiers. Page allows a user to locate another employee or make an announcement without calling each extension individually.

There are two types of Paging:
- Internal Page
- External Page

Internal Page
Internal Page allows extension users to broadcast announcements into seven internal Page Zones and All Call (all zone) Page. When a user makes a Page announcement, the announcement broadcasts to all idle extensions in the zone specified. When a user makes an All Call Page, the announcement broadcasts to all keyset/ESL extensions. An All Call Page always overrides an internal Zone Page. An extension can be a member of only one Internal Page zone. The Page announcement cannot be longer than 90 seconds.

Keysets can have programmable keys assigned to Page zones. When the zone is available, the key is dark. When the zone is in use, the key is lit.

External Page
With External Page, a user can broadcast an announcement over paging equipment connected to external Paging ports. When a user pages one of the internal zones, the system sends the announcement to the corresponding external zone as well. All Call broadcasts over all external zones. The system has two external ports. In $\geq$ Aux Module Y2.0/Base Y5.0, the external ports are for zone 1 (main) and zone 2 (expansion). In versions prior to AUX Module Y2.0/Base Y5.0, the external ports are for All Call (main) and zone 1 (expansion).

External Page requires external amplifiers and will disable the fourth trunk circuit on the first CO Module in each CEU. However, you connect to the PA terminals in each CEU (not the trunk). Refer to the system Hardware Manual for External Paging installation details.

Conditions

(A.) The External Paging equipment connected to the unused trunk port must be compatible with the following system specifications:
Output Impedance: 600 Ohms Maximum Input: 3 dBm (1.09 V AC)

Default Configuration

All extensions broadcast and receive All Call and can Page into any zone.

Programming

Required Programming

For Internal and All Call Paging

➢ **"CP- Inhibit Access to Page Zone 3 (BY2:4)"**
Allow/inhibit Paging to zone 3 for extensions with this COS. [0=allow, 1=deny]

➢ **"CP- Inhibit Access to Page Zone 2 (BY2:3)"**
Allow/inhibit Paging to zone 2 for extensions with this COS. [0=allow, 1=deny]

➢ **"CP- Inhibit Access to Page Zone 1 (BY2:2)"**
Allow/inhibit Paging to zone 1 for extensions with this COS. [0=allow, 1=deny]

➢ **"CP- Inhibit Access to All Call Paging (BY2:1)"**
Allow/inhibit All Call Paging for extensions with this COS. [0=allow, 1=deny]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for operators]

➢ **E- Extensions, "E7- Page Zone"**
Assign each extension to an internal Paging zone (01-07, or 00 for All Call only). The extension broadcasts page announcements only for the assigned zone. Each cabinet cannot have more than 36 phones in any one zone.

➢ **E- Extensions, "EF- Paging Through Telephone Speaker"**
For each extension, allow/block Paging announcements through the telephone speaker. [Y=allow, N=deny]

For External Paging

➢ **E- Trunks, "E2- Trunk Circuit Type"**
Program the ports used for External Paging as uninstalled (circuit type X).

➢ **"QM- Music/Relay Control, Enable External Zone 1"**
With Aux Module ≥ Y2.0/Base Y5.0, enter Y to have All Call and zone 1 broadcast over the main CEU PA terminals. In versions earlier than AUX Module Y2.0/Base Y5.0, enter Y to have only All Call broadcast over the main CEU PA terminals.

➢ **"QM- Music/Relay Control, Enable External Zone 2"**
In Aux Module ≥ Y2.0/Base Y5.0, enter Y to have zone 2 and All Call broadcast over the expansion CEU PA terminals. In versions earlier than AUX Module Y2.0/Base Y5.0, enter Y to have zone 1 and All Call broadcast over the expansion CEU PA terminals.

➢ **"QM- Music/Relay Control, External Page Music Gain"**
Adjust the gain for the music that plays over the External Paging ports.
(Program the next two options for each of the four relays.)
[-12 dB loss, -6 dB loss, -3 dB loss, 0 dB, +3 dB gain, +6 dB gain]

➢ **"QM- Music/Relay Control, Relay Control-Pageowner"**
Assign the Pageowner for ringer and page control.

Other Programming

➢ **"KD- Programming Keys for DSS Consoles"**
Assign a key as a Paging key. ["P" + zone # (0-7)]

➢ **"KS- Programming Keys for Keysets"**
Assign a key as a Paging key. ["P" + zone # (0-7)]

➢ **"QM- Music/Relay Control, BGM on External Page Zones"**
Enable/disable Background music on the External Paging zones. [Y=allow, N=deny]

Related Features

"Analog Station Interface (ASI)" / "Off-Premise Extension (OPX)"
Single line (2500 type) telephones can make Page announcements. Single line telephones cannot, however, receive Page announcements.

"Attendant Positions"
An attendant cannot receive a Page announcement.

"Background Music"
The External Paging zones can also broadcast Background Music.

"Call Forwarding Cancel"
A Call Forwarding Cancel will cancel DNDs, Personal Greetings and Selectable Display Messages system- wide.

"Do Not Disturb"
DND blocks Paging announcements.

"External Alerting Devices"
Under certain conditions, External Paging may also activate the external relays.

"Headset Compatibility"
Headset users hear Paging announcements in the headset.

"Night Answer (Off-Hours Ringing)"
Night ringing can broadcast over the All Call External Page port.

"Peripheral Control Unit (PCU) Module"
The PCU External Paging zones are in addition to the external zones provided in the CEU PA terminals.

"Removing Trunks and Extensions from Service"
Removing and extension from service, and then returning it to service cancels Paging.

"Speed Dial"
An extension can have Paging functions on a One-Touch Speed Dial key.

"Tenant Service"
The system sends All Call Paging to all page zones, regardless of tenant assignment.

Feature Operation

To make an All Call Page or a Zone Page:

1. Lift handset.

   If you have a Page key, you can press the key and skip steps 2 and 3 below.

2. Press ICM (skip at ESL set).

   Listen for: *Dial tone*

3. Dial Page Zone access code, as follows:

Page Zone	**Access Code**
All Call	1*
1	2*
2	3*
3	4*
4	5*
5	6*
6	7*
7	8*

   Listen for: *Two beeps*

4. Make announcement.

   If the zone is busy. try later. All Call Page overrides a Zone Page in progress.

5. Hang up.

User-Programmable Feature...
You can allow or deny Pages to your keyset.
PGM# + VP + Y(es) or N(o) + SAVE

PBX/CENTREX COMPATIBILITY

Description

The system trunks can connect to Centrex/PBX lines, rather than to telco trunk circuits. If installed behind a PBX, the trunk inputs into the system are 500/2500 compatible Centrex/PBX extensions. PBX/Centrex Compatibility lets the system be a node in a larger private telephone network. To make the system compatible with a Centrex/PBX, the system administrator:

- Enters the PBX/Centrex trunk access codes into the system
- Designates trunks as PBX/Centrex lines

When behind a Centrex/PBX, the system begins Toll Restriction after the user dials the PBX/Centrex trunk access code. The Centrex/PBX may further restrict the call.

Conditions

None

Default Configuration

No PBX Access Codes programmed.

Programming

Required Programming

➢ **E- Trunks, "E7- Trunk Service Number"**
Enter 11 for each PBX trunk if the system should be Toll Restricted. Otherwise enter 00.

➢ **"QB- PBX Access Codes"**
Designate up to 11 PBX access codes.
[N=no entry, Allowed: 0-99 or a number (0-9) followed by "X" (e.g., 9X allows PBX access codes 90-99)]

Other Programming

➢ **E- Trunks, "E2- Trunk Circuit Type"**
Assign the correct circuit type to each trunk connected to the PBX. (see page 394)

➢ **"KS- Programming Keys for Keysets"**
Program "Feature" keys for complex PBX/Centrex functions.
["F" + line # + definition (0-9, *, #, P=pause, ,D=delay, F=flash)]

➢ **"QT- System Timers, Flash Response Time"**
Program the Flash time for Compatibility with the connected PBX/Centrex. [1-25 tenth seconds]

Related Features

"Automatic Route Selection"
Do not use ARS behind a Centrex/PBX.
A PBX trunk should not normally be in an ARS service group. For ARS to route calls to PBX lines:
- Place the PBX lines in unique service groups
- Have digit insertion (Dial Treatments) insert the PBX access codes for each number dialed

"Centrex Compatible Feature Keys"
Keyset users can have programmable keys assigned to complex PBX/Centrex functions. To implement the function, the user just presses the programmable key.

"Flash"
If the system is behind a PBX, Flash normally gives the extension user access to many PBX features.

"Line (Trunk) Rotaries (Hybrid Only)"
Place PBX lines in their own trunk rotaries.

"Speed Dial"

If a Speed Dial number uses a DP trunk and contains a pause, Pulse to Tone Conversion is automatic. The digits before the pause dial out DP. The digits after the pause dial out DTMF. This may affect PBX/Centrex operation.

"Station Message Detail Recording"

The SMDR report also includes PBX access codes, if dialed.

"Toll Restriction"

If a trunk is a PBX trunk, Toll Restriction begins after the user dials the PBX access code.
If only the PBX/Centrex should apply restriction, make no QB entries but use Type 11 for E7. The system does not apply Toll Restriction to trunks with this programming.

Feature Operation

To place an outside call if the system is behind a PBX/Centrex:

1. Access outside trunk.
2. Dial PBX trunk access code before the number you want to reach.

After you hang up, you must wait about one second before placing your next call on the PBX trunk.

PERIPHERAL CONTROL UNIT (PCU) MODULE

Description

The 12SCU/PCU Peripheral Control Unit (PCU) Module (P/N 88530) provides 12 digital station ports and gives the DS01 system the following additional features:

- **Two External Paging Zones** [1]

Each PCU provides two External Paging zones with associated control circuits. These zones are in addition to the external zones in each CEU. When a user calls the external zone, the system automatically activates the associated PCU control circuits.

- **Tone Decoder** [1]

The PCU Module has an internal Tone Decoder that you can use for DTMF detection. You'll need DTMF detection if your system has DISA trunks connected.

- **On-Premise 500/2500 Type Telephone Connection** [1]

You can connect up to two single line (500 or 2500 type) telephones to each PCU. Both phones share the same circuit for "party line" type operation. The On-Premise (ONS) connection cannot provide for a Voice Mail interface.

- **Fax Switching** [1]

With the Fax Switching feature, the PCU answers an incoming call and listens for fax tone. If it hears the tone, the PCU switches automatically to the fax machine. If it doesn't hear the tone, the PCU continues to ring the connected modem or single line telephone.

- **Alarm Sensor**

Each PCU has an Alarm Sensor that you can connect to either a Normally Open or Normally Closed dry alarm relay contact. When the alarm activates, the system alerts selected extensions with a distinctive signal. *You can use the Alarm Sensor function with either the External Paging, Tone Decoding, On-Premise Telephones or Fax Switching functions.*

CAUTION: Refer to the PCU Module Installation and Programming Instructions (P/N N1853PCU02) for details before connecting to the PCU.

Conditions

(A.) The PCU requires an AUX Module with software version Y2.1 or higher.
(B.) The PCU ONS ports use the last numbers in the system's extension number plan. For example, a system with four PCU Modules installed loses the last four extension numbers to the PCUs.
(C.) In a 24x72 system, do not install a SCU/PCU Module in the second expansion CEU.

Default Configuration

No PCUs installed.

Programming

Required Programming

➢ **E- Extensions, "E2- Extension Circuit Type"**
Check to be sure the PCU Module circuit type is 51. The module should auto ID.

➢ **"QV- Peripheral Ports, PCU Circuit Type"**
To designate the PCU for External Paging, enter 1.
To designate the PCU for Tone Decoding, enter 2.

[1] The PCU can have ***one*** of the following four options enabled: External Paging, Tone Decoder, ONS Telephones or Fax Switching. Enabling one option disables the other three.

To designate the PCU for ONS 2500 sets, enter 3.
To designate the PCU for ONS 500 sets, enter 4.
To designate the PCU for fax/modem switching, enter 5.
To designate the PCU for fax/telephone switching, enter 6.

➢ **"QV- Peripheral Ports, PCU Sensor"**
For each sensor (1-4), enter 0 if sensor is connected to a Normally Open alarm contact. Enter 1 if sensor is connected to a Normally closed alarm contact.

➢ **"QV- Peripheral Ports, PCU Sensor Control"**
For each extension and each sensor (1-4), enter Y if activating the sensor should alert the extension. Enter N if activating the sensor should not alert the extension.

Other Programming

None

Related Features

"Paging"
The PCU External Paging zones are in addition to the external zones provided in the CEU PA terminals.

Feature Operation

To make an External Paging Announcement to a PCU Module Page zone:

1. Lift handset and press ICM.
   Listen for: *Dial tone*
2. Dial the PCU External Paging zone code (see below)

SCU/PCU External Page Extension Numbers			
CEU	**Module**	**Software Y2.1**	**Software Y3.1**
Main	Inside	Primary = 372 Secondary = 373	Primary = 404 Secondary = 405
	Outside	Primary = 374 Secondary = 375	Primary = 406 Secondary = 407
EXP 1	Inside	Primary = 376 Secondary = 377	Primary = 408 Secondary = 409
	Outside	Primary = 378 Secondary = 379	Primary = 410 Secondary = 411

3. Make announcement.

To place a call from the PCU on-premise telephone:

1. Lift handset.
   If you don't hear dial tone, the other PCU on-premise telephone is busy on a call. You must wait for that user to hang up.
2. Dial extension, trunk group access code (9, or 90-99), line number (e.g., 801) or line extension number.

To answer a call from the PCU on-premise telephone:

Only the telephone connected to the Primary PCU port rings.

1. Lift handset.

The chart below shows the PCU on-premise extension numbers.

SCU/PCU OPX Extension Numbers		
Module	**Software Y2.1**	**Software Y3.1**
Main CEU (Inside)	344	368
Main CEU (Outside)	345	369
Exp 1 CEU (Inside)	346	370
Exp 1 CEU (Outside)	347	371

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

An extension user can record a Personal Greeting (i.e., brief message) for their extension. Once recorded, callers to the extension hear the Personal Greeting. Additionally, Personal Greeting can automatically forward calls to a specified extension after the recorded greeting plays. The user can have the recorded greeting optionally play for all calls or just Intercom calls.

Personal Greeting lets extension users handle their unanswered calls with a personal touch. For example, a user (e.g., Fred Jones) could record, "Hello, this is Fred Jones. I'm on vacation this week and John Smith will be handling my calls. Thank you." Fred could then redirect his calls to John Smith's extension. Callers to Fred's phone would first hear his recorded message. The system would then send them to John's phone.

Personal Greetings requires a VMU. There are three broadcast channels and two record channels on the VMU module. This means that the system can play three greetings and record two greetings at the same time. The system queues users for an available record channel by consecutive extension number. The queued users hear ringing while waiting.

Conditions

(A.) Personal Greetings cannot be longer than 16 seconds. The total of all Personal Greetings cannot exceed 256 seconds.
(B.) Personal Greetings are lost when power fails.

Default Configuration

No Personal Greetings recorded.

Programming

Required Programming

None

Other Programming

- **"CP- Inhibit Call Forwarding (BY0:6)"**
  Enable this option (0) if extensions with this COS should be able to use Personal Greeting. [1=disable]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]

Related Features

"Attendant Positions"
The attendant cannot record a Personal Greeting. Also, an extension user should not have Personal Greeting automatically Call Forward to an attendant.

"Call Forwarding" / "Selectable Display Messages"
Personal Greeting cancels a Call Forwarding or Selectable Display Message in effect at an extension.

"Call Forwarding Cancel"
A Call Forwarding Cancel will cancel Personal Greeting, Call Forwarding, DNDs and Selectable Display Messages system-wide.

PERSONAL GREETING

"Central Office Calls, Answering" / "Direct Inward Line (DIL)" / "Transfer"

Outside calls ringing an extension directly (either DILs or via Transfer) hear the Personal Greeting, if enabled. The outside call then rings the specified extension. If there is no specified extension, the call rings all extensions with ringing for the trunk. Outside calls ringing a line key don't activate Personal Greeting.

"Microphone Mute"

Turning off Microphone Mute (if enabled) automatically cancels Personal Greeting.

"Removing Trunks and Extensions from Service"

Removing and extension from service, and then returning it to service cancels Personal Greeting (if activated).

"Voice Module Unit (VMU)"

Personal Greeting is available with the AUX Module $\geq$ 02.10.

"Voice Prompting Messages"

An extension user can record a personalized voice message for their callers.

Feature Operation

To record a Personal Greeting:

If you already have a Personal Greeting recorded, the new greeting replaces the old.

1. Lift handset.
2. Press ICM.

   Listen for: Dial tone

   If you have an ESL set, skip this step.
3. Press PGM#.

   Listen for: Dial tone stops
4. Dial 68.
5. Dial Personal Greeting option:

   The options are:

   2 All Calls forwarded, greeting plays for all callers (and Transfer screens)

   4 All Calls forwarded, greeting for Intercom calls only

   A voice message asks you to start recording.

   If you hear, "Audio file is full," you cannot record a Personal Greeting. The system greeting total exceeds 256 seconds. Go to "To cancel your Personal Greeting" and cancel your greeting.
6. Start recording when you hear the beep.

   Your Personal Greeting cannot be longer than 16 seconds.
7. (Optional) Dial the number of the extension that should receive your calls.

   If you skip this step, callers just hear your message.

   The forwarding assignment remains until you cancel it, even if the VAU fails or is removed.

   Calls can not be forwarded to an attendant or from an ASI.
8. Hang up.

To cancel your Personal Greeting:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Press PGM#.

   Listen for: *Dial tone stops*
4. Hang up.

   If you want to use Personal Greeting again, you'll have to record a new greeting.

To erase all Personal Greetings system-wide (from your attendant or ACD Supervisor extension):

This also erases all the system's Operator Assistance messages and the ACD All Agents Busy announcement.

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*
3. Press PGM#.

   Listen for: *Dial tone stops*
4. Dial 68.
5. Press PGM#, 9.

   Listen for: *Dial tone*

   To cancel this procedure, dial 6.

PRIME LINE SELECTION

Description

Prime Line Selection lets a keyset user answer or place an outside call by just lifting the handset. The user does not have to first press a line key. This simplifies handling calls on a frequently used trunk. There are two types of Prime Line Selection: Ringing Prime Line and Idle Prime Line.

Ringing Prime Line
With Ringing Prime Line, the user just lifts the handset to answer a call ringing or flashing the Prime Line key. To place a call on an idle Prime Line key, the user must lift the handset and press the key.

Idle Prime Line
Idle Prime Line lets the user place or answer a Prime Line key call by just lifting the handset.

Conditions

More than one extension can have a Prime Line key for the same trunk. The trunk should not, however, also be a DIL to one of the extensions.

Default Configuration

No Prime Lines defined.

Programming

Required Programming

- **E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"**
  The extension must have outbound line key access to use the Prime Line key for placing calls. [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  The extension must have access for the trunk appearing on the Prime Line key. [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  For outgoing calls, the extension must have call-out enabled for the trunk appearing on the Prime Line key. [Y=allow, N=deny]
- **E- Extensions, "EL- Prime Line Key"**
  Enter the Prime Line key number (1-24), followed by the option. The options are:
  R - Ringing Prime Line
  I - Idle Prime Line
- **"KS- Programming Keys for Keysets"**
  Program the Prime Line key as a line key. [enter line #]

Other Programming

None

Related Features

"Attendant Positions"
Prime Line Selection does not apply to an attendant in the headset mode.

"Class of Service" / "Night Answer (Off-Hours Ringing)" / "Toll Restriction"
If an extension's COS has CP- Allow Only Intercom Calls at Night (BY0:2=1), the extension cannot use Prime Line Selection at night.

"Dialing Number Preview"
If an extension has Prime Line Selection, the system selects the Prime Line when the user presses DIAL.

"Headset Compatibility"
Prime Line Selection does not apply to an attendant in the headset mode.

"Ringing Line Preference"
Ringing Line Preference overrides Prime Line Selection.

"Speed Dial"
Prime Lines cannot use system Speed Dial.

Feature Operation

To answer a Prime Line key call:

1. Lift handset.
   Listen for: *Conversation with caller*

To place a Prime Line key call (if your extension has Ringing Prime Line):

1. Lift handset.
2. Press Prime Line key.
   Listen for: *Dial tone*

To place a Prime Line key call (if your extension has Idle Prime Line):

1. Lift handset.
   Listen for: *Dial tone*

To place a call other than on your Prime Line key (if your extension has Idle Prime Line):

1. Preselect line key or press ICM.
   Listen for: *Dial tone*

User-Programmable Feature...
You may be able to assign Prime Lines for your keyset.
PGM# + PLA + Line key + Y(es) or N(o) + SAVE

PRIVACY

Description

An extension with Privacy blocks incoming Intrusion (Barge-In) attempts, Silent Monitor and Call Waiting (Camp-On) signals. Privacy helps extension users that don't want their conversations interrupted.

Conditions

While on an Intercom call, a user with Privacy will hear Barge-In and Call Waiting directed to the other extension. However, this will not occur if the other extension also has Privacy enabled.

Default Configuration

Extensions do not have Privacy.

Programming

Required Programming

- **"CP- Allow Privacy (BY1:6)"**
  Enable/disable Privacy for extensions with this Class of Service. [1=enable, 0=disable]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27]

Other Programming

None

Related Features

"Attendant Positions"
Since the attendant is never busy for Intercom calls, the attendant always has Privacy.

"Call Waiting (Camp-On)"
Privacy blocks Call Waiting (Camp-On) tones.

"Intrusion (Barge-In)"
An extension user cannot Intrude on an extension with Privacy.

"Off-Hook Signaling"
Privacy does not block Off-Hook Signaling.

"Silent Monitor"
Privacy blocks Silent Monitor. An extension with Privacy cannot have its conversations monitored.

"Transfer"
An extension with Privacy does not hear camp-on tones when a Transferred call is waiting.

Feature Operation

None

Description

The system administrator can program keysets into Privacy Release Groups. When an extension is in a Privacy Release Group, the user can enter another group member's outside call unannounced and uninvited. To join the call, the user just presses the line key. Privacy Release Groups provide simplified Conferencing on outside calls for co-workers that often must share calls.

If desired, a Privacy Release Group member can prevent Privacy Release Group interruptions for their active call. This ensures that group members will not interrupt confidential calls.

In addition to Privacy Release Groups, the following features also allow three-party calls:

- Conference
- Intrusion
- Meet-Me-Conference
- Tandem Calls

Conditions

When a Privacy Release Group member joins an outside call, it creates a three-party call. The system allows eight simultaneous three-party calls.

Default Configuration

No Privacy Release Groups defined.

Programming

Required Programming

➢ **E- Extensions, "EC- Privacy Release Group"**
Assign an extension to a Privacy Release Group [01-99].

➢ **"KS- Programming Keys for Keysets"**
Privacy Release Group members must have line keys. (enter line #]

Other Programming

➢ **E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"**
Privacy Release Group members must have key access to outbound trunks. [Y=enable, N=disable]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
A Privacy Release Group member must have access to join a conversation on a trunk. [Y=enable, N=disable]

Related Features

"Conference"
A Privacy Release Group member cannot join a Conference call.

PRIVACY RELEASE GROUPS

Feature Operation

To join a conversation with a member of your Privacy Release Group:

If the group member just placed the call, you must wait six seconds before joining it.

1. Lift handset.
2. Press line key.

   Listen for: *Join conversation in progress*

To prevent a member of your Privacy Release Group from interrupting your call:

This prevents members of your group from joining your call.

1. Establish call on line key.

   Listen for: *Conversation with caller*

2. Press line key for call you are on.

Description

A Private Line is a trunk reserved for a single or group of keysets for placing and answering calls. A user with a Private Line knows when important calls are for them. Additionally, the user has their own trunk for placing calls that is not available to others in the system.

There are three types of Private Lines:

- Incoming only - The keyset has a Private Line only for incoming calls. The user cannot place a call on the Private Line.
- Outgoing only - The keyset has a Private Line only for outgoing calls. The Private Line does not ring for incoming calls.
- Both ways - The keyset has a Private Line for both incoming and outgoing calls.

Conditions

None

Default Configuration

No Private Lines assigned.

Programming

Required Programming

➢ **E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"**
Enable outbound access to allow the keyset user to place calls on the Private Line (if also allowed by ED programming).
[Y=allow, N=deny]

➢ **E- Extensions, "ED- Trunk Control, Ring Control"**
Enable/disable ringing for the Private Line. Assign ringing only for those extensions that have the Private Line.
[R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
Assign access for each Private Line. Assign access only for those extensions that have the Private Line.
[Y=allow, N=deny]

➢ **E- Extensions, "ED- Trunk Control, Call-Out Control"**
Enable call-out if the extension user should be able to place calls on the Private Line. Enable callout only for those extensions that have the Private Line. [Y=allow, N=deny]

➢ **E- Trunks, "E2- Trunk Circuit Type"**
Program correct circuit type for Private Lines. (see page 394)

➢ **"KS- Programming Keys for Keysets"**
Assign the Private Line to a programmable key. Assign the key only on those extensions that should have the Private Line. [enter line #]

Other Programming

➢ **"NP- Programming Names and Messages"**
Assign names to incoming Private Lines. The name displays after a display telephone user answers a call on the Private Line. [16 digits maximum]

PRIVATE LINE

Related Features

"Direct Station Selection, DSS Console"
The Attendant and DSS Consoles can have keys assigned as Private Line keys.

"Automatic Handsfree"
If the system has Automatic Handsfree, an extension user can answer the Private Line by pressing the line key.

"Automatic Route Selection" / "Toll Restriction"
The system applies the same ARS and Toll Restriction to Private Lines as it applies to other trunks.

"Call Forwarding"
An extension user cannot forward a Private Line. If you need to forward private calls, consider using a Direct Inward Line with restricted access.

"Call Parking"
An extension must have access to a Private Line to be able to pick it up from a Park Orbit.

"Direct Inward Line (DIL)"
A DIL is a trunk that directly rings an extension, ACD group, UCD group or Ring Group. This feature allows Call Forwarding whereas Private Line does not.

"Extension Hunting"
Private Lines do not initiate hunting unless transferred.

"Group Ring (Ring Groups)"
Private Lines can activate Group Ring, if programmed.

"Hold"
A Private Line placed on Hold and forgotten recalls the extension that placed it on Hold. If still not picked up, it also recalls those extensions that share it (if any).

"Last Number Redial" / "Save" / "Speed Dial"
An extension user can have these features dial out on a Private Line.

"Line (Trunk) Rotaries (Hybrid Only)"
Avoid including Private Lines in trunk rotaries. This maximizes their availability to those extensions that have the Private Line.

"Night Answer (Off-Hours Ringing)"
Night Answer can redirect Private Lines at night (off hours).

"Prime Line Selection"
A keyset user can have Prime Line Selection simplify placing and answering calls on their Private Line.

"Privacy Release Groups"
To ensure privacy on Private Lines, avoid putting them in Privacy Release Groups.

"Toll Restriction"

Toll Restriction works normally on Private Lines.

"Transfer"

A keyset user can Transfer a Private Line to any extension. The destination extension does not need access to the Private Line. If unanswered, the Private Line only recalls to the Transferring extension and the extensions that share it.

Feature Operation

To answer a call on your Private Line:

Listen for: *Trunk ring*

1. Lift handset.
2. Press Private Line key.

Listen for: *Conversation with caller*

To place a call on your Private Line:

1. Lift handset.
2. Press Private Line key.

Listen for: *Dial tone*

3. Dial number.

PROGRAMMABLE KEYS

Description

Each keyset has programmable keys. Programmable keys simplify placing calls, answering calls and using certain features. The system administrator can customize the function of the programmable keys from the programming terminal. The chart below shows the programmable key functions and their corresponding features.

Key	**Feature**
Extension Speed Dial	Speed Dial
Feature	Centrex Feature Keys
Fixed Loop	Central Office Calls
Group Pickup	Group Call Pickup
Hotline	Hotline
Line	Central Office Calls
Orbit	Call Parking
Page	Paging
Record	Voice Mail Compatibility
Station Pickup	Call Coverage
Switched Loop	Central Office Calls
System Speed Dial	Speed Dial
Timer	Call Timer

On keysets, some programmable keys may have two additional functions. Keys 1-16 become Speed Dial keys when the user presses DIAL. Keys 1-15 become DSS keys when the user presses ICM. Refer to the Speed Dial and Direct Station Selection, Extension features for the specifics.

Conditions

None

Default Configuration

- The keyset has keys 1-16 assigned as line keys for trunks 1-16.

Programming

Required Programming

➢ **"KS- Programming Keys for Keysets"**
Assign a keyset's programmable keys. (see page 439)

Other Programming

Refer to the individual features.

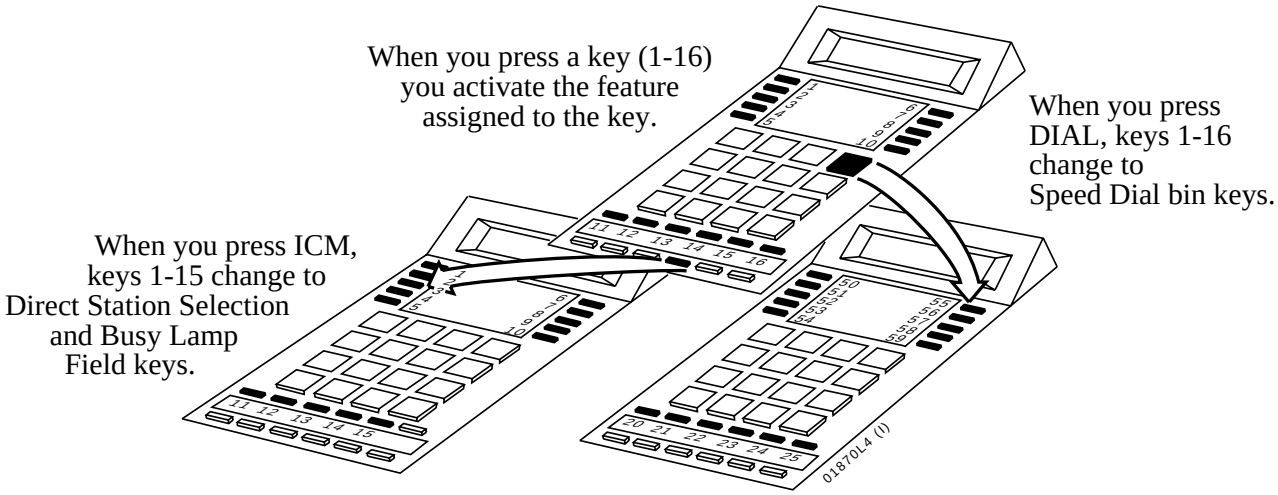
Related Features

"Speed Dial"

An extension can have a programmable key for Extension and/or System Speed Dial. However, if the system has four-digit extension Speed Dial numbers, you cannot assign numbers above 7255 to keys.

Feature Operation

Using Your Programmable Keys



Refer to the individual features for the specifics.

RELEASE KEY

Description

The last button on the DSS Console is the RLS (Release) key. The keyset user or attendant can press this key to disconnect a call, instead of hanging up the handset. The Release Key is a convenience if the user is in the handset mode and wants to immediately place another call.

If the keyset is in the headset mode (and is not an attendant), the HF key functions as the Release key. While in the headset mode, attendants must use the RLS key to hang up calls.

Conditions

None

Default Configuration

Key 80 on the DSS Console is always the RLS (Release) key.

Programming

Required Programming

➢ **E- Extensions, "EF- Headset Mode"**
Enable headset mode for each keyset that has a headset. On non-attendant keysets, the HF key becomes the Release key. [Y=enable, N=disable]

Other Programming

➢ **"KD- Programming Keys for DSS Consoles"**
Assign consoles to extensions and program DSS Console keys. (see page 435)

Related Features

"Automatic Fault Reporting/Remote Maintenance"
The attendant can use the RLS key on the DSS Console to clear the alarm display.

"Headset Compatibility"
If a non-attendant keyset is in the headset mode, the HF key functions as the Release key. Attendants must use the RLS key to hang up calls.

Feature Operation

To disconnect the call you are on:

1. Press RLS on your DSS Console.

RELEASE KEY

- For Your Notes -

REMOVING TRUNKS AND EXTENSIONS FROM SERVICE

Description

The attendant can remove problem trunks and extensions from service. The trunk or extension must be idle. This helps the attendant ensure maximum system performance. For example, the attendant can busy-out a noisy trunk or problem extension until service personnel can repair the problem. The trunk or extension then appears busy to all callers. Following repair, the system administrator (from the programming terminal) or attendant can return the extension or trunk to service.

The extension or trunk removed from service shows as busy on the appropriate telephone keys (e.g., line, Hot-line, or DSS key). When the attendant removes a trunk from service, the corresponding LED on the trunk card goes on.

Conditions

On power up, the system automatically does a side tone test on each trunk. Refer to IS- Side Tone Test for more information.

Default Configuration

All attendants can remove trunks and extensions from service.

Programming

Required Programming

- **"CP- Inhibit Call Forwarding (BY0:6)"**
  The attendant must have Call Forwarding capability (in COS 0) to remove trunks and extensions from service. The system automatically assigns COS 30 to attendants. COS 30 uses COS 0 programming. [0=allow Call Forwarding 1=deny Call Forwarding]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]

Other Programming

- **"IP- Port Release"**
  This utility lets the system administrator return a trunk or extension to service from the programming terminal.
- **"QC- Operator Programming, Operator Extensions"**
  Designate attendant extensions.

Related Features

"Automatic Fault Reporting/Remote Maintenance"
The attendant's alarm display can indicate faulty extensions or trunks.

"Call Forwarding" / "Paging" / "Personal Greeting" / "Selectable Display Messages"
Removing an extension from service, and then returning it to service cancels these features (if activated).

"Direct Trunk Access"
If Direct Trunk Access uncovers a defective trunk, the attendant can remove it from service.

REMOVING TRUNKS AND EXTENSIONS FROM SERVICE

Feature Operation

To remove a problem trunk or extension from service (from your attendant's extension):

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial trunk or extension number.
   Use the trunk extension numbers (e.g., 348), not the trunk number (e.g., 801).
5. Dial 0.
   Listen for: *Dial tone*

To return a trunk or extension to service (from your attendant's extension):

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial trunk or extension number.
   Use the trunk extension numbers (e.g., 348), not the trunk number (e.g., 801).
5. Hang up.

RINGING LINE PREFERENCE

Description

Ringing Line Preference lets a keyset user answer a ringing call by just lifting the handset. For a user that primarily answers calls, Ringing Line Preference ensures that ringing calls have priority.

Conditions

If an extension has more than one call ringing its programmable keys, the system answers the call on the lowest numbered key first.

Default Configuration

Ringing Line Preference disabled.

Programming

Required Programming

- **E- Extensions, "E8- Line Access Options, Ringing Line Preference"**
  Enable/disable Ringing Line Preference for each extension. This option applies to all calls ringing the extension. [Y=enable, N=disable]
- **"KS- Programming Keys for Keysets"**
  Program the line and loop keys that will ring the extension.
  [Enter line # for line, "9"=switched loop, "9" and a line group # (0-8)=fixed loop]

Other Programming

- **E- Extensions, "ED- Trunk Control, Ring Control"**
  Designate which trunks should ring the keyset.
  [R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  Assign access for the trunks the extension should be able to answer. [Y=enable, N=disable]
- **E- Trunks, "E9- Direct Trunk Termination"**
  Direct Inward Lines can also ring an extension directly. Use this option to assign the DIL destination.

Related Features

"Attendant Positions"
Intercom calls to an attendant follow E8- Ringing Line Preference programming. Normally, attendants should not have Ringing Line Preference. If they do, with Base $\geq$ 02.00/AUX 02.10, the call is answered just like any other type of incoming call. In previous software versions, the attendant's telephone would emit a short tone whenever the attendant lifted the handset to answer a Ringing Line Preference call.

"Automatic Handsfree"
With Ringing Line Preference, an extension user can press HF to answer a ringing call if their extension has Automatic Handsfree.

"Call Coverage Keys"
A ringing Call Coverage Key will not activate Ringing Line Preference.

"Call Waiting (Camp-On)"
A keyset with Ringing Line Preference answers camped-on calls on a first in-first out basis.

"Central Office Calls, Answering"
A keyset user can answer a ringing call by just lifting the handset.

"Group Call Pickup"
A ringing group Call Pickup key will not activate Ringing Line Preference.

"Group Ring (Ring Groups)"
If an extension with Ringing Line Preference has a Group Ring call and an outside call ringing, the extension answers the Group Ring call first.

"Headset Compatibility"
An attendant with a headset should not also have Ringing Line Preference.

RINGING LINE PREFERENCE

"Intercom"
If an extension has an Intercom and an outside call ringing, Ringing Line Preference answers the Intercom call.

"Night Answer (Off-Hours Ringing)"
Ringing Line Preference lets a keyset user answer a night mode call just by lifting the handset.

"Prime Line Selection"
Ringing Line Preference overrides Prime Line Selection,therefore, put the Prime Line on the lowest key..

Feature Operation

To answer a call using Ringing Line Preference (from your keyset):

Listen for: *Trunk or ICM*

1. Lift handset.

Listen for: *Conversation with caller*

To place a call if you have Ringing Line Preference (and a call is already ringing):

1. Press line key or ICM before lifting the handset.

User-Programmable Feature...
You can allow or deny Ringing Line Preference for your keyset.
PGM# + RLP + Y(es) or N(o) + SAVE

Description

Save permits a keyset user to save their last outside number and easily redial it later on. For example, an extension user can recall a busy or unanswered number without manually dialing the digits. The system retains the saved number until the user stores a new one in its place.

Save can retain a number up to 24 digits long. The number can be any combination of digits 0-9, # or *. Normally, the system uses the same trunk (or rotary) for Save as the user selected for the initial call. The user can, however, select a different trunk before implementing Save.

Conditions

(A.) A Saved number is lost when the system resets or AC power fails. A system reset also erases the stored numbers.

(B.) When a telephone number is manually dialed the DTMF on tones = 250 mS. When the system redials the DTMF on tones = 135 mS.

Default Configuration

Save always allowed.

Programming

Required Programming

None

Other Programming

➢ **"QX- Suppress '#' When Speed Dialing"**
Allow or prevent the system from outdialing a # if dialed as part of the initial call.
[Y=# suppressed, N=# not suppressed]

Related Features

"Automatic Route Selection" / "Toll Restriction"
The system subjects a saved number to the same routing and restriction as if the user manually dialed. The system always routes a saved number through ARS, unless the user manually selects a trunk.

"Central Office Calls, Placing"
This feature gives extension users convenient options to dialing manually.

"Last Number Redial"
Last Number Redial also simplifies recalling a busy or unanswered call.

"Line (Trunk) Queuing"
If a user hears busy tone after trying to dial a saved number, the user may queue for an available trunk.

"Toll Restriction"
If you don't dial enough digits (as determined by your Toll Restriction programming), Save will not retain the digits you dial.

"Walking Class of Service"
If an extension user implements Walking Class of Service to place a call, Last Number Redial and Save can redial it.

SAVE

Feature Operation

To Save an outside number any time after placing a call:

1. Do not hang up.
2. Press DIAL.
3. Press SAVE.

To dial a Saved outside number:

To use a different trunk than the initial call, select a different trunk or rotary before going to step 1.

1. Lift handset.
2. Press DIAL.

   Listen for: *Dial tone*
3. Press SAVE.

   Listen for: *Stored number dialing out*

   If you hear busy tone, press an idle line key. Your call dials out automatically.[1]

[1] To do this, you must have:

- Line/loop keys programmed (see KS-Programming Keys for Keysets)
- Key access to outbound trunks (see E8-Key Access to Outbound Lines)
- (Optional) Access to Trunk Groups (see E8- Access to Groups 90-95)

SELECTABLE DISPLAY MESSAGES

Description

An extension user can select one of 16 preprogrammed Selectable Display Messages for their extension. Display keyset callers see the selected message when they call the user's extension. Selectable Display Messages provide personalized messaging. For example, Fred Jones could select the message, "On vacation." Any display keyset user calling Fred would see the message and know why he doesn't answer. Other than displaying the message, the system puts the call through normally.

The system administrator can program up to 16 messages from the programming terminal. Each message can be up to 16 digits long.

An extension user can add digits to (append) the first eight Selectable Display Messages (00-07). For example, the administrator could program message 00 with, "Call." An extension user could select this message and add the numbers where they can be reached (e.g., 926-5400). Callers to the extension would see, "Call 926-5400." The original message plus the appended digits cannot exceed 16 digits.

Conditions

(A.) Any number of extensions can choose the same message. However, a single extension can choose only one message. The appended part of messages 00-07 can be different for each extension.

(B.) A power failure cancels Selectable Display Messages. A reset also cancels Selectable Display Messages.

Default Configuration

No Selectable Display Messages programmed.

Systems without AUX Modules have 16 preset messages. They are:

00=CALL	08=BACK BY 10AM
01=BACK BY	09=BACK BY 11AM
02=MEETING IN RM	10=BACK BY NOON
03=OUT TO LUNCH	11=BACK BY 2PM
04=GONE FOR THE DAY	12=BACK BY 4PM
05=ON VACATION	13=BACK TOMORROW
06=ON BUSINESS TRIP	14=BACK NEXT WEEK
07=IN THE MEETING	15=HAVE A GOOD DAY

Installing an AUX Module and initializing erases the preset messages.

Programming

Required Programming

➢ **"NP- Programming Names and Messages"**
Program up to 16 Selectable Display Messages. From the terminal, messages 00-15 are numbered 600-615. Users can append messages 600-607 (00-07) by dialing additional digits. [16 digits maximum]

Other Programming

➢ **"CP- Inhibit Call Forwarding (BY0:6)"**
Disable this option (0) for each COS with Selectable Display Messaging capability.
[0=allow Call Forwarding, 1=deny Call Forwarding]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for operators]

SELECTABLE DISPLAY MESSAGES

Related Features

"Call Forwarding" / "Paging" / "Personal Greeting"

Enabling Selectable Display Messages cancels a Call Forwarding or Personal Greeting in effect at an extension.

"Call Forwarding Cancel"

Call Forwarding Cancel will cancel DNDs, Personal Greetings and Selectable Display Messages system-wide.

"Microphone Mute"

Turning off Microphone Mute (if enabled) automatically cancels Call Forwarding, Personal Greeting, Selectable Display Messages.

"Removing Trunks and Extensions from Service"

Removing an extension from service, and then returning it to service cancels Call Forwarding, Paging, Personal Greeting and Selectable Display Messages.

"Speed Dial"

An extension user can have a One-Touch Speed Dial key for Selectable Display Messaging.

"Voice Prompting Messages"

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

If an extension user activates Selectable Display Message, a voice prompt periodically announces, "Your calls have been forwarded." Voice Prompting Messages requires a VMU.

Feature Operation

To select a Display Message (by dialing the message number):

1. Lift handset.
2. Press ICM.

   Listen for: Dial tone

   If you have an ESL set, skip this step.
3. Press PGM#.

   Listen for: Dial tone stops
4. Dial 6.
5. Dial the number of the Selectable Display Message (00-15).

   If you select a message from 00-07, you can add digits to the message. The total message (including the digits you add) cannot exceed 16 digits.
6. Hang up.

To select a Display Message (by scrolling through the messages at a keyset):

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*
3. Press PGM#.

   Listen for: *Dial tone stops*
4. Dial 6.
5. Scroll through the messages using VOL UP or VOL DN.

   If you select a message from 00-07, you can add digits to the message. The total message (including the digits you add) cannot exceed 16 digits.
6. Press DIAL, SAVE.

   If you append a message from 00-07, skip this step.
7. Hang up.

To cancel a Selectable Display Message you enabled for your extension:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step.
3. Press PGM#.

   Listen for: *Dial tone stops*
4. Hang up.

SILENT MONITOR

Description

Silent Monitor lets an extension user listen to the conversation at a busy extension. To implement Silent Monitor, an extension user just calls a busy extension and dials the Silent Monitor code. The busy extension and their caller have no indication of the intrusion. There are no tones heard and there is no visual indication that monitoring is occurring. For example, Silent Monitor could help the supervisor of a service department. The department supervisor could listen to the questions that callers ask without disturbing the service call.

An extension in a Pickup Group can only monitor other extensions in their Pickup Group (see Group Call Pickup). However, an extension not assigned to a Pickup Group (00) can monitor any system extension.

CAUTION:
Silent Monitor provides no warning tones prior to Intrusion. Silent Monitor may be interpreted as an invasion of privacy.

Conditions

None

Default Configuration

Silent Monitor not allowed.

Programming

Required Programming

- **"CP- Allow Silent Monitor (BY2:5)"**
  Enable/Disable the ability to initiate Silent Monitor in an extension's Class of Service. [1=allow, 0=deny]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]
- **E- Extensions, "EC- Extension Call Pickup Group"**
  Assign the Group Call Pickup number to extensions. [01-23, 00 for no group]

Other Programming

None

Related Features

"Direct Inward System Access (DISA)"
Silent Monitor is not available on DISA calls.

"Group Call Pickup"
An extension can only monitor other extensions in their Pickup Group. An extension not assigned to a group (00) can monitor any system extension.

"Intercom"
When monitoring Intercom calls, the monitoring user hears only the conversation into the busy extension. The monitoring user does not hear the busy extension user's voice.

"Privacy"
Privacy blocks Silent Monitor. An extension with Privacy cannot have its conversations monitored.

Feature Operation

To use Silent Monitor to listen to the conversation received by another extension:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*

   If you have an ESL set, skip this step, but dial # instead.
3. Dial # and the number of extension you want to monitor.

   Listen for: *Busy tone*
4. Dial 6.

   You can listen to the conversation coming into the extension you called. You cannot hear that extension user talk.

To cancel Silent Monitor:

1. Hang up.

SPECIAL SERVICES AND OCC COMPATIBILITY

Description

The system is compatible with special long distance services such as MCI or GTE Sprint. The system administrator can use special services to save money on long distance calls. An extension user can access these services in two ways:

- Manually dial the special service access and security codes (refer to the Central Office Calls, Placing feature)
- Store the access and security codes in a Speed Dial bin

When using Extension Speed Dial, the user typically stores a pause between the special service access and security codes. The system will dial the access code and automatically wait for the second dial tone from the special service. When the system detects the second dial tone, it dials out the rest of the Speed Dial number. Refer to the Speed Dial feature for more details.

Optionally, the system administrator can store the OCC access and security codes in a System Speed Dial bin. This allows every user quick access to the Special Service.

To ensure that a user can dial additional digits after the special service answers, each extension should have Continued Dialing. With Continued Dialing, the telephone outputs a digit over a trunk each time the user presses a dial pad key. The system never turns off the dial pad. The system administrator enables Continued Dialing by:

- Giving the extension's Class of Service Toll Restriction Level 0

  OR

- Giving the extension's Class of Service Toll Restriction Level 1-7 an active dial pad

Conditions

None

Default Configuration

System is always compatible with special services.

Programming

Required Programming

➢ **"AP- Allow Active Dial Pad"**
For Toll Restriction Levels other than 0, enable Active Dial Pad. This lets extension users dial additional digits into the special service. [Y=allow, N=deny]

➢ **"CP- Extension Toll Restriction Level (BY1:0-2)"**
- Toll Restriction Level 0 (dial pad always active)
- Toll Restriction Level with an Active Dial Pad (AP) enabled.

[0-7]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for operators]

➢ **E- Trunks, "E2- Trunk Circuit Type"**
Program Special Service trunks with the correct circuit type. (see page 394)

➢ **"QT- System Timers, Dialtone Detection Counter"**
Set how long the system waits for second (OCC) dial tone. This only occurs when the system encounters a pause in a Speed Dial bin. [1-6]

Other Programming

None

Related Features

"Analog Station Interface (ASI)" / "Direct Inward System Access (DISA)" / "Off-Premise Extension (OPX)"

The system always allows Continued Dialing for ASI and OPX extensions and DISA callers.

"Automatic Route Selection"

ARS can have digit insertion/dialing translation capabilities. This makes selecting special services for outgoing calls transparent to extension users.

"DP and DTMF Compatibility"

After a special service answers, it requires DTMF signaling. Pulse to Tone Conversion lets a user dial a special service from a DP area.

"Line (Trunk) Rotaries (Hybrid Only)"

Special Services trunks should be in the same trunk rotary. The system allows up to nine rotaries.

"Speed Dial"

The system does not restrict special service access and security codes stored in System Speed Dial bins. The system always allows Continued Dialing via chaining Speed Dial bins.

"Station Message Detail Recording"

In the following applications, the highlighted portions of the numbers print on the SMDR report:
(OCC Local Number) + Pause + (1+NPA+NNX+NNNN) + Pause + (Security Code)
(OCC Local Number) + Pause + (Security Code) + Pause + (1+NPA+NNX+NNNN)
(0+NPA+NNX+NNNN) + Pause + (Credit Card Number)

"Toll Restriction"

Toll Restriction may restrict the use of special services.

Feature Operation

None

SPEED DIAL

Description

Speed Dial gives an extension user quick access to frequently called numbers. There are two types of Speed Dial: Personal Speed Dial and System Speed Dial. Personal Speed Dial numbers are available to individual extensions or shared by groups of extensions. System Speed Dial numbers are available to every system user.

Systems with an AUX Module allow a maximum of 1140 bins in 57 Speed Dial blocks (20 bins in each block). A system without an AUX Module has only 28 blocks (1-28).

The system distributes the bins between System and Personal Speed Dial. If the system administrator chooses two-digit System Speed Dial numbering (bins 70-79), almost all the Speed Dial numbers are for extensions. If the system administrator chooses three-digit System Speed Dial numbering, more bins are avilable for System Speed Dial. Refer to the following chart for the specifics.

Personal		System		Bin Numbers	
Blocks	**Bins**	**Blocks**	**Bins**	**Personal**	**System**
56	1120	1	10	50-59, 20-29	70-79
52	1040	5	100	50-59, 20-29	700-799
Note: You can assign names to Speed Dial blocks 1-50.					

Each Speed Dial number/bin can accommodate up to 16 digits, using any combination of digits 0-9 and *.[1] If a number is longer than 16 digits, it automatically uses part of the next consecutive bin (up to a maximum of 32 digits). For longer numbers, an extension user can also chain (link) two Speed Dial numbers together when placing a call.

System Speed Dial
System Speed Dial numbers are accessible from any extension. The extension user need only dial the Speed Dial code or press a key, instead of dialing manually. The system administrator can program System Speed Dial numbers from the programming terminal. In addition, any extension user with Direct Trunk Access capability can also store or change these numbers.

Personal Speed Dial
Each extension user has up to 20 Personal Speed Dial numbers reserved for their own use. By pressing DIAL, the first 16 programmable keys on a keyset become Personal Speed Dial keys. The first ten keys are for bins 50-59; the second six for bins 20-25. All ESL users have dial access to the 20 Personal Speed Dial bins. An extension user or the system administrator (from the programming terminal) can store Personal Speed Dial numbers.

With an AUX Module $\geq$ 02.10, extensions assigned Extension Speed Dial blocks 51-57 can program Speed Dial names just like extensions assigned blocks 6-50. In previous software versions, you had to program names for extensions with blocks 51-57 using the terminal or telephone programming method. Users at extensions with blocks 51-57 could not program names by using the normal DIAL + # + BIN or # + S + D methods.

One-Touch Speed Dial
Optionally, a keyset can have any programmable key assigned for One-Touch Speed Dial. The user just presses the One-Touch Speed Dial key to get Intercom dial tone and dial the stored number. (DSS Consoles can also have One-Touch Speed Dial keys.) One-Touch Speed Dial keys allow the keyset user to store certain Intercom features. This simplifies often-used Intercom features -- the user just presses the key to use the feature. The user can store any Intercom feature that uses the digits 0-9, # and *. Normal Personal and System Speed Dial bins can also contain stored Intercom numbers.

[1] If using User Programmable Features to store a * or #, press DIAL before each * or # character you want to store.

Storing a Pause in a Speed Dial Bin
The system allows Pause commands in Speed Dial bins. Each Pause command counts as a digit. To store a Pause from an extension, the user presses HOLD while programming bins. While entering numbers from the programming terminal, the system administrator enters P. When the system sees a Pause, it waits a programmable interval for a second dial tone. If the system detects the second dial tone, it dials out the rest of the number. If the system does not detect dial tone, the user must dial * to continue with the rest of the number. Otherwise, the system disconnects the call. In a Dial Pulse area, the digits before the Pause are DP -- the digits after the Pause are DTMF. This is helpful for Special Services. Refer to the DP to DTMF Compatibility and Special Services Compatibility features.

Storing a Flash in a Speed Dial Bin

Available in Software Levels:	
Base	**AUX**
≥ 02.00	≥ 02.10

To let users access certain CO/PBX features, the system allows Flash commands in Speed Dial bins. When the system sees the Flash, it Flashes the line for a programmed Interval. To store a Flash from a keyset, the user presses MSG while programming bins. While entering numbers from the programming terminal, the system administrator types F. Use **QT- System Timers, Flash Response Time** to set the length of the Flash interval.

Storing a Delay in a Speed Dial Bin

Available in Software Levels:	
Base	**AUX**
≥ 02.00	≥ 02.10

The system also permits Delay commands in Speed Dial bins. A Delay causes the system to wait for a programmed interval. After the interval, the system dials the rest of the bin. You can use a Delay in lieu of a Pause, for example, if the connected telco/PBX cannot provide second dial tone. To store a Delay from a keyset, the user presses DIAL while programming bins. While entering numbers from the programming terminal, the system administrator types D. Use **QT- System Timers, Centrex Type Feature Key Delay** to set the length of the Delay interval.

Storing a # in a Speed Dial Bin
You can also store # characters in a Speed Dial bin. The # digits dial out as part of the stored number, unless prevented by system programming.

Storing Names
Display keyset extension users and the system administrator (from the programming terminal) can assign names to Speed Dial numbers. The names can be up to 16 characters long. When a display keyset user dials a Speed Dial number, their display shows the assigned name. Additionally, Personal and Company-wide Directory Dialing use the programmed names. Storing names requires an AUX Module. Also, only numbers in the first 50 blocks can have names.

Conditions

(A.) When a telephone number is manually dialed the DTMF on tones = 250 mS. When the system redials the DTMF on tones = 135 mS.

Default Configuration

- System Speed Dial numbers are three digits long.
- All Classes of Service can use System Speed Dial.
- No Speed Dial numbers are programmed.

SPEED DIAL

Programming

Required Programming

- **"CP- Inhibit System Speed Dial (BY0:7)"**
  Allow/deny extensions with this COS the ability to use System Speed Dial numbers.
  [0=allow speed dial, 1=deny speed dial]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]
- **E- Extensions, "EB- Personal Speed Dial Block"**
  Assign a Speed Dial block to an extension. Extensions can share a block, thereby sharing the Extension Speed Dial numbers. (see page 367)
- **"QD- Number of System Speed Dial Digits"**
  Assign the number of System Speed Dial digits (2 or 3). This allows either 10 or 100 System Speed Dial numbers.

Other Programming

- **"CP- Direct Trunk Access and Trunk Camp-On (BY2:0)"**
  Only extensions with Direct Trunk Access capability can store System Speed Dial numbers.
  [1=enable, 0=disable]
- **E- Extensions, "E8- Line Access Options, Allow Line Code Dial-Up"**
  An extension must have dial access to trunks to store trunk codes with outside Speed Dial numbers.
  [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  Speed Dial can only use trunks to which an extension has access. [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  Speed Dial can only use trunks to which the extension has callout enabled. [Y=allow, N=deny]
- **"KS- Programming Keys for Keysets"**
  Assign programmable keys for Personal or System Speed Dial.
  [System Speed Dial-enter "7" + bin #; Personal Speed Dial-enter bin # (50-59 or 20-29)]
- **"QA- Number Plan, 2nd Ten Speed Dial Bin Digit"**
  If the standard number plan is not adequate, define a new digit for the second 10 Extension Speed Dial bins. [0-9 (Changing this also affects Call Waiting and Paging.)]
- **"QA- Number Plan, 1st Ten Speed Dial Bin Digit"**
  If the standard number plan is not adequate, define a new digit for the first 10 Extension Speed Dial bins.
  [0-9 (Changing this also affects Call Parking from ASI/OPX, Paging and Speed Dial.)]
- **"QA- Number Plan, System Speed Dial Access Digit"**
  If the standard number plan is not adequate, define a new System Speed Dial access digit.
  [0-9 (Changing this also affects ACD, Paging and Split.)]
- **"QT- System Timers, Centrex-Type Feature Key Delay"**

Available in Software Levels:	
Base	**AUX**
N/A	N/A

  Enter the length of the Delay interval (for the Delay option in Speed Dial bins). [1-10]
- **"QT- System Timers, Flash Response Time"**

Available in Software Levels:	
Base	**AUX**
N/A	N/A

  Enter the length of the Flash interval (for the Flash option in Speed Dial bins). [1-25 tenths seconds]
- **"QT- System Timers, Dialtone Detection Counter"**
  Enter the interval the system should wait for second dial tone after a Speed Dial Pause. [1-6]
- **"QX- Suppress '#' When Speed Dialing"**
  Allow/prevent the system from outdialing the # digit when stored in a Speed Dial bin.

[Y=suppress #, N=allow #]

➢ **"SL- List Extension and System Speed Dial Numbers"**
List the programmed Speed Dial numbers and names.

➢ **"SP- Programming Extension/System Speed Dial Numbers"**
Program Speed Dial numbers and names.
[enter trunk/trunk group # or "I" for intercom + telephone # + enter name (16 digits maximum)]

➢ **"SR- Rotary Conversion (Converting Speed Dial Trunks)"**
Globally change the Speed Dial trunk assignments. [enter new trunk/trunk group #]

Related Features

"Account Code Capability"
If the system requires Account Codes, the user must enter a code after the Speed Dial number dials out. Optionally, an extension user can store an Account Code in a Personal Speed Dial bin.

"Automatic Route Selection"
Speed Dial may bypass ARS routing. Do not use the Delay option in a bin if Speed Dial calls route through ARS.

"Call Forwarding" / "Call Parking" / "Group Ring (Ring Groups)" / "Paging" / "Selectable Display Messages" / "Transfer"
An extension user can have these feature's codes stored with a One-Touch Speed Dial key.

"Central Office Calls, Placing"
These features give extension users convenient options to dialing manually.

"DP and DTMF Compatibility"
If a Speed Dial number uses a DP trunk and contains a pause, Pulse to Tone Conversion can be automatic. The digits before the pause dial out DP. The digits after the pause dial out DTMF.

"Direct Station Selection, DSS Console"
If the DSS Console is predominantly for Speed Dial, it should have four consecutive Speed Dial blocks (programmed in EB). This prevents other extension users from sharing the console's Speed Dial numbers. If these blocks were assigned to extensions, the extensions and the DSS Console share the blocks. Reassign the extensions' blocks to prevent this.

"Direct Trunk Access" / "Forced Trunk Disconnect"
An extension with these features can program System Speed Dial numbers.

"Directory Dialing"
An extension user can implement Directory Dialing instead of dialing System and Personal Speed Dial numbers.

"Equal Access Compatibility"
Toll Restriction does not restrict Equal Access calls placed using Speed Dial. However, the system administrator must enter the normally restricted Speed Dial numbers at the programming terminal.

"Flash"

Available in Software Levels:	
Base	**AUX**
≥ 02.00	≥ 02.10

The flash, delay, and pause features are able to be stored in Centrex Keys and Speed Dial numbers.

"Group Call Pickup"
Group Call Pickup cannot pick up a Ring Group call.

"Intercom"
A user can have an Intercom number stored at a One-Touch Speed Dial key. If the user stores the digit 1 before the extension number, the key forces Intercom ringing at the called extension.

"Last Number Redial"
After using Speed Dial, the user can implement Last Number Redial to redial the number. When chaining Speed Dial numbers, Last Number Redial redials the last bin selected.

"Line (Trunk) Queuing"
If an extension user implements these features and hears busy tone, they can queue for a trunk. The call dials automatically when the user answers the Callback ring.

"Line (Trunk) Rotaries (Hybrid Only)"
Speed Dial bins can use trunk groups instead of specific trunks.

"PBX/Centrex Compatibility"
If a Speed Dial number uses a DP trunk and contains a pause, Pulse to Tone Conversion is automatic. The digits before the pause dial out DP. The digits after the pause dial out DTMF. This may affect PBX/Centrex operation.

"Prime Line Selection"
Prime Lines cannot use System Speed Dial.

"Programmable Keys"
An extension can have a programmable key for Extension and/or System Speed Dial. However, if the system has four-digit extension Speed Dial numbers, you cannot assign numbers above 7255 to keys.

"Special Services and OCC Compatibility"
The system does not restrict special service access and security codes stored in System Speed Dial bins. The system always allows Continued Dialing via chaining Speed Dial bins.

"Toll Restriction"
The Extension Speed Dial numbers an extension user stores are Toll Restricted. The Extension Speed Dial numbers entered at the programming terminal are not. System Speed Dial numbers are not Toll Restricted.

Feature Operation

System Speed Dial

To store a System Speed Dial Number (if your phone has Direct Trunk Access Capability):

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
   If you have an ASI/OPX/ESL set, skip this step.
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial the System Speed Dial bin number (normally 700-799).
5. For display keysets only:
   - Dial 9 to begin storing a name.
     Refer to Storing a Speed Dial Name below. Go to step 6 below when you are done.
     OR
   - Dial 6 to go to the next step without storing a name.
6. Dial the trunk code (e.g., 01) or press line key.
   From a hybrid system, you can optionally enter a trunk group code (9, 90-98).
7. Dial the telephone number.
   To enter a Pause, press HOLD.
   To enter a Flash, press MSG (Base ≥02.00/AUX Module ≥02.10).
   To enter a Delay, press DIAL (Base ≥ 02.00/AUX Module ≥02.10).
8. Hang up.

To call a System Speed Dial number (by dialing a code):

1. Lift handset.

   You can preselect a trunk by pressing a line key. If you preselect, you must press ICM instead of DIAL before dialing a bin number

2. Press DIAL.

   Listen for: Dial tone

   If you have an ASI/OPX/ESL set, skip this step.

3. Dial System Speed Dial bin number (normally 700-799).

   Listen for: Stored number dialing out

   *If Speed Dial number contains a Pause, you may have to press * to continue dialing.*

   If you hear busy tone, press an idle line key. Your call dials out automatically.[1]

To call a System Speed Dial number (by using a keyset Speed Dial key):

1. Lift handset.

   You can preselect a trunk by pressing a line key.

2. Press Speed Dial key.

   Listen for: Stored number dialing out

   *If Speed Dial number contains a Pause, you may have to press * to continue dialing.*

   If you hear busy tone, press an idle line key. Your call dials out automatically.[1]

Personal Speed Dial
To store a Personal Speed Dial number:

1. Press DIAL.

   Listen for: Dial tone On

   If you are programming a One-Touch Speed Dial key or an ASI/OPX/ESL extension, skip this step. To store a number on a One-Touch Speed Dial key , go to User-Programmable features below.

2. Press PGM#.

   Listen for: Dial tone stops

3. - Dial the Personal Speed Dial bin number (50-59, 20-29).

   OR

   - Press the Personal Speed Dial bin key (1-16).

   Your first bin key is 50; your last is bin 29.

   OR

   - Press One-Touch Speed Dial key.

   To program a One-Touch Speed Dial key, see User-Programmable features.

4. For display keysets only:
   - Dial 9 to begin storing a name.

   Refer to Storing a Speed Dial Name below. Go to step 6 below when you are done.

   OR

   - Dial 6 to go to the next step without storing a name.

[1] To do this, you must have:
- Line/loop keys programmed (see KS-Programming Keys for Keysets)
- Key access to outbound trunks (see E8-Key Access to Outbound Lines)
- (Optional) Access to Trunk Groups (see E8-Access to Groups 90-95)

5. Dial the trunk code (e.g., 01) or press line key.
   From a hybrid system, you can optionally enter a trunk group code (9, 90-98).
6. Dial the telephone number.
   To enter a Pause, press HOLD.
   To enter a Flash, press MSG (Base ≥02.00/AUX Module ≥02.10).
   To enter a Delay, press DIAL (Base ≥ 02.00/AUX Module ≥02.10).
7. Hang up.

To store an Intercom Feature (at your keyset):

1. Press DIAL.
   Listen for: Dial tone
   If you are programming a One-Touch Speed Dial key, skip this step.
2. Press PGM#.
   Listen for: Dial tone stops
3. - Dial the Speed Dial bin number (50-59, 20-29, 700-799).
   OR
   - Press the Personal Speed Dial bin key (1-16).
   Your first bin key is 50; your last is bin 29.
   OR
   - Press One-Touch Speed Dial key.
   To program a One-Touch Speed Dial key, see User-Programmable features.
4. For display keysets only:
   - Dial 9 to begin storing a name.
   Refer to Storing a Speed Dial Name below. Go to step 6 below when you are done.
   OR
   - Dial 6 to go to the next step without storing a name.
5. Press ICM.
6. Enter Intercom code.
   *The code you enter can be any combination of digits 0-9, # and *.*
7. Hang up.

To call a Personal Speed Dial number (using a bin key or code):

1. Lift handset.
   You can preselect a trunk by pressing a line key. If you preselect, you must press ICM instead of DIAL before dialing a bin number.
2. Press DIAL.
   Listen for: Dial tone
   If you have an ASI/OPX/ESL set, skip this step.

3. Dial Personal Speed Dial bin number (20-29, 50-59) or press bin key.

   Listen for: Stored number dialing out

   *If Speed Dial number contains a Pause, you may have to press * to continue dialing.*

   If you have an ASI/OPX/ESL set, you can only dial the bin code (20-29, 50-59).

   If you hear busy tone, press an idle line key. Your call dials out automatically.[1]

To call a Personal Speed Dial number (using a One-Touch Speed Dial key):

1. Lift handset.

   You can preselect a trunk by pressing a line key.

2. Press One-Touch Speed Dial key.

   Listen for: Stored number dialing out

   *If Speed Dial number contains a Pause, you may have to press * to continue dialing.*

   If you hear busy tone, press an idle line key. Your call dials out automatically. [1]

Programming Speed Dial Names (Display Keyset Only)
To program a Speed Dial name (when your display requests it):

1. - Dial 9 to begin the name storing procedure.

   If you dial 9, the display shows the current name (if any).

   OR

   - Dial 6 to continue Speed Dial programming with storing a name.

   If you don't store a name, the previous name remains assigned (if any).

2. Dial the first letter of the desired name.

   For example, if the name begins with T, dial 8.

   *To enter a blank (space), a Q or a Z, dial 0. To erase a name, dial *.*

3. Dial the digit (1,2 or 3) that identifies the desired letter.

   For example, if you dialed 8 in the previous step to select T, dial 1 now.

   Press VOL DN to backspace (erase) over a character, then enter the correct letters.

4. Repeat steps 2 and 3 until you have entered the name.
5. Press PGM# (or press bin key).

   You can now continue with your Speed Dial programming.

User-Programmable Feature
You can also use the following procedure to store Personal Speed Dial numbers at your keyset. This is the only way you can store numbers on One-Touch Speed Dial keys.
PGM# + SD + Speed key (or bin number + PGM#) + PGM# + line key (or line code + PGM#) or ICM + number (32 digits max.) + SAVE.

[1] To do this, you must have
- Line/loop keys programmed (see KS-Programming Keys for Keysets)
- Key access to outbound trunks (see E8-Key Access to Outbound Lines)
- (Optional) Access to Trunk Groups (see E8-Access to Groups 90-95)

Chaining Speed Dial Numbers (Keysets Only)
To chain Speed Dial numbers:

1. Place first call using Speed Dial.
   Wait for number to dial out.
2. Press Dial.
3. Press Speed Dial bin key of second number.
   You can chain an many bins as you want.
   Do not dial a bin number.

OR

1. Place first call using Speed Dial.
   Wait for number to dial out.
2. Press One-Touch Speed Dial key of second number.

OR

1. Place first call using Speed Dial.
   Wait for number to dial out.
2. Press ICM.
3. Dial Speed Dial bin number (50-59-20-29).

Description

With Split, an extension user can split (alternate) between a current call and a new call. Split lets the extension user easily alternate between the calls without joining (Conferencing) the parties together.

Conditions

None

Default Configuration

Split always allowed.

Programming

Required Programming

None

Other Programming

None

Related Features

"Call Waiting (Camp-On)" / "Off-Hook Signaling"

These features let an extension user know when they have a call waiting.

"Central Office Calls, Answering" / "Central Office Calls, Placing"

Extension users can Split on any trunk they can use for placing and answering calls.

Feature Operation

Using Split at a Keyset

To Split between a new call and your current call (when both your current call and new call are Intercom calls):

1. Press HOLD to put current call on Hold.
2. Press ICM to answer waiting call.

   Listen for: *Conversation with new caller*

   You can also Split after placing a call.
3. Press ICM to begin Split.

   Listen for: *Dial tone*
4. Press * and dial 7.

   You answer the call on Hold. Your previous call now goes on Hold instead.

   Repeat steps 3-5 to continue alternating between the calls.

To Split between a new call and your current call (when your current call is an Intercom call and your new call is an outside call):

1. Press HOLD to put current call on Hold.
2. Press line key to answer waiting call.

   Listen for: *Conversation with new caller*

   You can also Split after placing a call.
3. Press ICM.

   Listen for: *Dial tone*
4. Press * and dial 7.

   You answer the call on Hold. Your previous call now goes on Hold instead.

   Repeat steps 3 and 4 to continue alternating between the calls.

To Split between a new call and your current call (when your current call is an outside call and your new call is an Intercom call):

1. Press ICM.

   Listen for: *Conversation with new caller*
2. Press ICM.

   Listen for: *Dial tone*
3. Press *.

   Listen for: *Dial tone stops*
4. Dial 7.

   You answer the call on Hold. Your previous call now goes on Hold instead.

   Repeat steps 2-4 to continue alternating between the calls.

To Split between a new call and your current call (when both your current call and new call are outside calls):

1. Press HOLD.
2. Press Line key for new call.

   Repeat steps 1 and 2 to continue alternating between the calls.

Using Split at an ESL Set
To Split between a new call and your current call:

1. Press HLD to put current call on Hold.

   Listen for: *Dial tone*
2. Dial * 2 to answer waiting call.

   Listen for: *Conversation with new caller*

   Optionally, you can place a new call rather than answer your waiting call.
3. Press HLD.

   Listen for: *Dial tone*
4. Press *.

   Listen for: *Dial tone stops*
5. Dial 7.

   You answer the call on Hold. Your previous call now goes on Hold instead. Repeat steps 3-5 to continue alternating between the calls.

Description

Station Message Detail Recording (SMDR) provides a record of the system's calls. Typically, the record outputs to a customer-provided printer, terminal or SMDR data collection device. SMDR allows the system administrator to account for usage at each extension and trunk. This makes charge-back and traffic management easier.

SMDR requires the installation of a customer-provided ASCII record collection device (e.g., printer). The device connects to the main CEU AUX Module serial port. You can only have SMDR if you have an AUX Module. Refer to the system hardware manual when connecting the SMDR device.

Following is typical SMDR report.

```
STATION MESSAGE DETAIL RECORDING
11/06/89 09:59:39

 -----+---+--------------------+---------+--------+--------+------+--
  STA |LIN|    NUMBER DIALED     |  ACCT   |  START | ELAPSE | COST |S#
 -----+---+--------------------+---------+--------+--------+------+--
  304 | 01|                  202|         |15:23:52|00:00:01|$00.00|01
  304 | 01|           12036672145|     1212|15:44:12|00:00:08|$00.00|01
  304 | 02|           12035551254|     3112|15:45:38|00:00:12|$00.00|01
  304 | 01|           12032223456|     1123|15:49:29|00:00:05|$00.00|01
  304 | 01|           12038888123|     1212|15:50:32|00:00:17|$00.00|01
  304 | 01|                    -|         |17:10:00|00:00:48|$00.00|01
  304 | 01|                    -|         |17:19:33|00:00:21|$00.00|01
  304 | 02|                    -|         |10:02:24|00:01:36|$00.00|01
  304 | 02|                    -|         |10:57:44|00:00:19|$00.00|01
  304 | 01|                    -|         |10:57:32|00:00:45|$00.00|01
  304 | 01|                    -|         |11:02:01|00:01:00|$00.00|01
  304 | 01|                    -|         |11:03:17|00:00:55|$00.00|01
```

SMDR Headings

This heading...	Shows the ...
Header	Date for calls and time report was run
STA	Extension charged with the call
LIN	Trunk used for the call
NUMBER DIALED	Number user dialed (outgoing only)[1]
ACCT	Account Code (if entered)
START	Start time for call
ELAPSE	Call duration
S#	Call's Service Number (ARS only)

[1] The number dialed can contain alpha codes, such as Centrex Compatible Feature Key codes D F and P.

Connecting SMDR Record Collection Devices

The following chart shows the format for the SMDR report. This information is useful when implementing a custom application using an SMDR record collection device. If the system prints SMDR all the time (see programming below), the report consists of:

- Report Start Header line 2, followed by an additional line feed
- Call record, followed by an additional line feed

SMDR Format		
	Report Start Header	
	Char.	**Field**
Line 1	1-32	STATION-MESSAGE-DETAIL-RECORDING
	33,34	Carriage return, line feed
Line 2	1-8	Date (mm/dd/yy)
	9	Space
	10-17	Time (hh:mm:ss)
	18,19	Carriage return, line feed
Line 3	1,2	Carriage return, line feed
Line 4	1,2	Carriage return, line feed
	Call Record Header	
Lines 1 and 3	1,2	Blank
	3-6	- characters
	7	+ character
	8-10	- characters
	11	+ character
	12-41	- characters
	42	+ character
	43-52	- characters
	53	+ character
	54-61	- characters
	62	+ character
	63-70	- characters
	71	+ character
	72-77	- characters
	78	+ character
	79,80	- characters
Line 2	1,2	Blank
	3-6	STA(space)
	7	| character
	8-10	LIN
	11	| character
	12-19	Spaces
	20-32	NUMBER(space)DIALED
	33-41	Spaces
	42	| character
	43-45	Spaces
	46-49	ACCT
	50-52	Spaces
	53	| character
	54,55	Spaces
	56-61	START(space)

SMDR Format		
	Report Start Header	
	Char.	**Field**
	62	| character
	63-70	(space)ELAPSE(space)
	71	| character
	72-77	(space)COST(space)
	78	| character
	79,80	S#
	Call Record	
	1,2	Blank
	3-6	Extension number, space
	7	| character
	8-10	Space, trunk number
	11	| character
	12-41	Number dialed (right justified, preceded by spaces)
	42	| character
	43-52	Account Code (right justified, preceded by spaces)
	53	| character
	54-61	Start time (hh:mm:ss)
	62	| character
	63-70	Elapsed time of call (hh:mm:ss)
	71	| character
	72-77	Cost of call ($nn.nn)
	78	| character
	79,80	Service number (01-10)

Keep the following in mind when connecting the SMDR collection device:

- The system supports XON/XOFF protocol.
- On power-up, the SMDR port prints out a power-up header. The SMDR port also prints major alarm information, if one occurs. (Refer to Automatic Fault Reporting.)
- In AUX Module $\geq$ 02.10, the SMDR report will not include the digits a user dials after the six second interdigit time. This provides privacy for the codes a caller enters after their initial call. For example, a caller could dial an order-by-phone service and enter their credit card number without worrying about the number printing with the other SMDR records. This applies to all calls dialed. In previous software versions, SMDR could print digits after the six second pause.
- For a credit card call (calls beginning with "0+"), there is no six second interdigit time delay. Any digits dialed immediately after the telephone number will not be shown on the SMDR report. This provides privacy for the credit card hold. In previous software versions, the SMDR would print the credit card number as the telephone number instead of the initial number dialed.
- If QZ- SMDR Printout All the Time is Y(es), the system buffers SMDR data when the modem port is busy. The system prints out all buffered SMDR data when the local port becomes active

Conditions

(A.) To allow for servicing, the system buffers (stores) 154 calls.
If the buffer fills, each new call pushes one old call out of the buffer.

(B.) Terminal programming may interfere with the SMDR report. If you are programming a sub-menu (e.g., QE), the system buffers the SMDR report. The report displays as soon as you return to the main menu.

Default Configuration

- SMDR port is 1200 baud, 8 bits, 1 stop bit with no parity.
- The SMDR report prints at 12:00 A.M., and includes incoming, local and toll calls.

Programming

Required Programming

➢ **"P- Print SMDR Report"**
Print the SMDR report. The system can clear or retain records from the SMDR buffer after the report prints. [Y=clear buffer after printing reports, N=run reports without clearing buffer]

➢ **"QZ- SMDR Setup, SMDR Only for Toll Calls"**
Have the SMDR report include all outside calls, or just toll calls. [Y=just toll calls, N=all outside calls]

➢ **"QZ- SMDR Setup, Inbound SMDR"**
Have the SMDR report print incoming and outgoing calls, or just outgoing calls.
[Y=incoming and outgoing trunk calls, N=just outgoing calls]

➢ **"QZ- SMDR Setup, SMDR Printout All the Time"**
Have the SMDR report print after each call completes, or at a preset time.
[Y=prints all the time, N=prints at preset time]

➢ **"QZ- SMDR Setup, SMDR Report Start Hour"**
Designate the time when the SMDR report should print. This option does not apply if SMDR prints all the time. [00-23]

➢ **"Z- Clear All SMDR Records"**
Clear the SMDR records from the system buffer without printing the SMDR report. Clear the records when you change the SMDR print options. [Y=clears buffer, N=buffer unchanged]

Other Programming

None

Related Features

"Account Code Capability"
After a user enters an Account Code, dialing #, additional digits and another # may change the SMDR Account Code entry.

"Attendant Positions"
The attendant may change the baud rates. See page 283.

"Call Timer"
The Call Timer also helps users keep track of their time on the phone.

"Caller ID"
To allow for the temporary storage of Caller ID trunk names, the SMDR buffer now holds 108 records (reduced from 120).

"Centrex Compatible Feature Keys"
The system administrator must program trunks for operation behind a Centrex/PBX.

"PBX/Centrex Compatibility"
The SMDR report also includes PBX access codes, if dialed.

"Special Services and OCC Compatibility"
In the following applications, the highlighted portions of the numbers print on the SMDR report:
(OCC Local Number) + Pause + (1+NPA+NNX+NNNN) + Pause + (Security Code)
(OCC Local Number) + Pause + (Security Code) + Pause + (1+NPA+NNX+NNNN)
(0+NPA+NNX+NNNN) + Pause + (Credit Card Number)

"Time and Date Setting"
Time and Date appear on the SMDR report. Also, the system administrator can have SMDR print at a preset time.

"Traffic Management Reporting"
If you request TMS and SMDR reports to print at the same time, the SMDR report prints first.

"Transfer"
SMDR charges the last party on a call for the entire call. For example:

- Extension 304 user places a call.
- Extension 304 user transfers the call to extension 306.
- When 306 user hangs up, SMDR charges the entire call to 306.

Feature Operation

None

SYSTEM IDENTIFICATION

Description

The System Identification is a four-line text field that contains site identification information. The system includes the first line of the System Identification with the various System Reports and Diagnostics. The system uses the first line of the System Identification for Reports, Diagnostics and Maintenance Utilities. Since there is no off-site Automatic Fault Reporting, the remaining three lines are unused.

Conditions

None

Default Configuration

No System Identification programmed.

Programming

Required Programming

➢ **"QK- CEU Identification"**
Enter the System Identification. The System Identification is four lines long, with 17 characters in each line.

Other Programming

➢ **J- Communications Port Parameters, "Port Speed"**
Set the baud rate to match the connected device. (The attendant can set these options from the telephone. See page 283.) [0=300 baud, 1=2400 baud, 2=2400 baud, 3=4800 baud, 4=9600 baud, 5=19.2k baud]

Related Features

"Attendant Positions"
The attendant may change the baud rate of the AUX Module serial port. See page 283.

"Automatic Fault Reporting/Remote Maintenance"
The system sends the System Identification before transmitting fault information to the off-site service center.

"System Reports, Diagnostics and Maintenance Utilities"
The technician can use the various reports and diagnostics to troubleshoot the system.

Feature Operation

None

SYSTEM PROGRAMMING PASSWORD PROTECTION

Description

System Programming Password Protection requires the system administrator to enter an access code (password) before using a programming option. System Programming Password Protection prevents unauthorized personnel from modifying the system programming.

The system has three password levels: 0-2. Level 0 programming options don't require the administrator to enter a password. To use Level 1 options, the administrator must first enter the level 1 or 2 password. To use level 2 options, the administrator must first enter the level 2 password. The following chart shows the programming options and their password level.

Password (Access) Levels	
AI- Initialize Toll Restriction	1
AL- List Toll Restriction	0
AP- Program Toll Restriction	1
CL- List Class of Service	0
CP- Program Class of Service	1
D- Display Memory	0
E- Extensions	1
E- Trunks	2
F- EPROM Checksums	0
FC- Parameter Resets	1
GA- ARS Editor	2
H- System Status Reports	0
I- System Utilities	1
J- Communications Port Parameters	0
KD- Programming Keys for DSS Consoles	1
KL- Listing Programmable Key Data	0
KS- Programming Keys for Keysets	1
L- Listing System and Extension Data	0
M- Cancel Access Level	0
ND- Programming the Directory	1
NL- Listing Names and Messages	0
NP- Programming Names and Messages	1
OL- Label Maker	0
OS- Selective History	0
P- Print SMDR Report	1
Q- System-Wide Programming	2
R- Error Log Report	0
SL- List Extension and System Speed Dial	1
SP- Programming Extension and System Speed Dial Numbers	1
SR- Rotary Conversion	1
T- Set System Date and Time	0
V- Clear Error Log	2
X- Exchange Extension Data	1
Y- Change System Passwords	1
Z- Clear All SMDR Records	2

SYSTEM PROGRAMMING PASSWORD PROTECTION

The system administrator can change the level 1 and level 2 passwords. Note that the passwords (and all programming options) must be upper case (all capital letters).

Conditions

Entering a new password erases the old one. The system administrator should keep a written record of the modified passwords.

Default Configuration

The default level 1 password is carriage return.

- The default level 2 password for the key system is DS01K.
- The default level 2 password for the hybrid system is DS01H.
- If you install an AUX Module and don't initialize, the level 2 password is shown below according to your base's software level.

Versions Prior to 02.40	02.40 and higher
DCH or ONYXVSK (depending on your software version)	DS01K

Programming

Required Programming

➢ **"M- Cancel Access Level"**
For data security, reinstate level 0 after making a level 1 or 2 entry.

➢ **"Y- Change System Passwords"**
Change the level 1 or level 2 password. You must know the level 1 or level 2 password to change the level 1 password. You must know the level 2 password to change the level 2 password. If both passwords are the same, you can only program level 1 options. Change the level 1 password to give you access to both levels.

Other Programming

None

Related Features

None

Feature Operation

None

SYSTEM REPORTS, DIAGNOSTICS AND MAINTENANCE UTILITIES

Description

The system provides reports, diagnostics and maintenance utilities which help the technician troubleshoot the system from the programming terminal. The chart below summarizes these reports, diagnostics and utilities. Refer to the appropriate option in Section 2 for more information.

Reports and Diagnostics

- **"AL- List Toll Restriction"**
  Lists the Toll Restriction options for each Toll Restriction level.
- **"CL- List COS"**
  Lists the Class of Service options for each COS.
- **"D- Display Memory"**
  Displays the contents of system memory locations (factory use only).
- **"EZ- Extension-Port Swap"**
  Changes the extension/trunk assignment for each port.

F- Miscellaneous System Data

- **"F- EPROM Checksums"**
  Displays the checksums for the memory circuits on the software cartridge.
- **"FC1- Reset System Queues"**
  Resets the system queues after ACD/UCD programming.
- **"FC2- Reset Remote KSU Fail Counters"**
  Resets the fail counters for the expansion CEU.
- **"FC3- Reset VX Flag (Telephone Message Waiting Lamps)"**
  Resets the telephone message waiting (MSG) lamps.
- **"FC4- Reset All Keyset Feature Keys"**
  Clears all keyset programmable keys assigned as Centrex feature keys.

H- System Status Reports

- **"HA- Extension-to-Port Conversion"**
  Lists the number of the extension or trunk assigned to each port (in extension/trunk number order).
- **"HB- Port-to-Extension Conversion"**
  Lists the number of the extension or trunk assigned to each port (in port number order).
- **"HC- System Queues"**
  Displays the status of the system queue elements.
- **"HD- System Status"**
  Displays the status of every trunk and extension in the system.
- **"HE- Traffic Management Summary"**
  Summarizes the extension, trunk and ACD/UCD group call activity. Running HE does not clear the summary data.
- **"HF- Traffic Management Summary (with data cleared)"**
  Summarizes the extension, trunk and ACD/UCD group call activity. Running HF clears the summary data.
- **"HG- Display Key History"**
  Displays the key history code definitions. The system administrator can enable the key history by pressing SHIFT 1 at the programming terminal.
- **"HH- Port/Extension Checker"**
  Checks for port/extension number conflicts.

I- System Utilities

- **"IP- Port Release"**
  Releases (disconnects) an extension or trunk that is active on a call.
- **"IR- Reset Line/Trunk Card, Reset Expansion KSU"**
  Resets expansion CEU - resets either expansion CEU.
- **"IS- Side Tone Test"**
  Adjusts the side tone for an individual trunk circuit.
- **"KL- Listing Programmable Key Data"**
  Lists the programmable keys for each extension and DSS Console.
- **"LE- Listing Data by Extension/Trunk" / "LP- Listing Data by Port" / "LS- Listing System Data"**
  Provides a complete listing of extension and trunk data.
- **"NL- Listing Names and Messages"**
  Lists the programmed extension/trunk names and Selectable Display Messages.

- **"OS- Selective History"**
  Enables key history for selected extensions and trunks.
  [D=display selected extensions/trunks, F=turn selective history off, N=select extensions/trunks for selective history]
- **"QZ- SMDR Setup, TMS Report Print Modes"**
  Sets the Traffic Management Report (TMS) Report print modes.
- **"QZ- SMDR Setup, TMS Print Times Setup"**
  Sets the Traffic Management Report (TMS) Report automatic print times.
  [Y=yes for selected hour, N=no for selected hour]
- **"R- Error Log Report"**
  Displays the system error log.
- **"SL- List Extension and System Speed Dial Numbers"**
  Lists Extension and System Speed Dial numbers.
- **"V- Clear Error Log"**
  Clears the old data from the R- Error Log Report.
- **"X- Exchange Extension Data"**
  Exchanges (swaps) extensions.
- **"Z- Clear All SMDR Records"**

Note:
To view the programmed Q data, access the individual Q options.

Conditions
None

Default Configuration
Not applicable

Programming

Required Programming
Refer to the chart above.

Other Programming
None

Related Features

"Automatic Call Distribution"
The system reports provide data on ACD group agent and incoming call activity. The reports also show details on calls received while all agents were busy.

"Automatic Fault Reporting/Remote Maintenance"
After receiving a trouble report, the technician can use the System Reports, Diagnostics and Maintenance Utilities to isolate the problem.

"Extension Hunting"
The system reports provide data on UCD group call activity. The reports also show details on calls received while all members were busy.

"Line (Trunk) Rotaries (Hybrid Only)"
The HC- System Queues report displays the trunk rotary queues. The HE/HF-Traffic Management Summary option summarizes the trunk group call activity.

"System Identification"
The technician can use the various reports and diagnostics to troubleshoot the system.

"Time and Date Setting"
Time and Date appear on System Reports, Diagnostics and Maintenance Utilities.

Feature Operation

None

SYSTEM TIMERS

Description

The system administrator can use the programming terminal to change values for various System Timers. These timers affect extension, trunk and system performance. System Timers lets the administrator customize certain extension, trunk or system parameters for the site application. The chart below briefly describes these timers (programmed in QT- System Timers). Refer to QT in Section 2 for more information.

- **"QT- System Timers, Park Orbit Recall Time"**
  Sets how long a Parked call remains in orbit before recalling the extension that initially parked it. Refer to Call Parking.
- **"QT- System Timers, Hold Recall Time"**
  Sets how long a call will remain on Hold before recalling the extension that placed it on Hold.
- **"QT- System Timers, Camp-On Time"**
  Sets how long a transferred call camps on to a busy single line extension or ACD/UCD group before recalling the transferring extension.
- **"QT- System Timers, Trunk Response Time"**
  Specifies the allowed interval between trunk seizure and the receipt of telco loop current.
- **"QT- System Timers, Modem Reserve Time"**
  Sets how long the system reserves a modem from the modem pool for the extension requesting it.
- **"QT- System Timers, Number of Rings Before Recall"**
  Sets how many times a trunk call rings an idle extension before recalling the transferring extension.
- **"QT- System Timers, OPA Overflow Ring Control"**
  Sets the number of rings before operator overflow to the OPA occurs.
- **"QT- System Timers, Delayed Ring Interval"**
  Sets the Delayed Ring Interval for Call Coverage and Group Call Pickup keys with delayed ringing.
- **"QT- System Timers, Flash Response Time"**
  Sets the length of the loop current interruption the system provides to a trunk.
- **"QT- System Timers, Dialtone Detection Counter"**
  Sets how long the system waits for trunk dial tone for Speed Dial calls (pause equals 3 times the Dialtone Detection Counter).
- **"QT- System Timers, Centrex-Type Feature Key Delay"**
  Sets the Centrex delay interval. This is the interval that corresponds to a D entry when programming Centrex keys.
- **"QT- System Timers, Traffic Management Report Wait Time"**
  Sets how long a call rings the system before the TMS report logs it as a Long Wait.
- **"QT- System Timers, Loop Disconnect Time"**
  Lets you tailor the system trunks to the disconnect characteristics of the connected telco.
- **"QT- System Timers, Default Modem Speed"**
  Sets the default modem speed for outgoing outside data calls.
- **"QT- System Timers, Door Box Alert Time"**
  Sets how long an extension user has to answer Door Box chimes.
- **"QT- System Timers, OPX Incoming Flash Timer"**
  Sets the length of the OPX loop current interruption that occurs when an OPX user flashes.
-

Conditions

None

Default Configuration

Timer	Default Value
Park Orbit Recall Time	60 seconds
Hold Recall Time	60 seconds
Camp-On Time	60 seconds
Trunk Response Time	.15 seconds
Modem Reserve Time	30 seconds
Number of Rings Before Recall	5 rings
OPA Overflow Ring Control	3 rings
Delayed Ring Interval	3 rings
Flash Response Time	700 mS
Dialtone Detection Counter	No entry
Centrex Type Feature Key Delay	No entry
Traffic Management Report Wait Time	No entry
Default Modem Speed	Low
Loop Disconnect Time	00 (.5 seconds)
OPX Incoming Flash Timer	2 (.2-1.0 seconds)

Programming

Required Programming

Refer to QT- System Timers for the specifics.

Other Programming

None

Related Features

Refer to QT- System Timers for the specifics.

Feature Operation

None

TANDEM CALLS (TANDEM TRUNKING)

Description

Tandem Trunking allows an extension user to join two outside calls in a trunk-to-trunk Conference. The extension user can then drop out of the call, leaving the trunks in an "unsupervised" Conference. The extension user that established the Conference is not part of the conversation. The Conference continues until either outside caller hangs up.

Tandem Trunking helps a dispatcher, for example, put two repairmen in touch. The dispatcher could:

- Answer a call from one repairman
- Place a call to the other
- Set up a trunk-to-trunk Conference
- Hang up

The Conference becomes unsupervised when the dispatcher hangs up.

In addition to Tandem Calls, the following features also allow three-party calls:

- Conference
- Intrusion
- Meet-Me-Conference
- Privacy Groups

Conditions

(A.) Trunk cards must be series 09 or higher.
(B.) Tandem Trunking requires loop start trunks with disconnect supervision.
(C.) The system supports eight simultaneous three-party Conferences.

Default Configuration

Tandem Trunking not allowed.

Programming

Required Programming

➢ **E- Trunks, "EI- Tandem Trunk"**
Enable/disable a trunk for Tandem Trunking capability. Only one of the trunks on a Tandem Call must have this option enabled. [Y=enable, N=disable]

Other Programming

None

Related Features

"Conference"
Conference lets an extension user establish a three-way conversation.

"Intrusion (Barge-In)"
An extension user cannot Barge-In on a Tandem Call.

"Transfer"
When making a screened Transfer of a trunk call to an extension with Off-Premise Call Forwarding, implement Tandem Trunking when the off-premise user answers.

Feature Operation

To set up a Tandem Call at a keyset:

1. Place or answer first trunk call.
   Listen for: *Conversation with caller*
2. Press CONF.
   Listen for: *Dial tone*
3. Place or answer second call.
   Listen for: *Conversation with caller.*
4. Press CONF.
   Listen for: *Conversation with both parties*
5. Hang up.

To set up a Tandem Call at an ESL set:

1. Place or answer first call.
   Listen for: *Conversation with caller*
2. Press HLD.
   Listen for: *Dial tone*
3. Place or answer second call.
   Listen for: *Conversation with caller.*
4. Press HLD, *, #.
5. Hang up.

TELEMARKETING DIAL

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Telemarketing Dial lets a keyset user have their PC dial outside calls. This is great for telemarketers that want to use auto-dialing or database dialing for placing calls. To use Telemarketing Dial, the keyset user must have:

- Their PC connected to a modem, which is in turn connected to an ASI.
- A Call Coverage key for the ASI.
- Communications software installed in the PC

After the PC places the call, the supervisory tones provided through the modem help the user monitor the progress of the call. When the called party answers, the keyset user just presses the Call Coverage key to converse.

Conditions
Telemarketing Dial requires a keyset, an ASI and a customer-provided PC with a modem and communications software. The communications software should have Directory Dialing capability.

Default Configuration
Telemarketing Dial not enabled.

Programming

➢ **"KS- Programming Keys for Keysets"**
Assign the keyset a Call Coverage Key (S + extension number) for the ASI which has the modem connected. The ring option setting doesn't matter.

➢ **E- Extensions, "E2- Extension Circuit Type"**
Assign circuit type 01 to the ASI port, and reassign the correct circuit type to the ASI port (05 or 51).

➢ **"EC- Privacy Release Group"**
Assign the keyset and ASI port to the same unique Privacy Group.

Related Features

None

Feature Operation

To use Telemarketing Dial:

1. From the PC connected to the ASI, use the communication software's Directory Dialing to place the call. When the called party answers, press the Call Coverage Key for the ASI.
2. The call is in the Privacy Release mode (line key flashes fast). To enable privacy for the call, press the line key.

Description

The system administrator can divide the system into individual tenant groups. Typically, each tenant group has their own attendant, outside lines and paging zones. Tenant Service lets the system administrator use the same system for several different businesses. If an extension user dials 0, they reach their own operator. In addition, outside calls to and from one tenant don't interfere with the other. Finally, members of one tenant group hear only their own Zone Paging, not Paging into another group.

If each tenant should have their own attendant, the system provides four tenant groups. If each tenant only needs outside lines, the system provides as many groups as there are available trunks. Keep in mind, however, that there are only seven Internal Paging zones. (Class of Service can deny access to the first three and All Call.)

Conditions

None

Default Configuration

All extensions are in the same tenant group (assigned to the operator at extension 300).

Programming

Required Programming

Assigning Attendants to Tenants

➢ **E- Extensions, "E9- Attendant (Operator) Assignment"**
Assign the same operator extension to each extension in the tenant group.

Assigning Trunks to Tenants for Answering Calls

➢ **E- Extensions, "ED- Trunk Control, Ring Control"**
For each keyset in the tenant group, designate the ringing options for each trunk. Each tenant group should ring for a different set of trunks.
[R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
For each extension, assign access for the lines the tenant group extension should be able to answer. Each tenant group should have access to a different set of trunks. [Y=allow, N=deny]

➢ **"KS- Programming Keys for Keysets"**
Program the types of keys that will ring the extension. Additionally, make sure that every keyset has at least one fixed or switched loop key. This ensures that an incoming call will ring a key somewhere on the keyset. ["9"=switched loop, "9" and a line group # (0-8)=fixed loop, or enter a line #]

Assigning Trunks to Tenants for Placing Calls

➢ **E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"**
If enabled, each user in the tenant group can press a line key to place a call (if also allowed by ED programming). [Y=allow, N=deny}

➢ **E- Extensions, "E8- Line Access Options, Allow Line Code Dial-Up"**
If enabled, each user in the tenant group can dial a trunk access code (e.g., 801) to access trunks (if also allowed by ED programming). [Y=allow, N=deny]

➢ **E- Extensions, "E8- Line Access Options, Access to Groups 90-95" (not on key systems)**
Restrict each extension in the tenant group to the trunk groups (90-95) that the tenant should be able to dial. [Y=allow, N=deny]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
Assign access only for those trunks on which the tenant group user should be able to place calls. Each tenant group should have access to a different set of trunks. [Y=allow, N=deny]

➢ **E- Extensions, "ED- Trunk Control, Call-Out Control"**
Enable call-out for each trunk on which the tenant group user should be able to place calls. Each tenant group should have callout for a different set of trunks. [Y=allow, N=deny]

- **"KS- Programming Keys for Keysets"**
  Program the types of keys that allow the extension user to place trunk calls.
  ["9"=switched loop, "9" and a line group # (0-8)=fixed loop, or enter a line #]

Assigning Internal Paging Zones to Tenants

- **"CP- Inhibit Access to Page Zone 3 (BY2:4)"**
  Allow/inhibit Paging to zone 3 for extensions with this COS. You can allow this option for one tenant group's members and deny it for all others. [0=allow paging, 1=prevent paging]
- **"CP- Inhibit Access to Page Zone 2 (BY2:3)"**
  Allow/inhibit Paging to zone 2 for extensions with this COS. You can allow this option for one tenant group's members and deny it for all others. [0=allow paging, 1=prevent paging]
- **"CP- Inhibit Access to Page Zone 1 (BY2:2)"**
  Allow/inhibit Paging to zone 1 for extensions with this COS. You can allow this option for one tenant group's members and deny it for all others. [0=allow paging, 1=prevent paging]
- **"CP- Inhibit Access to All Call Paging (BY2:1)"**
  Since all tenants hear All Call Paging, consider using this option to prevent All Call Paging system-wide. [0=allow paging, 1=prevent paging]
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]
- **E- Extensions, "E7- Page Zone"**
  Assign each extension to an internal Paging zone (01-07, or 00 for All Call only). Each tenant group's extensions should be in a different internal Paging zone.
- **E- Extensions, "EF- Paging Through Telephone Speaker"**
  Enable this option to allow Paging announcements through the telephone speaker. [Y=enable, N=disable]

Assigning External Paging Zones to Tenants

- **E- Trunks, "E2- Trunk Circuit Type"**
  Program the ports used for External Paging as uninstalled (circuit type X). There are a total of four ports available for External Paging.
- **"QM- Music/Relay Control, Enable External Zone 1"**
  Enter Y to broadcast over the main CEU PA terminals. You can have Paging amplifiers for all tenants or just those you select.
- **"QM- Music/Relay Control, Enable External Zone 2"**
  Enter Y to have All Call Paging and Night Audible broadcast over the expansion CEU PA terminals. [Y=enable, N=disable]
- **"QM- Music/Relay Control, External Page Music Gain"**
  Adjust the gain for the music that plays over the External Paging ports (if any).
  [-12 dB loss, -6 dB loss, -3 dB loss, 0 dB, +3 dB gain, +6 dB gain]
- **"QM- Music/Relay Control, Relay Control-Pageowner"**
  Assign the Pageowner for ringer and page control. This assignment should be the attendant in each tenant group.

Other Programming

None

Related Features

"Automatic Route Selection"
All extensions share the same ARS programming, regardless of tenant assignment.

"Direct Inward Line (DIL)"
You can have unanswered DILs recall to all tenant groups or only to the DIL's extension tenant group.

"Direct Inward System Access (DISA)"
All tenants share the same DISA code.

"Intercom"
Members of one tenant group can place Intercom calls to members of another tenant group.

"Night Answer (Off-Hours Ringing)"
An attendant can place only its own trunks in night answer (according to E9- Direct Trunk Termination programming).

"Paging"
The system sends All Call Paging to all page zones, regardless of tenant assignment.

"Toll Restriction"
An extension in a tenant group can have night mode restriction (e.g., CP- Allow Only Intercom Calls at Night [BY0:2] is 1). The restriction takes effect when the extension's operator activates Night Answer.

Feature Operation

Refer to:

- Central Office Calls, Answering
- Central Office Calls, Placing
- Paging

TIME AND DATE SETTING

Description

The system Time and Date appears on:

- Display Telephones
- Station Message Detail Recording reports
- System Reports, Diagnostics and Maintenance Utilities
- Traffic Management Report

A display keyset with Class of Service 00 and the system administrator can change the Time and Date. Although entered in 24-hour format, the system time always displays in 12-hour format (AM/PM).

Conditions

None

Default Configuration

- Date=00/00/00
- Time=00:00:00

Programming

Required Programming

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign COS 00 to each display keyset that should be able to enter the system date and time. [00-27, 30 for operators]

➢ **"T- Set System Date and Time"**
The system administrator can set the system date and time from the programming terminal. [Date=MM/DD/YY, Time =HH:MM:SS]

Other Programming

None

Related Features

"Automatic Route Selection"
ARS uses time and date when routing calls.

"Battery Backup"
The AUX Module temporarily back up the system Time and Date when power fails.

"Station Message Detail Recording"
Time and Date appear on the SMDR report. Also, the system administrator can have SMDR print at a preset time.

"System Reports, Diagnostics and Maintenance Utilities"
Time and Date appear on System Reports, Diagnostics and Maintenance Utilities.

"Traffic Management Reporting"
Time and Date appear on the TMS report. Also, the system administrator can have the TMS Report print at a preset time.

"Voice Prompting Messages"

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Any keyset or ESL user can dial 8 to hear the voice prompt announcing the time. Voice Prompting Messages requires a VMU.

Feature Operation

To set the system time (if your display keyset has COS 00):

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial 8.
5. - Enter the hour (00-23).
   Use a 24-hour clock (i.e., 1:00 PM = 13)
   - Enter the minutes (00-59).
   - Enter the seconds (00-59).
   Listen for: *Dial tone*
6. Hang up.

To set the system date (if your display keyset has COS 00):

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial 9.
5. - Enter the month (01-12).
   January=01, December=12
   - Enter the day of the month (01-31).
   - Enter the last two digits of the year (00-99).
   Listen for: *Dial tone*
6. Hang up.

To check the time from any keyset or ESL set:

1. Do not lift handset.
2. Dial 8.
   A voice prompt announces the system time.

User-Programmable Feature...
You may be able to set the system Time and Date from your keyset.
PGM# + TD + Month (01-12) + PGM# + Date (1-31) + PGM# + Year (2 digits) + PGM# + Hour (00-23) + PGM# + Minutes (00-59) + PGM# + SAVE

TOLL RESTRICTION

Description

Toll Restriction limits the numbers an extension user may dial. By allowing extensions to place only certain types of calls, the system administrator can control long distance costs. The system applies Toll Restriction according to an extension's Class of Service Toll Restriction Level. For each Toll Restriction Level, the administrator can enable or disable:

- Continuous dialing (see Special Services and OCC Compatibility)
- Special access (N11) dialing (such as 411 Directory Assistance)
- Outside operator (0+) dialing
- Direct international dialing
- Equal Access dialing (See Equal Access Compatibility)
- 1+NNX (long distance exchange) dialing
- NNX (local exchange) dialing
- NPA (area code long distance) dialing
- Six-digit (NPA and NNX) dialing analysis

The system sends reorder to an extension when it Toll Restricts a call. With an AUX Module $\geq$ Y2.10 and a VMU, the system sends the voice message, "Your call cannot go through. Please call the operator."

Conditions

Toll Restriction is capable of restricting 1-800, but not 911 or 1911 calls.

Default Configuration

All Classes of Service have Toll Restriction Level 0 (Toll Restriction disabled).

Programming

Required Programming

➢ **"AI- Initialize Toll Restriction"**
Initialize Toll Restriction before programming. [Y=initialize]

➢ **"AP- Toll Level"**
Enter the Toll Level you want to program. [1-7]

➢ **"AP- Allow Active Dial Pad"**
Enable/disable continued dialing for this Toll Level (see Special Services and OCC Compatibility). Allowing Active Dial Pad can override Toll Restriction. [Y=enable, N=disable]

➢ **"AP- Allow Special Access (N11) Dialing"**
Enable/disable N11 and 1+N11 dialing for this Toll Level. [Y=enable, N=disable]

➢ **"AP- Allow Outside Operator (0+) Dialing"**
Enable/disable outside operator dialing for this Toll Level. [Y=enable, N=disable]

➢ **"AP- Allow International Dialing"**
Enable/disable direct international dialing for this Toll Level. [Y=enable, N=disable]

➢ **"AP- Allow Equal Access"**

NOT Available in Software Levels:	
Base	**AUX**
$\geq$ Y5.0	$\geq$ Y2.0

Enable/disable Equal Access Dialing for this Toll Level (see Equal Access Compatibility). Also, program the Equal Access Codes table. [Y=enable, N=disable]

➢ **"AP- Allow 1+NNX Dialing"**
Enable/disable long distance exchange calls for this Toll Level. Also, program the 1 + NNX codes table. [Y=enable, N=disable]

- **"AP- Allow NNX Dialing"**
  Enable/disable local exchange (NNX) dialing for this Toll Level. Also, program the NNX codes table. [Y=enable, N=disable]
- **"AP- Allow NPA Dialing"**
  Enable/disable area code (NPA) dialing for this Toll Level. Also, program the NPA codes table. [Y=enable, N=disable]
- **"AP- Six Digit Analysis"**
  Enable/disable six-digit analysis for this Toll Level. Also, program a six-digit analysis table. [Y=enable, N=disable]
- **"CP- Allow Only Intercom Calls at Night (BY0:2)"**
  At night, extensions with this option enabled can only place Intercom calls. This assignment overrides AP programming. [1=allow, 0=deny]
- **"CP- Allow Only Local Calls at Night (BY1:4)"**
  At night, extensions with this option enabled can place Intercom calls and local outside calls. This assignment overrides AP programming (except AP- Allow Active Dial Pad). [1=allow, 0=deny]
- **"CP- Allow Only Local Calls (Day or Night) (BY1:3)"**
  Extensions with this option enabled can only place Intercom calls or local outside calls. This assignment overrides AP programming (except AP- Allow Active Dial Pad). [1=allow, 0=deny]
- **"CP- Extension Toll Restriction Level (BY1:0-2)"**
  Assign a toll restriction level (0-7) to a Class of Service.
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to extensions. [00-27, 30 for operators]
- **E- Trunks, "EJ- Toll Restriction"**
  Enable/disable Toll Restriction for each trunk. For example, WATS lines may not require Toll Restriction. [Y=enable, N=disable]

Other Programming

- **"AL- List Toll Restriction"**
  List the programmed Toll Restriction data.
- **E- Extensions, "ED- Trunk Control, Access Control"**
  An extension can only place a call on a trunk for which it has access assigned. [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  An extension can only place a call on a trunk for which it has callout assigned. [Y=allow, N=deny]
- **"QQ- '1' Prefix Required for NPA Calls"**
  Indicate if the system is in a conflict area. A conflict area has conflict codes. Conflict codes are area codes (e.g., 212) that can also be local exchange codes. Enter Y if the system is in a conflict area. Enter N if the system is not in a conflict area.
- **"QQ- 0 or 1 in Second Digit of NPA"**

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

  Enter N if any local exchange can also be an area code. This means that conflict codes can use NNX code numbering, not just NPA code numbering. Enter Y if each NPA must have 0 or 1 as the second digit.
- **"QQ- No. of Digits in Equal Access Code"**
  Indicate the number of digits in an Equal Access Code. [5-9]

TOLL RESTRICTION

Related Features

"Automatic Route Selection"
A system can have ARS Toll Restriction. When a user dials 9 or 90 for ARS, ARS overrides Toll Restriction.

"Call Waiting (Camp-On)"
Trunk Camp-On bypasses Toll Restriction.

"Central Office Calls, Placing"
Toll Restriction may restrict the numbers a user may dial.

"Dialing Number Preview"
The system places normal routing and restriction on calls placed using Dialing Number Preview.

"Direct Inward System Access (DISA)"
If a DISA caller places an outgoing call, the system restricts and/or routes the call according to the Class of Service of the DISA trunk.

"Direct Trunk Access"
The system does not apply Toll Restriction to calls placed using Direct Trunk Access.

"Equal Access Compatibility"

NOT Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Toll Restriction does not restrict Equal Access calls (except according to the Equal Access List). If an extension's Toll Restriction level doesn't have Active Dial Pad enabled, the system turns off the dial pad six seconds after dialing the last digit. For example, if a user dials an Equal Access code and waits more than six seconds, dialing cannot continue.

"Flash"
The system applies Toll Restriction (if applicable) to the number a user dials after flashing a trunk.

"Forced Trunk Disconnect"
The system subjects the call on the released trunk to normal ARS routing or Toll Restriction.

"Intercom"
An extension in a tenant group can have night mode restriction (e.g., CP- Allow Only Intercom Calls at Night (BY0:2]=1). The restriction takes effect when the extension's operator activates Night Answer.

"Last Number Redial" / "Save"
If you don't dial enough digits (as determined by your Toll Restriction), Last Number Redial and Save will not retain the digits you dial.

"Loop Keys"
If an extension's COS has CP- Allow Only Intercom Calls at Night (BY0:2=1), the extension cannot use loop keys at night.

"NANP Compatibility"
The North American Numbering Plan may affect Toll Restriction programming in your region.

"Night Answer (Off-Hours Ringing)"
An extension in a tenant group can have night mode restriction (e.g., CP- Allow Only Intercom Calls at Night [BY0:2] is 1). The restriction takes effect when the extension's operator activates Night Answer.

"PBX/Centrex Compatibility"
If a trunk is a PBX trunk, Toll Restriction begins after the user dials the PBX access code. If only the PBX/Centrex should apply restriction, make no QB entries but use Type 11 for E7. The system does not apply Toll Restriction to trunks with this programming.

"Prime Line Selection"
If an extension's COS has CP- Allow Only Intercom Calls at Night (BY0:2=1), the extension cannot use Prime Line Selection at night.

"Private Line"
Toll Restriction works normally on Private Lines.

"Special Services and OCC Compatibility"
Toll Restriction may restrict the use of special services.

"Speed Dial"

The Extension Speed Dial numbers an extension user stores are Toll Restricted. The Extension Speed Dial numbers entered at the programming terminal are not. System Speed Dial numbers are not Toll Restricted.

"Tenant Service"

An extension in a tenant group can have night mode restriction (e.g., CP- Allow Only Intercom Calls at Night [BY0:2] is 1). The restriction takes effect when the extension's operator activates Night Answer.

"Voice Prompting Messages"

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

The voice prompt, "Your call cannot go through. Please call the operator" requires a VMU.

"Walking Class of Service"

An extension user can implement Walking Class of Service to temporarily override Toll Restriction/COS programming.

Feature Operation

None

TRAFFIC MANAGEMENT REPORTING

Description

The Traffic Management (TMS) Report provides the system administrator with a record of the system's call activity. The TMS Report consists of call activity details for each installed extension, trunk, trunk group and ACD/UCD hunting group. The system administrator can use the TMS Report to analyze the system traffic. This, in turn, lets the administrator maximize the system's resources.

The TMS report outputs from the main CEU AUX Module serial port. The system must have an AUX Module to have TMS reports.

The administrator can display the report on the programming terminal, or record it on an SMDR printer. Additionally, the administrator can have the report print on demand or at a preset time. When printing at a preset time, the TMS Report can consist of all data or just selected categories of data. Following are samples of the TMS Report.

Traffic Management Report For Extensions

```
TRAFFIC MANAGEMENT REPORT
COLLECTED SINCE: 00/00/00 00:00:00
                                                                                PAGE    1
     |         NUMBER OF CALLS        |   TIME   |       OFF-DUTY
 STA | INCOMING | ANSWERED | OUTGOING |  IN USE  | DURATION | NO. OF TIMES
_____________________________________________________________________________

 300         1         0          0     00:00:00   00:00:00        0
 304         0         0         15     00:01:30   00:00:00        0
```

The TMS report for extensions shows:

- Extension number
- Number of incoming, answered and outgoing calls.
  Incoming calls are all calls that ring an extension (including recalls, ICM, Transferred and DIL calls). The system does not log voice announced calls as incoming calls.
  Answered calls are all calls the extension answers (without exception - including Call Pickup, Ring Groups and Hold recalls).
  Outgoing calls are all calls the extension places. Feature activation (such as DND) is not considered an outgoing call.
- Total time each extension was in use (not idle). This includes time a feature is active (such as DND).
- If ACD agent, number of times and duration off duty (out of service). See ACD/UCD report below. If an agent is removed from service, the Duration counter increments only when the agent returns. to service.

Traffic Management Report For ACD/UCD Groups

```
    MASTER EXT: 308
      MEMBERS
        309

CALLS WHEN ALL MEMBERS BUSY -     0
DURATION OF ALL BUSY        - 00:00:00
CALL ABORTED WHILE WAITING  -     0
```

The TMS report for ACD/UCD groups shows:

- Master extension and members of each ACD/UCD group
- Total number of calls to group when all members were busy
- Duration of the all-busy condition
- Number of outside callers who hung up (calls aborted) while waiting for a group member to become free. This does not include outside callers who hung up while listening to the ACD/UCD all agents busy message.

Traffic Management Report For Trunks

```
     |             INCOMING CALLS             |   CALLS   | CALLS   | TIME
LINE | NO. RCVD | ANSRD | LONG WAIT | TRMNATD | ABANDONED |OUTGOING |IN USE
_____________________________________________________________ _____________

 801       0         0         0          0          0        11     00:01:15
 802       0         0         0          0          0         2     00:00:16
```

The TMS report for trunks shows:

- Trunk number
- For incoming calls, total calls received, answered and terminated
  Received is the total of all incoming calls detected at each trunk.
  Answered is the total of all incoming calls actually answered by system users for each trunk.
  Terminated is the number of calls that were terminated by the caller (i.e., hung up on) before being answered in the system.
- Total calls the TMS report flags as Long Wait calls (see QT in programming below)
- Total of abandoned calls (where the outside caller hangs up while the call is on Hold, parked or being transferred)
- Total of all outgoing calls
- Total time trunk was in use

Traffic Management Report For Trunk Groups

```
    LINE GROUP: 801
      MEMBERS
        802

CALLS WHEN ALL MEMBERS BUSY -     1
DURATION OF ALL BUSY        - 00:05:16
```

The TMS report for trunk groups shows outbound information for the following (refer to the Line Rotaries feature):

- Master and members of each trunk group
- Total number of calls to group when all members were busy
- Duration of the all-busy condition

Conditions

(A.) The TMS Report only includes installed extensions and trunks. In addition, the report only includes extensions or trunks that had call activity since the data was last cleared.

(B.) Terminal programming may interfere with the TMS report. If you are programming a sub-menu (e.g., QE) and the TMS report is scheduled to print, the system buffers the report. The report displays as soon as you return to the main menu.

Default Configuration

TMS Report prints manually from the HE or HF options.

TRAFFIC MANAGEMENT REPORTING

Programming

Required Programming

➢ **H- System Status Reports, "HE- Traffic Management Summary"**
Print the TMS Report. The system does not clear the TMS data after the report runs.
[Return for all extensions/trunks or enter first extension/trunk-return. Enter last extension/trunk for specific extension/trunk.]

➢ **H- System Status Reports, "HF- Traffic Management Summary (With Data Cleared)"**
Print the TMS Report. The system clears the TMS data after the report runs.
[Return for all extensions/trunks or enter first extension/trunk-return. Enter last extension/trunk for specific extension/trunk.]

➢ **"QT- System Timers, Traffic Management Report Wait Time"**
Set the TMS Wait Time interval. If a call rings longer than this interval, the TMS report flags it as Long Wait. [5-99 seconds]

➢ **"QZ- SMDR Setup, TMS Report Print Modes"**
Set the TMS Report print mode:
0 Manual (from HE or HF) for all data.
1 Automatic (at preset time) for trunk data only. The data clears after the report runs.
2 Automatic (at preset time) for trunk and operator data only. The data clears after the report runs.
3 Automatic (at preset time) for all data. The data clears after the report runs.

➢ **"QZ- SMDR Setup, TMS Print Times Setup"**
Set the time that the TMS report should print (using modes 1-3). [00-23]

Other Programming

➢ **"T- Set System Date and Time"**
Set the system Date and Time. [MM/DD/YY=date, HH:MM:SS=time]

Related Features

"Attendant Positions"
The attendant can set the baud rate for the AUX Module serial port. Refer to page 283.

"Automatic Fault Reporting/Remote Maintenance"
The Backup and On-Line Program also backs up and stores the TMS report data. During restore, the system overwrites the existing TMS data.

"Station Message Detail Recording"
If you request TMS and SMDR reports to print at the same time, the SMDR report prints first.

"Time and Date Setting"
Time and Date appear on the TMS report. Also, the system administrator can have the TMS Report print at a preset time.

Feature Operation

None

Description

Transfer permits an extension user to send (i.e., extend) an active outside call to any other extension in the system. With Transfer, any extension user can quickly send an outside call to the desired co-worker.

A call a user transfers automatically recalls if not picked up at the destination extension. If the call is still not picked up, it rings all extensions with programmed ringing for the trunk. This assures that users do not lose or inadvertently abandon their transfers.

A user may Transfer a call screened or unscreened. With Screened Transfer, the transferring user announces the call to the destination user before hanging up. With Unscreened Transfer, the transferring party extends the call without an announcement.

Conditions

If an extension receiving a screened Transfer:
(A.) Answers the screen
(B.) Immediately hangs up (before the transferring extension hangs up)
(C.) The call goes on Exclusive Hold at the transferring extension.

Default Configuration

Transfer always allowed.

Programming

Required Programming

None

Other Programming

- **E- Extensions, "ED- Trunk Control, Ring Control"**
  An unanswered transferred call rings all extensions with ringing for the trunk. Transferred calls always ring the destination extension, regardless of Ring Control programming.
  [R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]
- **E- Extensions, "ED- Trunk Control, Access Control"**
  For each extension, assign access for the lines the extension should be able to answer. An extension can receive a Transfer on a trunk to which it doesn't have access. [Y=allow, N=deny]
- **E- Extensions, "EF- Incoming Voice Call Through Telephone Speaker"**
  For each extension, allow or deny incoming voice-announced Intercom calls to a keyset or ESL set. [Y=allow, N=deny]
- **"KS- Programming Keys for Keysets"**
  Assign line keys to keysets. (see page 439)
- **"QT- System Timers, Camp-On Time"**
  Set how long a transferred call waits at a busy ESL, ASI or OPX extension before recalling the extension that transferred it. [0-970 seconds]
- **"QT- System Timers, Number of Rings Before Recall"**
  Set the number of times a transferred call rings:
  - An idle or busy keyset
  - An idle ESL, ASI or OPX extension

  After this interval, the call recalls the extension that initially transferred it. This interval also determines how many times an unanswered transfer rings the transferring extension before diverting to extensions with ringing for the trunk. [3-15]

TRANSFER

Related Features

"Attendant Positions"

Calls transferred to an attendant do not recall the extension that initially transferred the call. The call also never diverts to extensions with ring and access for the trunk.

"Automatic Call Distribution"

Any user can Transfer a call to the ACD master number.

Any user on a ≥ Base 02.00/Aux 02.10 can transfer a call to an ACD agent. If the agent doesn't pick up the call, it recalls the extension that initially transferred it. It will not follow the agents hunting as in previous software versions.

"Call Coverage Keys"

Call Coverage provides one-button call Transfer.

"Call Forwarding"

An extension user can Transfer a call to an extension with Off-Premise Call Forwarding activated. To abort the procedure, the user can return to the initial call. If an attendant does this, the system places the trunk used for dialing the off-premise destination on Hold.

When making a screened Transfer of a trunk call to an extension with Off-Premise Call Forwarding, implement Tandem Trunking when the off-premise user answers.

"Call Parking"

Instead of transferring a call to an extension, a user can place it in a Park Orbit instead.

"Call Waiting (Camp-On)"

If an extension user tries to Transfer a call and hears busy tone, the user can dial 2 to Camp On.

"Extended Ringing"

With Extended Ringing, a transferred call rings an extension 15 times before recalling the extension that initially transferred it.

"Extension Hunting"

Any user can Transfer a call to the UCD master number.

"Group Ring (Ring Groups)"

Unscreened Transfers to ring groups do not recall the transferring extension if unanswered.

"Hotline"

Hotline provides one-button call Transfer.

"Off-Hook Signaling"

If an extension tries to Transfer a call and hears ring/busy, the user can dial 1 to initiate Off-Hook Signaling.

"Personal Greeting"

Outside calls ringing an extension directly (either DILs or via Transfer) hear the Personal Greeting, if enabled. The outside call then rings the specified extension. If there is no specified extension, the call rings all extensions with ringing for the trunk. Outside calls ringing a line key don't activate Personal Greeting.

"Privacy"

An extension with Privacy does not hear camp-on tones when a Transferred call is waiting.

"Speed Dial"

An extension can have Transfer codes stored under a One-Touch Speed Dial key.

"Station Message Detail Recording"

SMDR charges the last party on a call for the entire call. For example:

- Extension 304 user places a call.
- Extension 304 user transfers the call to extension 306.
- When 306 user hangs up, SMDR charges the entire call to 306.

"Tandem Calls (Tandem Trunking)"

When making a screened Transfer of a trunk call to an extension with Off-Premise Call Forwarding, implement Tandem Trunking when the off-premise user answers.

Feature Operation

To Transfer your call:

You can also use Hotline and Call Coverage Keys to Transfer calls. Refer to these features.

1. Do not hang up.
2. - (At a keyset) Press ICM.

   Listen for: *Dial tone*

   OR

   - (At an ESL set) Press TRF.

   Listen for: *Dial tone*
3. Dial extension number or press DSS key.

   Listen for: *Two beeps or ringing*
4. Announce the call.

   If you hear ringing, wait for party to answer before announcing the call. To Transfer the call unannounced, skip this step.

   If the extension you called doesn't pick up the call, it recalls to you. If you in turn don't pick it up, it rings all extensions that normally ring for the trunk.
5. Hang up.

   Your Transfer goes through.

To return to your outside call (if the called party doesn't want your Transfer):

1. - (At a keyset) Press flashing line key.

   OR

   - (At an ESL Set) Press HLD and dial * 7.

To receive a Transfer (if you get an Intercom call announcing it):

1. Stay on the line.

   The Transfer goes through when calling party hangs up.

To answer a transferred call ringing your phone:

Listen for: *Trunk ring*

1. Lift handset.

   If you have an ESL set, this answers the call. Skip the next step.
2. Press flashing line key.

VOICE MAIL COMPATIBILITY (INTEGRATED VOICE MESSAGING)

Description

The system is fully compatible with Integrated Voice Messaging Systems. These systems provide telephone users with comprehensive Voice Messaging and Automated Attendant features. Voice Messaging ends the frustration and cost of missed calls, inaccurate written messages and telephone tag. Voice Messaging frees a company's busy receptionists and secretaries for more productive work.

Automated Attendant automatically answers the system's incoming calls. After listening to a customized message, an outside caller can dial a system extension or use Voice Messaging.

Voice Messaging and Automated Attendant enhance the telephone system with the following features.

Call Forward to Voice Messaging System (Mailbox Call Forward)
Extension users can forward calls to the Voice Messaging System. Once forwarded, called extension's incoming calls connect to the called extension's mailbox. The caller can then leave a message instead of calling back later.

Mailbox Message Waiting (Leaving a Voice Message)
Mailbox Message Waiting helps a user who calls another extension that is busy, not answered or in Do Not Disturb. As with Call Forwarding, the caller can leave a message in the called extension's mailbox instead of calling back later. (This occurs only if an extension is in a Terminal Hunt Group that terminates at the Voice Messaging system master number. Refer to Extension Hunting for programming details.)

Message View
Display set users can press MSG to see how many messages are waiting. The system removes the Voice Message count after the user calls their mailbox.

Transfer to Voice Messaging System (Mailbox Transfer)
An extension user can Transfer a call to the user's own or a co-worker's mailbox. After the Transfer goes through, the caller can leave a message in the mailbox. For ≥Aux 02.10, an extension user can Transfer a call to a mailbox outside of the system's number plan range. Valid mailboxes can by any number from 000-999, limited by the Voice Mail System setup. To transfer the call, the extension user presses ICM + MSG + the mailbox number. In previous software versions, an extension user could only Transfer to mailboxes that were within the extension number plan (300-371).

Conversation Record
While on a call, a keyset user can have the Voice Messaging System record the conversation. The keyset user just presses a specially programmed Record key. Once recorded, the Voice Messaging System stores the conversation as a new message in the user's mailbox. After calling their mailbox, a user can save, edit or delete the recorded conversation. A voice announcement always precedes the recording.

Personal Answering Machine Emulation

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

A keyset user can have their extension's Subscriber Mailbox emulate a personal answering machine. This lets Voice Mail screen their calls, just like their answering machine at home. If activated, the extension's incoming calls route to the user's mailbox. Once the mailbox answers, the user hears two alert tones and the caller's incoming message. The user can let the message go through or lift the handset to intercept. Personal Answering Machine Emulation applies to all calls that ring the extension directly. It does not apply to Call Coverage, Group Call Pickup and Group Ring calls. Additionally, the extension must be idle. With ≥Aux Y2.0/Base Y5.0, Personal Answering Machine Emulation can optionally answer all calls or just trunk calls.

Alternate Night Mode Answering Enhancement (Direct Trunk Routing to a Personal Greeting)
The system offers alternate night mode routing to Voice Messaging. For voice mail systems with Automated Attendant, this allows simplified answering during off hours. Instead of routing to the night mode Automated Attendant, outside callers hear a brief recording and are asked to leave a message. To enable alternate answering:

- Program a terminal hunt group consisting of an uninstalled extension and the Voice Messaging system.
- Make the uninstalled extension the first member of the group.
- Assign an Assigned Night Answer (ANA) trunk (using the EI option) to the uninstalled extension. Refer to Night Answer for the specifics.

When a call rings in on the ANA trunk, Voice Messaging plays the personal greeting for the uninstalled extension. The caller can then leave a message in the uninstalled extension's mailbox. The caller does not hear the Automated Attendant night instructions.

Overflow to Voice Messaging

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Unanswered trunk calls can overflow to Voice Messaging. Instead of continually ringing, an unanswered trunk routes to the Automated Attendant. This gives outside callers all the options available in the Automated Attendant, such as:

- Dialing an extension number
- Dialing the Voice Messaging System
- Any other options programmed in the node

Overflow is available for any trunk ringing extensions with ring and access (i.e., in the Key Ring state).

Uninstalling Master Number

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

After you install Voice Mail, you have the option of reassigning VX ports and the Voice Mail master number. This may be necessary if you change your telephone or Voice Mail system configuration. In earlier software versions, uninstalling an ASI in the third cabinet (**E- Extensions, E2- Circuit Type = X**) could also uninstall the Voice Mail master in **QP- Voice Messaging Master Extension**. This could occur if the ASI you uninstalled was also the Voice Mail master extension.

Note:
Refer to the Voice Messaging System documentation for more information on the many Voice Messaging and Automated Attendant features.

Hardware Requirements
The Voice Messaging System connects to OPX or ASI ports. OPX ports require a Dual OPX/ASI module (P/N 88750). Refer to the Analog Station Interface and Off-Premise Extension features for additional information about these ports.

Conditions
None

VOICE MAIL COMPATIBILITY (INTEGRATED VOICE MESSAGING)

Default Configuration
Voice Mail not installed.

Programming

Required Programming

- **E- Extensions, "E2- Extension Circuit Type"**
  When connected to ASI P/N 89749, each Voice Messaging System port should have circuit type 51.
- **E- Extensions, "E5- Hunt Type"**
  Program each VX port with hunt type 06.
- **E- Extensions, "EA- UCD Group Master Extension Number"**
  Program each VX port with the master number assigned in QP programming below.
- **E- Extensions, "EK- Voice Mail (VX) Port"**
  Assign an OPX or ASI extension to each VX port.
- **E- Trunks, "E9- Direct Trunk Termination"**
  For each trunk the VX Auto Att. should answer, terminate it to the VX master number. (See EA above.)
- **E- Trunks, "EI- Night Call Routing"**
  For each trunk the VX Automated Attendant should answer at night, terminate the trunk to the master number (see EA above). For this application, make sure the E9 entry is 300.
- **"FC1- Reset System Queues"**
  Reset system queues after installing the VX.
- **"FC3- Reset VX Flag (Telephone Message Waiting Lamps)"**
  For a first time installation, use this option to reset the telephone MSG lamps.
- **"KS- Programming Keys for Keysets"**
  Designate a Record key (type R).
- **"QP- Voice Mail, Mailbox Installed"**
  Enable this option if the system has a Voice Messaging System connected. [Y=enable, N=disable]
- **"QP- Voice Mail, Voice Messaging Master Extension"**
  Select one of the VX ports programmed in the options above as the master extension.

Other Programming

- **"CP- Inhibit Call Forwarding (BY0:6)"**
  Disable Call Forwarding for VX ports. This prevents potential interaction between the VX ports and Selectable Display Messages. [0=allow Call Forward, 1=deny Call Forward]
- **"CP- Allow Privacy (BY1:6)"**
  To block incoming tones that might interfere with VX operation, enable Privacy for each VX port.
- **"CP- Single Ring OPX (BY2:7)" (≥Aux Y2.0/Base Y5.0)**
  Personal Answering Machine emulation can answer all calls [0] or just trunk calls [1].
- **E- Extensions, "E3- Extension Class of Service"**
  Assign Class of Service to VX ports. [00-27, 30 for operators]
- **E- Extensions, "E4- Next Extension in Hunt Group"**
  Enter 300 for all VX ports.
- **E- Extensions, "ED- Trunk Control, Access Control"**
  For Message Notification and/or Message Reminder callout, Voice Messaging System ports must have access to the trunks used for callouts. [Y=allow, N=deny]
- **E- Extensions, "ED- Trunk Control, Call-Out Control"**
  For Message Notification and/or Message Reminder callout, Voice Messaging System ports must have callout enabled for the trunks used for callouts. [Y=allow, N=deny]

➢ **"QC- Op. Programming, VX Overflow Ring Count"**

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Set no. of rings after which overflow occurs [1-255].

➢ **"QJ- Intercom Call Control, Alerts (Message)"**
Enable/disable the Msg Wait reminder. [N=allow, Y=deny]

Related Features

"Call Forwarding"
An extension can forward calls to the Voice Messaging System.

"Flexible Numbering Plan"
Flexible numbering may conflict with the Voice Messaging System database.

"Message Waiting"
Normal Message Waiting does not function if the system has a VX installed.

"Operator Assistance (OPA)"
A VX may contend for DTMF receivers required by OPA. Keep this in mind when installing both OPA and Voice Messaging in the same system. To minimize contention, use ASI P/N 89749 for VX.

"Voice Module Unit (VMU)"
A Voice Messaging system may contend for the DTMF receivers required by the VMU. Keep this in mind when installing both VMU and Voice Messaging in the same system. To minimize contention, use ASI P/N 89749 for Voice Messaging.

"Voice Prompting Messages"

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.10

An extension with Messages Waiting can periodically hear a reminder message. This reminder message requires a VMU.

Feature Operation

For more complete Voice Messaging system operating instructions, refer to the Integrated Voice Messaging system documentation.

To call your Voice Messaging System mailbox:

If you have messages waiting:

Listen for: *Periodic reminder message*

1. Lift handset.
2. - At a keyset, press MSG.

   Listen for: *Ringing*

   OR

   - At an ESL set, press * and dial 6.

   Listen for: *Ringing*
3. Wait for Voice Messaging System to answer.

   Refer to your Voice Messaging System documentation for the specifics.

To forward calls to your Voice Messaging System mailbox:

1. Lift handset.
   If you have a One-Touch Speed Dial key, you can press the key instead of using steps 2-5.
2. Press ICM.
   Listen for: *Dial tone*
   If you have an ESL set, skip this step.
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial Voice Messaging master extension number or press the MSG key.
   If you have an ESL, you must dial the Voice Messaging master extension number.
   You can optionally press a DSS Console Hotline key.
5. - Dial 1 to forward ringing calls you do not answer.
   OR
   - Dial 2 to forward ringing calls you do not answer and calls to your phone when it is busy.
   OR
   - Dial 3 to forward all your calls.
   OR
   - Dial 4 to enable Personal Answering Machine Emulation.
6. Hang up.

To cancel your Call Forwarding:

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
   If you have an ESL set, skip this step.
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Hang up.

To Transfer a call to the Voice Messaging System (keyset only):

1. Press ICM.
   Listen for: *Dial tone*
2. Press MSG.
   Listen for: *Dial tone stops*
3. - Dial extension number.
   To send the call to the Automated Attendant, dial the VX master number instead.
   OR
   - Press Hotline key.
   OR
   - Press DSS or DSS Console key.
   Listen for: *Dial tone*
4. Hang up.

To Transfer a call to the Voice Messaging System (ESL set only):

Note: The caller being transferred must enter the extension number of the person for whom they wish to leave a message.

1. Press TRF.

   Listen for: *Dial tone*

2. Dial the VX master number.

   Listen for: *Dial tone*

3. Hang up.

To record your conversation (if your keyset has a Record key):

Not available to ESL sets.

ICM On if an Intercom call

1. Press Record key.

   After a few seconds:

   Listen for: *Two beeps and an announcement when the Voice Messaging System starts recording your call*

To see how many Voice Messaging System messages you have in your voice mailbox:

Listen for: *Periodic voice reminder message*

1. Do not lift handset.
2. Press MSG.

To activate Personal Answering Machine Emulation:

1. Press ICM.

   Listen for: *Dial tone*

2. Dial PGM#.

   Listen for: *Dial tone stops*

3. Press MSG or dial Voice Messaging master extension number.
4. Dial 4 and press HF to hang up.

To cancel Personal Answering Machine Emulation:

1. Press ICM.

   Listen for: *Dial tone*

2. Dial PGM# and press HF to hang up.

VOICE MODULE UNIT (VMU)

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

The Voice Module Unit (P/N 88522) is a 12 Station Module enhanced with three channels of digital recording and playback capability. When added to your system, the VMU provides the following important new features previously not available:

- ACD Announcements
- Operator Assistance (OPA)
- Personal Greeting
- Voice Prompting Messages

In addition to playing back the standard Voice Prompting Messages, the VMU can also store additional system and user messages. The VMU provides up to 63 seconds of system message storage and 4 minutes and 15 seconds of user storage. The system messages are those recorded for Operator Assistance and ACD/UCD purposes. The user messages are the Personal Greetings (which can be up to 16 seconds long). The system messages are battery backed-up and are retained for about two weeks without system power. The user messages are dynamic and are lost when power fails or the system resets.

Although the VMU is similar to the OPA/VAU PCB (P/N 88211) in many respects, there are several important differences:

- The VMU does not provide the Auto Page or 900 Service Alert features.
- The VMU has three DTMF receivers (the OPA/VAU PCB has two).
- You can record on all three VMU channels (instead of two on the OPA/VAU PCB).
- The VMU does not provide silence compression (the OPA/VAU does).

Note:
You must install the VMU only as the inside station module in the main CEU. ***Do not install the VMU in any other cabinet or any other position.*** The VMU is operational about 20 seconds after system power-up, reset or initialization of the VMU messages. Before using the VMU for the first time, you must initialize the VMU messages.

Conditions
AUX Module ≥ 02.10 required.

Programming

Required Programming

Note:
After programming the VMU for the first time, you must clear (erase) the VMU messages. Refer to,"To initialize the VMU messages" in Feature Operation.

To have the VMU answer the trunk...

➢ **E- Trunks, "E9- Direct Trunk Termination"**
The VMU Automated Attendant can intercept incoming calls on a trunk day and night. Trunks can also be in an expansion cabinet (trunks 9-24). To set up, terminate the trunk to extension 404. Intercept occurs after the first ring. The caller can then dial any of the options offered by the Automated Attendant.

➢ **E- Trunks, "EI- Night Call Routing"**
To have the VMU intercept incoming calls on a trunk at night only, enter extension 404. Intercept occurs after the first ring.

To configure the VMU dialing and message options...

➢ **"CP- Inhibit OPA Transfers to Extension (BY0:1)"**
Allow/deny OPA Transfers to extensions with this Class of Service. [0=allow transfer, 1=deny transfer]

➢ **E- Extensions, "E3- Extension Class of Service"**
Assign Class of Service to extensions. [00-27, 30 for operators]

➢ **"QE- Line Gain Table, Gain"**
Program the last two trunk ports of the VMU for -6 dB gain.

➢ **"QH- OPA Configuration, OPA Group Routing"**
Assign the termination (destination) for each OPA access digit (1, 2, and 4-9). Callers reach the termination when they dial the digit. The termination can be an extension, ring group or an ACD/UCD master number. The recorded messages (see Feature Operation below) should describe the terminations reached by these single digits. Don't assign an OPA access code to an extension with BY0:1 set (1).

You can enter X for any OPA access digit (1-9). When you enter X, the digit becomes the leading digit for dialing Intercom calls. For example, if OPA GROUP #9=X, dialing 9304 will ring extension 304. You cannot have single digit access to Ring Group 555.

➢ **"QH- OPA Configuration, Line n Day and Night Message"**
For each trunk, indicate the message (2-7) that the caller hears after the VMU answers the trunk in the day and night modes.

To set Automatic Attendant Overflow...

➢ **"QH- OPA Configuration, Overflow MSG for Operator (1-4)"**
For each operator, designate the OPA message (2-7) for overflow calls. To disable call overflow to the VMU, enter 0.

➢ **"QT- System Timers, OPA Overflow Ring Control"**
Indicate the number of rings (3-15) before operator overflow to the VMU occurs. This pertains only to operator overflow calls.

Other Programming

➢ **E- Extensions, "ED- Trunk Control, Ring Control"**
For operator overflow, designate the ringing options for each trunk. Also, designate ring for timed-out calls. [R=immediate ring, D=delayed ring, L=lamp only (no ring), N=night ring]

➢ **E- Extensions, "ED- Trunk Control, Access Control"**
For operator overflow, assign access for the lines the attendant should be able to answer. Also, designate access for timed-out calls. [Y=enable, N=disable]

➢ **"KS- Programming Keys for Keysets"**
For operator overflow, program the types of keys that will ring the attendant. (see page 439)

➢ **"QT- System Timers, Number of Rings Before Recall"**
A VMU call to an extension ring for this interval. After this interval expires, the call rings all extensions with ring and access for the trunk. [3-15]

Related Features

"Automatic Call Distribution"
An ACD supervisor can also record the VMU messages.

"Central Office Calls, Answering"
An VMU call rings the destination extension on the line key that corresponds to the trunk that the VMU answered. If the extension has no line key for the trunk, the call rings the extension's loop key.

"Direct Inward System Access (DISA)"
To allow the DISA caller to record, erase or listen to VMU messages, enable the following in the DISA trunk's COS:
- Call Forwarding (BY0:6=0)
- ACD Supervisor (BY2:6=1)

"Operator Assistance (OPA)" / "Personal Greeting" / "Voice Prompting Messages"
These features are provided when a VMU is installed with the AUX Module $\geq$ 02.10.

"Voice Mail Compatibility (Integrated Voice Messaging)"

A Voice Messaging system may contend for the DTMF receivers required by the VMU. Keep this in mind when installing both VMU and Voice Messaging in the same system. To minimize contention, use ASI P/N 89749 for Voice Messaging.

Feature Operation

To initialize the VMU messages:

Initializing erases all the existing VMU messages, if any.. This also erases the ACD All Agents Busy message and Personal Greetings. Y

1. Lift handset. Press ICM.
   Listen for: *Dial tone*
2. Press PGM#.
   Listen for: *Dial tone stops*
3. Dial 68.
4. Press PGM#.
5. Dial 9.
   Listen for: *Dial tone*
   If you change your mind, dial 6 to cancel this procedure.

To record an OPA message (if you are an attendant or ACD Supervisor):

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial 68.
5. Dial OPA message number (01-07).
   Message 02 is the error message. A caller dialing an incorrect code hears message 02. Make sure you program this message.
   Message 00 is the ACD/UCD overflow message. Refer to Automatic Call Distribution.
   Message 01 is the "All lines are busy..." message. Even though you can record message 01, the system uses the preset "All lines are busy..." message instead.
6. Wait for voice instructions, then begin recording.
   You can record a message up to 16 seconds long. The system indicates if your message is too long.

To listen to a previously recorded OPA message (from your attendant or ACD Supervisor extension):

1. Lift handset.
2. Press ICM.
   Listen for: *Dial tone*
3. Press PGM#.
   Listen for: *Dial tone stops*
4. Dial 685.
5. Dial OPA message number (00-07).

To call into the system using Operator Assistance:

1. Dial system telephone number.
2. After the VMU answers your call, dial announced option:
   - Dial single-digit option.
     OR
   - Dial 3 plus the extension number you wish to reach.
     The incoming call rings the destinat•ion extension on a line or loop key (at the Trunk ring rate). If unanswered, an OPA call to an extension rings all extensions with ring and access for the trunk.

VOICE PROMPTING MESSAGES

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

The system plays Voice Prompting Messages to inform a user of the status of their call. Voice Prompting Messages help a user as the call progresses. In addition, Voice Prompting Messages remind users when they have activated certain features (such as Call Forwarding). The chart below shows the Voice Prompting Messages.

Voice Prompting Messages

This message...	Occurs when user...
All lines are busy. For automatic Callback, please press the Callback key.	Tries to place a call when all trunks in the rotary are busy.
Audio file is full.	Tries to record a Personal Greeting and no OPA or OPA/VAU memory is available.
Please do not disturb.	User calls an extension in DND.
Please hold on. All lines are busy. Your call will be answered when a line becomes free.	Calls a busy UCD or ACD group.
Please hold on. Your call is being rerouted.	Calls an extension that is Call Forwarded off-premise.
Please start recording <beep>.	Starts to record a Personal Greeting, OPA announcement, etc.
<beep> Recording finished.	Exceeds time allotted for recording a Personal Greeting, OPA announcement, etc. Also occurs if user pauses too long while recording.
The lowest cost line is busy. Please wait for the next one.	Places a call using ARS when all trunks in the preferred service are busy.
The number you have dialed is not in service.	Calls a valid, but inoperative extension.
The time is...	Dials 8 on an idle extension.
This is station...	Dials 6 on an idle extension.
You have a message.	Has a Message Waiting (voice or Voice Messaging System).
Your call cannot go through. Please call the operator.	Tries to place a Toll Restricted call.
Your calls have been forwarded	Has forwarded calls. Message reminds user hourly that calls are forwarded.
Vacant number.	Calls an invalid (not installed) extension.

Voice Prompting Messages requires a VMU Module.

Conditions
Requires AUX Module ≥ 02.10.

Default Configuration
Voice Prompting Messages occur as indicated in the chart above when the VMU is installed.

Programming

Required Programming
None

Other Programming
- **"QJ- Intercom Call Control, Alerts (Call Forwarding)"**
  Enable/disable the Voice Prompting Message, "Your calls have been forwarded." [N=allow, Y=deny]
- **"QJ- Intercom Call Control, Alerts (Message)"**
  Enable/disable the Voice Prompting Message, "You have a message." [N=allow, Y=deny]

Related Features

"Call Forwarding"
A voice message can periodically announce when an extension's calls are forwarded. For Off-Premise Call Forwarding, a voice prompt plays when the system reroutes the call.

"Do Not Disturb"
Voice Prompting Messages provide the Message, "Please do not disturb."

"Intercept of Calls"
The system may intercept (prevent) certain calls a user places. Intercept can occur when:
- The user dials an invalid code
- The user places a call to an unassigned (uninstalled) extension
- The user places an outside call not allowed by Automatic Route Selection or Toll Restriction

"Line (Trunk) Queuing"
A user queuing for a busy trunk group hears, "All lines are busy. For automatic Callback, please press the Callback key."

"Message Waiting"
When a Message Waiting indication is flashing an extension, that extension hears "You have a message." as a reminder of unanswered messages.

"Personal Greeting"
An extension user can record a personalized voice message for their callers.

"Selectable Display Messages"
If an extension user activates Selectable Display Message, a voice prompt periodically announces, "Your calls have been forwarded."

"Time and Date Setting"
Any keyset or ESL user can dial 8 to hear the voice prompt announcing the time.

"Voice Module Unit (VMU)"
With AUX Module ≥ 02.10, the VMU module provides the Voice Prompting Messages.

"Toll Restriction"
The voice prompt, "Your call cannot go through. Please call the operator." will be heard if an extension tries to dial a Toll Restricted number.

"Voice Mail Compatibility (Integrated Voice Messaging)"
Voice Messaging and Automated Attendant give callers additional Voice Prompting Messages.

Feature Operation

None

VOLUME CONTROLS

Description

Each keyset and ESL telephone has three separate volume adjustments: Background Music, handset and Handsfree. The Background Music adjustment also sets the volume of incoming ringing and paged announcements. With Volume Controls, each keyset or ESL user can individually set volumes to their most comfortable level.

When the user sets the volume for BGM and Intercom calls (handset or Handsfree), the level remains until the user changes it. When the user sets the level for outside calls (handset or Handsfree), the level remains only for that call. The system re-establishes a mid-range (nominal) level for the next outside call. In ≥ Aux Module Y2.0, however, the system can optionally retain the user set level.

Pressing the VOL UP or VOL DN key changes the volume by 3 dB. This doubles or halves the volume level. For example, to reduce the volume by 9 dB, the user presses VOL DN three times. To increase the volume by 9 dB, the user presses VOL UP three times.
The following table shows, for each type of call:

- The nominal (default) volume level
- The minimum and maximum levels (in dB)
- The number of presses required for each minimum or maximum

Type of Call	Low (steps)	Nominal	High (steps)
Ring, page and BGM	-21 dB (-5)	-6 dB	+9 dB (+5)
Intercom	-15 dB (-3)	-6 dB	+9 dB (+5)
Line	-9 dB (-3)	0 dB	+9 dB (+3)

Note:
The system sets the Distinctive Ringing tones for trunks and the Door Box chimes at 0 dB. Adjusting the volume at the phone cannot change these levels.

Conditions

None

Default Configuration

See above.

Programming

Required Programming

None

Other Programming

➢ **E- Extensions, "EK- Retain Trunk Volume Setting"**

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Enter Y if the system should apply the user-set volume for trunk calls. Enter N if the system should apply a median volume level for each new trunk call.

➢ **"QE- Line Gain Table, Gain"**
Set the gain for each trunk. [+6 dB gain, +3 dB gain, 0 dB, -3 dB loss, -6 dB loss, -9 dB loss, -12 dB loss]

Related Features

"Analog Station Interface (ASI)" / "Off-Premise Extension (OPX)"

Single line sets connected to ASIs or OPX ports do not have volume controls. The system sets their Intercom volumes at a nominal level.

"Automatic Route Selection"

In AUX Module ≥ 02.10, pressing VOL UP or VOL DN while listening to ARS dial tone has no effect on the dial tone volume. The ARS dial tone volume is preset to an optimum level in system software. It cannot be adjusted by the user.

"Digital Door Box"

An extension user cannot adjust the volume of the Door Box chimes.

"Headset Compatibility"

The user can also adjust the volume of the signals in a customer-provided headset.

Feature Operation

To adjust the volume of Background Music, incoming ringing and paged announcements:

1. Press VOL UP or VOL DN while feature is active.

To adjust the handset volume:

1. Press VOL UP or VOL DN while on a handset call.

To adjust the Handsfree (speaker) volume:

1. Press VOL UP or VOL DN while on a Handsfree call.

   The volume level setting for the previous Handsfree Intercom call determines the volume of your incoming voice announcements.

WALKING CLASS OF SERVICE

Description

Walking Class of Service lets an extension user temporarily override Class of Service dialing restrictions. This helps a user that must place an important call while at a co-worker's phone. Walking Class of Service lets the user:

- Go to a co-worker's phone
- Implement Walking Class of Service
- Place an outside call that the extension normally restricts

Walking Class of Service overrides the following CP- Program COS restrictions (refer to the Class of Service feature):

- Allow Only Intercom Calls at Night (BY0:2)
- Allow Only Local Calls at Night (BY1:4)
- Allow Only Local Calls (Day or Night)(BY1:3)
- Extension Toll Restriction Level (BY1:1)[1]

Walking Class of Service also overrides:

- E8- Line Access Options, Allow Line Code Dial-Up
- E8- Line Access Options, Access to Groups 90-95 (not on key systems)
- ED- Trunk Control, Call-Out Control

Walking Class of Service does not override:

- ED- Trunk Control, Access Control

Conditions

None

Default Configuration

Walking Class of Service disabled (no code programmed).

Programming

Required Programming

➢ **"QG- DISA Code"**
Program the Walking Class of Service code. This is also the DISA code. [8 digits maximum]

Other Programming

None

Related Features

"Direct Inward System Access (DISA)"
The system uses the DISA code for Walking Class of Service.

"Equal Access Compatibility"
Toll Restriction does not restrict Equal Access calls placed using Walking Class of Service.

"Last Number Redial" / "Save"
If an extension user implements Walking Class of Service to place a call, Last Number Redial and Save can redial it.

"Toll Restriction"
An extension user can implement Walking Class of Service to temporarily override Toll Restriction/COS programming.

[1] When implemented at an extension, Walking Class of Service temporarily assigns that extension toll level 0.

Feature Operation

To use Walking Class of Service to place an outside call:

1. Lift handset.
2. Press ICM.

   Listen for: *Dial Tone*

   If you have an ESL set, skip this step.
3. Press # twice.

   Listen for: *Dial tone stops*
4. Dial Walking Class of Service code.

   Listen for: *Second dial tone*
5. Dial code for outside call.

   You may be able to dial:

   A trunk extension number (See Direct Trunk Access)

   A trunk access code (e.g., 801)

   Trunk group access code - 9 or 90-98 (See Line Rotaries)

- For Your Notes -

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Programming

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Before Reading This Section

This section provides detailed information on each of the system's programmable options. Use these options to customize your system's features. For example, after reading a feature description in Section 1, review the feature's programming requirements. Then, turn to this section for the specifics.

To change the system's programmable options, you must connect a programming terminal to the system. (Refer to Connecting a Programming Terminal below.) The terminal uses menus to show you the different options. This section is organized just like the menus you see on your terminal.

How to Use This Section

This section subdivides the description for each programming option into the following headings:

Description tells what the programming option is. Along with the Description are the *Conditions* and *Default Value*. Conditions describes any limits or special considerations that may apply to the option. Default Value lists the default (factory-installed) setting for the option. When initially installed, the system uses the Default Value.

Feature Reference lists all the features that require this option. If a feature is listed here, you must program the option to get the feature to work.

Instructions tells you how to enter data for this option on the Program Record Form (PRF) and the programming terminal. Use the PRF to keep a record of your programming.

Connecting a Programming Terminal

Your programming terminal must be a standard ASCII device with an RS-232-C interface. The programming terminal is typically a keyboard with attached CRT or printer.

To connect a programming terminal to the system (Figure 5):

1. Using a standard RS-232-C cable (with ends as shown), connect the programming terminal to the AUX Module serial port.
2. Plug the programming terminal into an AC receptacle. Do not use the AC receptacle dedicated to the system power supply.
3. Set the programming terminal parameters to match the AUX Module serial port. For a newly installed system, set the terminal as follows:
   - 8 data bits
   - 1 stop bit
   - No parity
   - 1200 baud

   Use the J- Communications Port Parameters option or the attendant's phone to change the AUX Module serial port speed.

To set the AUX Module serial port speed from the attendant's phone (usually extension 300):

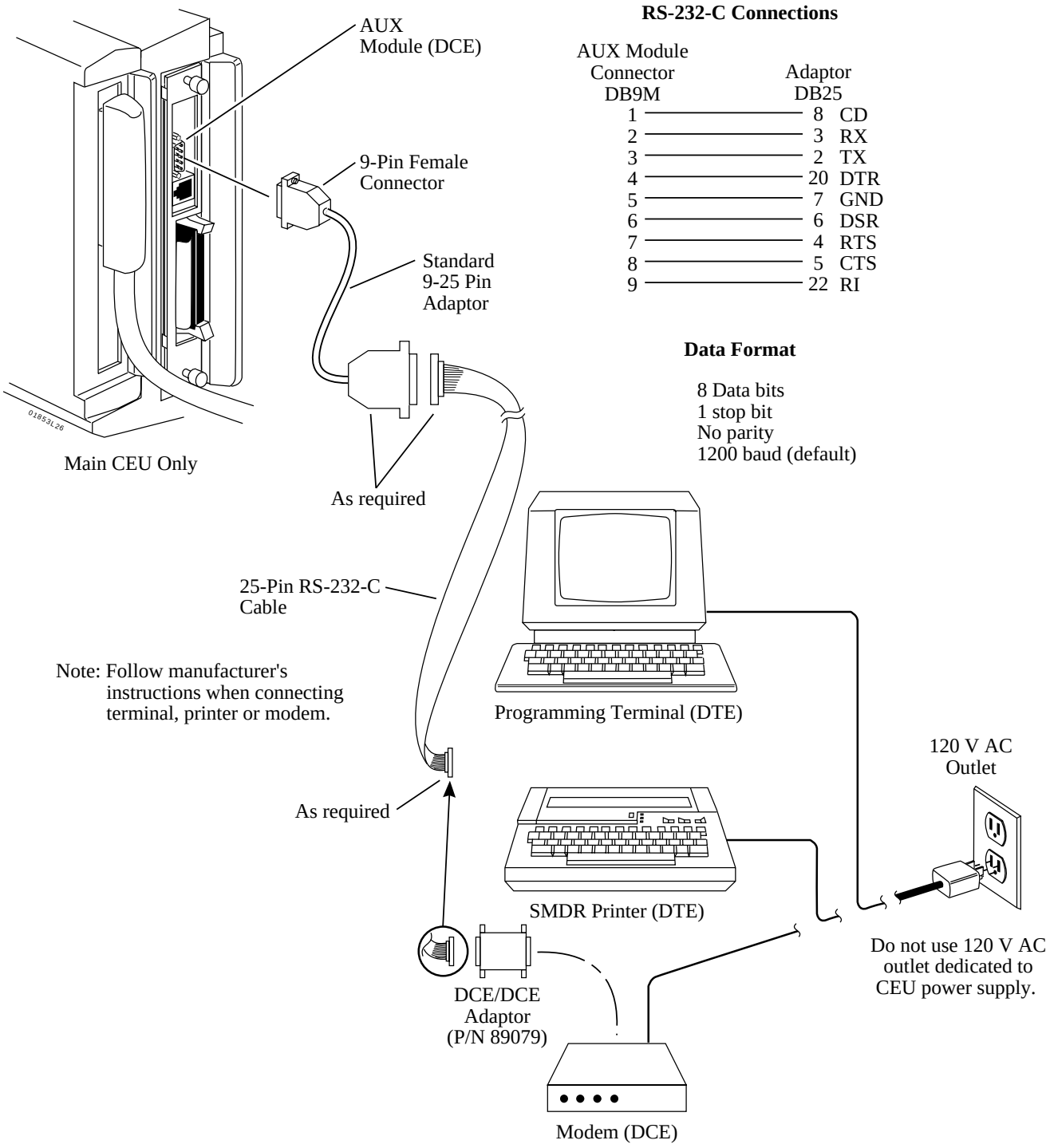
1. Lift handset.
2. Press ICM.

   Listen for: *Dial tone*
3. Press PGM# and dial 0.

   Listen for: *Dial tone stops*
4. Select the baud rate. The choices are:

0=300 baud	1=1200 baud
2=2400 baud	3=4000 baud
4=9600 baud	5=19.2K baud
5. Hang up.
6. Press RETURN on the programming terminal. You should see the Main Menu.

Figure 5 CONNECTING THE PROGRAMMING TERMINAL



The Main Menu

The Main Menu (below) shows your basic programming options.

```
                                ACCESS|                                ACCESS
CMD        DESCRIPTION          LEVEL |CMD        DESCRIPTION          LEVEL
 A  TOLL RESTRICTION                  | K  KEY DATA
     - LIST                [L]   0   |     - LIST DATA           [L]   0
     - PROGRAM             [P]   1   |     - DSS,KEYSET        [D,S]   1
     - INITIALIZE          [I]   1   | L  LIST
 C  CLASS OF SERVICE TABLE            |     - SYSTEM DATA         [S]   0
     - LIST                [L]   0   |     - EXTENSION DATA      [E]   0
     - PROGRAM             [P]   1   | M  CANCEL ACCESS LEVEL          0
 D  DISPLAY MEMORY                0   | N  EXTENSION NAMES/MESSAGES
 E  EXTENSION SETUP  [0-9,A-L,Y,Z]    |     - LIST                [L]   0
     - STATIONS                   1   |     - PROGRAM/DIRECTORY    [P/D]1
     - LINES                      2   | OL LABEL MAKER                  0
 F  MISC. SYSTEM DATA                 | OS SELECTIVE HISTORY   [D,F,N]   0
     - EPROM CHECKSUMS   [<CR>]   0   | P  PRINT SMDR REPORT            1
     - PARAMETER RESET      [C]   1   | Q  SYSTEM PARAMETERS     [A-Z]   2
 GA ARS EDITOR                    2   | R  ERROR LOG REPORT             0
 H  SYSTEM STATUS REPORTS  [A-I]   0   | S  SPEED DIAL
 I  SYSTEM UTILITIES              1   |     - LIST                [L]   0
     - PORT RELEASE         [P]   1   |     - PROGRAM/ROTARY CONV. [P/R]1
     - SIDE TONE TEST       [S]   1   | T  SET SYSTEM DATE/TIME         0
     - RESET LINE CARD      [R]   1   | V  CLEAR ERROR LOG              2
     - RESET EXP CABINET    [E]   1   | X  EXCHANGE EXTENSION DATA      1
 J  COMM PORT PARAMETERS          0   | Y  ACCESS-LEVEL PASSWORDS       1
                                      | Z  CLEAR SMDR RECORDS           2

FOR MENU OF COMMANDS ENTER <CR>[1]
```

To select an option from the Main Menu:

1. Press the indicated key.

   *For example, to set the system date and time, press **T**. All your entries must be upper case.*

Entering an Access Code

When you enter data at the programming terminal, the system may ask you to enter an access code (password). As you can see from the ACCESS LEVEL column on the Main Menu, the system has three access (password) levels: 0-2. Level 0 programming options don't require you to enter a password. To use Level 1 options (such as AP), you must first enter the level 1 or 2 password. To use level 2 options (such as GA), you must first enter the level 2 password. Refer to the System Programming Password Protection feature for more information.

To enter an access code (if you press a key and see, "ENTER ACCESS CODE"):

1. Enter the level 1 or 2 Access Code, as required.
   - The default level 1 password is carriage return (ENTER).
   - The default level 2 password for the key system is DS01K.
   - The default level 2 password for the hybrid system is DS01H.

   If you install an AUX Module in the system and don't initialize, the level 2 password is shown below according to your base's software level.

[1] When you enter Y for QZ- SMDR Printout All the Time, you no longer see the Main Menu prompt: FOR MENU OF COMMANDS ENTER <CR>.

Versions Prior to 02.40	02.40 and higher
DCH or ONYXVSK (depending on your software version)	DS01K

You must make your entry within ten minutes. If you don't, you'll have to enter the password again.

Press RETURN.

The Sub-Menus

Certain Main Menu options have sub-menus. When you type a letter for a Main Menu option, you see a prompt (-CMD>) indicating that the option has a sub-menu. If you press RETURN, you see the sub-menu. The sub-menu shows additional options. For example, when you type S, you see: S-CMD. If you press RETURN, you see the Speed Dial sub-menu:

```
SYSTEM/STATION SPEED DIAL
    L- LIST MODE
    P- PROGRAM MODE
    R- ROTARY CONVERSION
```

The following Main Menu items have sub-menus:

```
A- TOLL RESTRICTION
C- CLASS OF SERVICE
E- EXTENSION SETUP
FC- RESETS
GA- ARS
H- SYSTEM STATUS REPORTS
I- SYSTEM UTILITIES
K- KEY DATA
L- LIST
N- EXTENSION NAMES/MESSAGES
O- LABEL MAKER/SELECTIVE HISTORY
Q- SYSTEM PARAMETERS
S- SPEED DIAL
```

Entering Data, The Basics

To enter data for an option, just access the option and type in the appropriate response. For some options you have to press RETURN after your response, for others you don't.

When you access an option, you see the option's prompt followed by the current programmed value. For most options, pressing RETURN leaves the current programmed value unchanged.

Note:
When programming the E options for trunks, you can enter the trunk extension number (e.g., 480) or the trunk number (L01). Trunk numbers always run sequentially, starting with L01.

The chart below describes the special-function keys:

Press this key...	For this function...
RETURN	Accept the value you type in or leave the current programmed value unchanged.
SPACE BAR	Temporarily halt a listing.
ESC	Cancel an action and return to the Main Menu. Since the system has a buffer, the cancellation may not be immediate.
BACKSPACE	For many options, erases the character to the left of the cursor.

To erase an entry, different options require different responses. Refer to the appropriate option in this section if you need to erase an entry.

- When entering extension or trunk data for circuit types 00-06, 51, Z and M, use Table 3 in the Program Record Form.
- When entering trunk data for circuit types 07-19, use Table 4 in the Program Record Form.

Programming Class of Service

When programming Class of Service (CP), you usually enter a value for each bit of each byte. You do, however, have some additional options. If you press RETURN after programming a byte, the system accepts your entry and skips to the next COS number. Or, you can press ESC in the middle of a byte to cancel your entries. To leave a COS unchanged, press RETURN before typing any data.

Programming a Newly Installed System

When programming a new system, you may find the following helpful:

- Verify your trunk circuit types. All connected trunks default to type 10. You may have to reprogram E2-Circuit Type for all trunks. (Be sure to enter X for all uninstalled trunks.)
- Set the system time (using the attendant's phone or the T- Set System Date and Time option).
- Run the HF- Traffic Management Summary (with Data Cleared) report. This clears out any unnecessary TMS reports that may have occurred during installation.
- Use the V- Clear Error Log option to clear the System Error Report. This clears out any unnecessary error log reports that may have occurred during installation.
- Use the QE- Line Gain Table option to set the relative gain for each trunk. Refer to this option to find out how to test the trunk signal levels before you adjust the gains.
- Use FC1 to reset the system queue elements.
- Set the trunk side tone levels. To do this -

  To set side tone automatically...
  Use the IS option
  Power the system off then on
  To set side tone manually...
  Use the QE- Sidetone Network option

Phone Programming Cross-Referenced to Terminal Entries

Program	Phone Programming	Terminal Programming
Program 1 - System Options (Class of Service, Direct Line Access, Off-Premise Call Forward, Assign Toll Restriction, Call Forwarding, etc.	Key 1	CP (Bytes 0, 1 and 2)
Program 2 - ICM Signaling, Voice Calls, Handsfree	Key 2	QJ
Program 3 - System Features (Operator Ext., Voice Mail, Walking Class of Service, etc.)	Key 3	QC, QD, QP, QX, QQ, J
Program 4 - Timers	Key 4	QT
Program 5 - PBX Access Codes	Key 5	QB
Program 6 - Customize Toll Restriction Levels	Key 6	AP
Program 7 - BGM, MOH, Paging, Extension Outputs, Relays	Key 7	QM
Program 8 - Selectable Display Messages	Key 8	NP (600-615)
Program 10 - Line Port Characteristics (DP, DTMF, Line Gain, PBX Line, Side Tone Test, Names)	Key 10	E2 (lines), NP
Program 11 - Line Groups (90-98)	Key 11	QF, EA, E4
Program 12 - Line Features (Call Pickup Group, DTD, DTN, Toll Restriction, COS)	Key 12	E9, EI, EJ, EC, COS
Program 14 - Port Extension Type, Port Circuit Type, Name	Key 14	E2, NP
Program 15 - Extension Program Levels	Key 15	Not Used In Terminal Programming
Program 16 - Extension Line and Group Access	Key 16	E8, ED
Program 17 - Extension Key Assignments and Key Copying	HOLD	KS
Program 18 - Extension Features (DND, COS, Ring Group Member, Line Dial-Up, Off-Hook Ringing, Page Zone, Speed Dial, Door Box, Ringing, Hotline, Headset, Prime Line, etc.)	CONF	CP, E3, E6, E7, E8, E9, EB, EC, ED, EE, EF, EH, EK, EL, KS, QD, QV
Program 19 - Extension Hunting (Circular Hunting, Terminal Hunting, UCD, ACD)	MIC/DND	E2, E4, E5, EA, EF, FC1, QT
Program 20 - System Initialization	ICM	GOTOI

Description

Use the AI option to initialize Toll Restriction. Initialization loads the standard (default) Toll Restriction programming. Always initialize when programming Toll Restriction for the first time.

CAUTION:
Initialization erases all previous Toll Restriction programming.

Conditions

None

Default Value

Toll Restriction not initialized.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:
No entries required.

To initialize the Toll Restriction data:

1. Type AI. You see: INITIALIZE DATABASE?
2. Type Y. You see: DONE!
3. - Enter another option from the Toll Restriction menu.

   OR

   - Press ESC to return to the Main Menu.

A- TOLL RESTRICTION
AL- LIST TOLL RESTRICTION

Description

Use the AL option to list (display) the programmed AP- Program Toll Restriction options for each toll level.

Conditions

None

Default Value

ACTIVE DIAL PAD -Yes
ALLOW SPECIAL ACCESS (N11) DIALING -Yes
ALLOW 0+ DIALING -Yes
ALLOW DIRECT INT'L DIALING -Yes
ALLOW EQUAL ACCESS -Yes
EQUAL ACCESS ALLOW TABLE
  TABLE EMPTY
ALLOW 1+NNX DIALING -Yes
1+NNX ALLOW TABLE
  TABLE EMPTY
ALLOW NNX DIALING -Yes
NNX ALLOW TABLE
  TABLE EMPTY
ALLOW NPA DIALING -Yes
NPA ALLOW TABLE
  TABLE EMPTY
SIX DIGIT ANALYSIS -Yes

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entries required.

To list the Toll Restriction data:

1. Type AL. You see: ENTER TOLL LEVEL
2. Enter the toll level you want to list (1-7). The programmed Toll Restriction data displays. You then see: DISPLAY NEXT LEVEL?.
3. - Press return to return to the Toll Restriction menu.

   OR

   - Press Y to display the data for the next toll level.

   OR

   - Press ESC to return to the Main Menu.

Description

When entering Toll Restriction data, use this option to specify the toll level you want to program. Valid toll levels are 1-7. An extension's Class of Service determines its toll level. When programming, the AP prompts that follow pertain to the toll level you specify here.

Conditions

None

Default Value

All Classes of Service have Toll Level 0 (no restriction).

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter the toll level you want to program on Table 1.

To enter data at the programming terminal:

1. Type AP. You see: ENTER TOLL LEVEL
2. Enter the toll level you want to program (1-7). Go to Allow Active Dial Pad on the next page.

A- TOLL RESTRICTION
AP- ALLOW ACTIVE DIAL PAD

Description

Use this option to enable/disable continued dialing for extensions. With continued dialing, the telephone outputs a digit over a trunk each time the user presses a dial pad key. The system never turns off the dial pad. Without continued dialing, the system turns off the extension's dial pad six seconds after the user dials their last digit.

Conditions

Toll level 0 always has Continued Dialing.

Default Value

Continued dialing enabled.

Feature Reference

"Special Services and OCC Compatibility"

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ACTIVE DIAL PAD?
2. Enter Y(es) or N(o) for this option. Go to Allow Special Access (N11) Dialing on the next page.

Description

Use this option to allow/prevent an extension user from directly dialing N11 and 1+N11 calls. (N is any digit 2 to 8.) If restricted, the system terminates the call on the third digit of an N11 call and the fourth digit of a 1+N11 call.

Conditions

(A.) To restrict international (011) calls, refer to Allow Outside Operator (0+) Dialing below.
(B.) The system never restricts 911.

Default Value

Special Access Dialing allowed.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ALLOW SPECIAL ACCESS (N11) DIALING?
2. Enter Y(es) or N(o) for this option. Go to Allow Outside Operator (0+) Dialing on the next page.

A- TOLL RESTRICTION
AP- ALLOW OUTSIDE OPERATOR (0+) DIALING

Description

Use this option to allow/prevent an extension user from directly dialing 0 to get an outside (telco) operator. These calls can include:

- Operator assisted calls
- Credit card calls
- 011 international calls

If this option restricts 0+ dialing, the system terminates the call as soon as the user dials 0.

Conditions

Even if allowed by this option, International Dialing below may still prevent 011 international calls.

Default Value

0+ dialing allowed.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ALLOW 0+ DIALING?
2. Enter Y(es) or N(o) for this option. Go to Allow International Dialing on the next page.

Description

Use this option to allow/prevent an extension user from directly dialing a 011 international call. If this option restricts 011 dialing, the system terminates the call as soon as the user dials 01.

Conditions

(A.) To allow 011 dialing, you must first allow 0+ dialing in Allow Outside Operator (0+) Dialing.
(B.) Some or all portions of Mexico and Canada are included in the same numbering plan as the United States. This is termed the North American Numbering Plan (NANP). Mexico and Canada are served by area codes within the NANP. To restrict these calls, use the Allow NPA Dialing option.

Default Value

011 dialing allowed.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ALLOW DIRECT INT'L DIALING?
2. Enter Y(es) or N(o) for this option. Go to Allow Equal Access on the next page.

A- TOLL RESTRICTION
AP- ALLOW EQUAL ACCESS

Description

NOT Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Use this option to allow/prevent an extension user from directly dialing Equal Access (10XXX) calls. If allowed, the system compares the 10XXX code the user dials to the programmed Equal Access List. The list can be either an allow or deny list. This means the list can either selectively allow or deny the dialed code. The system does not further Toll Restrict the call.

If this option restricts 10XXX dialing, the system terminates the call as soon as the user dials 10 and any digit. If the user dials a code that is not allowed by the Equal Access List, the system terminates the call after the code.

Note:
This option does not apply to ≥ Aux Module Y2.0/Base Y5.0. In these versions, the Equal Access list is eliminated. The system does not prevent use of Equal Access. It can, however, Toll Restrict the telephone number a user dials. Refer to the Equal Access Compatibility feature.

Conditions
None

Default Value
Equal Access Dialing allowed. The Equal Access List is an allow list with no entries. An empty list allows all codes.

Feature Reference

"Equal Access Compatibility"

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.
   If you enter N, do not go to steps 2 and 3.
2. If you enter Y, indicate if the Equal Access List is a deny list or an allow list.
   For example, to have Equal Access only for a few specific codes, make the list an allow list.
3. Enter the codes in the Equal Access List.
   For example, if the list is an allow list only for 10288, enter only 288 in the list.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ALLOW EQUAL ACCESS?
2. Enter Y(es) or N(o) for this option.
   If you enter N, go to allow 1+NNX Dialing.
3. Use the chart below to enter data into the list. Go to Allow 1+NNX when you complete the list.

From this menu	Type this	Function	To use these options	
AP-CMD>	**Enter ↵**	*Display list of options.*		
	A	*Add a code to the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	D	*Delete a code from the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	L	*Display the codes in the list.*		
	Q	*Exit this list and go to the next Toll Restriction option.*		

01850B11 (I)

A- TOLL RESTRICTION
AP- ALLOW 1+NNX DIALING

Description

Use this option to allow/prevent an extension user from directly dialing 1+NNX (1 + exchange) calls. If allowed, the system compares the 1+NNX code the user dials to the programmed 1+NNX List. The list can be either an allow or deny list. This means the list can either selectively allow or deny the dialed code.

If this option restricts 1+NNX dialing (or a specific 1+NNX code), the system terminates the call after the user dials the code.

Conditions

None

Default Value

1+NNX dialing allowed. The 1+NNX list is an allow list with no entries. An empty list allows all codes.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.
   If you enter N, do not go to steps 2 and 3.
2. If you enter Y, indicate if the 1+NNX list is a deny list or an allow list.
   For example, to have 1+NNX dialing only for a few specific codes, make the list an allow list.
3. Enter the codes in the 1+NNX List.
   For example, if the list is an allow list only for 888, enter only 888 in the list.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ALLOW 1+NNX DIALING?
2. Enter Y(es) or N(o) for this option.
   If you enter N, go to Allow NNX dialing.
3. Use the chart below to enter data into the list. Go to Allow NNX Dialing when you complete the list.

From this menu	Type this	Function	To use these options	
AP-CMD>	**Enter ↵**	*Display list of options.*		
	A	*Add a code to the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	D	*Delete a code from the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	L	*Display the codes in the list.*		
	Q	*Exit this list and go to the next Toll Restriction option.*		

01850B11 (I)

A- TOLL RESTRICTION
AP- ALLOW NNX DIALING

Description

Use this option to allow/prevent an extension user from directly dialing NNX (local exchange) calls. If allowed, the system compares the NNX code the user dials to the programmed NNX list. The list can be either an allow or deny list. This means the list can either selectively allow or deny the dialed code.

If this option restricts NNX dialing (or a specific NNX code), the system terminates the call after the user dials the code.

Conditions

If the system is in a Conflict Area, the system uses the NNX List when:

- The user dials an area code (NPA) without a leading 1
- The user dials an exchange (NNX) without a leading 1

When in a Conflict Area, make sure that QQ- "1" Prefix Required For NPA Calls is Yes. Also be sure to account for the Conflict Codes in the NNX List.

Default Value

NNX dialing allowed. The NNX list is an allow list with no entries. An empty list allows all codes.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.
   If you enter N, do not go to steps 2 and 3.
2. If you enter Y, indicate if the NNX list is a deny list or an allow list.
   For example, to have NNX dialing only for a few specific codes, make the list an allow list.
3. Enter the codes in the NNX List.
   For example, if the list is an allow list only for 888, enter only 888 in the list.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ALLOW NNX DIALING?
2. Enter Y(es) or N(o) for this option.
   If you enter N, go to Allow NPA dialing.
3. Use the chart below to enter data into the list. Go to Allow NPA Dialing when you complete the list.

From this menu	Type this	Function	To use these options	
AP-CMD>	**Enter ↵**	*Display list of options.*		
	A	*Add a code to the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	D	*Delete a code from the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	L	*Display the codes in the list.*		
	Q	*Exit this list and go to the next Toll Restriction option.*		

01850B11 (I)

A- TOLL RESTRICTION
AP- ALLOW NPA DIALING

Description

Use this option to allow/prevent an extension user from directly dialing NPA (Area Code) calls. If allowed, the system compares the NPA code the user dials to the programmed NPA List. The list can be either an allow or deny list. This means the list can either selectively allow or deny the dialed code. If the system is not in a Conflict Area, the NPA list applies to both 1+NPA and NPA calls. If an NPA requires six-digit analysis, the NPA must be on this list.

If this option restricts NPA dialing (or a specific NNX code), the system terminates the call after the user dials the code.

Conditions

If the system is in a Conflict Area, the system uses the NPA List only when the user dials 1+NPA. If the user dials just NPA, the system uses the NNX List. When in a Conflict Area, be sure that QQ- "1" Prefix Required For NPA Calls is Yes. Be sure to account for the Conflict Codes in the NNX List.

Default Value

NPA and 1+NPA dialing allowed. The NPA list is an allow list with no entries. An empty list allows all entries.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.
   If you enter N, do not go to steps 2 and 3.
2. If you enter Y, indicate if the NPA list is a deny list or an allow list.
   For example, to have NPA dialing only for a few specific codes, make the list an allow list.
3. Enter the codes in the NPA List.
   For example, if the list is an allow list only for 203, enter only 203 in the list.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: ALLOW NPA DIALING?
2. Enter Y(es) or N(o) for this option.
   If you enter N, go to Six Digit Analysis.
3. Use the chart below to enter data into the list. Go to Six Digit Analysis when you complete the list.

From this menu	Type this	Function	To use these options	
AP-CMD>	Enter ↵	*Display list of options.*		
	A	*Add a code to the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	D	*Delete a code from the list.*	DATA	*Enter code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	L	*Display the codes in the list.*		
	Q	*Exit this list and go to the next Toll Restriction option.*		

01850B11 (I)

A- TOLL RESTRICTION
AP- SIX DIGIT ANALYSIS

Description

Use this option to enable/disable six-digit translation. With six-digit translation, the system restricts a call according to the NPA and the NNX the user dials. If six-digit translation is allowed, the system compares the NPA and NNX code the user dials to the programmed six-digit list. For each area code, the list can be either an allow or deny list. This means the list can either selectively allow or deny the dialed codes. For each toll level, the system allows a six-digit list for ten NPAs. Each NPA can have up to 48 associated NNXs. Six-digit translation can only occur if the Toll Level also allows NPA dialing.

If this option restricts a number, the system terminates the call after the user dials the NNX code.

If the entry is made to allow 1+NNX, and the allow table has no entries, the 6-digit analysis is allowed but 1+NNX calls are restricted.

Conditions

If the system is in a Conflict Area, the system uses the six-digit list only when the user dials 1+NPA. If the user dials just NPA, the system uses the NNX List. When in a Conflict Area, be sure that QQ- "1" Prefix Required For NPA Calls is Yes. Be sure to account for the Conflict Codes in the NNX List.

Default Value

Six-digit translation allowed. All six-digit lists are allowed lists with no entries.

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enter Y(es) or N(o) for this option on Table 1.

   If you enter N, do not go to steps 2 - 4.

2. If you enter Y, indicate the first NPA for six-digit translation.

   The letter X is a wild card letter. It represents any number 0-9. For example, if you want the NNX list to apply to all NPAs, enter XXX. You can use this technique to restrict all 976 exchange calls from all area codes.

3. Indicate if the six-digit list for this NPA is a deny list or an allow list.

   For example, to have NPA dialing only for a few specific codes, make the list an allow list.

4. Record the NNXs (48 max.) for the NPA you selected in step 2.

   For example, if the list is an allow list only for 203, enter only 203 in the list. The letter X is a wild card letter. It represents any number 0-9. If you want to allow/deny all NNXs for this area code, enter XXX.

5. Repeat steps 2-4 for each NPA you want to program.

To enter data at the programming terminal:

1. After programming the previous AP option, you see: SIX DIGIT ANALYSIS?
2. Enter Y(es) or N(o) for this option.

   If you enter N, you can program another toll level or press ESC to go to the Main Menu.

3. Use the chart below to enter data into the list. When you complete the list, you can program another toll level. Or, you can press ESC to go to the Main Menu.

From this menu	Type this	Function	To use these options	
AP-CMD>	**Enter ↵**	*Display list of options.*		
	A	*Add a code to the list.*	AREA CODE	*Enter NPA for this list.*
			ALLOW OR DENY TABLE	*Indicate if list is an allow or deny list.*
			DATA	*Enter NNX code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	D	*Delete a code from the list.*	AREA CODE	*Enter NPA for list entries you want to delete.*
			DATA	*Enter NNX code (3-digits) from Table 1. The system then asks for your next entry.*
			Enter ↵	*After making all your entries, press ENTER to go back to AP-CMD> options for this list.*
	L	*Display the codes in the list.*	AREA CODE	*Enter NPA for list you want to display.*
	Q	*Exit this list and go to the next Toll Restriction option.*		

01850B12 (I)

A- TOLL RESTRICTION
AP- TOLL RESTRICTION EXAMPLE

The following is a Toll Restriction example for a sample corporation located in NPA (area code) 203. This example illustrates one solution to sample corporation's Toll Restriction requirements. For simplicity, the example is limited to toll level 2. A completed Program Record Form for sample corporation is shown on the following two pages.

For this requirement...	Use this programming
Toll level 2	**For Toll Level, enter 2**
No continued dialing	For Allow Active Dial Pad, enter N(o).
Restrict N11 calls	For Allow Special Access (N11) Dialing, enter N(o).
Restrict 0+ calls	For Allow Outside Operator (0+) Dialing, enter N(o).
Restrict international calls	Since 0+ calls are restricted, 011 calls are also automatically restricted.
Restrict Equal Access calls	For Allow Equal Access, enter N(o).
Allow only 1+NNX calls to exchanges 733 and 861	For Allow 1+NNX Dialing, enter Y. Make an allow list that includes only exchanges 733 and 861
Allow all NNX calls	For Allow NNX Dialing, enter Y(es). Make an allow list that contains no entries. This allows all NNXs.
Restrict all NPA calls except to 212, 717 and 718	For Allow NPA Dialing, enter Y(es). Make an allow list that contains only NPAs 212, 717 and 718.
For NPA 718, allow all calls	No additional entries are required. Allow NPA Dialing allows all NNXs unless you use six-digit translation.
For NPA 212, allow only NNXs 547, 560-569 and 700-799	For Six Digit Analysis, enter Y(es). For NPA 212, make an allow Six-digit List with NNXs 547, 56X and 7XX.
For NPA 718, deny only NNXs 688 and 700-799	For NPA 718, make a deny six-digit list with NNXs 688 and 7XX.
Restrict all 555 calls in all NPAs	For NPA XXX, make a deny six-digit list with NNX 555.

SAMPLE

Table 1 PROGRAM RECORD FORM, TOLL RESTRICTION (Page 1 of 3)

ENTER TOLL LEVEL	2	[1-7]
ACTIVE DIAL PAD?	N	[Y/N]
ALLOW SPECIAL ACCESS (N11) DIALING?	N	[Y/N]
ALLOW 0+ DIALING?	N	[Y/N]
ALLOW DIRECT INT'L DIALING?	N	[Y/N]
ALLOW EQUAL ACCESS?	N	[Y/N]
ALLOW OR DENY TABLE?	-	[A/D]
DATA		[000-999, XXX]

NO ENTRIES REQUIRED

ALLOW 1+NNX DIALING?	Y	[Y/N]
ALLOW OR DENY TABLE?	A	[A/D]
DATA		[200-999, XXX]

733		
861		
ALLOW NNX DIALING?	Y	[Y/N]
ALLOW OR DENY TABLE?	A	[A/D]
DATA		[200-999, XXX]

NO ENTRIES REQUIRED

ALLOW NPA DIALING?	Y	[Y/N]
ALLOW OR DENY TABLE?	A	[A/D]
DATA		[200-919, XXX]

212		
717		
718		

SAMPLE

Table 1 PROGRAM RECORD FORM, TOLL RESTRICTION (Page 2 of 3)

SIX DIGIT ANALYSIS?	Y	[Y/N]
AREA CODE	2 1 2	[200-919, XXX]
ALLOW OR DENY TABLE?	A	[A/D]
DATA		[200-999, XXX]

5 4 7	___ ___ ___	___ ___ ___	___ ___ ___
5 6 X	___ ___ ___	___ ___ ___	___ ___ ___
7 X X	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___

AREA CODE	7 1 8	[200-919, XXX]
ALLOW OR DENY TABLE?	D	[A/D]
DATA		[200-999, XXX]

6 8 8	___ ___ ___	___ ___ ___	___ ___ ___
7 X X	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___

AREA CODE	X X X	[200-919, XXX]
ALLOW OR DENY TABLE?	D	[A/D]
DATA		[200-999, XXX]

5 5 5	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___

AREA CODE	___ ___ ___	[200-919, XXX]
ALLOW OR DENY TABLE?	___	[A/D]
DATA		[200-999, XXX]

___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___
___ ___ ___	___ ___ ___	___ ___ ___	___ ___ ___

0185012

Description

Use this option to list the programmed Class of Service.

Conditions

None

Default Value

- All extensions have COS 01.
- The attendant has COS 30.
- See chart below for details.
- Data Ports with Permanent Receive/Transmit Connection have COS 29. Refer to the Data Products Manual.

Feature	COS Option	Byte/Bit	COS 1 Default
Automatic Call Distribution	ACD Supervisor Keyset	BY2:6	0-No
Call Forwarding	Inhibit Call Forwarding	BY0:6	0-No
Call Waiting	Allow Off-Premise Call Forwarding	BY0:3	0-No
	Inhibit Camp-On	BY0:5	0-No
Callback	Allow Callback Priority	BY1:7	0-No
Direct Trunk Access	Direct Trunk Access/Trunk Camp-On	BY2:0	0-No[1]
Distinctive Ringing	Single Ring OPX	BY2:7	0-No
Flash	Inhibit Flash for Single Line Sets	BY2:6	0-No
Intrusion	Allow Break-In (Intrusion)	BY0:4	0-No[1]
OPA	Inhibit OPA Transfers to Extension	BY0:1	0-No
Paging	Inhibit Access to Page Zone 3	BY2:4	0-No
	Inhibit Access to Page Zone 2	BY2:3	0-No
	Inhibit Access to Page Zone 1	BY2:2	0-No
	Inhibit Access to All Call Paging	BY2:1	0-No
Privacy	Allow Privacy	BY1:6	0-No
Silent Monitor	Allow Silent Monitor	BY2:5	0-No
Speed Dial	Inhibit System Speed Dial	BY0:7	0-No
Toll Restriction	Allow Only Intercom Calls at Night	BY0:2	0-No
	Allow Only Local Calls at Night	BY1:4	0-No
	Allow Only Local Calls (Day or Night)	BY1:3	0-No
	Extension Toll Restriction Level	BY1:1	0-No
Transfer	Allow Extended Ring	BY1:5	0-No

[1] These options are enabled (1) in COS 00/30 (for attendants).

C- CLASS OF SERVICE
CL- LIST COS

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Press CL. The Class of Service listing displays. See below for a partial display.

```
COS CONFIGURATION
     ****    ****    ****    ****

BYn: BIT7   BIT6   BIT5   BIT4
     BIT3   BIT2   BIT1   BIT0

BY0: INH SYS SPEED DIAL   INH CALL FWD    INH CAMP ON    BREAK-IN
     OFF-P CFWD           ICM NITE ONLY   ABSORB/INH OPA BELL CAS

BY1: CBACK PRIORITY   PRIVACY   EXTENDED RING   LOCAL CALL AT NIGHT
     LOCAL ONLY       TOLL RESTRICT [B2-B0]

BY2: SINGLE RG OPX  NO SLS FLASH/SPRVSR  MONITOR          INH PG ZN 3
     INH PG ZN 2   INH PG ZN 1           INH ALLCALL PG   DIR LINE ACC/CAMP ON

BY3: NO OPX CALL PKUP  CO FWD TO VX    DIRECT DATA      PRG DUMMY CFW
     X                 X               X                X

COS # 00: 00010000 00000-0 00000000 00000000
COS # 01: 00000000 00000-0 00000000 00000000
               through
COS # 27: 00000000 00000-0 00000000 00000000
```

Description

Use this option to allow (0) or deny (1) extensions with this COS the ability to use System Speed Dial. This option also restricts System Speed Dial for DISA trunks.

Conditions

This option does not apply to CO trunks.

Default Value

System Speed Dial enabled (0).

Feature Reference

"Speed Dial"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:7, enter 0 to enable System Speed Dial for each COS. Enter 1 to disable System Speed Dial.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- INHIBIT CALL FORWARDING (BY0:6)

Description

Use this option to allow (0) or deny (1) on-premise Call Forwarding for extensions with this COS. For system attendants (in COS 00), use this option to allow/deny the Alternate Attendant and Removing Trunks and Extensions From Service features.

Conditions

None

Default Value

Call Forwarding and Alternate Attendant enabled (0).

Feature Reference

"Alternate Attendant"

"Call Forwarding"

"Removing Trunks and Extensions From Service"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:6, enter 0 to enable Call Forwarding for each COS. Enter 1 to disable Call Forwarding.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to allow (0) or deny (1) a user's ability to send Call Waiting (Camp-On) tones to a busy extension by dialing 2. (To allow/deny a user's ability to Camp-On to a busy trunk, refer to BY2:0.)

Conditions

None

Default Value

Camp-On to extensions allowed (0).

Feature Reference

"Call Waiting (Camp-On)"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:5, enter 0 to enable Camp-On for each COS. Enter 1 to disable Camp-On.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- ALLOW BREAK-IN (INTRUSION) (BY0:4)

Description

Use this option to enable (1) or disable (0) Intrusion for extensions with this COS.

Conditions

None

Default Value

- Intrusion allowed (1) at COS 0.
- Intrusion not allowed (0) at all other COSs.

Feature Reference

"Intrusion (Barge-In)"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:4, enter 0 to disable Intrusion for each COS. Enter 1 to enable Intrusion.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to allow (1) or deny (0) Off-Premise Call Forwarding for extensions with this COS.

Conditions

Off-Premise Call Forwarding requires either ground start trunks or loop start trunks with disconnect supervision.

Default Value

Off-Premise Call Forwarding not allowed (0).

Feature Reference

"Call Forwarding"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:3, enter 0 to disable Off-Premise Call Forwarding. Enter 1 to enable Off-Premise Call Forwarding.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- ALLOW ONLY INTERCOM CALLS AT NIGHT (BY0:2)

Description

Use this option to restrict extensions with this COS to only Intercom calls at night. If enabled in an extension's COS, the user can only place Intercom calls when the system is in the night mode. The user cannot place any outside calls (including 911 calls). When enabled (1), this option overrides AP- Toll Restriction programming.

Conditions

None

Default Value

Extensions not restricted to Intercom calls at night (0).

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:2, enter 0 not to restrict extensions to Intercom calls at night. Enter 1 to restrict extensions to Intercom calls at night.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to allow/deny Operator Assistance (OPA) transfers for extensions with this COS. If denied (1), the OPA will not transfer calls to extensions with this Class of Service. If allowed (0), the transfer can go through if the extension is free.

OPA requires a 12SCU/VMU Module.

Conditions

None

Default Value

OPA transfers not inhibited (0).

Feature Reference

"Operator Assistance (OPA)"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:1, enter 0 to allow OPA transfers. Enter 1 to disable OPA transfers.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- ALLOW CALLBACK PRIORITY (BY1:7)

Description

Use this option to allow (1) or deny (0) extensions with this COS trunk Callback priority. An extension with priority receives Callback from a trunk before other extensions that also have Callbacks waiting. Without priority, the system processes the trunk Callbacks on a first in, first out basis. This option has no effect on Callbacks left at an extension.

Conditions

More than one extension with Priority can leave a Callback for the same trunk. If this occurs, the system processes the requests on a first in, first out basis.

Default Value

Priority disabled (0).

Feature Reference

None

Instructions

To enter data on the PRF:

1. On Table 2 for BY1:7, enter 0 to disable Callback priority. Enter 1 to enable Callback priority.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to enable (1) or disable (0) Privacy for extensions with this COS. If an extension has Privacy, another extension cannot Intrude on its calls. Privacy also blocks Call Waiting (Camp-On) tones and Silent Monitor.

Conditions

None

Default Value

Privacy not allowed (0).

Feature Reference

"Intrusion (Barge-In)"

"Privacy"

Instructions

To enter data on the PRF:

1. On Table 2 for BY1:6, enter 0 to disable Privacy for each COS. Enter 1 to enable Privacy.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- ALLOW EXTENDED RINGING (BY1:5)

Description

Use this option to enable (1) or disable (0) Extended Ringing for extensions with this COS.

Conditions

None

Default Value

Extended Ringing disabled (0).

Feature Reference

"Extended Ringing"

Instructions

To enter data on the PRF:

1. On Table 2 for BY0:5, enter 0 to enable Camp-On for each COS. Enter 1 to disable Camp-On.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to restrict extensions with this COS to Intercom and local calls in the night mode. This option also applies to DISA trunks. This assignment overrides AP programming (except AP- Allow Active Dial Pad).

If you enable this option (1), extension users can only place the following types of trunk calls:

- 7-digit (NNX+nnnn) calls, where N=any digit 2-9
- 1+911 and 911 calls
- 1+800+NNX+nnnn calls

If disabled (0), this option does not restrict calls.

Conditions

This option does not apply to CO trunks.

Default Value

Calls not restricted (0).

Feature Reference

"NANP Compatibility"

"Toll Restriction"

Instructions

To enter data on the PRF:

1. On Table 2 for BY1:4, enter 0 not to limit extensions to local calls at night. Enter 1 to restrict extensions to local calls at night.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- ALLOW ONLY LOCAL CALLS (DAY OR NIGHT) (BY1:3)

Description

Use this option to restrict extensions with this COS to Intercom and local calls. This option also applies to DISA trunks. This assignment overrides AP programming (except AP- Allow Active Dial Pad).

If you enable this option (1), extension users can only place the following types of trunk calls:

- 7-digit (NNX+nnnn) calls, where N=any digit 2-9
- 1+911 and 911 calls
- 1+800+NNX+nnnn calls

If disabled (0), this option does not restrict calls.

Conditions

This option does not apply to CO trunks.

Default Value

Calls not restricted (0).

Feature Reference

"NANP Compatibility"

"Toll Restriction"

Instructions

To enter data on the PRF:

1. On Table 2 for BY1:3, enter 0 not to limit extensions to local calls. Enter 1 to restrict extensions to local calls at night.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to assign a Toll Restriction level (1-7) to extensions with this COS. This option also applies to DISA trunks. You normally assign toll level 0 to COS 0 (for attendants).

Conditions

This option does not apply to CO lines.

Default Value

No restriction (toll level 0).

Feature Reference

"Equal Access Compatibility"

"Special Services and OCC Compatibility"

"Toll Restriction"

Instructions

To enter data on the PRF:

1. On Table 2 for BY1:0-2, enter the Toll Restriction level (0-7). Enter 0 for no restrictions.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- SINGLE RING OPX (BY2:7)

Description

Use this option to enable (0) or disable (1) Distinctive Ringing for ports with circuit types 05 and 51 (OPX and ASI extensions). If enabled (0), trunk calls have two short rings (repeated) followed by a pause. Intercom calls have a single one second ring followed by a pause. If disabled (1), Intercom and trunk calls have a single one second ring followed by a pause.

In ≥AUX Y2.1/Base Y5.1, use this option to control the types of calls Voice Mail Personal Answering Machine Emulation answers. If enabled (1), Personal Answering Machine Emulation answers only trunk calls. Intercom calls to the extension go through normally. If disabled (0), Personal Answering Machine Emulation answers all calls (Intercom and trunk). For more information, refer to the Voice Mail Compatibility feature.

Conditions

None

Default Value

Distinctive Ringing enabled (0).

Feature Reference

"Distinctive Ringing, Tones and Flash Patterns"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:7, enter 0 allow Distinctive Ringing at circuit type 05/51 ports. Enter 1 to prevent Distinctive Ringing.

   OR

   On Table 2 for BY3:6, enter 0 to have Personal Answering Machine Emulation answer all calls to an extension. Enter 1 to have Personal Answering Machine Emulation answer only trunk calls.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

CP- INHIBIT FLASH FOR SINGLE LINE TELEPHONES (BY2:6)

Description

Use this option to enable (0) or disable (1) Flash for ESL sets with this COS. If enabled, ESL users can press and release the hookswitch to Flash a trunk.

Note:
If you are using BY2:6 to assign an ACD supervisor keyset, go to CP- ACD Supervisor Keyset (BY2:6) on the next page.

Conditions

None

Default Value

Flash allowed at ESL sets (0).

Feature Reference

"Flash"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:6, enter 0 allow Flash at ESL sets. Enter 1 to prevent Flash at ESL sets.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- ACD SUPERVISOR KEYSET (BY2:6)

Description

Use this option to assign extensions with this COS as ACD supervisor keysets. This option only identifies the extension as a supervisor. It does not assign the keyset to an ACD group (see Related Programming below). If enabled (1), extension is an ACD supervisor. If disabled (0), extension is not a supervisor.

Conditions

None

Default Value

ACD supervisor not assigned (0).

Feature Reference

"Automatic Call Distribution"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:6, enter 0 if the keyset is not an ACD group supervisor. Enter 1 if the keyset is an ACD supervisor.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to allow (1) or prevent (0) Silent with this COS from initiating Silent Monitor.

Conditions

None

Default Value

Silent Monitor not allowed (0).

Feature Reference

"Silent Monitor"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:5, enter 0 to prevent extensions from initiating Silent Monitor. Enter 1 to allow extensions to initiate Silent Monitor.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- INHIBIT ACCESS TO PAGE ZONE 3 (BY2:4)

Description

Use this option to allow (0) or prevent (1) extensions with this COS from broadcasting announcements into Paging zone 3. This option also applies to DISA trunks.

Conditions

None

Default Value

Access to Page Zone 3 allowed (0).

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:4, enter 0 to allow extensions Paging into zone 3. Enter 1 to restrict extensions from Paging into zone 3.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to allow (0) or prevent (1) extensions with this COS from broadcasting announcements into Paging zone 2. This option also applies to DISA trunks.

Conditions

None

Default Value

Access to Paging zone 2 allowed.

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:3, enter 0 to allow extensions Paging into zone 2. Enter 1 to restrict extensions from Paging into zone 2.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- INHIBIT ACCESS TO PAGE ZONE 1 (BY2:2)

Description

Use this option to allow (0) or prevent (1) extensions with this COS from broadcasting announcements into Paging zone 1. This option also applies to DISA trunks.

Conditions

None

Default Value

Access to Paging zone 1 allowed.

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:2, enter 0 to allow extensions Paging into zone 1. Enter 1 to restrict extensions from Paging into zone 1.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

Description

Use this option to allow (0) or prevent (1) extensions with this COS from broadcasting All Call Paging announcements. This option also applies to DISA trunks.

Conditions

None

Default Value

Access to All Call Paging allowed.

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:1, enter 0 to allow extensions All Call Paging. Enter 1 to restrict extensions from All Call Paging.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

C- CLASS OF SERVICE
CP- DIRECT TRUNK ACCESS AND TRUNK CAMP-ON (BY2:0)

Description

Use this option to enable (1) or disable (0) Direct Trunk Access for extensions with this COS. If allowed, extensions can also use Forced Trunk Disconnect. Additionally, extensions with Direct Trunk Access capability can dial 2 to Camp-On to a busy trunk. This option also allows extensions to program System Speed Dial numbers.

Conditions

None

Default Value

- Direct Trunk Access allowed (1) for COS 0.
- Direct Trunk Access not allowed (0) for all other COSs.

Feature Reference

"Call Waiting (Camp-On)"

"Direct Trunk Access"

"Forced Trunk Disconnect"

Instructions

To enter data on the PRF:

1. On Table 2 for BY2:0, enter 0 to prevent extensions with this COS from using Direct Trunk Access. Enter 1 to allow extensions with this COS to use Direct Trunk Access.

To enter data at the programming terminal:

1. Type CP. You see: COS # 00: 00010000 00000-0 00000001 00000000
2. Enter data for each COS you want to program.

D- DISPLAY MEMORY

Description

This program displays the contents of system memory locations. It is a factory diagnostic tool, not intended for field use. Consult your Field Service representative for more information.

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

None

D- DISPLAY MEMORY

— For Your Notes —

Description

Use E0 to enter data for all options sequentially for an extension. The charts below show the E options that correspond to each E0 entry. Refer to these options for more information. Also, the charts below show the default value for each option (where applicable).

E0 Prompts for Keysets

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE-	E2
COS (30 for Attendant, 01 for phones)-	E3
NEXT EXT IN HUNT-	E4
HUNT TYPE 00-	E5
DATA SET OR DATA MODULE? N [Y/N] -	E6
PAGE ZONE 00-	E7
RING-LINE PREFERENCE? N [Y/N] -	E8
OFF-HOOK RINGING? Y [Y/N] -	E8
KEY ACCESS TO OUTBOUND LINES Y [Y/N] -	E8
ALLOW LINE DIAL-UP Y [Y/N] -	E8
ACCESS TO GROUP 90? Y [Y/N] -	E8
through	
ACCESS TO GROUP 95? Y [Y/N] -	E8
DIR TERM OR OPR EXT 300-	E9
UCD MASTER EXT (OP1 for 300, blank for others)	EA
SPD DIAL BLOCK-	EB
CALL PICKUP GROUP 00-	EC
PRVCY RLS GROUP 00-	EC
RING CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 L L L L L L L L -	
through	
65 TO 72 L L L L L L L L -	
(All trunks ring (R) the Attendant)	
ACCESS CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
CALL-OUT CONTROL	
COPY? [SKIP=] [Y/N] -	ED
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
RING GROUP # 00-	EE
PAGING THRU SPKR Y [Y/N] -	EF
INCOMING VOICE CALL Y [Y/N] -	EF
HEADSET N [Y/N] -	EF
INHIBIT WHISPER PAGE N [Y/N] -	EF
PROGRAMMABLE KEYS [24/18] 24-	EG
SUPPRESS DSS LAMPS N [Y/N] -	EH
RETAIN TRK VOLUME SETTING N [Y/N] -	EK
ALLOW DND Y [Y/N] -	EK
PRIME LINE KEY -	EL

E0 Prompts for ESL Sets

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE 00-	E2
COS 00 -	E3
NEXT EXT IN HUNT -	E4
HUNT TYPE 00-	E5
PAGE ZONE 00-	E7
ALLOW LINE DIAL-UP Y [Y/N] -	E8
ACCESS TO GROUP 90? Y [Y/N] -	E8
through	
ACCESS TO GROUP 95? Y [Y/N] -	E8
DIR TERM OR OPR EXT 300-	E9
UCD MASTER EXT -	EA
SPD DIAL BLOCK	EB
CALL PICKUP GROUP 00-	EC
ACCESS CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
CALL-OUT CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
RING GROUP # 00-	EE
PAGING THRU SPKR Y [Y/N] -	EF
INCOMING VOICE CALL Y [Y/N] -	EF
HEADSET N [Y/N] -	EF
RETAIN TRK VOLUME SETTING N [Y/N] -	EK

E0 Prompts for ASI/OPX Sets

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE	E2
COS 00 -	E3
NEXT EXT IN HUNT -	E4
HUNT TYPE 00-	E5
ALLOW LINE DIAL-UP Y [Y/N] -	E8
ACCESS TO GROUP 90? Y [Y/N] -	E8
through	
ACCESS TO GROUP 95? Y [Y/N] -	E8
DIR TERM OR OPR EXT 300-	E9
UCD MASTER EXT -	EA
SPD DIAL BLOCK	EB
CALL PICKUP GROUP 00-	EC
ACCESS CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
CALL-OUT CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
65 TO 72 Y Y Y Y Y Y Y Y -	
RING GROUP # 00-	EE
RETAIN TRK VOLUME SETTING N [Y/N] -	EK
VX N [Y/N] -	EK

E- EXTENSIONS
E0- ALL EXTENSION DATA

E0 Prompts for Data Ports and Data Modules

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE (01=Data Module, Z=Data Port)	E2
DATA MODULE [Y]/DATA PORT [N] Y-(Data Port Only)	E2
COS 01 -	E3
NEXT EXT IN HUNT -	E4
HUNT TYPE 00-	E5
DATA SET OR DATA MODULE? [Y/N] (Y=Data Module, N=Data Port)	E6
PAGE ZONE 00-	E7
RING-LINE PREFERENCE? N [Y/N] -	E8
OFF-HOOK RINGING? N [Y/N] -	E8
KEY ACCESS TO OUTBOUND LINES Y [Y/N] -	E8
ALLOW LINE DIAL-UP Y [Y/N] -	E8
ACCESS TO GROUP 90? Y [Y/N] -	E8
through	
ACCESS TO GROUP 95? Y [Y/N] -	E8
DIR TERM OR OPR EXT 300-	E9
UCD MASTER EXT -	EA
SPD DIAL BLOCK	EB
CALL PICKUP GROUP 00-	EC
PRVCY RLS GROUP 00-	EC
RING CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 L L L L L L L L -	
through	
65 TO 72 L L L L L L L L -	
ACCESS CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
CALL-OUT CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
RING GROUP # 00-	EE
PAGING THRU SPKR Y [Y/N] -	EF
INCOMING VOICE CALL Y [Y/N] -	EF
HEADSET N [Y/N] -	EF
INHIBIT WHISPER PAGE N [Y/N] -	EF
PROGRAMMABLE KEYS [24/18] 24	EG
SUPPRESS DSS LAMPS N [Y/N] -	EH
RETAIN TRK VOLUME SETTING N [Y/N] -	EK
ALLOW DND Y [Y/N] -	EK
PRIME LINE KEY -	EL

E0 Prompts for Data Ports and Data Modules (Cont'd)

For this option...	Look here...
(Data Module and Data Port only)	
DATA MODULE BAUD RATES	EM
0-SLAVE,1-300,2-1200,3-1800	
4-2400,5-4800,6-9600,7-19200	
0 -	
DATA MODULE PARITY OPTIONS	EM
0-NO PARITY 8 BITS,1-EVEN 7 BITS,2-ODD 7 BITS	
0 -	
INTERACTIVE MODE? N -	EM
INTERACTIVE ECHO? N -	EM
RS232 CONTROLS ACTIVE? N -	EM
ALLOW DTR DISCONNECT? N -	EM
ALLOW BREAK DISCONNECT? N -	EM
AUTO BAUD? N -	EM
BUSY ON DTR LOW? N -	EM

E0 Prompts for Modem Pooling Circuits

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE M	E2
HUNT TYPE 00-	E5
UCD MASTER EXT	EA
PRIORITY 00 -	EP

E0 Prompts for DSS Consoles
(Extension 302 Shown)

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE 06	E2
COS 30 -	E3
DIR TERM OR OPR EXT 300	E9
SPD DIAL BLOCK	EB

Conditions
None

Default Value
Refer to the charts above.

E- EXTENSIONS
E0- ALL EXTENSION DATA

Feature Reference

Refer to the individual E options.

Instructions

To enter data on the PRF:

1. Refer to the individual E options.

To enter data at the programming terminal:

1. Type E0.
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: PORT
3. Enter data for the E options from Table 3.

   After you enter data for one option, you automatically advance to the next option.

   You cannot use E0 to enter data for the EY and EZ options.

Description

Use this option to change the port assignment for an extension. The port is the hardware location of the extension. When you change an extension's port number, all programming for the extension goes to the new port assignment (location).

All extensions use a single port, except for DSS Consoles. This is a dual-port device that use a port pair. A port pair consists of two consecutive ports, beginning with an even numbered port (e.g., 00 and 01). When changing a dual-port device's port assignment, be sure to change both ports (even-to-even, odd-to-odd).

Keep the following in mind when programming ports:

- Do not swap an extension port with a trunk port.
- Be sure to install the main attendant at port 00 (usually extension 300).
- Use HH- Port/Extension Checker to make sure each port has only one assigned extension.
- You can optionally Use EZ- Extension-Port Swap (instead of E1) to change the extension assignment for a port
- You can use X- Exchange Extension Data to swap two extensions (without physically moving their ports). With this option, the programming follows the extension number.
- Use QN- Restore Standard Port Numbers to reinstate the standard trunk/extension-to-port assignments.
- Use LP- Listing Data by Port to list the programmed options for extensions in port number order.

Conditions

None

Default Value

Each extension is offset from its port by 300 (e.g., extension 320 is at port 20).

Feature Reference

None

Instructions

To enter data on the PRF:

1. Enter the port number for each extension on Table 3.

To enter data at the programming terminal:

1. Type E1. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: PORT
3. Enter data for this option from Table 3 and press RETURN. You see: ARE YOU SURE?
4. Type Y if confirm you entry or N to cancel.

   You advance to the next consecutive extension.

E- EXTENSIONS
E2- EXTENSION CIRCUIT TYPE

Description

Use this option to identify the type of telephone connected to each extension port. The extension circuit type choices are:

- 00 ESL set
- 01 Keyset (without display) and Data Module (refer to the Data Products Manual)
- 02 Display keyset
- 06 DSS Console
- 51 Dual ASI with DTMF receiver (P/N 89749)
- 52 Digital Voice Mail Port Card
- M Modem Pooling port (refer to the Data Products Manual)
- Z Data Port and data-only Data Module (refer to the Data Products Manual)
- X Uninstalled or ACD/UCD master number

Keep the following in mind when programming circuit type:

- Enter type X for all ports not terminated to a telephone.
- You should install a display keyset for the main attendant.
- DSS Consoles and keysets with a bridged Data Module require a port pair (see the E1 option).
- OPX extensions use trunk numbers. ASI extensions use extension numbers.

Conditions

None

Default Value

On power up, the system identifies (auto-IDs) the type of telephone connected to each extension port. It then assigns the correct circuit type to each port. If a port does not have a connected extension, the system assigns circuit type X. On subsequent power-ups, the system reports minor alarms on unconnected (but programmed) extensions. The system *does not* auto-ID circuit types Z, M, 05, 51, and data modules.

Feature Reference

Refer to Programming in the following features:

"Alphanumeric Display"

"Analog Station Interface (ASI)"

"Automatic Call Distribution"

"Automatic Ringdown"

"Background Music"

"Call Timer"

"Dialing Number Preview"

"Direct Station Selection, DSS Console"

"Extension Hunting"

"Message Center"

"Night Answer (Off-Hours Ringing)"

"Off-Premise Extension (OPX)"

"Peripheral Control Unit (PCU) Module"

"Private Line"

"Telemarketing Dial"

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. Enter the circuit type for each extension on Table 3.

To enter data at the programming terminal:

1. Type E2. You see: EXT 300
2. Press RETURN to program extension 300
   OR
   Enter another extension number and press RETURN. In either case, you see: CIRCUIT TYPE
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

E- EXTENSIONS
E2- EXTENSION DATA MODULE/DATA PORT

Description

For circuit type Z extensions, use this option to identify the connected device as a Data Module (Y) or Data Port PCB circuit (N). This option only applies to circuit type Z extensions. Always disable (N) this option for Modem Pooling (type M) extensions.

Conditions

None

Default Value

All type Z entries are Data Modules (Y).

Feature Reference

Refer to the Data Products Manual.

Instructions

To enter data on the PRF:

1. For type Z extensions, enter Y for Data Modules and N for Data ports on Table 3.

To enter data at the programming terminal:

1. After entering Z for the E2 option, you see: DATA MODULE [Y]/DATA PORT [N]?
2. Enter Y for a Data Module or N for a Dataport.

   You advance to the next consecutive extension.

Description

Use this option to assign a Class of Service (COS) to each extension. Keep the following in mind when assigning a COS to an extension:

- DSS Consoles and Modem Pooling extensions do not require a Class of Service
- Attendants (assigned in QC) must have COS 30. Do not assign any other COS to an attendant. Remember that COS 30 follows COS 00 programming. Changing COS 00 affects COS 30.
- DISA also require a Class of Service assignment. Refer to E- Trunks (E3).
- Data ports with Permanent Receive/Transmit Connection have COS 29. Refer to the Data Products Manual.

Conditions

None

Default Value

Extension 300 has COS 30. All other extensions have COS 01.

Feature Reference

Refer to Programming in the following features:

"Automatic Call Distribution"

"Call Forwarding"

"Call Waiting (Camp-On)"

"Class of Service"

"Digital Door Box"

"Direct Inward System Access (DISA)"

"Direct Trunk Access"

"Distinctive Ringing, Tones and Flash Patterns"

"Equal Access Compatibility"

"Extended Ringing"

"Flash"

"Forced Trunk Disconnect"

"Intrusion (Barge-In)"

"Line (Trunk) Queuing"

"Operator Assistance (OPA)"

"Paging"

"Privacy"

E- EXTENSIONS
E3- EXTENSION CLASS OF SERVICE

"Removing Trunks and Extensions From Service"

"Silent Monitor"

"Special Services and OCC Compatibility"

"Speed Dial"

"System Reports, Diagnostics and Maintenance Utilities"

"Tenant Service"

"Time and Date Setting"

"Toll Restriction"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. Enter the Class of Service (00-27, 30 for attendants) for each extension on Table 3.

To enter data at the programming terminal:

1. Type E3. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: COS
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

Description

Use this option to create the extension hunting sequence for Circular and Terminal Extension Hunting. Hunting follows the order of the list you create using this option. You can also use this option to assign an Overflow destination for UCD hunting.

For Extension Hunting, Circular and Terminal
Use this option to link extensions into a hunting list. For Circular Hunting, make sure your last member loops back to the first. For Terminal Hunting, enter 300 for the last member.

To program a Circular Extension Hunting Group with extensions 304, 305 and 306:

For this extension...	Enter this E4 data...
304	305
305	306
306	304

To program a Terminal Hunting Group with extensions 304, 305 and 306:

For this extension...	Enter this E4 data...
304	305
305	306
306	300

For UCD Extension hunting (master extension number only)
Use this option to designate the Overflow Destination. For all other UCD group members, enter 300 for this option (i.e., no overflow).

Note:
This option appears for DISA. It lets you put the trunks in a rotary for outgoing calls. Refer to E- Trunks (E4- Next Trunk in Outbound Rotary) and the Line Rotaries feature for more information.

Conditions

None

Default Value

No extensions are in a hunt list (no entry).

Feature Reference

"Extension Hunting"

E- EXTENSIONS
E4- NEXT EXTENSION IN HUNT GROUP

Instructions

To enter data on the PRF:

1. Enter the next extension in the hunt group for each extension on Table 3.
   Enter 300 if:
   - The extension is the last extension in a Terminal Hunt group
   - The extension is not in a hunt group
   - The extension is a member of a UCD hunt group

To enter data at the programming terminal:

1. Type E4. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: NEXT EXT IN HUNT
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

Description

Use this option to assign an Extension Hunting type (01-06) to each extension.

For Automatic Call Distribution
Assign hunt type 06 to:
- Each member agent in the ACD group.
- The ACD group master extension.

Make sure the supervisor extension has hunt type 00. The supervisor should never be an ACD group member.

For Circular and Terminal Hunting
Designate a hunt type for each member of the hunting group. The choices are:
- 00 Extension not in a hunt group. If the last member in a Terminal Hunt group is type 00, the hunt stays at the last member in the hunt list. If the last member is type 01-03, the call rings the attendant.
- 01 Unanswered outside calls and calls to busy member cause hunting
- 02 Unanswered outside/Intercom calls and outside/Intercom calls to a busy member cause hunting
- 03 Only unanswered outside calls cause hunting

For hunting specifics, refer to the Extension Hunting Operational Matrix on the next page.

For UCD Hunting
Enter a hunt type for each member of the hunting group. The master extension number should also have the same hunt type. The choices are:
- 00 Extension not in a hunt group
- 04 UCD hunting with no overflow and no group busy voice message
- 05 UCD hunting with overflow and no group busy voice message
- 06 UCD hunting with overflow and group busy voice message

For hunting specifics, refer to the Extension Hunting Operational Matrix on the next page.

Conditions
None

Default Value
No hunt type defined (00).

EXTENSION HUNTING OPERATIONAL MATRIX (Page 1 of 6)

TYPE OF CALL	CONDITION	CIRCULAR 01	CIRCULAR 02	CIRCULAR 03
Transfered trunk	Busy	Skip member. If all busy, cycles through group, then recall, then Key Ring.	Skip member. If all busy, cycles through group, then Key Ring.	Hear Ring/Busy for recall duration, cycles through group, then recall, then Key Ring.
	Ring - No answer	Ring, once through group, recall transferer, then Key Ring.	Ring, once through group, recall transferer, then Key Ring.	Ring, once through group, recall transferer, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Skip member. If all DND, cycles through group, then Key Ring.	Skip member. If all DND, cycles through group, then Key Ring.	Flashes member, then skips to group. If all DND, cycles through group, then Key Ring.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Direct term. trunk	Busy	Skip member. If all busy, cycles through group, then Key Ring.	Skip member. If all busy, cycles through group, then Key Ring.	Camp-On for Rings Before Recall duration, cycles through group, then Key Ring.
	Ring - No answer	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	If 1st member, trunk follows nite route. Others, skip member.	If 1st member, trunk follows nite route. Others, skip member.	If 1st member, trunk follows nite route. Others, flashes at each member.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Intercom	Busy	No hunt, hear Ring/Busy.	Skip member. If all busy, caller hears busy tone.	No hunt, hear Ring/Busy.
	Ring - No answer	No hunt	Ring, cycles through group to last idle member. Stay at last member.	No hunt
	Voice call - No answer	No hunt, voice-announce.	No hunt, voice-announce.	No hunt, voice-announce.
	D.N.D.	No hunt	Skip member. If all DND "Pls DND" msg.	No hunt
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.

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EXTENSION HUNTING OPERATIONAL MATRIX (Page 2 of 6)

TYPE OF CALL	CONDITION	CIRCULAR 01	CIRCULAR 02	CIRCULAR 03
DID	Busy	Skip member. If all busy, intercept or busy tone.	Skip member. If all busy, intercept or busy tone.	Skip member. If all busy, intercept or busy tone.
	Ring - No answer	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Skip member, if all DND, intercept.	Skip member, if all DND, intercept.	Skip member, if all DND, intercept.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
DISA	Busy	Skip member. If all busy, then Key Ring.	Skip member. If all busy, then Key Ring.	Camp-On then Key Ring.
	Ring - No answer	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	"Pls DND" msg.	Skip member. If all DND, then Key Ring.	"Pls DND" msg.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Tie line	Busy	Skip member. If all busy, then Key Ring.	Skip member. If all busy, then Key Ring.	Skip member. If all busy, then Key Ring.
	Ring - No answer	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	"Pls DND" msg.	Skip member. If all DND, then Key Ring.	"Pls DND" msg.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.

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CIRCULAR NOTES:

- Key Ring indicates ring at extensions programmed for Ring and Access.
- Abbreviated voice synthesized messages are shown in quotes; e.g. "Pls hold" is actually "Please hold on. All lines are busy. Your call will be answered when a line becomes free."
- Camp-On to keyset - Will wait for programmed number of rings before recall.
  Camp-On to 4B or SL - Will wait for Camp-On timer to mature before recall (no msg.).
- Trunks are not considered transfered until the transfering extension releases. Note that with hunting tupes 01 and 03 no hunting occurs until transfer is made. (See "Intercom" calls.)

EXTENSION HUNTING OPERATIONAL MATRIX (Page 3 of 6)

TYPE OF CALL	CONDITION	TERMINAL 01	TERMINAL 02	TERMINAL 03
Transfered trunk	Busy	Skip member. Key Ring if all busy.	Skip member. Key Ring if all busy.	Camp-On for recall duration, cycle thru group, then recall, then Key Ring.
	Ring - No answer	Ring, cycles to end of group.	Ring.	Ring, cycles to end of group.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Skip member. If all DND, flashes last member.	Skip member. If all DND, flashes last member.	Skip member. If all DND, flashes last member.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Direct term. trunk	Busy	Skip member. If all busy, waits Recall duration, then Key Ring.	Skip member. If all busy, waits Recall duration, then Key Ring.	Camp-On for recall duration, cycle thru group, then Key Ring.
	Ring - No answer	Ring, cycle to end of group, then Key Ring.	Ring, cycle to end of group, then Key Ring.	Ring, cycle to end of group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	If 1st member, trunk follows nite route. Others, skip member, then Key Ring.	If 1st member, trunk follows nite route. Others, skip member, then Key Ring.	If 1st member, trunk follows nite route. Others, flashes all members, then Key Ring.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Intercom	Busy	No hunt, hear Ring/Busy.	Skip member, If all busy, caller hears Ring Busy at last member.	No hunt, hear Ring/Busy.
	Ring - No answer	No hunt	Ring, cycles through group to end.	No hunt
	Voice call - No answer	No hunt, voice-announce.	Ring, voice-announce.	No hunt, voice-announce.
	D.N.D.	No hunt, hear "Pls DND" msg.	Skip member. If all DND "Pls DND" msg.	No hunt, hear "Pls DND" msg.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.

EXTENSION HUNTING OPERATIONAL MATRIX (Page 4 of 6)

TYPE OF CALL	CONDITION	TERMINAL 01	TERMINAL 02	TERMINAL 03
DID	Busy	Skip member. If all busy, intercept or busy tone.	Skip member. If all busy, intercept or busy tone.	Skip member. If all busy, intercept or busy tone.
	Ring - No answer	Ring, cycle to end of group, then Key Ring.	Ring, cycle to end of group, then Key Ring.	Ring, cycle to end of group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Skip member, if all DND intercept.	Skip member, if all DND intercept.	Skip member, if all DND intercept.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
DISA	Busy	Skip member. If all busy, then Key Ring.	Skip member. If all busy, then Key Ring.	Camp-On then Key Ring.
	Ring - No answer	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	"Pls DND" msg.	Skip member. If all busy, then Key Ring.	"Pls DND" msg.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Tie line	Busy	Skip member. If all busy, then busy tone.	Skip member. If all busy, then busy tone.	Camp-On for recall duration, cycle through group, then Key Ring.
	Ring - No answer	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.	Ring once through group, then Key Ring.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	"Pls DND" msg.	Skip member. If all in DND, then "DND" msg.	"Pls DND" msg.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.

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TERMINAL NOTES:

- Key Ring indicates ring at extensions programmed for Ring and Access.
- Abbreviated voice synthesized messages are shown in quotes; e.g. "Pls hold" is actually "Please hold on. All lines are busy. Your call will be answered when a line becomes free."
- Camp-On to keyset - Will wait for programmed number of rings before recall. Camp-On to 4B or SL - Will wait for Camp-On timer to mature before recall (no msg.).
- Trunks are not considered transfered until the transfering extension releases. Note that with hunting tupes 01 and 03 no hunting occurs until transfer is made. (See "Intercom" calls.)
- If the operator is the last extension in the hunt list, unanswered transfered calls ring the operator only. If an extension is last, unanswered transfered calls recall the transferring extension. The call then goes to Key Ring.

EXTENSION HUNTING OPERATIONAL MATRIX (Page 5 of 6)

TYPE OF CALL	CONDITION	UDC 04	UDC 05	UDC 06
Transfered trunk	Busy	Skip member. If all busy, Camp-On for 1st free member, then overflow, then Key Ring.	Skip member. If all busy, "Pls hold" msg, Camp-On for 1st free member, then overflow, then Key Ring.	Skip member. If all busy, "Pls hold" msg, Camp-On for 1st free member, then overflow, then Key Ring.
	Ring - No answer	Cycles UCD group queue.	Cycles UCD group queue.	Cycles UCD group queue.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Treat as busy.	Treat as busy.	Treat as busy.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Direct term. trunk	Busy	Skip member. If all busy, Camp-On for 1st free member, then overflow, then Key Ring.	Skip member. If all busy, "Pls hold" msg, Camp-On for 1st free member, then overflow, then Key Ring.	Skip member. If all busy, "Pls hold" msg, Camp-On for 1st free member, then overflow, them Key Ring.
	Ring - No answer	Cycles UCD group.	Cycles UCD group.	Cycles UDC group.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Treat as busy.	Treat as busy.	Treat as busy.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Intercom	Busy	Skip member. If all busy, caller hears busy tone.	Skip member. If all busy, "Pls hold" msg, Camp-On for 1st free member, then overflow.	Skip member. If all busy, "Pls hold" msg, Camp-On for 1st free member, then overflow.
	Ring - No answer	Cycles UCD group queue.	Cycles UCD group queue.	Cycles UCD group queue.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Treat as busy.	Treat as busy.	Treat as busy.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.

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EXTENSION HUNTING OPERATIONAL MATRIX (Page 6 of 6)

TYPE OF CALL	CONDITION	UDC 04	UDC 05	UDC 06
DID	Busy	Skip member. If all busy, busy tone.	Skip member. If all busy, "Pls hold" msg, then overflow.	Skip member. If all busy, "Pls hold" msg, then overflow.
	Ring - No answer	Cycle UCD group.	Cycle UCD group.	Cycle UCD group queue.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Treated as busy.	Treated as busy.	Treated as busy.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
DISA	Busy	Skip member. If all busy, busy tone.	Skip member. If all busy, "Pls hold" msg, then overflow.	Skip member. If all busy, "Pls hold" msg, then overflow.
	Ring - No answer	Cycle UCD group.	Cycle UCD group.	Cycle UCD group queue.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Treated as busy.	Treated as busy.	Treated as busy.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.
Tie line	Busy	Skip member. If all busy, busy tone.	Skip member. If all busy, "Pls hold" msg, then overflow.	Skip member. If all busy, "Pls hold" msg, then overflow.
	Ring - No answer	Cycle UCD group.	Cycle UCD group.	Cycle UCD group queue.
	Voice call - No answer	N/A	N/A	N/A
	D.N.D.	Treated as busy.	Treated as busy.	Treated as busy.
	Call Forwarded	Follows Call Forward.	Follows Call Forward.	Follows Call Forward.

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UCD NOTES:

- Overflow and Key Ring - If no overflow extensions are programmed, call will stay Camped-On. If overflow is programmed, call will ring or Camp-On to the overflow extensions before ringing at extensions with Ring and Access for the trunk involved.
- Abbreviated voice synthesized messages are shown in quotes; e.g. "Pls hold" is actually "Please hold on. All lines are busy. Your call will be answered when a line becomes free."
- Camp-On - Will ring the first member to become idle before the Camp-On timer matures.

E- EXTENSIONS
E5- HUNT TYPE

Feature Reference

"Automatic Call Distribution"

"Extension Hunting"

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. Enter the hunt type 01-06 for each extension on Table 3. Enter 00 if the extension in not in a hunt group.

To enter data at the programming terminal:

1. Type E3. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: HUNT TYPE
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

Description

Use this option to assign a Data Module with a bridged keyset. For extensions that are not bridged to Data Modules, always disable this option. When programming Data Modules, refer to the Data Products Manual. This option applies to keysets only.

Conditions

None

Default Value

Extension is not a keyset bridged to a Data Module (N).

Feature Reference

Refer to the Data Products Manual

Instructions

To enter data on the PRF:

1. On Table 3, enter Y for each extension that is a keyset bridged to a Data Module. Enter N if the extension is not a keyset bridged to a Data Module.

To enter data at the programming terminal:

1. Type E6. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case (if the extension is a keyset), you see: DATA SET OR DATA MODULE
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

E- EXTENSIONS
E7- PAGE ZONE

Description

Use this option to assign a keyset or ESL set to an Internal Paging zone. The internal zones are:

- 00 All Call Paging only
- 01 Internal zone 1
- 02 Internal zone 2
- 03 Internal zone 3
- 04 Internal zone 4
- 05 Internal zone 5
- 06 Internal zone 6
- 07 Internal zone 7

For example, you can assign extension 304 to internal zone 5 (05). The speaker in extension 304 only broadcasts zone 5 and All Call Paging announcements.

Conditions

None

Default Value

Extension broadcast All Call Paging only (00).

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. Enter the Paging zone number (00-07) for each extension on Table 3.

To enter data at the programming terminal:

1. Type E3. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: PAGE ZONE
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

Description

Use this option to allow or deny Ringing Line Preference at each keyset. This option applies to all trunk calls ringing the extension (not Intercom calls).

Conditions

Intercom calls to an attendant follow E8- Ringing Line Preference programming.

Default Value

Ringing Line Preference disabled (N).

Feature Reference

"Ringing Line Preference"

Instructions

To enter data on the PRF:

1. Enter Y for each extension on Table 3 that should have Ringing Line Preference. Enter N if the extension should not have Ringing Line Preference.

To enter data at the programming terminal:

1. Type E8. You see: EXT 300
2. Press RETURN to program extension 300
   OR
   Enter another extension number and press RETURN. In either case, you see: RING-LINE PREFERENCE
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next E8 option.

E- EXTENSIONS
E8- LINE ACCESS OPTIONS, OFF-HOOK RINGING

Description

Use this option to enable/disable incoming off-hook ring for a keyset. Keep in mind that this option interacts with EF- Incoming Whisper Page Off-Hook Signals. The chart below shows this interaction for the destination extension.

Caller	Dest.	E8	EF	Result after dialing 1
Handset	Handset	N	N	Whisper Page to destination
Handset	Handsfree	N	N	No Off-Hook Signaling
Handsfree	Handset	N	N	No Off-Hook Signaling
and Monitor	Handsfree	N	N	No Off-Hook Signaling
Handset	Handset	N	Y	No Off-Hook Signaling
Handset	Handsfree	N	Y	No Off-Hook Signaling
Handsfree	Handset	N	Y	No Off-Hook Signaling
Handsfree	Handsfree	N	Y	No Off-Hook Signaling
Handset	Handset	Y	N	Whisper Page to destination
Handset	Handsfree	Y	N	Off-hook ringing
Handsfree	Handset	Y	N	No Off-Hook Signaling
Handsfree	Handsfree	Y	N	Off-hook ring if dest. has HF - otherwise no Off-Hook Signals
Handset	Handset	Y	Y	Off-hook ringing
Handset	Handsfree	Y	Y	Off-hook ringing
Handsfree	Handset	Y	Y	Off-hook ringing
Handsfree	Handsfree	Y	Y	Off-hook ringing

Conditions

None

Default Value

Off-hook ringing not allowed (N).

Feature Reference

"Off-Hook Signaling"

Instructions

To enter data on the PRF

1. Enter Y for each extension on Table 3 that should have off-hook ringing. Enter N if the extension should not have off-hook ringing.

To enter data at the programming terminal:

1. After entering data for the previous E8 option, you see: OFF HOOK RINGING
2. Enter data for this option from Table 3 and press RETURN.

   You advance to the next E8 option.

E8- LINE ACCESS OPTIONS, KEY ACCESS TO OUTBOUND LINES

Description

Use this option to allow/deny a keyset user programmable line key access to outside trunks. If enabled, a keyset user can press a line key to place a call (if also allowed by the Related Programming below). If disabled, user cannot use line keys for placing outside calls. This option applies to all line keys on the keyset. Additionally, it does not affect dial access to trunks and trunk groups.

This option also lets:

- A user with Prime Line Selection place an outgoing call on the Prime Line key
- A Private Line user place an outbound call on the Private Line (if allowed by other programming)

Conditions

None

Default Value

Key access to outbound lines allowed (Y).

Feature Reference

"Central Office Calls, Placing"

"Prime Line Selection"

"Private Line"

"Tenant Service"

Instructions

To enter data on the PRF:

1. Enter Y for each extension on Table 3 that should have key access to outbound lines. Enter N if the extension should not have key access to outbound lines.

To enter data at the programming terminal:

1. After entering data for the previous E8 option, you see: KEY ACCESS TO OUTBOUND LINES
2. Enter data for this option from Table 3 and press RETURN.

   You advance to the next E8 option.

E- EXTENSIONS
E8- LINE ACCESS OPTIONS, ALLOW LINE CODE DIAL-UP

Description

Use this option to allow/deny an extension user from dialing a trunk code (e.g., 801) for an outside call. This option affects all trunk codes. It does not affect and extension user's capability to:

- Dial a trunk extension number (e.g. 500)
- Dial a trunk group code (e.g., 90)
- Press a line key for an outgoing call

This option also applies to DISA trunks.

Conditions

This option does not apply to DSS Consoles and Modem Pooling ports.

Default Value

Line code dial-up allowed (Y).

Feature Reference

"Central Office Calls, Placing"

"Tenant Service"

Instructions

To enter data on the PRF:

1. Enter Y for each extension on Table 3 that should be able to access a trunk by dialing a trunk code (e.g., 801). Enter N if the extension should not be able to access a trunk by dialing a trunk code.

To enter data at the programming terminal:

1. After entering data for the previous E8 option, you see: ALLOW LINE DIAL-UP
2. Enter data for this option from Table 3 and press RETURN.

   You advance to the next E8 option.

Description

Use this option to allow/deny an extension dial access to the first six trunk groups (90-95). If enabled, an extension user can dial a trunk group code (90-95) to place an outside call on one of the first six groups. If disabled, the user cannot dial the trunk group code for groups 90-95. This option does not affect:

- Dial access to groups 96-98
- Dial access using trunk codes (e.g., 801)
- Dial access using trunk extension numbers (see Direct Trunk access)
- Line key access to outbound trunks

This option also applies to DISA trunks.

Conditions

This option does not apply to DSS Consoles and Modem Pooling ports.

Default Value

Access to groups 90-95 allowed.

Feature Reference

"Central Office Calls, Placing"

"Line (Trunk) Rotaries (Hybrid Only)"

"Tenant Service"

Instructions

To enter data on the PRF:

1. For trunk groups 90-95 on Table 3, enter Y for each extension that should be able to access the respective trunk group. Enter N if the extension should not be able to access a trunk group.

To enter data at the programming terminal:

1. After entering data for the previous E8 option, you see: ACCESS TO GROUP 90
2. Enter data for this option from Table 3 and press RETURN.

   Enter data in the same way for trunk groups 91-95. After you program trunk group 95, you advance to the next consecutive extension.

E- EXTENSIONS
E9- ATTENDANT (OPERATOR) ASSIGNMENT

Description

Use this option to assign an attendant to an extension. This assignment is:

- The extension reached when the Intercom user dials 0 (refer to the Intercom feature)
- The attendant that can activate night mode Toll Restriction for the extension (if applicable)[1]
- The DSS Console owner (for DSS Consoles only)

When programming Tenant Service, assign the same operator to each extension in the tenant group.

For Automatic Ringdown, enter the ringdown destination. This only applies to ASI/OPX and ESL extensions. The destination can be a keyset, ASI/OPX, Ring Group number or ACD/UCD master extension number. The ringdown destination cannot be a trunk number.

You can also use this option to assign a Private Modem (refer to the Data Products Manual). This option also applies to DISA trunks.

Conditions

This option does not apply to Modem Pooling ports.

Default Value

All extensions assigned to main attendant (300).

Feature Reference

"Automatic Ringdown"

"Tenant Service"

Instructions

To enter data on the PRF:

1. Enter the operator assignment for each extension on Table 3.

To enter data at the programming terminal:

1. Type E9. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: DIR TERM OR OPR EXT
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

[1] An extension in a tenant group can have night mode restriction (e.g., CP-Allow Only Intercom Calls at Night [BY0:2] is 1). The restriction takes effect when the extension's operator activates Night Answer.

Description

Use this option to enable (Y) or disable (N) Automatic Ringdown for ASI/OPX and ESL extensions. You should only do this if you have entered an Automatic Ringdown destination in E9- Attendant (Operator) Assignment.

This option applies only to ASI/OPX and ESL extensions.

Conditions

None

Default Value

Automatic Ringdown disabled (N).

Feature Reference

"Automatic Ringdown"

Instructions

To enter data on the PRF:

1. For each OPX/ASI and ESL extension on Table 3, enter N (to disable) or y (to enable) Automatic Ringdown.

To enter data at the programming terminal:

1. After programming E9- Attendant (Operator) Assignment, you see: RING DOWN
2. Enter Y or N for this extension from Table 3.

   You advance to the next consecutive extension.

E- EXTENSIONS
EA- UCD GROUP MASTER EXTENSION NUMBER

Description

Use this option to assign an ACD or UCD master extension number.

When programming an ACD group, assign the master extension number to:
- Each member agent
- The supervisor extension
- The ACD group master extension

When programming a UCD group (for Extension Hunting or Voice Mail applications), assign the master extension number to:
- Each group member
- The master extension number

This option appears for DISA trunks. For DISA, use this option to assign the trunk to a rotary for outgoing calls. Refer to EA (Trunks)- Trunk Group Assignment and the Line Rotaries feature for more information.

For attendants, this option shows the operator number (OP1-OP4).

Conditions

This option does not apply to DSS Consoles and Modem Pooling ports.

Default Value

Master extension number not assigned (no entry).

Feature Reference

"Automatic Call Distribution"

"Extension Hunting"

"Message Center"

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. Enter the master extension number for each extension on Table 3. To have no master, enter 300.
   For attendants, enter OP1-OP4. This is for reference only.

To enter data at the programming terminal:

1. Type EA. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: UCD MASTER EXT
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

Description

Use this option to assign a Speed Dial block to an extension for Extension Speed Dial. You can assign only one block to an extension, but more than one extension can share the same block. This lets the users share Extension Speed Dial numbers. Do not, however, assign an extension one of the System Speed Dial blocks.

When assigning blocks, you normally assign the highest available block to the lowest extension number. Continue assigning blocks in decreasing order. Review the Speed Dial feature before assigning blocks.

Note:
You can also assign a Speed Dial block to DISA trunks. Incoming callers can use these blocks.

Conditions

(A.) This option does not apply to Modem Pooling ports.
(B.) If an extension's last bin (29) has more than 16 digits, it overflows to the first bin (50) of the next consecutive block.
(C.) The system has only 57 Speed Dial blocks (1-57). Extensions with blocks from 58 and above don't have Personal Speed Dial.

Default Value

- Default Assignments with 3-digit System Speed Dial:
- Blocks 01-05 are for System Speed Dial. Blocks 53-57 are unassigned.

Extension	Block
300	6
301	7
302	8
303	Not assigned
304	9
through	through
347	52

Feature Reference

"Speed Dial"

Instructions

To enter data on the PRF:

1. Enter the Speed Dial block for each extension on Table 3. To assign no Speed Dial block, enter 00.

   When assigning blocks to Consoles (except the default console at 302), the system allocates the three next higher blocks for the DSS Console. For example, if you install a console at 310, the system allocates blocks 192-195. You must reallocate the extension blocks so there is no duplication. Also, an extension can use the block assigned to the second port of the console without duplication.

To enter data at the programming terminal:

1. Type EB. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press return. In either case, you see: SPD DIAL BLOCK
3. Enter data for this option from Table 3 and press RETURN.

   You advance to the next consecutive extension.

E- EXTENSIONS
EC- EXTENSION CALL PICKUP GROUP

Description

Use this option to assign an extension to a Call Pickup Group (01-23). To assign a trunk to a Call Pickup Group, refer to E- Trunks, EC- Trunk Call Pickup Group.

For DISA, refer to E- Trunks, EC- Trunk Call Pickup Group.

Conditions

This option does not apply to DSS Consoles or Modem Pooling ports.

Default Value

Extensions not assigned to Call Pickup Groups (00).

Feature Reference

"Group Call Pickup"

"Silent Monitor"

Instructions

To enter data on the PRF:

1. Enter the Call Pickup Group number for each extension on Table 3. To assign no group number, enter 00.

To enter data at the programming terminal:

1. Type EC. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: CALL PICKUP GROUP
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the Privacy Release Group prompts for this extension.

Description

Use this option to assign a keyset to a Privacy Release Group (01-99).

Conditions

None

Default Value

Keyset not assigned to a Privacy Release Group (00).

Feature Reference

"Privacy Release Groups"

"Telemarketing Dial"

Instructions

To enter data on the PRF:

1. Enter the Privacy Release Group number for each extension on Table 3. To assign no group number, enter 00.

To enter data at the programming terminal:

1. After programming Call Pickup Group, you see: PRVCY RLS GROUP
2. Enter data for this option from Table 3 and press RETURN.

   You advance to EC- Call Pickup Group option for the next consecutive extension.

E- EXTENSIONS
ED- TRUNK CONTROL, RING CONTROL

Description

Use ED- Ring Control to set ringing options for each trunk at each keyset. The options are:

- R – Immediate Ringing
  Phone starts ringing as soon as line key begins to flash
- D – Delayed Ringing
  Phone starts ringing after the delayed ring interval (the line key flashes immediately). Refer to QT- System Timers, Delayed Ring Interval when setting the delayed ring interval.
- L – Lamp Only (no ringing)
  Phone never rings (line key only flashes)
- N – Night Ring
  Phone rings immediately at night. Phone does not ring during the day. (Refer to Night Answer, Assigned Night Answer.)

Normally, program the attendant with ringing for each trunk. This gives unanswered calls and recalls at least one destination in the system.

When programming Private Lines, assign ringing only for those extensions that have the Private Line. When programming Tenant Service, assign ringing only for those extensions that are in the tenant group.

Conditions

To copy Ring Control data from one extension to another, use the EY option.

Default Value

- All trunks ring (R) extension 300.
- All trunks are lamp only (L) at all other keysets.

Feature Reference

"Central Office Calls, Answering"

"Night Answer (Off-Hours Ringing)"

"Private Line"

"Tenant Service"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For each extension, enter each trunk's Ring Control option on Table 5.

To enter data at the programming terminal:

1. Type ED. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: RING CONTROL - - COPY?

   The Copy option lets you copy the key programming from another extension.
3. - To copy another extension's keys, enter Y and the extension number.

   After you enter the extension number, you skip to ED- Access Control programming for this extension.
   - To skip to Access Control programming without making an entry, press the space bar.
   - To program the ED- Ring Control options, type N. You see: LINES 1 TO 8 LLLLLLLL
4. Enter an option for each trunk.

   Press RETURN to:
   - Skip to the next trunk without making an entry. Your current entries don't change.
   - Go to the next trunk after making a partial entry. The rest of the entries on the line don't change.

   Press ESC to return to the Main Menu.

   After you enter data for the last trunk, you go to ED- Access Control programming for this extension.

E- EXTENSIONS
ED- TRUNK CONTROL, ACCESS CONTROL

Description

Use ED- Access Control to set the access options for each trunk at each extension. If allowed in other programming, an extension can place and answer calls on trunks to which it has access.

Keep the following features in mind when programming Access Control:

- Call Parking
  An extension can only pick up parked calls on trunks to which it has access.
- Central Office Calls, Answering and Placing
  Assign access for the trunks the extension should be able to answer or use for outgoing calls.
- Night Answer, Assigned and Universal
  Assign access for the trunks the extension should be able to answer.
- Prime Line Selection
  The extension must have access for the trunk appearing on the Prime Line key.
- Private Line
  For each Private Line, assign access only for those extensions that have the Private Line.
- Tenant Service
  An extension should only have access to the trunks within its own tenant group.

Note:
When programming Access Control for DISA trunk callers, refer to ED (Trunks)- Access Control.

Conditions

(A.) This option does not apply to DSS Consoles and Modem Pooling ports.
(B.) To copy Access Control data from one extension to another, use the EY option.

Default Value

All extensions have access to all trunks (Y).

Feature Reference

"Call Parking"

"Central Office Calls, Answering"

"Central Office Calls, Placing"

"Dialing Number Preview"

"Direct Trunk Access"

"Night Answer (Off-Hours Ringing)" - Assigned Night Answer

"Night Answer (Off-Hours Ringing)" - Universal Night Answer"

"Prime Line Selection"

"Private Line"

"Tenant Service"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For each extension, enter Y on Table 5 for each trunk that should have access enabled. Enter N for each trunk that should not have access.

To enter data at the programming terminal:

1. After programming ED- Ring Control for a trunk, you see: ACCESS CONTROL - COPY?

   The Copy option lets you copy the key programming from another extension.

2. - To copy another extension's keys, enter Y and the extension number.

     After you enter the extension number, you skip to ED- Callout Control programming for this extension.

   - To skip to Callout Control programming without making an entry, press the space bar.
   - To program the ED- Access Control options, type N. You see: LINES 1 to 8 YYYYYYYY

3. Enter an option for each trunk.

   Press return to:

   - Skip to the next trunk without making an entry
   - Go to the next trunk after making a partial entry

   Press ESC to return to the Main Menu. Your changes go into effect only if you enter data for a complete line (eight trunks).

   After you enter data for the last trunk, you go to ED- Call-Out Control programming for this extension.

E- EXTENSIONS
ED- TRUNK CONTROL, CALL-OUT CONTROL

Description

Use this option to enable/disable callout capability at each extension for each trunk. If allowed in other programming, an extension user can place calls on trunks to which their extension has access.

Keep the following features in mind when programming Call-Out Control:

- Central Office Calls, Placing
  User can place calls only on trunks with callout enabled.
- Prime Line Selection
  For outgoing calls, the extension must have call-out enabled for the trunk appearing on the Prime Line key.
- Private Line
  Enable call-out if the extension user should be able to place calls on the Private Line. Enable callout only for those extensions that have the Private Line.
- Tenant Service
  Extensions should have call-out enabled only for trunks in their own tenant group.

Note:
When programming Call-Out Control for DISA callers, refer to ED (Trunks)- Call-Out Control.

Conditions

(A.) This command does not apply to a DSS Console or a Modem Pooling port.
(B.) To copy Callout Control data from one extension to another, use the EY option.

Default Value

Every extension has callout enabled for each trunk (Y).

Feature Reference

"Central Office Calls, Placing"

"Dialing Number Preview"

"Direct Trunk Access"

"Prime Line Selection"

"Private Line"

"Tenant Service"

Instructions

To enter data on the PRF:

1. For each extension, enter Y on Table 5 for each trunk that should have call-out enabled. Enter N for each trunk that should not have call-out.

To enter data at the programming terminal:

1. After programming ED- Access Control for a trunk, you see: CALL-OUT CONTROL - COPY?[SKIP=<SP>]

   The Copy option lets you copy the key programming from another extension.

   Press the space bar to skip to ED- Ring Control programming for the next extension.

2. - To copy another extension's keys, enter Y and the extension number.

   After you enter the extension number, you skip to ED- Ring Control programming for the next consecutive extension.

   - To skip to ED- Ring Control programming for the next extension without making an entry, press the space bar.
   - To program the ED- Callout Control options, type N. You see: LINES 1 to 8 YYYYYYYY

3. Enter an option for each trunk.

   Press return to:

   - Skip to the next trunk without making an entry
   - Go to the next trunk after making a partial entry

   Press ESC to return to the Main Menu. Your changes go into effect only if you enter data for a complete line (eight trunks).

   After you enter data for the last trunk, you go to ED- Ring Control programming for the next consecutive extension.

E- EXTENSIONS
EE- RING GROUP

Description

For each member of a Ring Group, use this option to assign a Ring Group number (01-08).

Do not assign more than 30 extensions in a CEU to the same group. If the group must have more than 30 members, use extensions in an expansion cabinet (if available).

Conditions

This option does not apply to DSS Consoles and Modem Pooling ports.

Default Value

Ring Group or Alternate Attendant group not assigned (0)

Feature Reference

"Group Ring (Ring Groups)"

Instructions

To enter data on the PRF:

1. For Group Ring, enter the Ring Group number for each extension on Table 3. To assign no group, enter 0.

To enter data at the programming terminal:

1. Type EE. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: RING GROUP
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

Description

Use this option to allow/deny Paging announcements through the telephone speaker. When programming Tenant Service, enable this option only if tenant members can make pages.

Conditions

This option only applies to keysets and ESL sets.

Default Value

Paging through the speaker enabled (Y).

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. For this option on Table 3, enter Y for each extension that should have Paging through the speaker. Enter N if extension should not have Paging through the speaker.

To enter data at the programming terminal:

1. Type EF. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: PAGING THROUGH SPKR
3. Enter data for this option from Table 3.

   You advance to EF- Incoming Voice Call for this extension.

E- EXTENSIONS
EF- INCOMING VOICE CALL THROUGH TELEPHONE SPEAKER

Description

Use this option to allow/deny incoming voice-announced Intercom calls to a keyset or ESL set. If denied, Incoming calls always ring the extension.

Conditions

(A.) This option only applies to keysets and ESL sets.
(B.) Changing Voice-Announce (VA) in User-Programmable Features has the same effect. Refer to the Intercom feature.

Default Value

Incoming voice calls enabled (Y).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For this option on Table 3, enter Y for each extension that should receive incoming voice-announced Intercom calls. Enter N if extension should not receive voice-announced Intercom calls.

To enter data at the programming terminal:

1. After programming EF- Paging Through Telephone Speaker, you see: INCOMING VOICE CALL
2. Enter data for this option from Table 3 and press RETURN.

   You advance to EF- Headset Mode for this extension.

Description

Use this option to enable/disable the headset mode for keysets and ESL sets. Keep the following in mind when programming this option:

- Enable Headset mode for each extension that has a headset. For non-attendant keysets, this makes the HF key the Release key.
- Disable headset mode for all extensions that should have Group Listen
- Disable headset mode for all extensions that should have Handsfree
- Enabling headset mode causes all calls to ring the extension

CAUTION:
Use of a headset on an extension not programmed for headset operation may be harmful to the user. Ringing signals produced by the headset may be painfully loud, depending on the volume level setting.

Conditions

This option only applies to keysets and ESL sets.

Default Value

Headset mode disabled (N).

Feature Reference

"Group Listen"

"Handsfree (Speakerphone) and Monitor"

"Headset Compatibility"

"Release Key"

Instructions

To enter data on the PRF:

1. For this option on Table 3, enter Y to enable headset mode for each extension. Enter N to disable headset mode.

To enter data at the programming terminal:

1. After programming EF- Incoming Voice Call, you see: HEADSET
2. Enter data for this option from Table 3 and press RETURN.

   You advance to EF- Incoming Voice-Over Off Hook Signals for this extension.

E- EXTENSIONS
EF- INCOMING WHISPER PAGE OFF-HOOK SIGNALS

Description

Use this option to enable/disable incoming Whisper Page signaling for each keyset. This option interacts with E8- Off Hook Ringing. The chart below shows this interaction at the destination extension.

Caller	Dest.	E8	EF	Result after dialing 1
Handset	Handset	N	N	Whisper Page to destination
Handset	Handsfree	N	N	No Off-Hook Signaling
Handsfree	Handset	N	N	No Off-Hook Signaling
Handsfree	Handsfree	N	N	No Off-Hook Signaling
Handset	Handset	N	Y	No Off-Hook Signaling
Handset	Handsfree	N	Y	No Off-Hook Signaling
Handsfree	Handset	N	Y	No Off-Hook Signaling
Handsfree	Handsfree	N	Y	No Off-Hook Signaling
Handset	Handset	Y	N	Whisper Page to destination
Handset	Handsfree	Y	N	Off-hook ringing
Handsfree	Handset	Y	N	No Off-Hook Signaling
Handsfree	Handsfree	Y	N	Off-hook ring if dest. has HF - otherwise no Off-Hook Signals
Handset	Handset	Y	Y	Off-hook ringing
Handset	Handsfree	Y	Y	Off-hook ringing
Handsfree	Handset	Y	Y	Off-hook ringing
Handsfree	Handsfree	Y	Y	Off-hook ringing

Conditions

This option only applies to keysets.

Default Value

Incoming Voice-Over allowed (N).

Feature Reference

"Off-Hook Signaling"

Instructions

To enter data on the PRF:

1. For this option on Table 3, enter N to enable Voice-Over Off-Hook Signaling. Enter Y to disable Voice-Over Off-Hook Signaling.

To enter data at the programming terminal:

1. After programming EF- Headset Mode, you see: INHIBIT VOICE OVER
2. Enter data for this option from Table 3 and press RETURN.

   You advance to EF- Paging Through Telephone Speaker programming for the next consecutive extension.

Description

Use this option to designate the number of programmable keys on a keyset. Keysets always have 16 programmable keys.

Conditions

This option only applies to keysets.

Default Value

On power up, the system automatically sets this entry for each keyset.

Feature Reference

None

Instructions

To enter data on the PRF:

1. For each keyset on Table 3, enter the number of programmable keys (18 or 24).

To enter data at the programming terminal:

1. Type EG. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: PROGRAMMABLE KEYS
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

E- EXTENSIONS
EH- SUPPRESS DSS LAMPS

Description

Use this option to allow/deny DSS capability at each keyset. If allowed, keyset user can program and use DSS keys. If denied, user has no DSS functions.

Conditions

This option only applies to keysets.

Default Value

Direct Station Selection allowed (N).

Feature Reference

"Direct Station Selection, Extension"

Instructions

To enter data on the PRF:

1. Enter Y to disable Direct Station Selection for each keyset on Table 3. Enter N to enable Direct Station Selection.

To enter data at the programming terminal:

1. Type EH. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: SUPPRESS DSS LAMPS
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

Description

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Use this option to determine if the system should apply the user-set volume level for trunk calls at an extension. Enter Y(es) if the system should initially apply the user setting for trunk calls. Enter N if the system should apply a median volume level for each new trunk call. For more information, refer to the Volume Control feature.

Conditions

None

Default Value

User-set level not applied (N).

Related Programming

None

Feature Reference

None

Instructions

To enter data on the PRF:

1. Enter Y to enable the user-set volume for each keyset on Table 3. Enter N to prevent the system from applying the user-set level.

To enter data at the programming terminal:

1. Type EK. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: RETAIN TRK VOLUME SETTING
3. Enter data for this option from Table 3 and press RETURN.
   You advance to ALLOW DND on the next page.

E- EXTENSIONS
EK- DO NOT DISTURB (DND)

Description

Use this option to allow/disallow Do Not Disturb (DND) at each keyset. For attendants, you must allow DND at each attendant that should be able to activate Night Answer.

Conditions

This option applies only to keysets.

Default Value

DND allowed (Y).

Feature Reference

"Do Not Disturb"

"Night Answer (Off-Hours Ringing)"

Instructions

To enter data on the PRF:

1. Enter Y to enable DND for each keyset on Table 3. Enter N to disable DND.

To enter data at the programming terminal:

1. Type EK. You see: EXT 300
2. Press RETURN to program extension 300
   OR
   Enter another extension number and press RETURN. In either case, you see: RETAIN TRK VOLUME SETTING
3. Enter data for this option from Table 3 and press RETURN.
   You advance to RETAIN TRK VOLUME SETTING for the next consecutive extension.

Description

Use this option to assign an OPX or ASI extension as a Voice Mail (VX) port. When connecting a Voice Messaging System, each ASI/OPX port must be a VX port.

Conditions

This option only applies to OPX or ASI extensions.

Default Value

OPX/ASI port is not a Voice Mail port.

Feature Reference

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. For each ASI/OPX port on Table 3, enter Y to designate the port as a VX port. Enter N if the port is not a VX port.

To enter data at the programming terminal:

1. Type EK. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension and press RETURN. In either case, you see: VX
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive extension.

E- EXTENSIONS
EL- PRIME LINE KEY

Description

Use this option to designate a keyset's Prime Line Selection key number and option. The Prime Line key can be any line key (1-24). The Prime Line options are:

- R – Ringing Prime Line
- I – Idle Prime Line

Conditions

This option only applies to keysets.

Default Value

No Prime Line keys defined (no entry).

Feature Reference

"Prime Line Selection"

Instructions

To enter data on the PRF:

1. For each keyset on Table 3, indicate the Prime Line key number and that key's Prime Line option. Enter Z for no Prime Line key.

To enter data at the programming terminal:

1. Type EL. You see: EXT 300
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: PRIME LINE KEY
3. Enter data for this option from Table 3 and press RETURN. Enter Z to remove a Prime Line key.

   You advance to the next consecutive extension.

   If you don't enter a Prime Line type (R or I), the system enters R automatically.

Description

Use this option to set various parameters for Data Modules. Refer to the Data Products Manual for the specifics. The EM options are:

- Baud Rates
  Sets the baud rate for the Data Module serial port
- Parity Options
  Sets the parity options for the Data Module serial port
- Interactive Mode
  Enable Interactive Mode dialing or Non-Interactive mode dialing for the device connected to the Data Module
- Interactive Echo
  Enable Interactive Mode Echo for the device connected to the Data Module.
- RS-232-C Controls Active
  Enable/disable RS-232-C Controls (RTS, CTS, CD and DTR) for the Data Module serial port.
- Allow DTR Disconnect
  Enable/disable DTR low disconnect for the Data Module serial port
- Allow Break Disconnect
  Enable/disable Break disconnect for the Data Module serial port
- Auto Baud
  Enable/disable Auto Baud for the Data Module serial port
- Busy on DTR Low
  Enable/disable automatic busy-out port when the Data Module serial port DTR lead goes low (e.g., RS-232-C cable disconnected)

Conditions

None

Default Value

Refer to the Data Products Manual

Feature Reference

Refer to the Data Products Manual

Instructions

To enter data on the PRF:

1. Review the Data Products Manual.
2. Enter EM data for each Data Module on Table 3.

To enter data at the programming terminal:

1. Type EM. You see: EXT 300
2. Enter the Data Module extension number and press RETURN. You see: DATA MODULE BAUD RATES
3. Enter data for each EM option from Table 3. After entering data for one option, you automatically advance to the next.

   After programming the last EM option, you advance to the next consecutive extension.

E- EXTENSIONS
EY- COPY RING, ACCESS AND CALLOUT CONTROL

Description

Use this option to copy the ED- Ring, Access and Callout Control programming from one extension to another. Use this option only to copy data. You cannot enter ED data with this option.

Conditions

None

Default Value

None

Feature Reference

None

Instructions

To enter data on the PRF:

1. Refer to the data you entered for the ED option.

To enter data at the programming terminal:

1. Type EY. You see: COPY RING CONTROL?
2. To copy Ring Control data, type Y. You see: COPY FROM EXT

   To skip to the Copy Access Control option, type N.
3. Enter the number of the extension from which you want to copy Ring Control data and press RETURN. You see: COPY TO EXT
4. Enter the number of the extension to which you want to copy data and press RETURN. You see: COPY COMPLETE, COPY TO EXT
5. - Repeat the above steps to copy data to another extension.

   OR
   - Press RETURN to go to the Access Control options
6. Repeat steps 2-5 above for the COPY ACCESS CONTROL and COPY CALLOUT CONTROL options.

   After completing the Copy Callout Control option, you return to the Main Menu.

Description

Use this option to change the extension/trunk assignment for a port. The port is the hardware location of the extension/trunk. When you change a port number, all programming for the extension/trunk goes to the new port assignment (location).

All extensions/trunks use a single port, except for DSS Consoles. This is a dual-port device that use a port pair. A port pair consists of two consecutive ports, beginning with an even numbered port (e.g., 00 and 01). When changing a dual-port device's port assignment, be sure to change both ports (even-to-even, odd-to-odd).

Keep the following in mind when programming ports:

- Be sure to install the main attendant at port 00 (usually extension 300).
- Use HH- Port/Extension Checker to make sure each port has only one assigned extension.
- Use QN- Restore Standard Port Numbers to reinstate the standard extension/trunk-to-port assignments.
- You can optionally Use E1- Port Number (instead of EZ) to change the port assignment for an extension
- You can use X- Exchange Extension Data to swap two extensions/trunks (without physically moving their ports). With this option, the programming follows the extension/trunk number.
- Use LP- Listing Data by Port to list the programmed options for extensions and trunks in port number order.

CAUTION:
Do not use the EZ option to change the trunk/port assignment for installed trunks. Also, do not swap an extension port with a trunk port.

Conditions

None

Default Value

Each extension is offset from its port by 300 (e.g., extension 320 is at port 20).

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. Enter the port number for each extension on Table 3.

To enter data at the programming terminal:

1. Type EZ. You see: PORT 00
2. Press RETURN to program port 00.
   OR
   Enter another port number (00-79) and press RETURN. In either case, you see: EXT
3. Enter data for this option from Table 3 and press RETURN.
   You advance to the next consecutive port.

- For Your Notes -

Description

Use E0 to enter data for all options sequentially for a trunk. The charts below show the E options that correspond to each E0 entry. Refer to these options for more information. Also, the charts below show the default value for each option (where applicable).

E0 Prompts for CO Trunks

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE (08-11)-	E2
COS 01 -	E3
NEXT LINE IN ROTARY -	E4
SERVICE # 00-	E7
DIR TERM OR OPR EXT -	E9
FIRST LINE IN GROUP -	EA
CALL PICKUP GROUP 00-	EC
NIGHT CALL TO EXT -	EI
TANDEM OK N [Y/N] -	EI
TOLL RESTRICT Y [Y/N] -	EJ

E0 Prompts for DISA Trunks

For this option...	Look here...
EXT	
PORT	E1
CIRCUIT TYPE (12-15)	E2
COS 01 -	E3
NEXT EXT IN HUNT -	E4
SERVICE # 00-	E7
ALLOW LINE DIAL-UP Y [Y/N] -	E8
ACCESS TO GROUP 90? Y [Y/N] -	E8
through	
ACCESS TO GROUP 95? Y [Y/N] -	E8
DIR TERM OR OPR EXT 300-	E9
UCD MASTER EXT -	EA
SPD DIAL BLOCK	EB
CALL PICKUP GROUP 00-	EC
ACCESS CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
CALL-OUT CONTROL	ED
COPY? [SKIP=] [Y/N] -	
LINES 1 TO 8 Y Y Y Y Y Y Y Y -	
through	
65 TO 72 Y Y Y Y Y Y Y Y -	
RETAIN TRK VOLUME SETTING N [Y/N] -	EK

Conditions
None

Default Value
Refer to the charts above.

Feature Reference
Refer to the individual E options.

Instructions
To enter data on the PRF:

1. Refer to the individual E options.

To enter data at the programming terminal:

1. Type E0.
2. Enter the number of the trunk you want to program and press RETURN. You see: PORT
3. Enter data for this option from Table 4.

After you enter data for one option, you automatically advance to the next option.

Description

Use this option to change the port assignment for a trunk. The port is the hardware location of the trunk. When you change a trunk's port number, all programming for the trunk goes to the new port assignment (location). All trunks use a single port.

Keep the following in mind when programming ports:

- Use HH- Port/Extension Checker to make sure each port has only one assigned trunk
- Do not swap an extension port with a trunk port.
- You can optionally Use EZ- Extension-Port Swap (instead of E1) to change the trunk assignment for a port
- You can use X- Exchange Extension Data to swap two trunk (without physically moving their ports). With this option, the programming follows the trunk number.
- Use QN- Restore Standard Port Numbers to reinstate the standard trunk/extension-to-port assignments
- Use LP- Listing Data by Port to list the programmed options for trunks in port number order.

CAUTION:
Do not use the E1 option on installed trunks.

Conditions

None

Default Value

Each trunk is offset from its port by 300 (e.g., trunk 480 is at port 180).

Feature Reference

None

Instructions

To enter data on the PRF:

1. Enter the port number for each trunk on Table 4.

To enter data at the programming terminal:

1. Type E1.
2. Enter the number of the trunk you want to program and press RETURN. You see: PORT
3. Enter data for this option from Table 4.

   You automatically advance to the next consecutive trunk.

E- TRUNKS
E2- TRUNK CIRCUIT TYPE

Description

Use this option to identify the type of trunk connected to each trunk port. The trunk circuit type choices are:

- 10 CO trunk, loop start, DTMF
- 11 CO trunk, loop start, DP
- 12 DISA trunk, DTMF, day or night[1]
- 13 DISA trunk, DP, day or night[1]
- 14 DISA trunk, DTMF, night only[1]
- 15 DISA trunk, DP, night only[1]
- 51 ASI P/N 89749 (See E- Extension programming)
- X Uninstalled

Keep the following in mind when programming circuit type:

- Enter type X for all ports not terminated to a trunk
- OPX extensions use trunk numbers. ASI extension use extension numbers. (Refer to E- Extension programming.)
- Program the ports used for External Paging, Background Music and Music on Hold as uninstalled (circuit type X)

Conditions

(A.) If you want to use a trunk you programmed for BGM/MOH for another function, you must:

- Remove the assignment in QM- BGM
- Change the trunk to the desired circuit type (using the E2 option)
- Perform a side tone test on the trunk (using the IS- Side Tone Test option)

Default Value

On initial power up, the system assigns circuit type 10 to all trunks.

Feature Reference

Refer to Programming in the following features:

"Background Music"

"Central Office Calls, Answering"

"Central Office Calls, Placing"

"DP and DTMF Compatibility"

"Direct Inward System Access (DISA)"

"Music On Hold"

"Off-Premise Extension (OPX)"

"Paging"

"Private Line"

"Special Services and OCC Compatibility"

"Tenant Service"

Instructions

To enter data on the PRF:

1. Enter the circuit type for each trunk on Table 4.

To enter data at the programming terminal:

1. Type E2. You see: EXT 300
2. Enter the number of the trunk you want to program and press RETURN. You see: CIRCUIT TYPE
3. Enter data for this option from Table 4 and press RETURN.

   For CO and DISA trunks, you advance to the next consecutive trunk.

E- TRUNKS
E3- TRUNK CLASS OF SERVICE

Description

Use this option to assign a Class of Service (COS) to each DISA trunk. You can use COS to put dialing restrictions on incoming DISA trunk callers.

Conditions

This option only applies to DISA trunks.

Default Value

All trunks have COS 00.

Feature Reference

Refer to Programming in the following features:

"Class of Service"

"Direct Inward System Access (DISA)"

"Distinctive Ringing, Tones and Flash Patterns"

Instructions

To enter data on the PRF:

1. Enter the COS number for each DISA trunk on Table 4. Enter 00 for all other trunks.

To enter data at the programming terminal:

1. Type E3. You see: EXT 300
2. Enter the number of the DISA trunk you want to program and press RETURN. You see: COS
3. Enter data for this option from Table 4 and press RETURN.

   You advance to the next consecutive trunk.

E4- NEXT TRUNK IN OUTBOUND ROTARY (HYBRID ONLY)

Description

Use this option to determine the selection sequence for trunks within a trunk rotary. The trunk rotary follows the order of the list you create using this option. When entering data, make sure the last trunk in the rotary does not loop back to the first. You can program CO and DISA trunks into an outbound rotary. Normally, only trunks of the same type are in the same rotary.

For example, to program a trunk rotary using trunks 480, 481 and 482:

For this trunk...	Enter this E4 data...
480	481
481	482
482	300 (no entry)

Your outbound rotary may correspond to a telco inbound rotary. Telco normally picks the lowest trunk first. If this is the case, program your outbound trunk rotary to select the highest numbered trunks first.

This prompt does not appear for key systems.

Conditions

None

Default Value

Trunks are not in a rotary (no entry).

Feature Reference

"Automatic Route Selection"

"Line (Trunk) Rotaries (Hybrid Only)"

Instructions

To enter data on the PRF:

1. Enter the next trunk in the rotary for each trunk on Table 4. Enter 300 for the last trunk in the rotary. Enter 300 also for all other trunks that are not in rotaries.

To enter data at the programming terminal:

1. Type E4. You see: EXT 300
2. Enter the number of the trunk you want to program and press RETURN. You see: NEXT LINE IN ROTARY
3. Enter data for this option from Table 4 and press RETURN.

   You advance to the next consecutive trunk.

E- TRUNKS
E7- TRUNK SERVICE NUMBER

Description

If the system has ARS, use this option to assign a Service Number to trunks. Trunks of the same type should have the same Service Number. You can assign a trunk one of 10 Service Numbers (1-10). When routing calls, ARS will:

- Analyze the digits a user dials
- Choose a Service Number for the call
- Route the call on the first available trunk with the selected Service Number.

You can also use this option to designate a trunk as a PBX trunk (i.e., behind a PBX). Enter 11 for each PBX trunk. If a user hangs up a call on a PBX trunk, they cannot reseize the trunk before 1.2 seconds. This ensures that the connected PBX has adequate time to drop the old call.

Conditions

None

Default Value

Trunks are not assigned a Service Number (00).

Feature Reference

"Automatic Route Selection"

"PBX/Centrex Compatibility"

Instructions

To enter data on the PRF:

1. If the system requires Service Numbers, enter the Service Number for each trunk on Table 4. Enter 00 if the trunk should not have a Service Number.

To enter data at the programming terminal:

1. Type E7. You see: EXT 300
2. Enter the number of the trunk you want to program and press RETURN. You see: SERVICE #
3. Enter data for this option from Table 4 and press RETURN.

   You advance to the next consecutive trunk.

Description

Use this option to set the termination for a trunk. If the termination is an attendant:

- For a CO trunk, this option sets the attendant that controls Night Answer for the trunk

The termination can also be:

- An extension or Ring Group (see the Direct Inward Lines feature)
- An ACD or UCD Group master number (see the Automatic Call Distribution and Extension Hunting features)
- The first port on the 12SCU/VMU Module. This lets the OPA intercept incoming calls on the trunk. (See the Operator Assistance feature.)

For DISA trunks, always enter the main operator (usually 300). The main operator controls the night mode on the DISA trunk. Additionally, DISA calls go to the main operator or UNA when the DISA caller dials 0. When programming E9 for OPX trunks, refer to E- Extensions, E9- Attendant (Operator) Assignment.

Conditions

None

Default Value

All trunks terminated to extension 300.

Feature Reference

"Central Office Calls, Answering"

"Direct Inward Line (DIL)"

"Night Answer (Off-Hours Ringing)"

"Operator Assistance (OPA)"

"Voice Mail Compatibility (Integrated Voice Messaging)"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. Enter the termination for each trunk on Table 4. To have the termination be the main operator, enter 300.

To enter data at the programming terminal:

1. Type E9. You see: EXT 300
2. Enter the number of the trunk you want to program and press RETURN. You see: DIR TERM OR OPR EXT
3. Enter data for this option from Table 4 and press RETURN.

   You advance to the next consecutive trunk.

E- TRUNKS
EA- TRUNK GROUP ASSIGN. (FIRST TRUNK IN GROUP), HYBRID

Description

Use this option to group trunks by assigning them the same First Trunk in Group number. Remember, you normally put only trunks of the same type in the same group.

Note:
When programming DISA trunks, use this option instead of EA (Extensions)- UCD Group Master Extension Number.

This prompt appears in the key systems, but has no significance.

Conditions

None

Default Value

Trunks are not assigned to a First Trunk in Group (no entry).

Feature Reference

"Automatic Route Selection"

"Line (Trunk) Rotaries (Hybrid Only)"

Instructions

To enter data on the PRF:

1. For each trunk in a rotary, enter the first trunk in the rotary on Table 4. To cancel an entry (i.e., no first trunk), enter 300.

To enter data at the programming terminal:

1. Type EA. You see: EXT 300
2. Enter the number of the trunk you want to program and press RETURN. You see: FIRST LINE IN GROUP
3. Enter data for this option from Table 4 and press RETURN.

   You advance to the next consecutive trunk.

Description

Use this option to assign a trunk to a Call Pickup Group (01-23). To assign an extension to a Call Pickup Group, refer to EC (Extensions)- Call Pickup Group.

Conditions

None

Default Value

Trunks not assigned to Call Pickup Groups (00).

Feature Reference

"Group Call Pickup"

Instructions

To enter data on the PRF:

1. Enter the Call Pickup Group number for each trunk on Table 5. To assign no group number, enter 00.

To enter data at the programming terminal:

1. Type EC. You see: EXT 300
2. Enter the trunk number you want to program and press RETURN. You see: CALL PICKUP GROUP
3. Enter data for this option from Table 5 and press RETURN.

   You advance to the next consecutive trunk.

E- TRUNKS
EI- NIGHT CALL ROUTING

Description

Use this option to define the night call route for each trunk. The night route can be an extension or a ring group. The trunk uses this route when the trunk's attendant activates Night Answer. This option overrides ED- Ring Control assignments at night. It also lets night mode calls ring non-keyset extensions.

Conditions

This option only applies to DISA trunks or a DIL when the called extension is in Do Not Disturb.

Default Value

Trunks do not have a Night Answer destination (i.e., destination is main attendant at 300).

Feature Reference

"Night Answer (Off-Hours Ringing)"

"Operator Assistance (OPA)"

"Voice Mail Compatibility (Integrated Voice Messaging)"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For Assigned Night Answer, enter the night call route for each trunk on Table 4. To use the ED (Extensions)- Ring Control programming instead, enter 300.

To enter data at the programming terminal:

1. Type EI. You see: EXT 300
2. Enter the trunk number you want to program and press RETURN. You see: NIGHT CALL TO EXT
3. Enter data for this option from Table 4 and press RETURN.

   You advance to the EI- Tandem Trunk option for this trunk.

Description

Use this option to enable Tandem Trunking capability for a trunk. Remember, only one of the trunks on a Tandem Call must have this option enabled.

Conditions

(A.) This option only applies to CO trunks.
(B.) Tandem Trunking requires loop start trunks with disconnect supervision.

Default Value

Tandem trunking disabled (N).

Feature Reference

"Tandem Calls (Tandem Trunking)"

Instructions

To enter data on the PRF:

1. Enable (Y) or disable (N) Tandem Trunking for each trunk on Table 4.

To enter data at the programming terminal:

1. After programming EI- Night Call Routing, you see: TANDEM OK
2. Enter data for this option from Table 4 and press RETURN.

You advance to the EI- Night Call Routing for the next trunk.

E- TRUNKS
EJ- TOLL RESTRICTION

Description

Use this option to enable/disable Toll Restriction for each trunk. This only applies to Toll Restriction programmed using the AP- Toll Restriction and CP- Class of Service options. It does not apply to ARS.

Conditions

This option only applies to CO trunks.

Default Value

Toll Restriction enabled (Y).

Feature Reference

"Toll Restriction"

Instructions

To enter data on the PRF:

1. Enable (Y) or disable (N) Toll Restriction for each trunk on Table 4.

To enter data at the programming terminal:

1. Type EJ. You see: EXT 300
2. Enter the trunk number you want to program and press RETURN. You see: TOLL RESTRICT
3. Enter data for this option from Table 4 and press RETURN.

   You advance to the next consecutive trunk.

Description

Use this option to display the software EPROM (memory circuit) checksums. The checksums provide a quick check of the software version of each memory circuit. Your service technician may ask for this information.

This option displays the checksums for the EPROMS in the main CEU software cartridge.

Conditions

None

Default Value

The checksums depend on the software version installed in your system.

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type F and press RETURN. The following shows a sample EPROM checksum printout. Your system may be different than the example below.

EPROM	CHECKSUM
U1	DCAA
U2	F2E2
U3	E093
U5	BDA6

```
You return to the main menu after the checksums print.
```

F- MISCELLANEOUS SYSTEM DATA
FC1- RESET SYSTEM QUEUES

Description

Use this option to initialize (reset) the system queue elements. (HC- System Queues lists these elements.) This option's primary use is to initialize the queue elements of each ACD/UCD group, based on the order defined in programming.

You should reset the system queues after you:

- Complete system installation programming
- Add an extension to an ACD or UCD group
- Install or change your Voice Messaging System programming

Conditions

None

Default Value

None

Feature Reference

"Automatic Call Distribution"

"Extension Hunting"

"System Reports, Diagnostics and Maintenance Utilities" (HC Report)

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type FC. You see: FC-CMD
2. Type 1. You see: ** DONE **

You return to the Main Menu.

Description

Use this command to reset the HD- System Status Display fail counters for the expansion CEU. You would use this command after you complete the initial system programming.

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities" (HD Report)

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type FC. You see: FC-CMD
2. Type 2. You see: ** DONE **

You return to the Main Menu.

F- MISCELLANEOUS SYSTEM DATA
FC3- RESET VX FLAG (TELEPHONE MESSAGE WAITING LAMPS)

Description

Use this option to update the status of each extension's Message Waiting LED. This option only applies if the system is connected to an integrated Voice Messaging System. Use this command once you complete installation and programming of the Voice Messaging System.

Conditions

This option only applies to systems with an integrated Voice Messaging System.

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type FC. You see: FC-CMD
2. Type 3. You see: ** DONE **

You return to the Main Menu.

Description

Use this command to reset the system memory used for Centrex feature keys (programmed in KS- Programmable Keys for Keysets). You would normally do this before programming Centrex feature keys. You could also do this before redefining Centrex feature keys system-wide. FC4 changes the key definition to UNDEFINED for each Centrex feature key on each keyset.

Conditions

This option only applies to Centrex feature keys on keysets.

Default Value

None

Feature Reference

"Centrex Compatible Feature Keys"

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

This option uses password level 2.

1. Type FC. You see: FC-CMD
2. Type 4. You see: ** DONE **

You return to the Main Menu.

- For Your Notes -

Description

Use the GA option to program the Automatic Route Selection routing options. The GA option is explained in Appendix A, Automatic Route Selection.

Conditions

This option only applies to systems with Automatic Route Selection.

Default Value

Refer to Appendix A.

Feature Reference

"Automatic Route Selection"

"NANP Compatibility"

Instructions

To enter data on the PRF:

1. Refer to Appendix A.

To enter data at the programming terminal:

1. Type GA. You see:

```
D= DISPLAY
M= CONFIGURE
I= INITIALIZE
S= SHORT
V= VERBOSE
E= EXIT

ARS >
```

Refer to Appendix A for the specifics.

- For Your Notes -

Description

Use this option to list the number of the extension or trunk assigned to each port. The HA option displays in extension/trunk number order.

Note:
To display the assignment in port number order, use the HB option. Use the HH option to display extension/trunk-to-port conflicts.

Conditions

None

Default Value

Each extension/trunk is offset from its port number by 300. For example, extension 310 has port number 10.

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD
2. Type A. Following is a partial HA display, showing the default assignments. Your system may have different extension/port assignments.

```
12/15/89 16:41:43

EXTENSION #-PORT #
300- 00 301- 01 302- 02 303- 03 304- 04 305- 05 306- 06 307- 07 308- 08 309- 09
310- 10 311- 11 312- 12 313- 13 314- 14 315- 15 316- 16 317- 17 318- 18 319- 19
320- 20 321- 21 322- 22 323- 23 324- 24 325- 25 326- 26 327- 27 328- 28 329- 29
330- 30 331- 31 332- 32 333- 33 334- 34 335- 35 336- 36 337- 37 338- 38 339- 39
340- 40 341- 41 342- 42 343- 43 344- 44 345- 45 346- 46 347- 47 348- 48 349- 49
350- 50 351- 51 352- 52 353- 53 354- 54 355- 55 356- 56 357- 57 358- 58 359- 59
```

You return to the Main Menu.

H- SYSTEM STATUS REPORTS
HB- PORT-TO-EXTENSION CONVERSION

Description

Use this option to list the number of the extension or trunk assigned to each port. The HB option displays in port number order.

Note:
To display the assignment in extension/trunk number order, use the HA option. Use the HH option to display extension/trunk-to-port conflicts.

Conditions

None

Default Value

Each extension/trunk is offset from its port number by 300. For example, extension 310 has port number 10.

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD
2. Type B. Following is a partial HB display, showing the default assignments. Your system may have different extension/port assignments.

```
12/21/89 09:07:57

PORT #-EXTENSION #
 00-300  01-301  02-302  03-303  04-304  05-305  06-306  07-307 08-308  09-309
 10-310  11-311  12-312  13-313  14-314  15-315  16-316  17-317 18-318  19-319
 20-320  21-321  22-322  23-323  24-324  25-325  26-326  27-327 28-328  29-329
 30-330  31-331  32-332  33-333  34-334  35-335  36-336  37-337 38-338  39-339
 40-340  41-341  42-342  43-343  44-344  45-345  46-346  47-347 48-348  49-349
```

Description

Use this option to display the status of the system queue elements (total of 63). A queue element associates an extension or trunk with call states (e.g., Callback and Camp-On). The HC option displays the status of the queues at the moment you request the report.

When you request the HC report, the system:

- Lists the total number of available queue elements
- Shows the type of queue
- Identifies those extensions or trunks currently in queue

Note:
Use the FC1 option to initialize the queue elements. Refer to F- Miscellaneous System Data, FC1- Reset System Queues for more information.

The following table shows some common HC reports.

This report...	Means ...
FREE Q:127	There are 127 free queues (none currently in use).
CAMP ON QC **EXT # 350** **07 : 308** **ELEMENTS USED: 01**	Extension 350 has extension 308 Camped onto it. The system is using one queue element (07) for this queue.
UCD Q **EXT # 340** **03: 304** **02: 323** **01: 302** **ELEMENTS USED: 03**	Extension 340 is the master extension number for this UCD hunt group. Extension 304, 323 and 302 are members of the group. The system assigns queue elements 01-03 to these extensions. The extension listed first (304) will receive the next call to the UCD group. The system then places it at the bottom of the list. This extension may or may not retain its current queue element number (03).
EXT # 396 **06: 398** **05: 397** **04: 396** **ELEMENTS USED: 03**	Trunk 396 is the first trunk in a trunk rotary. Trunks 398, 397 and 396 are trunks in this rotary. The system assigns these trunks to queue elements 06, 05 and 04, respectively. The queue provides immediate recognition by the system when no trunks in the group are available. There is no significance to the order of the trunks in the list.
CALL BACK Q **EXT # 396** **09: 315** **ELEMENTS USED: 01**	Extension 315 has placed a Callback request for trunk 396. The extension Callback report looks the same.
CALL Q **LIST # 01** **08: 316** **ELEMENTS USED: 01**	Extension 316 is calling an operator. The system associates queue element 08 with this extension.
CAMP ON Q **EXT # 350** **07: 308** **ELEMENTS USED: 01**	Extension 350 has extension 308 camped-on to it.

This report...	Means ...
HOLD Q **EXT # 315** **10: 397** **ELEMENTS USED: 01**	Trunk 397 is on Transfer Hold (not key Hold) at extension 315.
MESSAGE Q **EXT # 322** **11: 320** **ELEMENTS USED: 01**	Extension 320 has left a Message Waiting at extension 322.
OUT Q **LIST # 01** **12: 396** **ELEMENTS USED: 01**	Trunk 396 is in use on an outside call.
RING Q **LIST # 01** **13: 310** **ELEMENTS USED: 01**	Extension 310 is ringing another extension.

Conditions
None

Default Value
- An idle system has 63 queue elements - all of which are available.

Feature Reference
"System Reports, Diagnostics and Maintenance Utilities"

Instructions
To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD>
2. Type C. Following is a sample HC display.

```
12/21/89 09:56:17

FREE Q: 250

OUT Q
LIST # 01
  03: 480
ELEMENTS USED: 01

CAMP-ON Q
EXT # 304
  02: 305
ELEMENTS USED: 01

TOTAL ELEMENTS: 252
```

Description

Use this option to display call activity at each trunk and extension in the system. The HD option displays the system status at the moment you request the report. If there is no call activity or problem to report, the report is blank. Be sure to set the system time before using this report (refer to the Time and Date setting feature).

When you request the HD report, the system lists the:

- Call activity at each extension and trunk
- Status of the expansion CEU

Following is a sample HD report.

```
Part 1: Extension/Trunk Activity
01/30/90 15:43:00

HYBRID SYSTEM STATUS

300 TALK        307
305 DATA CALL   311
306 TALK        480
307 TALK        300
311 DATA CALL   305
480 TALK        306
```

This part of the report shows that:

- Extension 300 is talking on the Intercom to 307
- Data Port 305 is on a data call with Data Port 311
- Extension 306 is on an outside call with trunk 480

The following chart shows the extension/trunk **Call States**.

ABANDONED	Being abandoned
ABORT CAL.	Reorder
ACC CODE2.	Get Account Code (Stage 2)
ALERT.	Being alerted
ALERT CH2	Second channel is being alerted
ALRM DISP	Displaying alarm data
AQR OP DG	Acquiring Off-Premises CFWD telephone #
AQR SD DG	Acquire digit from Speed Dial bin
AQR SD LN	Acquire trunk from Speed Dial bin
B-IN ALRT	Break-in alert tone
BEING HLD	On Hold at another extension
BSY REACT	Reaction to busy
BUSY	Busy
BUSY LINE	Mandatory busy for trunk
CALL BACK.	Callback reminder, calling back
CALL EXT1	Dialed 1st digit of extension number
CALL EXT2	Dialed 2nd digit of extension number
CALL OPER	Dialing Operator
CALL OUT	Calling out
CALL PKUP	Directed Call pickup
CAMPNG ON.	Waiting for destination to become free
CHAN 2 HF.	Handsfree call on second channel
CHECK MSG	Checking Message Waiting queue
CHECK STA	Extension number voice message

DATA CALL . . . . . Data call
DEAD . . . . . Port out of sync
DG TALKER. . . . . Receiving announcement from digitalker
. . . . . (e.g., "Vacant Number")
DGT ABSRB. . . . . Absorb first digit dialed
DIAL PAUS. . . . . Pause during dialing
DIAL REPT. . . . . Dial repeating
DIALTONE . . . . . Receiving Intercom dial tone
DIGTALKER. . . . . Receiving announcement from digitalker
. . . . . (e.g., "This Is Station 316")
DISA . . . . . Direct System Access
DLY VXTLK. . . . . Delay talk state for voice mailbox port
DT DETECT . . . . . Detecting dial tone from CO
DUMP LINE . . . . . Dumping trunk

END CH2 . . . . . End talk with second channel
END DATA . . . . . Abort data call
END TALKG. . . . . End talking
EXIT CONF . . . . . Secede from conference
FLASHED. . . . . Flashed a trunk
FLASHING . . . . . Flashing a trunk
FORWARD . . . . . Test for Forwarding
FTRE MODE . . . . . Feature mode (’*’ key struck)

GET A/C 1. . . . . Get Account Code (stage 1)
GET BUFF . . . . . Waiting for dial buffer
GET ROUTE. . . . . Route call based on cost data
GROUP CAL. . . . . Group call
GRP RUNG. . . . . Being rung by group call
HEAR CRER. . . . . Listening (hear) to carrier
HF TO CH2 . . . . . Handsfree call to second channel
HK DEBNCE . . . . . Hook switch debounce
HOLD PAUS. . . . . Hold pause [OPX]

IDLE . . . . . Idle state
IN CONF. . . . . Conference call
IN ORBIT . . . . . Being parked in orbit

KEY HOLD. . . . . Key type Hold
KEY RING . . . . . Line key ringing at station

LEAD TONE. . . . . Listen to handsfree leadtone
LINE ACC. . . . . Special trunk access
LINE PKUP. . . . . Line pickup
LN GP RNG . . . . . Line assigned to group ring
LN WT DT . . . . . Line waiting for dial tone

MONIT DAT . . . . . Monitor data call

NITE RING. . . . . Line key ringing at station (operator in night mode)
NXT RDOWN. . . . . Get next ringdown extension digit

OFF-P FWD . . . . . Being forwarded off-premises
OPER CALL . . . . . Station calling operator
OPX HOLDC . . . . . OPX attempt to Hold Conference
ORBIT ACC . . . . . Orbit access
OTHER CH2. . . . . Talking with other extension’s second channel
OUT DIGIT. . . . . Output digit [trunk]
OUT SERV . . . . . Out of service

OUT SYNC . . . . . Waiting to sync
PAGING . . . . . Paging
PG FWDOPR . . . . . Programming FWD to operator
PG FWDSTA. . . . . Programming Call Forward to destination station
PG FWDTYP . . . . . Programming type of Call Forward
PG OP-FW1. . . . . Program Off-Premises CFWD (Part 1)
PG OP-FW2. . . . . Program Off-Premises CFWD (Part 2)
PG RING . . . . . Programming pickup key ringer option
PG SQUARE. . . . . OPR programming key system (keysets)
PG STA SD . . . . . Programming station Speed Dial
PG SYS SD . . . . . Programming System Speed Dial
PREP DEST. . . . . Prepare destination
PROG DSS1 . . . . . Programming a DSS key (Step 1)
PROG DSS2 . . . . . Programming a DSS key (Step 2)
PROG MODE . . . . . Programming ('#' key struck)

REORDER . . . . . Reorder
RING EXT. . . . . Ringing other extension
RINGBACK . . . . . Station being rung because of Callback request
RINGING . . . . . Being rung
RSRVD MDM. . . . . Modem is reserved
RTRY SRCH . . . . . Search for free trunk

SET DATE. . . . . Set date
SET TIME . . . . . Set hour, minute, and second
SP LN ACC . . . . . Special trunk access
SRCH BUFF . . . . . Searching for dial buffer
STA SPEED. . . . . Dialing station Speed Dial number
START HF. . . . . Start Handsfree call
START HLD . . . . . Being exclusively held
START LN. . . . . Start trunk call
START RNG . . . . . Start ringdown
STRT GP R . . . . . Start group ring
SYS SPEED. . . . . System Speed Dial being accessed

TALK. . . . . In talking state
TERMINATE . . . . . Terminate call
TFR ORBIT. . . . . Transfer call to orbit
TIME CHCK. . . . . Time request (part 1) voice message
TIMED CMP. . . . . Timed Camp-on
TRANSFER. . . . . Being transferred

WAIT BUFF . . . . . Waiting for a free dial buffer
WAIT BUSY . . . . . Awaiting busy destination
WAIT CONF . . . . . Wait to join Conference
WAIT DCDR. . . . . Waiting for a free tone decoder
WAIT HUNT. . . . . Waiting to hunt [UCD]
WAIT LINE. . . . . Waiting for trunk selection
WAIT MODM. . . . . Waiting for answer from modem trunk
WAIT ONHK. . . . . Waiting for trunk to go on hook
WARN DND . . . . . Warning that destination is in Do Not Disturb mode
WT ANNCE . . . . . Waiting for digitalker announcement
WT DT DET . . . . . Search for a dial tone detection port
WT HANGUP. . . . . Waiting for telephone to be on hook
WT OTH DT . . . . . Detecting dial tone for other port
WT TO CAL . . . . . Waiting for trunk to respond

Conditions
None

Default Value
None

Feature Reference
"System Reports, Diagnostics and Maintenance Utilities"

Instructions
To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD>
2. Type D. You see the System Status Report.

Description

Use this option to display the Traffic Management (TMS) report. This report summarizes extension and trunk call activity. It is cumulative -- it always adds new events to the existing report. The data does not clear when you run the report. The report only includes installed extensions and trunks. In addition, the report only includes an extension or trunk that has had call activity since you last cleared the report.

Note:
Use HF- Traffic Management (Data Cleared) to clear the data from the TMS report.

Following is a sample TMS report.

```
TRAFFIC MANAGEMENT REPORT
COLLECTED SINCE:
                                                                    PAGE    1
     |         NUMBER OF CALLS        |   TIME   |       OFF-DUTY
 STA | INCOMING | ANSWERED | OUTGOING |  IN USE  | DURATION | NO. OF TIMES
_____________________________________________________________________________

 300         3          3          1     00:00:35   00:00:00      0
 304         0          0          7     00:02:26   00:00:00      0
 305         0         19         12     06:11:28   00:00:00      0
 306         1          3          7     00:05:23   00:00:01      1
 307         2          3          1     00:03:29   00:00:00      0
 308         1          2         14     00:02:41   00:00:00      0
 309         0          9          0     00:01:18   00:00:00      0
 310         0          0          5     00:00:21   00:00:00      0
 311         0         12          1     06:10:07   00:00:00      0


     |             INCOMING CALLS             |   CALLS   | CALLS   | TIME
LINE | NO. RCVD | ANSRD | LONG WAIT | TRMNATD | ABANDONED | OUTGOING|IN USE
_____________________________________________________________________________

 801        1         1         0          0          0         4    00:04:19
 804        1         1         0          0          0         0    00:02:40

    MASTER EXT: 400
      MEMBERS
        306
        307

CALLS WHEN ALL MEMBERS BUSY -     3
DURATION OF ALL BUSY        - 00:03:21
CALL ABORTED WHILE WAITING  -     0
```

The following chart explains the report headings:

This heading...	Means ...
(For extensions)	
STA	Extension number
INCOMING	Number of incoming calls to extension
ANSWERED	Number of incoming calls answered at extension
OUTGOING	Number of outgoing calls placed at extension

This heading...	Means ...
TIME IN USE	Total time extension was in use
DURATION	For ACD agents, duration of time off duty. (Also see ACD report below.)
NO. OF TIMES	For ACD agents, number of times off duty. (Also see ACD/UCD report below.)
(For trunks)	
LINE	Trunk number
NO. RCVD	Total of incoming calls received on trunk
ANSRD	Total of incoming calls answered on trunk
LONG WAIT	Total calls on trunk the TMS report flags as Long Wait calls (see QT programming below).
TRMNATD	Total calls terminated on trunk
CALLS ABANDONED	Total of abandoned calls (where the outside caller hangs up while the call is on Hold, parked or being transferred)
CALLS OUTGOING	Total of all outgoing calls
TIME IN USE	Total time trunk was in use
(For trunk groups)	
LINE GROUP	Master trunk number
MEMBERS	List of group members
CALLS WHEN ALL MEMBERS BUSY	Total number of calls to trunk group when all members were busy
DURATION OF ALL BUSY	Duration of the all-busy condition
(For ACD/UCD groups)	
MASTER EXT	ACD/UCD group master extension number
MEMBERS	List of group members
CALLS WHEN ALL MEMBERS BUSY	Total number of calls to group when all members were busy
DURATION OF ALL BUSY	Duration of the all-busy condition
CALLS ABORTED WHILE WAITING	Number of outside callers who hung up (calls aborted) while waiting for a group member to become free

Conditions
None

Default Value
None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

"Traffic Management Reporting"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD>
2. Type E. You see: FIRST EXT [<CR>FOR ALL]?
3. - Press RETURN to have the report include all extensions and trunks

   OR

   - Enter the first extension/trunk you want to display and press RETURN. You see: LAST EXT?
   - Enter the last extension/trunk you want to display and press RETURN.
4. When you see: LINES/PAGE [<CR>=60]?
   - Press RETURN to have each page of the report be 60 lines long.

     OR

   - Enter the number of lines per page and press RETURN. In either case, the TMS report displays.

H- SYSTEM STATUS REPORTS
HF- TRAFFIC MANAGEMENT SUMMARY (WITH DATA CLEARED)

Description

This option is the same as HE, except that it clears (erases) the TMS records after the report displays. Use this option after initial system installation. This ensures the accuracy of future HE or HF reports. Be sure to set the system time before collecting TMS records (refer to the Time and Date setting feature).

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

"Traffic Management Reporting"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD>
2. Type F. You see: FIRST EXT [<CR> FOR ALL]?
3. - Press RETURN to have the report include all extensions and trunks

   OR

   - Enter the first extension/trunk you want to display and press RETURN. You see: LAST EXT?
   - Enter the last extension/trunk you want to display and press RETURN.
4. When you see: LINES/PAGE [<CR>=60]?
   - Press RETURN to have each page of the report be 60 lines long.

     OR

   - Enter the number of lines per page and press RETURN. In either case, the TMS report displays.

Description

Use this option to display the key history code (call state) definitions. The key history shows you the sequence of events at each extension and trunk. You can activate key history by pressing SHIFT 1 on the programming terminal.[1] The following chart shows a sample of the key history definitions. Refer to the Call States chart under HD- System Status for an explanation of the definitions.

```
STATE NUMBER? - 00
 IDLE

STATE NUMBER? - 01
 DEAD

STATE NUMBER? - 02
 TALK

STATE NUMBER? - 03
 OUT SERV

STATE NUMBER? - 04
 RINGING

STATE NUMBER? - 05
 KEY HOLD

STATE NUMBER? - 06
 NITE RING

STATE NUMBER? - 07
 ALRM DISP

STATE NUMBER? - 08
 IN CONF

STATE NUMBER? - 09
 REORDER

STATE NUMBER? - 10
 OTHER CH2
```

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

[1] To display history for selected extensions and trunks, use the OS- Selective History option.

H- SYSTEM STATUS REPORTS
HG- DISPLAY KEY HISTORY

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD>
2. Type G. You see: STATE NUMBER
3. Enter the hexadecimal number of the state you want to display (00-A2) and press ENTER. You see the call state description followed by: STATE NUMBER
4. - Enter another state.

   OR

   - Press ESC to return to the Main Menu.

Description

Use this option to check for port/extension or port/trunk number conflicts. Conflicts can occur if you incorrectly assign the E1, EZ or X options. Port/Extension Checker lets you see if you have inadvertently assigned the same port number to more than one extension or trunk. Use this report after using the E1, EZ or X options to change port assignments.

There are two parts to the report. The first part is in port number order. The second part is in extension number order. The following chart shows a sample HH display:

```
EXTENSION/PORT CHECKER
 02-302,303

PORT/EXTENSION CHECKER
303- 02, 03
```

The first part of the report shows port 02 assigned to extensions 302 and 303. The second part of the report shows extension 303 assigned to both ports 02 and 03. If your system had no conflicts, you would see:

```
PORT/EXTENSION CHECKER
NO ERRORS DETECTED
```

If required, use QN- Restore Standard Port Assignments to return all extensions and trunks to their default port assignments.

Note:
To list all port assignments, use the HA and HB options.

Conditions

None

Default Value

Each extension or trunk is offset from its port by 300 (e.g., extension 320 is at port 20).

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type H. You see: H-CMD
2. Type H. You see: EXTENSION/PORT CHECKER

   The report shows no errors or lists the conflicts.

- For Your Notes -

Description

Use this option to release an extension or trunk that is active on a call. Releasing an extension or trunk terminates the active call. You may have to do this, for example, if a trunk locks up. You can only use IP if the extension or trunk is active on a call.

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type I. You see: I-CMD>
2. Type P. You see: RELEASE UTILITY, EXT # -
3. Enter the number of the extension/trunk you want to release and press RETURN. You see: DONE, EXT # -

   If you see, "NO CHANGE, TRY AGAIN," the extension/trunk you tried to release was not active.
4. - Go back to step 3 and enter another extension/trunk number to release.

     OR
   - Press ESC to return to the Main Menu.

I- SYSTEM UTILITIES
IR- RESET LINE/TRUNK CARD, RESET EXPANSION KSU

Description

Use this option to reset the expansion CEU. This may be desirable for maintenance purposes, or after adding an expansion CEU. Resetting the expansion CEU drops all calls in progress in the expansion CEU.

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type I. You see: I-CMD>
2. - Type R.
   - You see: CABINET [1,2]
3. - Type Y to reset the expansion CEU.

   OR
4. - Type N to return to step 2 without resetting.
5. - Go back to step 2.

   OR
   - Press ESC to return to the Main Menu.

Description

Use this option to adjust the side tone level for each trunk. When you initiate IS, the system:

- Seizes the trunk you specify for testing
- Outputs the side tone test digit onto the trunk
- Listens for the side tone level
- Automatically adjusts the side tone gain for optimum level

The system automatically does a side tone test on each trunk after power up. Use the IS option if the trunk characteristics change after the initial installation. The system does not perform a side tone test on OPX trunks.

The system will try and make the side tone test five times on a faulty trunk. If the test fails the fifth time, the system marks it as dead. If you correct the problem, the system starts the side tone tests again.

Conditions

(A.) Use QR- Side Tone Test Digit to set the digit the system uses for side tone test.
(B.) If you use IS- Side Tone Test to adjust side tone for a trunk, the system overrides the QE- Manual Sidetone entry.

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type I. You see: I-CMD>
2. Type S. You see LINE # -
3. Enter the number of the line/trunk circuit you want to test and press ENTER. You see: DONE
4. - Go back to step 3.

   OR

   - Press ESC to return to the Main Menu.

- For Your Notes -

J- COMMUNICATIONS PORT PARAMETERS
PORT SPEED

Description

Use this option to change the speed (baud rate) of the main CEU AUX Module serial port. This port can connect directly to a standard DTE RS-232-C terminal. Refer to the system hardware manual for more information. Your entry should be compatible with the connected terminal or modem.

Conditions

The attendant can change the AUX Module serial port baud rates from the telephone. Refer to page 283.

Default Value

The main CEU AUX Module serial port is set at 1200 baud.

Feature Reference

"Automatic Fault Reporting/Remote Maintenance"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type J.
2. Enter the number for the desired local (terminal) port baud rate. The choices are:

   0 300 baud
   1 1200 baud
   2 2400 baud
   3 4800 baud
   4 9600 baud
   5 19.2K baud

   You return to the Main Menu.

- For Your Notes -

Description

Use this option to assign consoles to keysets, assign blocks (key configurations) to consoles and program console key functions.

Assigning Consoles to Keysets
You can assign a DSS Console to any keyset. You can assign as many DSS Consoles as there are available dual ports. Four consoles can have unique programming. See Assigning Blocks below.

Assigning Blocks (Key Configurations) to DSS Consoles
The system provides for unique blocks (key configurations). The system has four blocks. All DSS Consoles initially use block 1. If the number of consoles exceeds the number of blocks, consoles must share blocks. Consoles that share blocks have the same programming.

Programming Console Key Functions
You can program a console key for one of the functions in the chart below.

For this function...[1]	Enter this code...
Hotline to extensions	Hotline partner extension number (refer also to Automatic Call Distribution)
Call Parking orbits	System Park orbit code (60-69)
Central Office Calls, Placing (DSS key as a line key)	Line access code (e.g., 801)
Paging zones	P and the zone number (0-7)
Speed Dial	S and the Speed Dial bin number (1-80)
Undefined	U
The Release key is permanently assigned to key 80.	
[1] Refer to the respective feature for more information.	

Conditions

None

Default Value

DSS Console automatically enabled (circuit type 06) when you plug it in
Each DSS Console assigned to extension 300
Each DSS Console uses block (configuration) 01, with key assignments as follows:

Key	Assignment
1-47	Extensions 304-347
48-72	Undefined
73-76	Page zones 0-3
77-79	Park orbits 60-62
80	Release

Feature Reference

"Direct Station Selection, DSS Console"

K- PROGRAMMABLE KEY DATA, KEYSETS AND DSS CONSOLES
KD- PROGRAMMING KEYS FOR DSS CONSOLES

Instructions

To enter data on the PRF:

1. For each DSS Console, on Table 7 indicate:
   - The DSS Owner
   - The DSS block (configuration) number
   - The DSS key definitions

To enter data at the programming terminal:

Before programming DSS Consoles, make sure the console has circuit type 06.

1. Type K. You see: K-CMD
2. Type D. You see: DSS EXT?
3. Enter the extension number of the DSS Console you want to program. You see: DSS OWNER?
4. Enter the extension number of the keyset assigned to the DSS Console. You see: DSS BLOCK NO.
5. Enter the block (configuration) number for the DSS Console you are programming and press return. You see: KEY #01 -

   Bblocks 01-04 are automatically assigned to operators 01-04, respectively. If consoles share the same block, they have the same key programming.

6. - Press return to program key 01.

   OR

   - To program another key, enter the key number and press RETURN.

7. Enter data for the key you want to program from Table 7 and press RETURN.

   You can press + to move one key ahead: press - to move one key back.

   To list the key programming for this extension (starting with the key you are on), press L instead of entering data.

   To remove a key's programming, type U. To undefine all the keys for the console, starting with the key you are on, type Z.

   To see a list of the options before you make your entry:

   - Type H Y. You see:

```
KEY TYPE            ENTRY (STD. NO. PLAN)

PAGE                "P" + ZONE # (0-7)
 HOTLINE             EXT #
 ORBIT               ORBIT # (60-69)
DSS SPEED DIAL      S + BIN # (01-80)
LINE                LINE #

OTHER COMMANDS
    U= UNDEFINE KEY
    Z= UNDEFINE KEYS THRU END
    L= LIST KEYS THRU END
    C= COPY KEYS FROM ANOTHER DSS
  "+"= NEXT KEY           "-"= PREVIOUS KEY
```

8. - Repeat steps 6 and 7 to program additional keys

   OR

   - Press ESC to return to the Main Menu.

To copy the KD programming from another console:

This helps if you have consoles with similar or identical KD programming.

1. Using KD, go to the beginning of the configuration you want to copy.
2. Type C. You see: COPY FROM WHICH DSS EXT #
3. Enter the number of the console from which you want to copy. You see: FROM KEY # (01-80)
4. Enter the key number (on the other console) where you want to begin copying. This entry does not have to correspond to the key you are on. You see: TO KEY # (01-80)
5. Enter the key number (on the other console) where you want to end copying. You see: COPY COMPLETE

You can now continue programming keys.

K- PROGRAMMABLE KEY DATA, KEYSETS AND DSS CONSOLES
KL- LISTING PROGRAMMABLE KEY DATA

Description

Use this option to list the keyset and DSS Console key programming. The system lists the keyset key programming before the DSS Console key programming.

Sample Keyset Listing

```
KEYSET EXT # 300

KEY #01 - LINE 801
KEY #02 - LINE 802
KEY #03 - LINE 803
KEY #04 - LINE 804
      through
KEY #24 - LINE 824
```

Sample DSS Console Listing

```
DSS EXT 302
DSS OWNER: 304
KEY #01 - HOTLINE TO EXT 304
KEY #02 - HOTLINE TO EXT 305
       through
KEY #80 - RELEASE
```

Conditions

None

Default Value

- Keysets have lines 1-16 on keys 1-16.

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type K. You see: K-CMD
2. Type l. You see: LIST PROGRAMMABLE KEY DATA FROM EXT #
3. - Press RETURN to list the data for all keysets and consoles. Skip the remaining steps.

   OR

   - Enter the number of the keyset or console you want to begin the listing. Press RETURN. You see: TO EXT #
4. - Press RETURN to have the listing include all remaining keysets and consoles. Skip the remaining steps.

   OR

   - Enter the number of the keyset or console you want to end the listing. Press RETURN.

Description

Use this option to assign a function to each keyset programmable key. The chart below shows the options, the data you enter and the related feature. Remember, each keyset should have at least one switched or fixed loop key.

For this option...	Enter this data..	Refer to this feature
Group Pickup	"G" + Grp # (01-23)	Group Call Pickup
Page	"P" + Zone # (0-7)	Paging
Record	"R"	Voice Mail Compatibility
Station Pickup	"S" + Ext #	Call Coverage Keys
Feature	"F" + Line # + Definition - 0-9, *, #, P (Pause) - ,D (Delay), F (Flash)	Centrex Compatible Feature Keys
Hotline	Ext #	Hotline
Orbit	Orbit # (60-69)	Park
Sys Speed Dial	7+BIN #	Speed Dial
Ext Speed Dial	Bin # (50-59),(20-29)	Speed Dial
Line	Line #	Central Office Calls (Answering and Placing) Direct Inward Line Prime Line Selection Privacy Release Groups, Private Line, Ringing Line Preference, Tenant Service
Switch Loop	"9"	Loop Keys
Timer	"TA" Auto Timer "TM" Manual Timer	Call Timer
Loop Access	"9" a Line Grp # (0-8)	Loop Keys

Note:
When programming a Data key, refer to the Data Products Manual.

Conditions

None

Default Value

- On a keyset, keys 1-16 are for lines 1-16 (801-816).

Feature Reference

Refer to Programming in the following features:

"Call Coverage Keys"

"Call Parking" [1]

"Call Timer"

"Central Office Calls, Answering"

[1] KS programming is not required for this feature to operate.

"Central Office Calls, Placing"

"Centrex Compatible Feature Keys"

"Direct Inward Line (DIL)"

"Digital Door Box"

"Group Call Pickup" [1]

"Hotline"

"Loop Keys"

"Message Center"

"Paging" [1]

"Prime Line Selection"

"Privacy Release Groups"

"Private Line"

"Programmable Keys"

"Ringing Line Preference"

"Speed Dial" [1]

"Split"

"Telemarketing Dial"

"Tenant Service"

"Voice Mail Compatibility (Integrated Voice Messaging)"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For each keyset, on Table 6 enter:
   - F in the Entry Identifier Options column for each Centrex feature key. Leave this column blank if the key is not a Centrex feature key.
   - The trunk (e.g., 801) or group (90-98) number in the Line Number Options columns if the key is a Centrex feature key. Leave this column blank if the key is not a Centrex feature key.
   - The key definition in the Definition columns.
   - The ring options (N=no ring, Y=immediate ring, D=delayed ring) in the Ring Options column. This only applies to Group Call Pickup and Call Coverage keys.

To enter data at the programming terminal:

1. Type K. You see: K-CMD>
2. Type S. You see: KEYSET EXT # 300 -
3. - Enter the number of the keyset you want to program and press RETURN.
   OR
   - Press RETURN to program the next consecutive extension 300 (starting with 300).
4. You see: KEY #01 -
5. - Type K, the key number you want to program (01-24) and press RETURN,
   OR
   - Press RETURN to program the next consecutive key (starting with key 01).
6. Enter the data for the key you select from Table 6 and press RETURN.

   You advance to the next consecutive key. After programming key 24, go back to step 3. Or, press ESC to return to the Main Menu.

   To list the key programming for this extension (starting with the key you are on), press L instead of entering data.

   You can press + to move one key ahead: press - to move one key back.

   To remove a key's programming, type U. To undefine all the keys for the extension, starting with the key you are on, type Z.

   To go to the next extension, type N. To go the previous extension, type P. You cannot type P if the key is undefined.

   To see a list of the options before you make your entry:

   - Type H Y. You see:

```
KEY TYPE            ENTRY (STD. NO. PLAN)
 GROUP PICKUP        "G" + GRP # (01-23)
 PAGE                "P" + ZONE # (0-7)
 RECORD              "R"
 STATION PICKUP      "S" + EXT #
 FEATURE             "F" + LINE # + DEFINITION
                          - 0-9, *, #
                          - P (PAUSE),D (DELAY),F (FLASH)
 HOTLINE             EXT #
 ORBIT               ORBIT # (60-69)
 SYSTEM SPEED DIAL   7+BIN #
EXT SPEED DIAL      BIN # (50-59),(20-29)
 LINE                LINE #
 SWITCH LOOP         "9"
 TIMER               "T"
 LOOP ACCESS         "9" + LINE GRP # (0-8)
OTHER COMMANDS:
   C= COPY KEYS    W= WRITE FROM BUFFER
 - 00= CLEAR BUFFER      K= GO TO KEY #
 U= UNDEFINE KEY         Z= UNDEFINE KEYS THRU END
 N= NEXT EXTENSION #     L= LIST KEYS THRU END
 "+"= NEXT KEY           "-"= PREVIOUS KEY
```

To copy (mark) the KS programming from an extension:

This helps if you have extensions with similar or identical KS programming.

1. Using KS, go to the beginning of the key configuration you want to copy.
2. Type C. You see: KEYS TO COPY?.
3. - Type in the number of keys you want to copy (e.g., 04), starting with the key you are programming.
   To clear the copy buffer, type 00. The copy buffer also clears when you exit the KS command.
   - Press RETURN. You see: COPY UNDEFINED KEYS? [Y/N]
4. - Type Y to copy all the keys in the configuration you have blocked out.
   This includes the undefined keys.

   OR
   - Type N to copy only the defined keys in the configuration you have blocked out.
   This excludes the undefined keys. In either case, you see: KEYS COPIED

To write the configuration you copied to another keyset:

1. Using KS, go to the beginning of the configuration where you want to insert the copied programming.
2. Type W. You see: WRITE UNDEFINED KEYS? [Y/N]
3. - Type Y to write all the keys in the configuration you have blocked out.
   This includes the undefined keys

   OR
   - Type N to write only the defined keys in the configuration you have blocked out.
   This excludes the undefined keys. In either case, you return to KS programming.

Description

Use LE- Listing Data by Extension/Trunk to list the programmed options for each extension and trunk. The report is in extension/trunk number order. There are three parts to the report:

- Programmed options for extensions (without ED)
- Programmed options for trunks (without ED)
- ED programming for extensions, OPX and DISA trunks

Below are samples of each of the three reports.

Sample Extension/Trunk Listing (Without ED)

Extensions

```
                NXT HNT    PG OPR MAS  SD PK RG LIN RL   VC HD ALW P L PR #KY OT
EXT  PO TY COS EXT TYP DS ZN EXT EXT  BK GP GP DUP PF P CL SET DND KEY GP STI KY
300  00 01  30      00  N 00 300 OP1 204 00 00  Y  N  Y  Y  N  Y      00  24  Y
301  01  X  01      00  N 00 300     203 00 00  Y  N  Y  Y  N
302  02 06                  304 B01 199
303  03 06
304  04 02  01      06  N 00 300     198 00 00  Y  N  Y  Y  N  Y      00  24  Y
```

Trunks

```
          NXT SV DIR 1ST PK NIT TAN TOL STI
EXT  PO LIN TY COS LIN NO TRM LIN GP EXT LIN RES NUM
480 180  01 10  01     00         00      N   Y
481 181  02 10  01     00         00      N   Y
482 182  03 10  01     00         00      N   Y
483 183  04 10  01     00 400     00      N   Y
```

Sample Extension/Trunk Listing (ED Only)

Extensions, OPX and DISA Trunks

```
EXT 300
RING CONTROL
LINES  1 TO 24  R R R R  R R R R  R R R R  R R R R  R R R R  R R R R
      25 TO 48  R R R R  R R R R  R R R R  R R R R  R R R R  R R R R
      49 TO 72  R R R R  R R R R  R R R R  R R R R  R R R R  R R R R
ACCESS CONTROL
LINES  1 TO 24  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y
      25 TO 48  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y
      49 TO 72  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y
CALL-OUT CONTROL
LINES  1 TO 24  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y
      25 TO 48  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y
      49 TO 72  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y  Y Y Y Y

ACCESS TO GROUP 90
ACCESS TO GROUP 91
ACCESS TO GROUP 92
ACCESS TO GROUP 93
ACCESS TO GROUP 94
ACCESS TO GROUP 95
```

The following chart explains the abbreviations used in the LE report.

Abbreviations for Extensions

For this Abbr...		Refer to this option...
EXT		Extension Number
PO	E1	Port Number
TY	E2	Circuit Type
COS	E3	Class of Service number
NXT EXT	E4	Next Extension in Hunt Group
HNT TYP	E5	Hunt Type
PG ZN	E7	Page Zone
OPR EXT	E9	Attendant (Operator) Assignment
MAS EXT	EA	UCD Group Master Extension Number
SD BK	EB	Personal Speed Dial Block
PK GP	EC	Group Call Pickup Group
RG GP	EE	Ring Group
LIN DUP	E8	Allow Line Code Dial-up
RL PF	E8	Ringing Line Preference
P	EF	Paging Through Telephone Speaker
VC CL	EF	Incoming Voice Call Through Telephone Speaker
HD SET	EF	Headset Mode
ALW DND	EK	Do Not Disturb (DND)
PL KEY	EL	Prime Line Key
PR GP	EC	Privacy Release Group
OT KY	E8	Key Access to Outbound Lines

Abbreviations for Trunks

For this Abbr...		Refer to this option...
EXT		Trunk Number
PO	E1	Port Number
LIN		Line Number (e.g. 01)
TY	E2	Type of Circuit
COS	E3	Class of Service
NXT LIN	E4	Next Trunk in Outbound Rotary
SV NO	E7	Trunk Service Number
DIR TRM	E9	Direct Trunk Termination
1ST LIN	EA	First Trunk in Group
PK GP	EC	Call Pickup Group
NIT EXT	EI	Night Call Routing
TAN LIN	EI	Tandem Trunk
TOL RES	EJ	Toll Restriction

Conditions
None

Default Value
None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type L. You see: L-CMD>
2. Type E. You see: from EXT #
3. - Press RETURN to have the report include all extensions and trunks.
   OR
   - Enter the number of the extension or trunk to begin the report and press RETURN.
   You see: TO EXT #
4. - Press RETURN to have the report include all the remaining extensions and trunks.
   OR
   - Enter the number of the extension or trunk to end the report and press RETURN.
   In either case, you see: RING/ACCESS DATA? N [Y/N]
5. - Type Y to have the report include only ED data.
   OR
   - Type N or press RETURN to have the report include all the data except ED.

L- LISTING SYSTEM AND EXTENSION DATA
LP- LISTING DATA BY PORT

Description

Use LP- Listing Data by Port to list the programmed options for extensions and trunks in port number order. This report is the same as LE- Listing Data by Extension/Trunk - except that the data is correlated to ports. Refer to LE- Listing Data by Extension/Trunk for details on the report contents. Note that LP- Listing Data by Port report does not display ED programming.

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type L. You see: L-CMD>
2. Type P. You see: FROM PORT #
3. - Press RETURN to have the report include all ports. Go to step 5.
   OR
   - Enter the number of the port to begin the report and press RETURN. You see: TO PORT #
4. - Press RETURN to have the report include all the remaining ports.
   OR
   - Enter the number of the port to end the report and press RETURN.

Description

Use this option to display the system data report. This report shows

- The installed extensions, their names and their circuit types
- The installed trunks, their names and their circuit types

Following is a sample LS- Listing System Data report:

```
CARDS DEFINED    SW REV
MAIN CABINET
    SIM  0         01
    LINE 1         04
    LINE 2         03
    LINE 3         01
EXPANSION CABINET #1
    NONE
EXPANSION CABINET #2
    NONE


EXTENSIONS DEFINED
    300 (OPERATOR)         1-CH KEYSET
    302                    DSS CONSOLE (OWNED BY 304)
    304 (EXTENSION 304)    1-CH DISPLAY SET
    305 (EXTENSION 305)    1-CH KEYSET
    306 (EXTENSION 306)    1-CH KEYSET
    307                    1-CH KEYSET
    462                    1-CH KEYSET
    480 (TRUNK 480)        CO,LOOP,DTMF
    481 (TRUNK 481)        CO,LOOP,DTMF
    482 (TRUNK 482)        CO,LOOP,DTMF
```

Keep the following in mind when using the LS- Listing System Data option:

- Use the HD- System Status option to display call activity at each trunk/extension.
- Check E2- Circuit Type for each extension and trunk you want to include in the listing.
- Check NP- Programming Names and Messages for extension/trunk names.

Conditions

None

Default Value

None

L- LISTING SYSTEM AND EXTENSION DATA
LS- LISTING SYSTEM DATA

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required

To enter data at the programming terminal:

1. Type L. You see: L-CMD>
2. Type S. The report displays.

M- CANCEL ACCESS LEVEL

Description

Use this option to immediately reinstate password (access code) level 0. For example, if you enter a level 1 or 2 access code, the system enables the access level for about 10 minutes. During this time, unauthorized modifications can be made to your system's programming. To protect your system's programmed options, use M- Cancel Access Level after making your entry. Refer to the System Programming Password Protection feature to find out the password (access) levels required for each option.

Note:
Use the Y- Change System Passwords option to change the level 1 and 2 passwords.

Conditions

None

Default Value

None

Feature Reference

"System Programming Password Protection"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type M. You see: PASSWORD LEVEL 0

M- CANCEL ACCESS LEVEL

- For Your Notes -

Description

Use this option to print an alphabetized directory of extension names. The directory only prints names for installed extensions. The directory prints in the following format:

- Line feeds
- Date and Time header
- Line feed
- Directory contents (54 lines of text per page)
- Page feed

The directory does not include trunk names or Selectable Display Messages.

Note:
Use NP- Programming Names and Messages to program names.

Conditions

None

Default Value

None

Feature Reference

None

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type N. You see: N-CMD>
2. Type D. You see: TURN ON AUX PRINTER PORT, ENTER <CR> WHEN READY
3. Connect a printer to your programming terminal, keeping the following in mind:
   - The connected printer must be an Epson FX compatible printer
   - Enable the programming terminal's Aux/Printer port. Refer to the terminal manufacturer's instructions.
   - Check the programming terminal's baud rate for compatibility with the printer's baud rate.
4. Press RETURN.

   The directory prints.

N- PROGRAMMING NAMES AND MESSAGES
NL- LISTING NAMES AND MESSAGES

Description

Use this option to list:

- Extension and trunk names
- Selectable Display Messages

Following is a sample names and messages listing:

```
Extensions
EXT # 300  OPERATOR
EXT # 301
EXT # 302
EXT # 303
EXT # 304  FRED
EXT # 305  SALLY

Trunks
EXT # 480  SALES
EXT # 481  SERVICE 01
EXT # 482  SERVICE 02

Messages
MSG # 600  OUT TO LUNCH
MSG # 601  ON VACATION
MSG # 602  MEET IN ROOM
MSG # 603  CALL
```

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type N. You see: N-CMD
2. TypeLl. You see: FROM -
3. - Enter the number of the extension, trunk or message you want to begin the listing and press RETURN. You see: TO -. Go to step 4.
   OR
   - Press RETURN to have the listing include all extensions, trunks and messages.
4. - Enter the number of the extension, trunk or message you want to end the listing and press RETURN.
   OR
   - Press RETURN to have the listing include all the remaining extensions, trunks and messages.

N- PROGRAMMING NAMES AND MESSAGES
NP- PROGRAMMING NAMES AND MESSAGES

Description

Use this option to assign names to extensions and trunks and to program Selectable Display Messages. Use this option with the following features:

- Central Office Calls, Answering
- Direct Inward Dialing
- Direct Inward Line
- Direct Inward System Access
- Directory Dialing
- Intercom
- Private Lines
- Selectable Display Messages

To print the names directory, refer to the ND- Printing the Directory.

Conditions

None

Default Value

No names or messages programmed.

Feature Reference

"Selectable Display Messages"

Instructions

To enter data on the PRF:

1. - Record the extension and trunk names (up to 16 digits) on Tables 3-4.
   OR
   - Record the Selectable Display Messages (up to 16 digits) on Table 8.

To enter data at the programming terminal:

1. Type N. You see: N-CMD>
2. Type P. You see: EXT # 300-
3. - Enter the number of the extension, trunk or message you want to program and press RETURN. You see - or the previously programmed name.
   OR
   - Press RETURN to begin programming extension 300.
4. Type in the name or message (up to 16 digits) and press RETURN. You see EXT # for the next extension, trunk or message.

   To erase an existing name or message, enter 0.

- For Your Notes -

Description

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Use this command to print site-specific data on keyset and DSS Console labels. The label maker prints out the KSKD assignments and (optionally) Hotline names and DSS assignments. For best results, use the tractor feed label inserts (P/N 88657) for keysets and P/N 88557 for DSS Consoles. These inserts are conveniently set up to work with tractor feed printers.

Before using this option, check to be sure that you have:

- Connected an Epson FX compatible printer to the Aux/Printer port on the programming terminal
- Enabled the programming terminal's Aux/Printer port. Refer to the terminal manufacturer's instructions.
- Checked the programming terminal's baud rate for compatibility with the printer's baud rate
- Make sure the terminal uses XON/XOFF protocol
- For a serial printer, make sure it also uses XON/XOFF protocol
- For a parallel printer, make sure it uses the Busy Signal signal

Conditions

None

Default Value

None

Feature Reference

None

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type O. You see: O-CMD>
2. Type L. You see: 80 BUTTON DSS?

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

3.
   - If you enter N for step 2, you see: AREA CODE?
     Go to step 4.
   - If you enter Y for step 2, you see: DSS EXT?
     Enter the DSS Console extension number, press ENTER and go to step 8.
4. Enter the Home Area Code for the system. You see: PHONE NUMBER?
5. Enter the system's telephone number (seven digits). You see: FROM-
6.
   - Enter the number of the first extension for which you want to print labels and press RETURN. You see: TO-
     OR
   - Press RETURN if you want to print labels for all extensions. Skip to step 7.

7. Enter the number of the last extension for which you want to print labels and press RETURN.
8. When you see PRINT HOT LINE NAMES?:
   - Type Y to have the key labels include the programmed Hotline names.

     For DSS Consoles, skip to step 11.

     OR
   - Type N to have the key labels exclude the programmed Hotline names.

     For DSS Consoles, skip to step 11.
9. When you see PRINT DSS ON 2ND LINE?:
   - Type Y to have the key labels include the DSS extension number assignments.

     OR
   - Type N to have the key labels exclude the DSS extension number assignments.
10. When you see PRINT DSS NAMES?:
    - Type Y to have the key labels include the DSS names (if programmed) instead of DSS extension numbers.

      OR
    - Type N to have the key labels print the DSS extension number assignments (not the names).
11. When you see PRINT SPEED DIAL NAMES?:
    - Type Y to have the key labels include Speed Dial names (instead of the bin numbers).

      OR
    - Type N to have the key labels include Speed Dial bin numbers (instead of the names).
12. When you see PRINT LINE NAMES?
    - Type Y to have the key labels include the trunk names (instead of trunk numbers).

      OR
    - Type N to have the key labels include the trunk numbers (instead of the trunk names)
13. When you see TURN ON AUX PRINTER PORT, ENTER <CR>
    WHEN READY:
    - Verify that the printer is properly connected and enabled.
    - Press RETURN

      The labels print.

O- LABEL MAKER AND SELECTIVE HISTORY
OS- SELECTIVE HISTORY

Description

Use this option to enable key history for selected extensions and trunks. The key history shows the sequence of events at the extensions and/or trunks you select. Use OS- Selective History *in place of* pressing Shift 1 for normal key history. To understand the key history states:

- Use HG- Display Key History to display the history code (call state) definitions
- Refer to the Call States chart under HD- System Status for an explanation of the definitions

Conditions

Pressing SHIFT1 after enabling Selective History turns Selective History off.

Default Value

Selected history is off.

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:

1. No entry required.

To display the OS- Selective History options:

1. Type OS. You see: OS-CMD>
2. Press RETURN. You see:.

```
SELECTIVE HISTORY
    D= DISPLAY
    F= OFF
    N= SELECT EXTENSIONS
```

D= DISPLAY lets you display the extensions and trunks you selected.
F= OFF allows you to turn Selective History off.
N= SELECT EXTENSIONS permits you to select specific extensions and trunks for Selective History.

To display the extensions/trunks you selected:

1. Type OS. You see: OS-CMD
2. Type D. You see: SELECTED EXTENSIONS followed by a list of the selected extensions and trunks.

To turn OS- Selective History off (if you previously selected extensions or trunks):

1. Type OS. You see: OS-CMD
2. Type F. You see: ** DONE **

To select extensions and/or trunks for the OS-Selective History report:

1. Type OS. You see: OS-CMD
2. Type N. You see: SELECTED EXTENSIONS
3. Type in the number of the extension or trunk you want and press RETURN. You see: ** DONE ** EXT-
4. - Type in another extension or trunk.
   OR
   - Press ESC or RETURN to return to the Main Menu.

O- LABEL MAKER AND SELECTIVE HISTORY
OS- SELECTIVE HISTORY

- For Your Notes -

Description

Use this option to print the SMDR report. You can have this option clear the SMDR buffer as the report prints, or retain the SMDR records. Clearing the SMDR buffer erases all the existing SMDR records. A sample SMDR report follows:

```
STATION MESSAGE DETAIL RECORDING
11/06/89 09:59:39

 ----+---+-----------------------------+----------+--------+----- ---+------+--
  STA |LIN|        NUMBER DIALED         |   ACCT   |  START | ELAPSE | COST |S#
 ----+---+-----------------------------+----------+--------+----- ---+------+--
  304 | 01|                          202|          |15:23:52|00:00:01|$00.00|01
  304 | 01|                  12036672145|     1212|15:44:12|00:00:08|$00.00|01
  304 | 02|                  12035551254|     3112|15:45:38|00:00:12|$00.00|01
  304 | 01|                  12032223456|     1123|15:49:29|00:00:05|$00.00|01
  304 | 01|                  12038888123|     1212|15:50:32|00:00:17|$00.00|01
  304 | 01|                            -|         |17:10:00|00:00:48|$00.00|01
  304 | 01|                            -|         |17:19:33|00:00:21|$00.00|01
  304 | 02|                            -|         |10:02:24|00:01:36|$00.00|01
  304 | 02|                            -|         |10:57:44|00:00:19|$00.00|01
  304 | 01|                            -|         |10:57:32|00:00:45|$00.00|01
  304 | 01|                            -|         |11:02:01|00:01:00|$00.00|01
  304 | 01|                            -|         |11:03:17|00:00:55|$00.00|01
```

Conditions

None

Default Value

None

Feature Reference

"Station Message Detail Recording"

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Press P. You see: CLEAR SMDR AFTER REPORT? [Y/N]
2. - Press Y to clear the SMDR buffer after the report runs.
   OR
   - Press N to run the SMDR report without clearing the SMDR buffer.
3. The report prints.

- For Your Notes -

Description

Use this option to assign the digit used to force Intercom ringing. Refer to the Intercom Feature. Changing this digit also affects:

- Group Call Pickup (pickup code * 1)
- Meet-Me Conference (dial-up codes 11 and 12)
- Paging (All Call Paging code 1 *)

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

1

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- Ringdown Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type A. You see: RINGDOWN DGT?
3. Enter the QA- Ringdown Dgt entry (0-9) from Table 9.
4. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
    DIGIT? (<CR> FOR STANDARD PAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN to reinstall the standard number plan.

Q- SYSTEM-WIDE PROGRAMMING
QA- NUMBER PLAN, 2ND TEN SPEED DIAL BIN DIGIT

Description

Use this option to assign the first digit for the second ten Personal Speed Dial bins (normally 20-29). Refer to the Speed Dial feature. Changing this digit also affects:

- Call Waiting (dialing * 2 to answer a Call Waiting from an ESL set)
- Paging (zone 1 Paging code 2 *).

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

2

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- 2nd Ten Speed Dial Bin Digit (0-9) on Table 9.
   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- Ringdown Digit, you see: SPEED DIAL ACCESS DGT
2. Enter the QA- 2nd Ten Speed Dial Bin Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
      DIGIT? (<cr> FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.
     OR
   - Press RETURN to reinstall the standard number plan.

Description

Use this option to assign the first digit for the first block of 100 extension/trunk numbers (e.g., 300). Refer to the Intercom feature. Changing this digit also affects:

- Central Office Calls, Placing (e.g., trunk access code 348)
- Paging (zone 2 paging code 3 *)

In addition, the attendant should always be assigned port 00 and should always be the first extension in the "Block of First 100 Extensions Digit" program.

Note:
Refer to Table 4 (page 11) before changing the system number plan.

> **CAUTION:** Any changes to the number plan will affect feature operations as well as programming operations to many features, including the universal eraser (usually 300). Do not change the standard numbering plan unless absolutely necessary.

Conditions

None

Default Value

3

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- 1st Hundred Block Ext Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- 2ND Ten Speed Dial Bin Digit, you see: 1ST HUNDRED BLOCK EXT DGT
2. Enter the QA- 1st Hundred Block Ext Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
       DIGIT? (<CR> FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN to reinstall the standard number plan.

Q- SYSTEM-WIDE PROGRAMMING
QA- NUMBER PLAN, BLOCK OF SECOND 100 EXTENSIONS DIGIT

Description

Use this option to assign the first digit for the second block of 100 extension/trunk numbers (e.g., 400). Refer to the Intercom feature. Changing this digit also affects:

- Automatic Call Distribution (putting agents in service by dialing 4)
- Paging (zone 3 Paging code 4 *)

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

4

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- 2nd Hundred Block Ext Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- Block of First 100 Extensions Digit, you see: 2ND HUNDRED BLOCK EXT DGT
2. Enter the QA- 2nd Hundred Block Ext Dgt entry from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
       DIGIT? (<CR> FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN to reinstall the standard number plan.

Description

Use this option to assign the first digit for the first ten Personal Speed Dial bins (normally 50-59). Refer to the Speed Dial feature. Changing this digit also affects:

- Call Parking from an ASI/OPX (e.g., dialing *560)
- Paging (zone 4 Paging code 5 *)

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

5

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- 1st Ten Speed Dial Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- Block of Second 100 Extensions Digit, you see: 1ST TEN SPEED DIAL DGT
2. Enter the QA- 1st Ten Speed Dial Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
       DIGIT? (<CR> FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN to reinstall the standard number plan.

Q- SYSTEM-WIDE PROGRAMMING
QA- NUMBER PLAN, PARK ORBIT ACCESS DIGIT

Description

Use this option to assign the first digit of the ten System Park orbit codes (60-69). Refer to the Call Parking feature. Changing this digit also affects:

- Automatic Call Distribution (an agent dialing 6 to remove themselves from the group)
- Message Waiting (dialing 6 to leave or answer a Message Waiting)
- Paging (zone 5 Paging code 6 *)
- Selectable Display Messages (dialing # 6 to initiate display messaging)

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

6

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- Orbit Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the previous QA option, you see: ORBIT DGT
2. Enter the QA- Orbit Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
       DIGIT? (<CR> FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN to reinstall the standard number plan.

Description

Use this option to define the first digit of the System Speed Dial numbers. Refer to the Speed Dial feature. Changing this digit also affects:

- Automatic Call Distribution (supervisor dialing 7 to put agents out of service)
- Paging (zone 6 Paging code 7 *)
- Split (*7 from an ESL set)

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

7

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- System Spd Dial Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- Park Orbit Access Digit: SPEED DIAL ACCESS DGT
2. Enter the QA- System Spd Dial Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
       DIGIT? (<CR> FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN to reinstall the standard number plan.

Q- SYSTEM-WIDE PROGRAMMING
QA- NUMBER PLAN, TRUNK ACCESS DIGIT

Description

Use this option to assign the first digit of the trunk access codes (e.g., 801 for trunk 1). Refer to Central Office Calls, Placing. Changing this digit also affects:

- Paging (zone 7 Paging code 8 *)
- Time and Date (dialing # 8 to set the time)

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

8

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- Line Access Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- System Speed Dial Access Digit, you see: LINE ACCESS DGT
2. Enter the QA- Line Access Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

     ```
     WARNING! NON-STANDARD NUMBER PLAN
         DIGIT? (<CR> FOR STANDARD PLAN)
     ```

   - Enter the number for the next option.

     OR

     Press RETURN to reinstall the standard number plan.

Description

Use this option to define the first digit used to access a trunk group (e.g. 90 for trunk group 01). This option also sets the single digit trunk access code (normally 9). Refer to Line (Trunk) Rotaries. Changing this digit also affects:

- Automatic Route Selection (ARS access code 9 or 90)
- Time and Date (dialing # 9 to set the date).

This option appears but is not used for key systems.

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

9

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- Line Group Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- Trunk Access Digit, you see: LINE GROUP DGT
2. Enter the QA- Line Group Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
       DIGIT? (<CR> FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN To reinstall the standard number plan.

Q- SYSTEM-WIDE PROGRAMMING
QA- NUMBER PLAN, OPERATOR DIGIT

Description

Use this option to define the digit used to call an extension's attendant (normally 0). Refer to Attendant Positions. Changing this digit also affects Night Answer (dialing * 0 to pick up a call ringing the External Paging).

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

0

Feature Reference

"Flexible Numbering Plan"

Instructions

To enter data on the PRF:

1. Enter the number for QA- Operator Dgt (0-9) on Table 9.

   You cannot use the number you enter for any other QA- Number Plan digit.

To enter data at the programming terminal:

1. After typing QA and programming the QA- Trunk Group Access Digit, you see: OPERATOR DGT
2. Enter the QA- Operator Dgt entry (0-9) from Table 9.
3. - If your entry deviates from the standard number plan, the system prompts you for the next option and displays:

   ```
   WARNING! NON-STANDARD NUMBER PLAN
       DIGIT? ( FOR STANDARD PLAN)
   ```

   - Enter the number for the next option.

     OR

   - Press RETURN to reinstall the standard number plan.

Description

The system assigns the * and # digits as the feature and program access digits. For example, a user can implement Group Call Pickup by dialing * 1. To program the system time, an attendant can press ICM and dial # 8. You cannot change the feature and program access digits.

Note:
Refer to Table 4 (page 11) before changing the system number plan.

Conditions

None

Default Value

- The Feature Access Digit is *.
- The Program Access Digit is #.

Feature Reference

"Flexible Numbering Plan"

Instructions

None

Q- SYSTEM-WIDE PROGRAMMING
QB- PBX ACCESS CODES

Description

Use this option to designate up to 11 PBX access codes. The choices are:

- N (no entry)
- Any two-digit PBX access code from 00-99
- Any single-digit PBX access code from 0-9
- A range of codes using the wild card X (e.g., 9X allows PBX Access Codes 90-99). The system does not allow a single-digit X entry.

Conditions

None

Default Value

No PBX Access Codes defined.

Feature Reference

"PBX/Centrex Compatibility"

Instructions

To enter data on the PRF:

1. Enter the QB- PBX Access Codes on Table 9.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD
2. Type B. You see: PBX ACCESS CODE 01
3. - Enter QB- PBX Access Code 01 from Table 9.

   If you enter a two-digit code, you automatically advance to the next consecutive code. If you enter a single digit, you must press RETURN after making your entry.

   To remove a code, enter N. This removes all codes after your entry as well. For example, if you enter N for code 02, the system removes codes 02-11.

   OR

   - Press RETURN to go to the code you want to program.

Description

Use this option to allow/deny alarm displays at the attendant's telephone. If allowed, the attendant's display shows all major, minor and major/minor alarms. If denied, the attendant's display never shows alarms.

Conditions

None

Default Value

Alarms not suppressed (N).

Feature Reference

"Automatic Fault Reporting/Remote Maintenance"

Instructions

To enter data on the PRF:

1. For QC- Suppress Alarms at Opr on Table 9, enter Y to prevent alarm displays or N to let alarm displays occur.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD
2. Type C. You see: SUPPRESS ALARMS AT OPR
3. Enter Y or N for QC- Suppress Alarms at OPR from Table 9.

Q- SYSTEM-WIDE PROGRAMMING
QC- OP. PROGRAMMING, VX OVERFLOW RING COUNT

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Use this option to specify the number of rings after which Voice Mail overflow occurs (1-255 rings). After this number, unanswered trunk calls overflow to the Voice Messaging System Automated Attendant. Refer to the Voice Mail Compatibility feature and the Voice Mail system documentation for more information.

Conditions

If you enter 00 for this option and the system has Operator Assistance (OPA) with Automatic Attendant Overflow, calls overflow to the OPA.

Default Value

No overflow to Voice Mail (00).

Feature Reference

"Operator Assistance (OPA)"

Instructions

To enter data on the PRF:

1. For QC- Ring Count For Overflow to VX on Table 9, enter the number of rings after which overflow occurs (1-255). Enter 00 for no overflow.

To enter data at the programming terminal:

1. After programming QC- Suppress Operator Alarms, you see: RING COUNT FOR OVERFLOW TO VOICE MAIL
2. Enter the value of QC- Ring Count For Overflow to VX from Table 9.

   Go to QC- Number of Operators.

Description

Use this option to specify the number of system operators (1-4). After programming this option, go to QC- Operator Extensions to specify the attendant extensions.

Conditions

When removing attendants:

- Change the QC- Number of Operators entry
- Go to E3- Class of Service and change the former attendant's COS to a valid extension's COS (1-27)

Default Value

One operator installed.

Feature Reference

"Attendant Positions"

Instructions

To enter data on the PRF:

1. For QC- Number of Oprs on Table 9, enter the number of system operators (1-4).

To enter data at the programming terminal:

1. After programming QC- Suppress Operator Alarms, you see: NUMBER OF OPRS.
2. Enter the value of QC- Number of Oprs from Table 9 (1-4).

Q- SYSTEM-WIDE PROGRAMMING
QC- OPERATOR PROGRAMMING, OPERATOR EXTENSIONS

Description

Use this option to designate the operator extensions. Always assign the system's main attendant to port 00 (usually extension 300). When you designate an attendant, the system automatically sets:

- E- Extensions, E3- Class of Service to 30
- E- Extensions, EA- UCD Group Master Extension Number to OP (1-4)

Conditions

When removing attendants:

- Change the QC- Number of Operators entry
- Go to E3- Class of Service and change the former attendant's COS to a valid extension's COS (1-27)

Default Value

Extension 300 is the attendant's extension.

Feature Reference

"Attendant Positions"

"Call Forwarding Cancel"

Instructions

To enter data on the PRF:

1. For the QC- Opr's Ext options on Table 9, indicate the attendant's extension numbers.

To enter data at the programming terminal:

You only see the prompts for the appropriate number of operators. If your QC- Number of Operators entry is 1, you only see prompts for Opr's Extension: 1 Ext.

1. After programming QC- Operator Extensions, you see: OPR'S EXTENSION? 1 EXT
2. Enter the value for QC- Opr's Extension 1 Ext from Table 9. You see: OPR'S EXT? 2 EXT
3. Enter the value for Opr's Extension 2 Ext from Table 9. You see: OPR'S EXT? 3 EXT. Repeat step 3 for Opr's Ext 3 Ext and Opr's Ext 4 Ext?

Iou return to the Main Menu.

Q- SYSTEM-WIDE PROGRAMMING
QD- NUMBER OF SYSTEM SPEED DIAL DIGITS

Description

Use this option to determine the number of System Speed Dial digits. The choices are:

- 2 10 numbers (70-79)
- 3 100 numbers (700-799)

Conditions

None

Default Value

3 (Speed Dial Numbers 700-799)

Feature Reference

"Speed Dial"

Instructions

To enter data on the PRF:

1. For QD- No. of Sys Spd Dial Digits on Table 9, enter the number of System Speed Dial digits (2, 3 or 4).

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Press D. You see: NO. OF SYS SPD DIAL DIGITS? (2, 3, 4)
3. Enter the QD- No. of Sys Spd Dial Digits entry from Table 9.

   You return to the Main Menu.

Q- SYSTEM-WIDE PROGRAMMING
QE- AUTOMATIC HANDSFREE

Description

Use this option to allow/deny Automatic Handsfree for keysets. This option affects all keysets.

Conditions

None

Default Value

Automatic Handsfree enabled (Y).

Feature Reference

"Automatic Handsfree"

"Caller ID"

Instructions

To enter data on the PRF:

1. For QE- Auto-Handsfree on Table 9, enter Y to enable Automatic Handsfree; enter N to disable.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD
2. Type E. You see: AUTO-HANDSFREE?
3. Enter Y or n for QE- Auto-Handsfree from Table 9.

Description

Use this option to enable/disable the Manual Side Tone option. If enabled (Y), you can specify the sidetone network for each trunk in QE- Line Gain Table. The system does not do an automatic sidetone test after power up. If disabled (N), you cannot manually adjust each trunk's sidetone. However, the system automatically does a side tone after power up. This option affects all trunks. If you use IS-Side Tone Test to adjust side tone for a trunk, the system overrides the QE- Manual Sidetone entry. Refer to IS- Side Tone Test and QE- Line Gain Table options for more information.

You must use the QE- Manual Sidetone option if you want to adjust the sidetone for OPX trunks. The system cannot automatically adjust sidetone for this trunk type.

Conditions

None

Default Value

Manual Sidetone disabled (N).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QE- Manual Sidetone on Table 9, enter Y to enable Manual Sidetone; enter N to disable.

To enter data at the programming terminal:

1. After entering data for QE- Automatic Handsfree, you see: MANUAL SIDETONE? - [Y/N]
2. Enter Y or N for QE- Manual Sidetone from Table 9.

Go to QE- Line Gain Table on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QE- LINE GAIN TABLE, GAIN

Description

Use this option to set the relative gain for each trunk. This may be necessary to compensate for transmission gains or losses from the Central Office. The QE entry choices are:

+ 6 dB gain
+ 3 dB gain
0 dB (no gain or loss)
-3 dB loss
-6 dB loss
-9 dB loss
-12 dB loss

Note:

A 3 dB gain (+3 dB) doubles the volume on the trunk. A 3 dB loss (-3 dB) cuts the volume on the trunk in half.

Testing the Trunk Signal Levels

Before setting the gains for the trunks, check the trunk signal levels as follows:

1. Starting with the first trunk, connect a local loop tester (such as the Triplett Model 3) to tip and ring on the trunk block. Follow the tester manufacturer's instructions for the specifics.

   Make sure the trunk you select is not terminated (in use) in the system.

2. Using a 2500 set connected to the local loop tester, call the telco test number that provides a 1 KHz 0 dBm (1 mW @ 600 Ohms) test tone.
3. Use the local loop tester to measure the strength of the trunk's signal. Keep the following in mind:
   - For a business trunk, your tester should read the test signal at 0 to -5 dB (typically -3 to -5 dB).[1]
   - If your signal is lower or higher than 0 to -5 dB, contact your telco. Your trunk may be out of "spec" or you may not have a business trunk.
   - Boosting the signal level on a trunk decreases the trunk's signal to noise ratio.
4. Use the QE command to compensate for gains or losses on the trunk. For example, if your trunk measures -9 dB, add +6 dB in QE. This brings the net loss to the system to -3 dB.

   You can further refine the QE settings based on the desires of the system users.

5. Repeat steps 1-4 for your remaining trunks.

After seizing a trunk, the user can adjust the gain on the trunk. However, the volume on the trunk returns to a preset setting for each new call. Refer to Volume Controls.

Conditions

QE- Line Gain Table settings do not apply to analog trunk-to-trunk connections. For example, if an OPX user accesses a trunk, the system does not apply the QE settings to the trunk. Trunk-to-trunk connections include DISA and OPX trunks and ASI ports.

Default Value

No gain or loss (0 dB)

Feature Reference

"Operator Assistance (OPA)"

"Voice Module Unit (VMU)"

[1] These values may be different in your area. Check with our local telco for levels applicable to your area.

Instructions

To enter data on the PRF:

1. Enter the required gain for each trunk on Table 9.

To enter data at the programming terminal:

1. After programming QE- Automatic Handsfree, you see:

```
LINE TABLE

LINE # 01
     GAIN  0dB
```

2. Enter data for trunk 01.
3. - If you entered N(o) for QE- Manual Sidetone, you can press RETURN repeatedly to access another trunk.
   OR
   - If you entered Y(es) for QE- Manual Sidetone, you see SIDETONE NETWORK? (54,56,58) for trunk 01.
   Go to QE- Line Gain Table, Sidetone Network on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QE- LINE GAIN TABLE, SIDETONE NETWORK

Description

Use this option to manually adjust the sidetone for each trunk. This lets you fine tune each trunk's side tone level, if necessary. Use this option to match the impedance of each system trunk circuit to the impedance of the connected telco trunk. Enter the value that minimizes the sidetone (i.e., maximizes the return loss). The choices for this option with software 02.10 or higher are:

54 = loaded loop, high impedance
56 = short loop (600 ohm), non-loaded
58 = long loop, non-loaded

This option only appears if you have entered Y(es) for QE- Manual Sidetone.

Conditions

None

Default Value

No sidetone network selected (00).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QE- Sidetone Network on Table 9, enter the sidetone network number (54, 56 or 58).

To enter data at the programming terminal:

1. After programming QE- Line Gain Table, Gain for a trunk, you see: SIDETONE NETWORK? (54, 56, 58)
2. For this trunk, enter the Sidetone Network number from Table 9.

   You go to the QE- Line Gain Table, Gain option for the next trunk.

Description

Use this option to correlate the first trunk in a trunk rotary (e.g., 801) to one of nine trunk rotary numbers (90-98). The system requires this correlation when setting up trunk rotaries.

This option does not appear for key systems.

Conditions

None

Default Value

No entries (no rotaries defined).

Feature Reference

"Line (Trunk) Rotaries (Hybrid Only)"

Instructions

To enter data on the PRF:

1. On Table 9, enter a trunk access code (e.g., 801) or trunk number (L01) for each rotary (90-98) you want to program. The entry should be the first trunk in the trunk rotary. Refer to EA- Trunk Group Assignment (First Trunk in Group).

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type F. You see: GROUP # 90 LINE NUMBER?
3. - Enter the trunk access code or number for this rotary from Table 9 and press enter.
   You see: GROUP # 91 LINE NUMBER?
   OR
   - Press RETURN repeatedly to skip to a higher numbered rotary, then enter data from Table 9.
4. - Enter the trunk access code or number for the next rotary from Table 9 and press RETURN.
   OR
   - Press RETURN repeatedly to skip to a higher numbered rotary, then enter data from Table 9.
   OR
   - Press ESC to return to the Main Menu.

Q- SYSTEM-WIDE PROGRAMMING
QG- DISA CODE

Description

Use this option to define the DISA access code (up to eight digits long). This code is also the Walking Class of Service code. You must also program QG- Ground Start DISA Trunk. This lets you specify DISA trunks as loop start only.

Conditions

None

Default Value

No entry (no DISA code defined).

Feature Reference

"Direct Inward System Access (DISA)"

"Walking Class of Service"

Instructions

To enter data on the PRF:

1. For QG- DISA CODE on Table 9, enter the DISA access code (up to eight digits long).

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type G. You see: DISA CODE (8 DGTS MAX)?
3. Enter the QG- DISA CODE data from Table 9 and press RETURN.

   To erase a code, enter N.

   You don't have to press RETURN if the code is eight digits long.

   Go to QG- Ground Start DISA Trunk on the next page.

Description

Use this option to program DISA trunks for ground start or loop start operation. If you enable this option (Y), all DISA trunks are ground start. If you disable this option (N), all DISA trunks are loop start. ***Make sure you always set this option for loop start operation (N). The system does not support ground start DISA trunks.***

Conditions

None

Default Value

All DISA trunks are ground start (Y).

Feature Reference

"Direct Inward System Access (DISA)"

Instructions

To enter data on the PRF:

1. For QG- GROUND START DISA TRUNK on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QG- DISA CODE, you see: GND START DISA LINE (Y=GND, N=LOOP)
2. Enter Y or N for QG- GROUND START DISA TRUNK from Table 9.

Q- SYSTEM-WIDE PROGRAMMING
QH- OPA CONFIGURATION, OVERFLOW MSG FOR OPERATOR (1-4)

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Use this option to designate the OPA operator overflow message (2-7) for each system attendant. Assigning the message automatically enables OPA operator overflow for that attendant. To disable overflow for an attendant, enter 0. Keep in mind when assigning messages that Message 2 is the error message. A caller dialing an incorrect code hears message 02.

Conditions

None

Default Value

OPA operator overflow disabled (0).

Feature Reference

"Operator Assistance (OPA)"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For QH- Overflow Message on Table 9, enter the OPA overflow message number (2-7) for each system attendant.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type H. You see: OVERFLOW MESSAGE OPR #1 -
3. - Enter the QH- Overflow Message OPR #1 entry from Table 9 for this operator.
   You see: OVERFLOW MESSAGE OPR #2
   OR
   - Press RETURN repeatedly to skip to a higher numbered operator, then enter data from Table 9.
4. Enter the QH- Overflow Message number from Table 9 for the next operator.
   OR
   - Press RETURN repeatedly to skip to a higher numbered operator, then enter data from Table 9.
   OR
   - Press ESC to RETURN to the Main Menu.

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Use this option to assign the termination (destination) for the OPA access digits 1, 2, and 4-9. The destination is the extension or ACD/UCD group OPA callers reach when they dial a digit. The OPA recorded messages should describe the terminations reached by these single digits. Refer to the Operator Assistance feature and the QH- Line n Day/Night Message options below for the specifics on recording messages.

Conditions

None

Default Value

Dialing any digit (except 3) rings the primary attendant (normally extension 300).

Feature Reference

"Operator Assistance (OPA)"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For the QH- OPA Group # options on Table 9, enter the destination for each digit (OPA group). The choices are:

- Extensions
- Ring Groups (364-371 in 2-cabinet systems, 396-403 in 3-cabinet systems)
- ACD Groups
- UCD Groups

To enter data at the programming terminal:

1. After programming QH- Overflow Message for Operator (1-4), you see: OPA GROUP#1 -
2. - Enter the QH- OPA Group #1 entry from Table 9. You see: OPA GROUP#2
   OR
   - Press RETURN repeatedly to skip to a higher numbered OPA group, then enter data from Table 9.
3. - Enter the QH- OPA Group # data for the next group from Table 9. You see: OPA GROUP#
   OR
   - Press RETURN repeatedly to skip to a higher numbered OPA group, then enter data from Table 9.
   OR
   - Press ESC to return to the Main Menu.

Q- SYSTEM-WIDE PROGRAMMING
QH- OPA CONFIGURATION, LINE n DAY AND NIGHT MESSAGE

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

This option sets the message (2-7) a caller hears after the OPA answers a trunk. You can assign a message for both day and night mode operation. Make an entry for each trunk the OPA should answer. Keep the following in mind when assigning messages:

- Message 0 is the ACD/UCD overflow message.
- Message 1 is the "All lines are busy" message. You cannot record message 01.
- Message 2 is the error message. A caller dialing an incorrect code hears message 02.

Conditions

None

Default Value

All callers hear message 0 (the ACD/UCD overflow message).

Feature Reference

"Operator Assistance (OPA)"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For QH- Day Message and QH- Night Message on Table 9, enter the OPA message (2-7) for each trunk. If desired, day and night operation can select the same message.

To enter data at the programming terminal:

1. After programming OPA Group Routing, you see: LINE # 01
2. - Press RETURN to program trunk 1. You see: DAY MESSAGE

   Press RETURN repeatedly to program a different trunk.
3. Enter the QH- Day Message entry for this trunk from Table 9. You see: NIGHT MESSAGE
4. Enter the QH- Night Message entry for this trunk from Table 9. You access the next consecutive trunk.
   - Repeat steps 2-4 to enter more data.

     OR
   - Press ESC to return to the Main Menu.

Description

Use this option to enter codes into the Verifiable Account Code list. You can enter up to 400 codes. Each code can be from 2-10 digits long, using the digits 0-9. You can also use this option to delete and list the codes. When listing the codes, the system puts them in descending numerical order (0, 9-1), sorted by the first digit only.

Conditions

None

Default Value

No Verifiable Account Codes programmed.

Feature Reference

"Account Code Capability"

Instructions

To enter data on the PRF:

1. Enter your system's QL- Verifiable Account Codes in Table 9.

To enter data at the programming terminal:

1. Press Q. You see: Q-CMD>
2. Press I. You see: VFY
3. Use the chart below to enter codes into the list.

From this menu	Type this	Function	To use these options	
VFY>	**Enter** ↵	*Display list of options.*		
	A	*Add a code to the list.*	DATA	*Enter code from Table 10 and press ENTER.*
			Enter ↵	*After making all your entries, press ENTER to go back to VFY> options.*
	D	*Delete a code from the list.*	DATA	*Enter code from Table 10 and press ENTER.*
			Enter ↵	*After making all your entries, press ENTER to go back to VFY> options.*
	L	*Display the codes in the list.*		
	ESC	*Return to the Main Menu.*		

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Q- SYSTEM-WIDE PROGRAMMING
QJ- INTERCOM CALL CONTROL, VOICE CALL

Description

Use this option to enable/disable voice-announced Intercom calls system-wide. Refer to the Intercom feature. If disabled (N), the system allows voice-announced Intercom calls if also allowed at the destination extension. If enabled (Y), all Intercom calls ring the destination extension.

Conditions

Voice-announced calls cannot occur at ASI/OPX extensions.

Default Value

Voice-announced Intercom calls not inhibited (N).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QJ- Inhibit Voice Call on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After making an entry for QJ- Second Channel Access, you see: INHIBIT VOICE CALL?
2. Enter Y or N for QJ- Inhibit Voice Call from Table 9. In either case, you see: INHIBIT HANDSFREE REPLY?

Go to QJ- Intercom Call Control, Handsfree Reply on the next page.

Description

Use this option to enable/disable handsfree reply to voice-announced Intercom calls system-wide. If disabled (Y), an extension user must lift the handset to respond to a voice-announced Intercom call. If enabled (N), an extension user can reply to a voice-announced Intercom call by just speaking toward the phone.

Conditions

Voice-announced calls cannot occur at ASI/OPX extensions.

Default Value

Handsfree reply permitted (N).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QJ- Inhibit Handsfree Reply on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QJ- Intercom Call Control, Voice Call, you see: INHIBIT HANDSFREE REPLY?
2. Enter Y or N for QJ- Inhibit Handsfree Reply from Table 9. In either case, you see: INHIBIT ALERTS, CALL WAITING?

Go to QJ- Intercom Call Control, Alerts (Call Waiting) on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QJ- INTERCOM CALL CONTROL, ALERTS (CALL WAITING)

Description

Use this option to allow or deny Call Waiting beeps. Refer to the Call Waiting feature. If allowed (N), extension users can hear Call Waiting beeps for camped-on calls. If denied (Y), extension users never hear Call Waiting beeps.

Conditions

This option has no affect on Off-Hook Signaling.

Default Value

Call Waiting alerts allowed.

Feature Reference

"Call Waiting (Camp-On)"

Instructions

To enter data on the PRF:

1. For QJ- Call Waiting on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QJ- Intercom Call Control, Handsfree Reply, you see: INHIBIT ALERTS, CALL WAITING?
2. Enter Y or N for QJ- Call Waiting from Table 9. In either case, you see: CALL FORWARD?

Go to QJ- Intercom Call Control, Alerts (Call Forwarding) on the next page.

Description

Use this option to allow/deny the Call Forwarding reminder message. Refer to the Call Forwarding feature. If allowed (N), a voice message periodically plays to remind the user that their calls are forwarded. If denied (Y), the reminder message never plays. The reminder message is, "Your calls have been forwarded."

Conditions

Voice Messages can play only if your system has a 12SCU/VMU Module.

Default Value

Call Forwarding reminder message allowed (N).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QJ- Call Forward on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QJ- Intercom Call Control, Alerts (Call Waiting), you see: CALL FORWARD?
2. Enter Y or N for QJ- Call Forward from Table 9. In either case, you see: MESSAGE?

Go to QJ- Intercom Call Control, Alerts (Message) on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QJ- INTERCOM CALL CONTROL, ALERTS (MESSAGE)

Description

Use this option to allow/deny the Message Waiting reminder message. Refer to the Message Waiting feature. If allowed (N), a voice message periodically plays to remind the user that they have a Message Waiting. If denied (Y), the reminder message never plays. The reminder message is, "You have a message."

Conditions

Voice messages can play only if your system has a 12SCU/VMU Module.

Default Value

Message Waiting reminder message allowed (N).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QJ- Message on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QJ- Intercom Call Control, Alerts (Call Forwarding), you see: MESSAGE?
2. Enter Y or N for QJ- Message from Table 9. After making your entry, you return to the Main Menu.

Description

Use this option to enter the System Identification. The System Identification is four lines long, with up to 17 characters in each line. It can consist of any combination of characters A-Z and the digits 0-9, # and *.

Conditions

None

Default Value

No System Identification programmed.

Feature Reference

"Automatic Fault Reporting/Remote Maintenance"

"System Identification"

Instructions

To enter data on the PRF:

1. For QK- KSU ID on Table 9, enter the System Identification.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type K. You see: KSU ID:
3. Enter the data for QK- KSU Ident (line 1) from Table 9 and press RETURN. You go to the second line.

   If you enter 17 characters, you don't have to press RETURN.

   To erase an entry for an entire line, press space bar and RETURN.
4. Repeat step 3 for lines 2-4.

Q- SYSTEM-WIDE PROGRAMMING
QL- ARS/ACCOUNT CODES, MANDATORY ACCOUNT CODES

Description

Use this option to enable (Y) or disable (N) Mandatory Account Codes system-wide.

Conditions

None

Default Value

Mandatory Account Codes disabled (N).

Feature Reference

"Account Code Capability"

Instructions

To enter data on the PRF:

1. For QL- Acct Codes Mandatory on Table 9, enter Y or N.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type L. You see: ACCT CODES MANDATORY?
3. Enter Y or N for QL- Acct Codes Mandatory from Table 9.
4. - If you enter Y for step 3, go to QL- Verifiable Account Codes on the next page.
   OR
   - If you enter N for step 3, go to QL- ARS Enable

Description

Use this option to enable (Y) or disable (N) Verifiable Account Codes system-wide.

Conditions

None

Default Value

Verifiable Account Codes disabled (N).

Feature Reference

"Account Code Capability"

Instructions

To enter data on the PRF:

1. For QL- Verify Codes on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After entering Y for QL- Mandatory Account Codes, you see: VERIFY CODES?
2. Enter Y or N for QL- Verify Codes from Table 9. In either case, you see: ACCT CODES FOR TOLL CALL ONLY?

Go to QL- Account Codes for Toll Calls Only on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QL- ARS/ACCOUNT CODES, ACCT CODES FOR TOLL CALLS ONLY

Description

Use this option to enforce Account Codes for all trunk calls (N) or for just toll (1+) trunk calls (Y).

Conditions

None

Default Value

Account codes enabled for all trunk calls (N).

Feature Reference

"Account Code Capability"

Instructions

To enter data on the PRF:

1. For QL- Acct Codes for Toll Call Only on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After entering data for QL- Verifiable Account Codes, you see: ACCT CODES FOR TOLL CALL ONLY?
2. Enter Y or N for QL- Acct Codes for Toll Call Only from Table 9. You see: MIN. COS REQUIRING ACCT CODE

Go to QL- Minimum COS for Mandatory Account Codes on the next page.

Description

Use this option to set the minimum COS number that requires Mandatory Account Code entry. For example, entering 15 requires COSs 15-27 to enter Account Codes. COSs 00-14 do not have to enter Account Codes. To force all extension users to enter Account Codes (including attendants), enter 00.

Conditions

None

Default Value

Only COS 27 must enter an Account Code (27).

Feature Reference

"Account Code Capability"

Instructions

To enter data on the PRF:

1. Enter a COS number (00-27) for QL- Min Cos Requiring Acct Code on Table 9.

To enter data at the programming terminal:

1. After entering data for QL- Account Codes for Toll Calls Only, you see: MIN. COS REQUIRING ACCT CODE?
2. Enter data for QL- Min. COS Requiring Acct Code from Table 9. You see: LCR (0=NOT INST'D, 2=ARS INST'D)

Go to QL- ARS Enable on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QL- ARS/ACCOUNT CODES, ARS ENABLE (HYBRID ONLY)

Description

Use this option to enable ARS. The choices are:
0 ARS not enabled
2 ARS enabled[1]

This option is not available on key systems.

Conditions

None

Default Value

ARS disabled (0).

Feature Reference

"Automatic Route Selection"

Instructions

To enter data on the PRF:

1. For QL- ARS on Table 9, enter 0, 1 or 2.

To enter data at the programming terminal:

1. After programming QL- Minimum COS for Mandatory Account Codes or entering N for QL- Mandatory Account Codes, you see: LCR (0=NOT INST'D, 2=ARS INST'D)
2. Enter 0 or 2 for QL- LCR (0=Not Inst'd,2=ARS Inst'd) from Table 9. If you enter 1 or 2, you see: NO. OF CO SERVICES (01-10)

   If you enter 1 or 2, go to QL- Number of Services on the next page.

   If you enter 0, you go to the Main Menu.

[1] Refer to Appendix A for details on programming ARS.

Description

Use this option to designate how many services (trunk rotaries) ARS will use.[1] The choices are 01-10. This prompt appears only if you enter 1 or 2 for the QL- ARS ENABLE option.

This option does not apply to key systems.

Conditions

None

Default Value

No services designated (00).

Feature Reference

"Automatic Route Selection"

Instructions

To enter data on the PRF:

1. For QL- No. of Services (01-10) on Table 9, enter the number of services (trunk rotaries) ARS will use.

To enter data at the programming terminal:

1. After programming QL- LCR or ARS Enable, you see: NO. OF CO SERVICES (01-10)
2. Enter the number of services for QL- No. of Services from Table 9. You see: SERVICE 01 LINE NUMBER

Go to QL- Service Line Numbers on the next page.

[1] Refer to Appendix A for details on programming ARS.

Q- SYSTEM-WIDE PROGRAMMING
QL- ARS/ACCOUNT CODES, SERVICE LINE NUMBERS

Description

Use this option to assign the trunk rotary master number for each of the rotaries used by ARS. Service number 01 should be the DDD trunk group. This entry should correspond to the EA- First Trunk in Group entry.

If you are programming ARS[1], this is the last QL option you have to program.

This option does not apply to key systems.

Conditions

None

Default Value

No rotaries assigned (00).

Feature Reference

"Automatic Route Selection"

Instructions

To enter data on the PRF:

1. For QL- Service nn Line Number? on Table 9, enter the master number for each of the ARS trunk rotaries.

To enter data at the programming terminal:

1. After entering data for QL- Number of Services, you see: SERVICE 01 LINE NUMBER?
2. Enter data from Table 9 for service (rotary) 01 and press ENTER.
3. If you are programming ARS, you see: SERVICE 02 LINE NUMBER.
   Program additional service numbers (02-10) as required.

[1] Refer to Appendix A for details on programming ARS.

Description

Enter Y to enable Background Music; N to disable. Refer to the system Hardware Manual for additional installation details.

Conditions

Background Music uses the fourth trunk circuit on the first CO Module in the main CEU. Although you connect to the CEU MOH terminals, you cannot use the fourth trunk circuit for trunks. Refer to the system Hardware Manual for additional installation details.

Default Value

No trunk assigned (00).

Feature Reference

"Background Music"

"Music on Hold"

Instructions

To enter data on the PRF:

1. For QM- BGM on Table 9, enter Y(es) or N(o).

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type M. You see: BGM
3. Eenter Y(es) or N(o) from Table 9.

Go to MOH on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QM- MUSIC/RELAY CONTROL, MOH

Description

Enter Y to enable Music on Hold; N to disable. Refer to the system Hardware Manual for additional installation details.

Conditions

Music On Hold (for internal extensions) uses the fourth trunk circuit on the first CO Module in the main CEU. You cannot use the fourth trunk circuit for trunks. (Music on Hold for outside calls does not use the trunk circuit.) If you want MOH for trunks 9-16, connect the MOH terminals on the main CEU to the MOH terminals on the expansion CEU. Refer to the system Hardware Manual for additional installation details.

Default Value

No trunk assigned (00).

Related Programming

Feature Reference

"Music On Hold"

Instructions

To enter data on the PRF:

1. For QM- MOH on Table 9, enter Y(es) or N(o).

To enter data at the programming terminal:

1. After programming QM- BGM, you see: MOH?
2. Enter Y(es) or N(o) from Table 9.

   If you enter Y(es) for QM- MOH, go to QM- MOH On Transfer on the next page.

   If you enter N(o), go to QM- Enable External Zone 1.

Description

Use this option to determine if transferred callers should hear Music on Hold or ringback tone. If enabled (Y), transferred callers hear Music on Hold while they wait for their call to go through. If disabled (N), transferred callers hear ringback tone.

For this option to function, you must have:

- Music on Hold installed (refer to the Music on Hold feature)
- Designated a trunk in QM- MOH

Conditions

None

Default Value

MOH for transferred calls enabled (Y).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QM- MOH On Transfer on Table 9, enter Y(es) to enable MOH for transferred callers. Enter N(o) to have transferred callers hear ringback tone.

To enter data at the programming terminal:

1. After programming QM- MOH, you see: MOH ON TRANSFER [Y/N]
2. Enter data for QM- MOH On Transfer from Table 9. You see: ENABLE EXTERNAL ZONE 1

Go to QM- Enable External Zone 1 on the next page.

Q- SYSTEM-WIDE PROGRAMMING
QM- MUSIC/RELAY CONTROL, ENABLE EXTERNAL ZONE 1

Description

This option is external page/night audible. Enter Y(es) to enable All Call Paging and Night Audible on the main CEU PA terminals. Enter N(o) to disable Paging and audible.

Conditions

None

Default Value

No trunk assigned (00).

Feature Reference

"Night Answer (Off-Hours Ringing)"

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. For QM- Enable External Zone 1 on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QM- MOH, you see: ENABLE EXTERNAL ZONE 1
2. Enter Y or N from Table 9 and press RETURN. You see: INHIBIT AUDIBLE RING?

To erase an entry, enter 00.

Description

Use this option to enable/disable audible ring on the trunk port you designate in QM- Enable External Zone 1. If enabled (N), night audible can occur. If disabled (Y), night audible cannot occur.

Conditions

None

Default Value

Audible ring enabled (N).

Feature Reference

"Night Answer (Off-Hours Ringing)"

Instructions

To enter data on the PRF:

1. For QM- Inhibit Audible Ring on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QM- Enable External Zone 1, you see: INHIBIT AUDIBLE RING?
2. Enter Y or N for QM- Inhibit Audible Ring from Table 9. You see: ENABLE EXTERNAL ZONE 2?

Go to QM- Enable External Zone 2 on the next page.

- For Your Notes -

Description

Use this option to enable/disable External Paging on the expansion CEU PA terminals. If enabled (Y), External Paging zone 1 and All Call broadcast over the expansion CEU PA terminals. If disabled (N), paging does not broadcast over the expansion CEU PA terminals. Refer to the system Hardware Manual for additional installation details.

Conditions

External Paging uses the fourth trunk circuit on the first CO Module in each CEU. You cannot use these circuits for trunks. Refer to the system Hardware Manual for External Paging installation details.

Default Value

Paging not allowed (N).

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. For QM- External Page on Table 9, Y(es) or N(o).

To enter data at the programming terminal:

1. After programming QM- Inhibit Audible Ring, you see: ENABLE EXTERNAL ZONE 2
2. Enter Y(es) or N(o) for QM- External Page from Table 9 and press return. You see: BGM TO ALL EXT PAGE ZONES.

Go to QM- BGM on External Page Zones on the next page.

Q- SYSTEM WIDE PROGRAMMING
QM- MUSIC/RELAY CONTROL, BGM ON EXTERNAL PAGE ZONES

Description

Use this option to allow/disallow Background Music to play over the External Paging zones. If allowed (Y), BGM will play over all the external zones (All Call and 1-3) when they are idle. If disallowed, BGM will not play. Refer to the system Hardware Manual and the Background Music feature for additional information on Background Music.

Conditions

Always make a "test" page after enabling this option.

Default Value

BGM will not play over External Page zones (N).

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QM- BGM to All Ext Page Zones on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After making an entry for QM- Zone 3 Line Number, you see: BGM TO ALL EXT PAGE ZONES
2. Enter Y or N for QM- BGM to All Ext Page Zones from Table 9. You see: INTERRUPTED RING RELAYS?

Go to QM- Interrupted Ring Relays on the next page.

Description

Use this option to enable/disable interrupted closure for the external relays when used for ringing. If enabled (Y), relays pulse one second closed/three seconds open when activated. If disabled (N), relays have continuous closure when activated. This option affects all the external relays. All external relays are normally open.

Conditions

None

Default Value

Relays provide continuous closure (N) when activated.

Feature Reference

"External Alerting Devices"

Instructions

To enter data on the PRF:

1. For QM- Interrupted Ring Relays on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QM- BGM to All Ext Page Zones, you see: INTERRUPTED RING RELAYS
2. Enter Y or N for QM- Interrupted Ring Relays on Table 9.

   If you entered Y for QM- BGM on External Page Zones, go to QM- External Page Music Gain on the next page.

   If you entered N for QM- BGM on External Page Zones, go to QM- Relay Control- Pageowner.

Q- SYSTEM WIDE PROGRAMMING
QM- MUSIC/RELAY CONTROL, EXTERNAL PAGE MUSIC GAIN

Description

Use this option to adjust the gain for the Background Music that plays over the External Paging ports. The adjustment you make with this option does not affect the volume of internal Background Music. You can make fine adjustments to internal and external BGM volumes separately. The choices are:

-12 dB loss
-6 dB loss
-3 dB loss
0 dB
+3 dB gain
+6 dB gain

This option only appears if you enter Y for QM- BGM on External Page Zones.

Note:
A 3 dB gain (+3 dB) doubles the BGM volume on the external port. A 3 dB loss (-3 dB) cuts the volume in half.

Conditions

None

Default Value

- 6 dB loss

Feature Reference

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. For QM- External Page Music Gain on Table 9, enter the gain setting (e.g. -3).

To enter data at the programming terminal:

1. After programming QM- Interrupted Ring Relays, you see: EXTERNAL PAGE MUSIC GAIN
2. Enter the gain setting (e.g., -3) for QM- Interrupted Ring Relays from Table 9. You see: RELAY 0: RINGER ON

Go to Relay Control-Pageowner on the next page.

Description

Use this option to assign the Pageowner for ringer and Paging relay control, as shown below. You program this option separately for each of the two relays.

For ringing...
The relay activates for Night Mode calls if:

- QM- Page Owner entry is the main attendant (usually 300)

The relay activates when an extension rings if:

- QM- Page Owner entry is the extension (not main attendant), trunk, OPX, ACD/UCD master or Ring Group number.

Conditions

None

Default Value

Pageowner is main attendant (extension 300).

Feature Reference

"External Alerting Devices"

"Paging"

"Tenant Service"

Instructions

To enter data on the PRF:

1. For QM- Relay 0, Page Owner and/or QM- Relay 1, Page Owner on Table 9, enter the pageowner's extension number.

   The entry can also be an OPX, ACD/UCD master or Ring Group number.

To enter data at the programming terminal:

1. After programming QM- Relay Control, Interrupted Ring Relays, you see: RELAY 0: OWNER
2. Enter the pageowner for QM- Relay 0, Page Owner from Table 9 and press return. Enter the pageowner for QM- Relay 1, Page Owner from Table 9 and press return.

   You return to the main menu.

Q- SYSTEM WIDE PROGRAMMING
QN- RESTORE STANDARD PORT ASSIGNMENTS

Description

Use this option to restore (reinstate) the standard extension/trunk-to-port assignments. This may come in handy if you want to restore the original assignments in a heavily modified system. This option restores the trunk-to-port assignments only. It does not restore other programming.

Keep the following in mind when programming ports:

- Use E1- Port Number to change the extension/trunk assignment for a port.
- Use HH- Port/Extension Checker to make sure each port has only one assigned extension/trunk.
- You can optionally Use EZ- Extension-Port Swap (instead of E1) to change the extension/trunk assignment for a port
- You can use X- Exchange Extension Data to swap two extensions (without physically moving their ports). With this option. the programming follows the extension number.
- Use LP- Listing Data by Port to list the programmed options for extensions/trunks in port number order.

Conditions

None

Default Value

Each extension/trunk is offset from its port by 300 (e.g., trunk 348 is at port 48).

Feature Reference

None

Instructions

To enter data on the PRF:

1. No entry required.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type n. You see: RESTORE STD PORT NUMBERS?
3. - Type Y to restore the standard extension/trunk port assignments.
   OR
   - Type N to leave the extension/trunk port assignments unchanged.

Description

Use this option to tell the system when a Voice Messaging System is connected. Enable this option (Y) if the system has a Voice Messaging System. Disable this option (N) if the system does not have a Voice Messaging System.

Conditions

As soon as you enable QP, the system rings the Voice Mail ports.

Default Value

Voice Messaging System not installed (N).

Feature Reference

"Message Waiting"

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. For QP- Mailbox Installed on Table 9, enter Y or N.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD.
2. Type P. You see: MAILBOX INSTALLED?
3. Enter Y or N for QP- Mailbox Installed from Table 9. You see: VX MASTER STATION

Go to QP- Voice Messaging Master Extension on the next page.

Q- SYSTEM WIDE PROGRAMMING
QP- VOICE MAIL, VOICE MESSAGING MASTER EXTENSION

Description

Use this option to designate the Voice Messaging System master extension number. The extension you select must be one of the Voice Messaging System ports. Program the master number and designate VX ports before assigning this option. See Related Programming below.

Conditions

None

Default Value

VX master number not programmed (300).

Feature Reference

"Voice Mail Compatibility (Integrated Voice Messaging)"

Instructions

To enter data on the PRF:

1. For QP- VX Master Station on Table 9, enter the Voice Messaging System master extension number.

To enter data at the programming terminal:

1. After programming QP- Mailbox Installed, you see: VX MASTER STATION
2. Enter the QP- VX Master Station from Table 9 and press RETURN.

   You return to the Main Menu.

Description

Use this option to indicate if the system is in a conflict area. A conflict area has conflict codes. Conflict codes are area codes (e.g., 212) that can also be local exchange codes. You enable QQ if the system is in a conflict area. When you enable QQ (Y), users must dial 1 when dialing the conflict code as an area code. Users omit the 1 when dialing the conflict code as a local exchange. You disable QQ if the system is not in a conflict area. If you disable QQ, the system assumes all area codes (200-219 through 900-919) are never local exchanges.

This option is important for the following features:

- Automatic Route Selection (Appendix A)
- Toll Restriction

Conditions

None

Default Value

System requires a ’1’ to precede each NPA (Y).

Feature Reference

"NANP Compatibility"

Instructions

To enter data on the PRF:

1. For QQ- ’1’ Prefix Required for NPA Call on Table 9, enter Y or N.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type Q. You see: ’1’ Prefix required for npa call
3. Enter Y or N for QQ- ’1’ PREFIX REQUIRED FOR NPA CALLS from Table 9.

You return to the Main Menu.

Q- SYSTEM WIDE PROGRAMMING
QQ- NO. OF DIGITS IN EQUAL ACCESS CODE

Description

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Use this option to indicate the number of digits in an Equal Access Code. The range is 5-9 (i.e., 10XXX is a 5-digit Equal Access code). The system does not prevent Equal Access, but can Toll Restrict the digits users dial after the Equal Access Code. The system assumes all Equal Access codes are in the 10X format. For example (with 5-digit codes), the system Toll Restricts 10XXX-NPA calls identically to 1-NPA calls. Set this option for compatibility with the local telco.

The option AP- Allow Equal Access does not apply to the above systems.

Conditions
None

Default Value
The system has 5-digit Equal Access Codes.

Feature Reference
"Equal Access Compatibility"

"NANP Compatibility"

Instructions
To enter data on the PRF:

1. For QQ- No. of Digits in Equal Access Code on Table 9, enter the number of Equal Access Digits required.

To enter data at the programming terminal:

1. After programming QQ- '1' Prefix Required for NPA Calls, you see: NO. OF DIGIT IN EQUAL ACCESS CODE
2. Enter the data for QQ- No. of Digits in Equal Access Code from Table 9. You see: 0 OR 1 REQUIRED IN SECOND DIGIT OF NPA CODE

   Go to QQ- 0 or 1 in Second Digit of NPA.

Description

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Use this option to set the NPA numbering plan for compatibility with the local telco. When you enable this option (Y), all NPA codes must have 0 or 1 as the second digit. If you disable this option (N), the second NPA digit can be any number from 0-9. In this case, NPA codes can use numbering similar to NNX codes. For additional information, refer to the Toll Restriction feature.

Conditions

None

Default Value

System requires a 0 or 1 as the second digit of each NPA (Y).

Feature Reference

"NANP Compatibility"

Instructions

To enter data on the PRF:

1. For QQ- 0 or 1 in Second Digit of NPA on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming No. of Digits in Equal Access Code, you see: 0 OR 1 REQUIRED IN SECOND DIGIT OF NPA CODE?
2. Enter the data for QQ- 0 or 1 in Second Digit of NPA from Table 9.

   You return to the Main Menu.

Q- SYSTEM WIDE PROGRAMMING
QR- SIDE TONE TEST DIGIT

Description

Use this option to designate the digit used for the side tone test. This test adjusts the side tone level for each trunk. When you initiate the test (by using the IS option), the system:

- Seizes the trunk you specify for testing
- Outputs the side tone test digit onto the trunk
- Listens for the side tone level
- Automatically adjusts the side tone gain for optimum level

The system automatically does a side tone test on each trunk after system power up.

Conditions

Make sure the digit you select doesn't activate a feature on the connected trunk (for example, dialing 9 behind a PBX).

Default Value

The side tone test digit is 2.

Feature Reference

None

Instructions

To enter data on the PRF:

1. Enter the side tone test digit for QR- Side Tone Test Digit on Table 9.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type R. You see: SIDE TONE TEST DIGIT
3. Enter data for QR- Side Tone Test Digit from Table 9.

You go to the Main Menu.

Description

Use to install (Y) or remove (N) the expansion CEU. You may need to remove the expansion CEU for servicing. Once removed, the expansion CEU will not generate alarms. This option can also display the expansion CEU software level.

Conditions

None

Default Value

If functioning properly, the expansion CEUs automatically install when you power up. If already powered up, the expansion CEUs automatically install when you connect the 8-pin AUX cable.

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QS- on Table 9, enter Y or N.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type S. You see: EXPANED KSU 1
3. Enter Y to install expansion CEU 1

   OR

   Enter N to remove expansion CEU1. In either case, you see: EXPANDED KSU 2.

   OR

   Return to see software level.
4. Repeat step 3 for expansion CEU number 2.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, PARK ORBIT RECALL TIME

Description

Use this option to specify the recall time for System Park orbits 60-67. The Park Orbit Recall Time sets how long a Parked call remains in orbit before recalling the extension that initially parked it. The range is 0-970 seconds (16 minutes, 10 seconds), but the system will only recognize entries of 20 and above. Note that the recall time for orbits 68 and 69 is fixed at five minutes.

Conditions

None

Default Value

1 minute (060)

Feature Reference

"Call Parking"

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Orbit Time on Table 9, enter the Call Park orbit time.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD
2. Type T. You see: ORBIT TIME? (0-970 SECONDS)
3. Enter the QT- Park Orbit Recall Time entry from Table 9 and press RETURN. You see: HOLD-RCL TIME FOR KEYSET? (0-970 SECS)

Go to QT- Hold Recall Time on the next page.

Description

Use this option to specify the Hold Recall Time. The Hold Recall Time sets how long a call will remain on Hold before recalling the extension that placed it on Hold. The range is 0-970 seconds (16 minutes, 10 seconds), but the system will only recognize entries of 20 and above. This interval applies to all extensions, not just keysets.

Conditions

None

Default Value

1 minute (060 seconds)

Feature Reference

"Hold"

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Hold-Rcl Time for Keyset on Table 9, enter the Hold Recall interval.

To enter data at the programming terminal:

1. After programming QT- Park Orbit Recall Time, you see: HOLD-RCL TIME FOR KEYSET? (0-970 SECS)
2. Enter the QT- Hold Recall Time from Table 9 and press RETURN. You see: CAMP-ON TIME? (0-970 SECS).

Go to QT- Camp-On Time on the next page.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, CAMP-ON TIME

Description

Use this option to specify the Camp-On Time. This sets how long a transferred call camps on to a busy single line extension or ACD/UCD group before recalling the transferring extension. The range is 0-970 seconds (16 minutes, 10 seconds), but the system will only recognize entries of 20 and above. Refer to the Automatic Call Distribution, Extension Hunting and Transfer features for more information.

Conditions

None

Default Value

1 minute (60 seconds)

Feature Reference

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Camp-On Time on Table 9, enter the Camp-On Time.

To enter data at the programming terminal:

1. After programming QT- Hold Recall Time, you see: CAMP-ON TIME? (0-970 SECS)
2. Enter the QT- Camp-On Time from Table 9 and press RETURN. You see: LINE RESP TIME? (5 TO 99 TENTH SECS)

Go to QT- Trunk Response Time on the next page.

Description

Use this option to specify the Trunk Response Time. The Trunk Response Time is the allowed interval between trunk seizure and the receipt of sufficient telco loop current. The range is 5-99 tenths of seconds (e.g., 5=500 mS). This option pertains to CO and DISA trunks.

When a user seizes a trunk, the system waits this interval for telco loop current. If received, the system allows the call. If the system does not receive sufficient loop current:

- The system sends the call to the next trunk in the rotary (if available). Refer to the Line (Trunk) Rotaries feature.

  OR

- The system denies the call (i.e., the user must select a different trunk)
- Marks the trunk as failed (refer to HD- System Status)

Conditions

None

Default Value

1.5 seconds (15).

Feature Reference

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Line Resp Time on Table 9, enter the Trunk Response Time.

To enter data at the programming terminal:

1. After programming QT- Camp-On Time, you see: LINE RESP TIME? (5 TO 99 TENTH SECS)
2. Enter the QT- Trunk Response Time from Table 9 and press RETURN. You see: MODEM RSRV TIME? (0-970 SECS)

Go to QT- Modem Reserve Time on the next page.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, MODEM RESERVE TIME

Description

Use this option to set how long the system reserves a modem from the modem pool when a user requests a Private Modem. If this interval expires and the user has not yet accessed the modem, the system returns the modem to the pool. The range is 0- 970 seconds (16 minutes, 10 seconds), but the system will only recognize entries of 20 and above. This option only pertains to outside data calls. Refer to the system Data Products Manual for the specifics on Private Modem operation and programming.

Conditions

None

Default Value

30 seconds (030)

Feature Reference

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Modem Rsrv Time on Table 9, enter the Modem Reserve Time.

To enter data at the programming terminal:

1. After programming QT- Trunk Response Time, you see: MODEM RSRV TIME (0-970 SECS)
2. Enter the QT- Modem Reserve Time from Table 9 and press RETURN. You see: RINGS BEFORE RCL? (3 TO 15 MAX)

Go to QT- Number of Rings Before Recall on the next page.

Description

Use this option to set how many times:

- A transferred call rings an idle or busy keyset. (Refer to the Transfer feature.)
- A transferred call rings an idle ESL, ASI or OPX extension. (Refer to the Transfer feature.)
- An unanswered transferred call rings the transferring extension before diverting to extensions with ringing for the trunk. (Refer to the Transfer feature.)
- A night mode call rings its Assigned Night Answer destination before diverting to extensions with ringing for the trunk. (Refer to the Night Answer feature.)
- A call rings an extension with type 1 or 2 Call Forwarding before routing to the forwarded extension. (Refer to the Call Forwarding feature.)
- A call rings an extension in a hunt or ACD group before ringing the next group member. (Refer to the Extension Hunting feature.)

The range is 3 to 15 rings.

Conditions

Extended Ringing overrides this setting. Refer to the Extended Ringing option.

Default Value

5 rings (5)

Feature Reference

"System Timers"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For QT- Rings Before Rcl on Table 9, enter the number of rings before recall.

To enter data at the programming terminal:

1. After programming QT- Modem Reserve Time, you see: RINGS BEFORE RCL (3 TO 15 MAX)
2. Enter the QT- Number of Rings Before Recall from Table 9 and press RETURN. You see: OPA OVFL RING CTR? (3 TO 15 MAX)

Go to QT- OPA Overflow Ring Control on the next page.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, OPA OVERFLOW RING CONTROL

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ 02.10

Use this option to indicate the number of rings before OPA Operator Overflow occurs. The range is 3-15 rings. Refer to the Operator Assistance feature for more details on OPA Operator Overflow.

Conditions
None

Default Value
00 (no overflow)

Feature Reference

"Operator Assistance (OPA)"

"System Timers"

"Voice Module Unit (VMU)"

Instructions

To enter data on the PRF:

1. For QT- OPA Overflow Ring Counter on Table 9, enter the OPA operator overflow ring count.

To enter data at the programming terminal:

1. After programming QT- Number of Rings Before Recall, you see: OPA OVFL RING CTR? (3 TO 15 MAX)
2. Enter the QT- OPA Overflow Ring Control entry from Table 9 and press RETURN. You see: DELAY RING? (1 TO 10 MAX)

Go to QT- Delayed Ring Interval on the next page.

Description

Use this option to set the delayed ring interval. If an extension has a key with delayed ringing, ringing occurs after the delayed ring interval expires. The range is 1-10 rings. For more information, refer to:

- The Central Office Calls, Answering feature
- The Call Coverage Keys feature
- The Group Call Pickup Feature
- The ED- Trunk Control, Ring Control option

Conditions

This option only pertains to trunks in the key ring state. Refer to HD- System Status.

Default Value

3 rings (03)

Feature Reference

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Delay Ring on Table 9, enter the delayed ring interval.

To enter data at the programming terminal:

1. After programming QT- OPA Overflow Ring Control, you see: DELAY RING (1 TO 10 MAX)
2. Enter the QT- Delayed Ring Interval entry from Table 9 and press RETURN. You see: FLASH RESP TIME? (0 TO 245 TENTH SECS)

Go to QT- Flash Response Time on the next page.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, FLASH RESPONSE TIME

Description

Use this option to set the Flash Response Time. This is the length of the loop current interruption the system provides to a loop start trunk. The range is 1-25 tenths seconds (e.g., 25=2.5 seconds). Enter 0 to deny Flash system-side. This option applies to flash from a keyset or ESL set only.

Conditions

None

Default Value

700 mS (07)

Feature Reference

"Flash"

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Flash Resp Time on Table 9, enter the Flash response time.

To enter data at the programming terminal:

1. After programming QT- Delayed Ring Interval, you see: FLASH RESP TIME? (0 TO 25 TENTH SECS)
2. Enter the QT- Flash Response Time entry from Table 9 and press RETURN. You see: DT DETECT CNT? (1 TO 6, 10 SECS/CNT)

Description

Use this option to set the dialtone detection counter. This counter sets how long the system waits for second (OCC) dial tone after it finds a pause in a number. After the system detects a pause, it waits up to three times the Dialtone Detection Counter for dial tone. If dial tone occurs, the system outdials the numbers that follow the pause. If dial tone doesn't occur before this interval expires, the system denies the call on the trunk.[1] The range is 1 to 6, where each count equals ten seconds (e.g., 6=60 seconds).

Pauses can occur during:

- ARS outdialing
- Centrex Compatible Feature Key dialing
- Last Number Redial
- Save
- Speed Dial

The system detects dial tone by monitoring for a constant power level on the trunk. For the initial dial tone detection, the power level must be present for at least 500mS. For second dial tone detection, the power level must be present for at least 2.5 seconds.

Note:
Incorrect trunk gain settings (in QE) may cause improper dial tone detection. Refer to the QE option when setting trunk gains.

Conditions

None

Default Value

No entry (counter not set)

Feature Reference

"Special Services and OCC Compatibility"

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- DT Detect Cnt on Table 9, enter the Dialtone Detection Counter value.

To enter data at the programming terminal:

1. After programming QT- Flash Response Time, you see: DT DETECT CNT? (1 TO 6,10 SECS/CNT)
2. Enter the QT- Dialtone Detection Counter entry from Table 9 and press RETURN. You see: FEATURE KEY DELAY? (5 TO 99 TENTH SECS)

Go to QT- Centrex-Type Feature Key Delay on the next page.

[1] User can manually override the Dialtone Detection Counter by dialing *.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, CENTREX-TYPE FEATURE KEY DELAY

Description

Use this option to set the interval that corresponds to a D entry when programming Centrex feature keys. Use this option when the connected Centrex/PBX requires a wait interval for certain functions. This may be appropriate if the pause option cannot detect a second dial tone. When the user presses a Centrex key with a D programmed in it, the system:

- Dials out the codes that precede the D
- Waits the QT- Centrex-Type Feature Key Delay interval
- Dials out the remaining codes

The range is 5-99 tenths seconds (e.g., 25=2.5 seconds). Refer to the Centrex Compatible Feature Keys feature and the KS- Programming Keys for Keysets option for more information.

Conditions

None

Default Value

No delay set

Feature Reference

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Feature Key Delay on Table 9, enter the Centrex-Type Feature Key delay.

To enter data at the programming terminal:

1. After programming QT- Dialtone Detection Counter, you see: FEATURE KEY DELAY? (5 TO 99 TENTH SECS)
2. Enter the QT- Centrex-Type Feature Key Delay entry from Table 9 and press RETURN. You see: TMS WAIT TIME (5 TO 99 SECS)?

Description

Use this option to set the Traffic Management Report (TMS) Wait Time interval. If a call rings the system longer than this interval, the TMS report flags it as a Long Wait call. The range is 5 to 99 seconds.

Conditions

None

Default Value

TMS Wait Time not set (the TMS report will never flag calls as Long Wait).

Feature Reference

"System Timers"

"Traffic Management Reporting"

Instructions

To enter data on the PRF:

1. For QT- TMS Wait Time on Table 9, enter the TMS Report Wait Time interval.

To enter data at the programming terminal:

1. After programming QT- Centrex-Type Feature Key Delay, you see: TMS WAIT TIME (5 TO 99 SECS)
2. Enter the QT- Traffic Management Report Wait Time entry from Table 9 and press RETURN. You see: DEFAULT MODEM SPEED [H/L]

Go to QT- Loop Disconnect Time.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, LOOP DISCONNECT TIME

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Use this option to set the loop disconnect interval for system trunks. This lets you tailor the system trunks to the disconnect characteristics of the connected telco. If the system detects an open loop on a trunk equal to or greater than the interval you set, it assumes the telco has disconnected. The system then drops the call. If the open loop interval is less than the interval you set, the system maintains the call.

When programming this option, the acceptable entries range from 0-99. These values are in 32 mS increments. For example, if you enter 20, the system looks for an open loop of at least .64 seconds (i.e., 640 mS). The default value (13) is .4 seconds (416 mS). The accuracy of the timer is + 32 mS. **Note: The system will only recognize entries of 13 and above. Any entry below 13 will be ignored by the system.**

When you change the interval, your new value takes effect in about four minutes. To have your new value take effect immediately, reset the system after making the change.

Conditions
None

Default Value
00 (.5 seconds)

Feature Reference
"System Timers"

Instructions
To enter data on the PRF:

1. For QT- Loop Disconnect Time on Table 9, enter the Loop Disconnect Interval.

To enter data at the programming terminal:

1. After programming QT- Traffic Management Report Wait Time, you see: LOOP DISCNT TIME
2. Enter the QT- Loop Disconnect Time entry from Table 9 and press RETURN. You see: DEFAULT MODEM SPEED [H/L]

Go to QT- Default Modem Speed on the next page.

Description

Use this option to set the default modem speed for outgoing outside data calls. When the system assigns a modem to the call, it selects the speed you specify in this option. The user can, however, change the speed while placing the call. The choices are L (300 baud) and H (1200 baud). Refer to the system Data Products Manual for the specifics.

Conditions

None

Default Value

L (300 baud)

Feature Reference

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- Default Modem Speed on Table 9, enter H or L.

To enter data at the programming terminal:

1. After programming QT- Traffic Management Report Wait Time, you see: DEFAULT MODEM SPEED [H/L]
2. Enter the QT- Default Modem Speed entry from Table 9. You see:

```
OPX INCOMING FLASH TIMER (TENTH SEC)
    2=2-10,3=3-11,4=4-12
    5=5-13,6=6-14,7=7-15
02 -
```

Go to QT- Door Box Alert Time on the next page.

Q- SYSTEM WIDE PROGRAMMING
QT- SYSTEM TIMERS, DOOR BOX ALERT TIME

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Use this option to set how long an extension user has to answer Door Box chimes. The system sets up an Intercom call with the Door Box only if the called user answers within this interval. The range is 0 to 970 seconds (16 minutes, 10 seconds), but the system will only recognize entries of 20 and above. For more information, refer to the Digital Door Box feature.

Conditions
None

Default Value
60 (60 seconds)

Feature Reference
"System Timers"

Instructions
To enter data on the PRF:

1. For QT- Door Box Alert Time on Table 9, enter the Door Box Alert Time value.

To enter data at the programming terminal:

1. After programming QT- Default Modem Speed, you see: DOOR BOX ALERT TIME
2. Enter the QT- Door Box Alert Time value from Table 9 and press RETURN. You see:

```
OPX INCOMING FLASH TIMER (TENTH SEC)
    2=2-10,3=3-11,4=4-12
    5=5-13,6=6-14,7=7-15
02 -
```

Go to QT- OPX Incoming Flash Timer.

Description

Use this option to match the system to the loop current interruption that occurs when an OPX hookflashes. This helps the system distinguish between a valid hookflash and a momentary loop interruption. Refer to the Off-Premise Extension (OPX) feature for more information. This option does not apply to ASI extensions.

The choices for this option are:

2 1-10 (100mS to 1 second)
3 3-11 (300 mS to 1.1 seconds)
4 4-12 (400 mS to 1.2 seconds)
5 5-13 (500 mS to 1.3 seconds)
6 6-14 (600 mS to 1.4 seconds)
7 7-15 (700 mS to 1.5 seconds)

For example, if the OPX device typically opens the loop for 750 mS to 1.4 seconds, enter 7.

Conditions

None

Default Value

2 (100 mS to 1 second)

Feature Reference

"System Timers"

Instructions

To enter data on the PRF:

1. For QT- OPX Incoming Flash Timer of Table 9, enter the Flash timer value.

To enter data at the programming terminal:

1. After programming QT- Default Modem Speed, you see:

```
OPX INCOMING FLASH TIMER (TENTH SEC)
    2=2-10,3=3-11,4=4-12
    5=5-13,6=6-14,7=7-15
02 -
```

2. Enter the QT- OPX Incoming Flash Timer value from Table 9 and press RETURN. You see:

```
TIE LINE OUTGOING FLASH TIMER
    4,6,8,10,12,14 (TENTH SEC)
04 -
```

Go to QU- Modem Pooling Master Extension Number on the next page.

Q- SYSTEM WIDE PROGRAMMING
QU- MODEM POOLING MASTER EXTENSION NUMBER

Description

Use this option to designate the Modem Pooling master extension number. When setting up a pool of modem circuits, the system must know which circuit you want to use as the master. In addition, you must:

- Assign all modem circuits as type M (in E2- Circuit Type)
- Give all modem circuits hunt type 06 (in E5- Hunt Type)
- Program all modem circuits with the same master extension number (in EA- UCD Group Master Extension Number). This must be the same number you enter for QU- Modem Pooling Master Extension Number.
- Set the default modem speed in QT- Default Modem Speed.

Refer to the system Data Products Manual for the specifics.

Conditions

None

Default Value

Not assigned (300)

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QU- Pool Master Ext on Table 9, enter the Modem Pooling master extension number.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type U. You see: POOL MASTER EXT
3. Enter the QU- Modem Pooling Master Extension Number from Table 9. You return to the Main Menu.

   To remove an assignment, enter 300.

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Use this option to set the circuit type for each PCU port. The choices are:

1 PCU circuit is for External Paging
2 PCU circuit is for DTMF Tone Decoding
3 PCU circuit is for 2500 type ONS telephone
4 PCU circuit is for 500 type ONS telephone
5 PCU is for fax/modem switching
6 PCU is for fax/telephone switching

Conditions
None

Default Value
Each PCU circuit type is 0

Feature Reference
"Peripheral Control Unit (PCU) Module"

Instructions
To enter data on the PRF:

1. For QV- PCU Circuit 01-04 Type on Table 9, enter the correct circuit type.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type V. You see: PCU CIRCUIT 01 TYPE
3. Type the QV- PCU Circuit Type entry for this port from Table 9. You see: SENSOR 01
4. - Press RETURN. You see: PCU CIRCUIT TYPE for the next consecutive PCU port.
   - From Table 9, enter QV- PCU Circuit Type for this port.
5. Repeat steps 3 and 4 for each port. After programming the fourth port, you see: SENSOR AND DOOR BOX STATION ALERT PROGRAMMING, EXT 300.
6. Go to QV- Peripheral Ports, Alert Programming on the next page.

Q- SYSTEM WIDE PROGRAMMING
QV- PERIPHERAL PORTS, PCU SENSOR

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Use this option to set the operating mode of the PCU alarm sensors. Each PCU Module installed (4 max.) has an alarm sensor that you can program for use with normally open (0) or normally closed (1) external alarm contacts.

Conditions
None

Default Value
Each PCU is normally open (0).

Feature Reference
"Peripheral Control Unit (PCU) Module"

Instructions
To enter data on the PRF:

1. For QV- PCU Sensor on Table 9, enter 0 if the sensor is connected to a normally open external contact. Enter 1 if the sensor is connected to a normally closed external contact.

To enter data at the programming terminal:

1. After programming QV- PCU Circuit Type for the fourth PCU port, you see: SENSOR
2. For each of the four PCU alarm sensors, enter 0 or 1 for QV- PCU Sensor from Table 9. After programming the fourth sensor, you see: SENSOR CONTROL, COPY?

Go to QV- PCU Sensor Control on the next page.

Description

Available in Software Levels:	
Base	**AUX**
N/A	≥ Y2.0

Use this option to set which extensions should receive a distinctive signal when an alarm sensor activates. You make an entry for each of the four sensors (one in each PCU) - for each extension. To make an extension receive the sensor signal, enter Y(es). To prevent an extension from receiving the sensor signal, enter n(o).

Conditions

None

Default Value

N (extensions don't receive sensor signals)

Feature Reference

"Peripheral Control Unit (PCU) Module"

Instructions

To enter data on the PRF:

1. For QV- PCU Sensor Control on Table 9, enter the data for each extension.

To enter data at the programming terminal:

1. After programming QV- PCU Sensor, you see: SENSOR CONTROL, COPY?

   This lets you copy alarm sensor programming from another extension.

2. - To copy another extension's sensor programming, enter Y, the extension number and RETURN.

     After you press RETURN, you go to SENSOR CONTROL programming for the next consecutive extension. Go back to step 1.

   - To skip to the next extension without making an entry, press the space bar.

     Go back to step 1.

   - To program an extension's QV- PCU Sensor Control options, press RETURN. You see: SENSOR CONTROL 1 TO 4

     Go to step 3.

3. For the extension you are programming, enter Y or N for each alarm sensor from Table 9.

   Press RETURN to:

   - Skip to the next extension without making an entry.
   - Skip to the extension after maing a partial entry. The rest of the entries don't change.

     Press ESC to return to the Main Menu.

Q- SYSTEM WIDE PROGRAMMING
QV- PERIPHERAL PORTS, ALERT PROGRAMMING

Description

Available in Software Levels:	
Base	**AUX**
≥ Y5.0	≥ Y2.0

Use this option to set which extensions should receive Door Box chime tones. You make an entry for each of the four door boxes - for each extension. To make an extension receive chime tones, enter Y(es). To prevent an extension from receiving chime tones, enter N(o). An extension can answer a Door Box only if you program it to receive chime tones in this option.

Conditions

None

Default Value

Extensions don't receive Door Box chimes

Feature Reference

"Digital Door Box "
"Peripheral Control Unit (PCU) Module"

Instructions

To enter data on the PRF:

1. Go to QV- Alert Programming on Table 9. For each extension, enter the data for each Door Box.

To enter data at the programming terminal:

1. After programming QV- PCU Circuit Type for the fourth PCU port, you see: SENSOR AND DOOR BOX STATION ALERT PROGRAMMING, EXT 300.
2. Press RETURN to program extension 300.
   OR
   Enter another extension number and press RETURN. In either case, you see: SENSOR CONTROL, COPY?
3. Press RETURN twice. You see: DOOR BOX ALERT CONTROL, COPY?

   This lets you copy the Door Box Alert programming from another extension.
4. - To copy another extension's alert programming, enter Y, the extension number and RETURN.

     After you press RETURN, you go to SENSOR CONTROL programming for the next consecutive extension. Go back to step 2.
   - To skip to the next extension without making an entry, press the space bar.

     Go back to step 2.
   - To program an extension's QV- Station Alert options, press RETURN. You see: DOOR BOX ALERTS 1 TO 4

     Go to step 5.
5. For the extension you are programming, enter Y or N for each Door Box port from Table 9. Press RETURN to:
   - Skip to the next extension without making an entry.
   - Skip to the extension after making a partial entry. The rest of the entries don't change.

   Press ESC to return to the Main Menu.

Description

Use this option to enter Automatic Route Selection (ARS) Authorization Codes into the system. If your system has ARS installed, it may require these codes. Each code can be from 1-10 digits long, using any combination of digits 0-9. Refer to the Automatic Route Selection feature and Appendix A for more information.

The system allows 64 ARS Authorization Codes. This option does not apply to key systems.

Conditions

None

Default Value

No codes entered.

Feature Reference

None

Instructions

To enter data on the PRF:

1. Enter the QW- Authorization Codes on Table 11.

To list QW- Authorization Code data:

1. Type Q. You see: Q-CMD>
2. Type W. You see: AUTHORIZATION CODES, LIST/PROGRAM (L/P)
3. Type L. You see a list of the programmed authorization codes. Following is a sample QW- ARS Authorization Codes listing.

```
001 - 8997
002 - 8998
003 - 8999
004 - 9000
```

To program QW- ARS Authorization Code data:

1. Type Q. You see: Q-CMD>
2. Type W. You see: AUTHORIZATION CODES, LIST/PROGRAM (L/P)
3. Type P. You see: 001
4. - To program code 001, press RETURN. You see the current entry.
   OR
   - To program another code, enter the code number (001-184). You see the current entry.
5. Enter the QW- ARS Authorization Code entry from Table 11 and press RETURN.
   If your entry is 10 digits long, you don't have to press RETURN.
6. Repeat steps 4 and 5 to program additional codes.

Q- SYSTEM WIDE PROGRAMMING
QX- SUPPRESS '#' WHEN SPEED DIALING

Description

Use this option to prevent/allow the system from outdialing the # digit when stored in a Speed Dial bin. If prevented, the system stops dialing at the #. The system does not dial the # or any digits after the #. If allowed, the system outdials the contents of the Speed Dial bin normally. This option also affects numbers outdialed using:

- Automatic Route Selection
- Centrex Compatible Feature Keys
- Last Number Redial
- Save

Conditions

None

Default Value

Y (# not outdialed)

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QX- Suppress '#' Key Tone on Table 9, enter Y or N.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type X. You see: SUPPRESS '#' KEY TONE?
3. Enter Y or N for QX- SUPPRESS '#' WHEN SPEED DIALING from Table 9.
4. Enter Y or N for TRANSMIT ACCT. CODE from Table 9. You see the Main Menu.

Q- SYSTEM WIDE PROGRAMMING
QY- SINGLE DIGIT LINE ACCESS

Description

Use this option to allow/deny users the capability of accessing trunk group 1 (code 90) by dialing 9. If you enable this option (Y), users cannot dial-access trunk groups 91-98. If you disable this option, users can access any trunk group by dialing the two digit code (90-98). Refer to the Line (Trunk) Rotaries feature for more information on trunk groups. In systems with ARS, enabling this option changes the ARS access code from 90 to 9.

Conditions

None

Default Value

N (single digit access denied)

Feature Reference

None

Instructions

To enter data on the PRF:

1. For QY- Single Digit Line Access on Table 9, enter Y or N.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type Y. You see: SINGLE DIGIT LINE ACCESS?
3. Enter Y or N for QY- Single Digit Line Access on Table 9.

Q- SYSTEM WIDE PROGRAMMING
QZ- SMDR SETUP, TMS REPORT PRINT MODES

Description

Use this option to set the Traffic Management Report (TMS) print modes. You can have the TMS report print manually (using the HE or HF options) or at a preset time. If you request automatic printing, the report can include trunk data, trunk and operator data or all data. The options are:

0 Manual (using the HE or HF options)
1 Automatic (at a preset time) for trunk data only. The data clears after the report runs.
2 Automatic (at a preset time) for trunk and operator data only. The data clears after the report runs.
3 Automatic (at a preset time) for all data. The data clears after the report runs.

Conditions

None

Default Value

0 (Manual)

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

"Traffic Management Reporting"

Instructions

To enter data on the PRF:

1. For QZ- Mode on Table 9, enter the TMS report print mode.

To enter data at the programming terminal:

1. Type Q. You see: Q-CMD>
2. Type Z. You see: MODE?
3. Enter the QZ- Mode data from Table 9.
4. - If you enter 0 for step 3, you see: SMDR FOR TOLL CALLS ONLY?
   Go to QZ- SMDR Only for Toll Calls.

   OR
   - If you enter 1-3 for step 3, you see: SET UP TMS PRINT TIMES?
   Go to QZ- TMS Print Times Setup.

Description

Use this option to set the times that the TMS report should print. The data clears after each time the report runs. You can only set this option if you have entered:

- 1-3 for QZ- TMS Report Print Modes
- Y for QZ- TMS Print Times Setup

You can have the TMS report print every hour or every combination of hours.

Conditions

None

Default Value

N for each hour 00:00-23:00 (TMS report is not set to print)

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

"Traffic Management Reporting"

Instructions

To enter data on the PRF:

1. For each QZ- print TMS Data at nn:00 entry on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After entering 1, 2, 3 for QZ- TMS Report Print Modes, you see: SET UP TMS PRINT TIMES?
2. - To change the TMS Report print times, enter Y. You see: PRINT TMS DATA AT 00:00?

   Go to step 3.

   OR

   - To leave the TMS Report print times unchanged, enter N. You see: SMDR FOR TOLL CALLS ONLY?

   Go to QZ- SMDR Only for Toll Calls.
3. - If you want the TMS report to print at 00:00 hours (12 midnight), enter Y. You see: PRINT TMS DATA AT 01:00?

   OR

   - If you don't want the TMS report to print at 00:00 hours, enter N. You see: PRINT TMS DATA AT 01:00?
4. Repeat step 3 for the remaining QZ- TMS Print Times Setup prompts. The options are 01:00 (1:00 AM) to 23:00 (11:00 PM).

   After programming QZ- Print TMS Data At 23:00, you go to QZ- SMDR Only for Toll Calls on the next page.

Q- SYSTEM WIDE PROGRAMMING
QZ- SMDR SETUP, SMDR ONLY FOR TOLL CALLS

Description

Use this option to have the SMDR report include all outside calls or just toll calls. If you enter N, the SMDR report includes all outside calls. If you enter Y, the SMDR report includes just toll calls. The system defines toll calls as follows:

1 + NNX + nnnn
NPA + NNX + nnnn
1 + NPA + NNX + nnnn
0 + NNX + nnnn
0 + NPA + NNX + nnnn

Conditions

None

Default Value

N (SMDR for all calls)

Feature Reference

"Station Message Detail Recording"

Instructions

To enter data on the PRF:

1. For QZ- SMDR for Toll Calls Only on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After entering:
   0 for QZ- TMS Report Print Modes
   N for QZ- TMS Report Print Times Setup
   Y or N for QZ- Print TMS Data at 23:00
   You see: SMDR FOR TOLL CALLS ONLY
2. Enter Y or N for QZ- SMDR Only for Toll Calls from Table 9. You see: INBOUND SMDR?

Go to QZ- Inbound SMDR on the next page.

Description

Use this option to have the SMDR report include or exclude incoming trunk calls. If you enter Y, the report includes incoming and outgoing trunk calls. If you enter N, the SMDR report prints only outgoing trunk calls.

Conditions

None

Default Value

Y (SMDR report includes both incoming and outgoing trunk calls)

Feature Reference

"Station Message Detail Recording"

Instructions

To enter data on the PRF:

1. For QZ- Inbound SMDR on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QZ- SMDR Only for Toll Calls, you see: INBOUND SMDR?
2. For QZ- Inbound SMDR on Table 9, enter Y or N. You see: SMDR PRINTOUT ALL THE TIME?

Go to QZ- SMDR Printout All the Time on the next page.

Q- SYSTEM WIDE PROGRAMMING
QZ- SMDR SETUP, SMDR PRINTOUT ALL THE TIME

Description

Use this option to determine when the SMDR report automatically prints. If you enable this option (Y), SMDR prints as soon as each call completes. The system provides a separate record for each call. Additionally, the system does not store the call record in the SMDR buffer. If you disable this option (N), the SMDR record prints:

- At a preset time (set in QZ- SMDR Report Start Hour). The SMDR report includes all calls currently in the SMDR buffer. The buffer clears after the report prints.[1]
- When the SMDR buffer fills
- When you manually request the SMDR report using the P- Print SMDR Report option.

Note:
When you enter Y for QZ- SMDR Printout All the Time, you no longer see the Main Menu prompt:
FOR MENU OF COMMANDS ENTER <CR>

Conditions

None

Default Value

N (SMDR prints at a preset time)

Feature Reference

"Station Message Detail Recording"

Instructions

To enter data on the PRF:

1. For QZ- SMDR Printout All the Time on Table 9, enter Y or N.

To enter data at the programming terminal:

1. After programming QZ- Inbound SMDR, you see: SMDR PRINTOUT ALL THE TIME?
2. For QZ- SMDR Printout All the Time on Table 9, enter Y or N.

   To disable the SMDR Report, enter N for this option and 00 for QZ- SMDR Start Hour.
3. - If you enter Y, you return to the Main Menu.

     OR
   - If you enter N, you go to QZ- SMDR Report Start Hour on the next page.

[1] If you don't have an SMDR device connected when the report prints, the SMDR records are lost.

Description

Use this option to specify when the SMDR report should print. The SMDR buffer clears after the report prints. You can use this option only if you answer N for QZ- SMDR Printout All the Time. The choices are 00-23, where 01=1:00 AM and 23=11:00 PM. To disable the SMDR printout, enter 00.

Conditions

None

Default Value

00 (SMDR report will not print)

Feature Reference

"Station Message Detail Recording"

Instructions

To enter data on the PRF:

1. For QZ- SMDR Start Hour on Table 9, enter 00-23.

To enter data at the programming terminal:

1. After entering N for QZ- SMDR Printout All the Time, you see: SMDR START HOUR? (00-23)
2. Enter the QZ- SMDR Start Hour entry from Table 9.

   You return to the Main Menu.

- For Your Notes -

Description

Use this option to display the System Error Report. This report shows:

- The last time you cleared the System Error Report (using the V- Clear Error Log option)
- Total number of power resets (since you last cleared the report). Power resets occur when you turn the power off and on or if commercial AC power fails.
- Total number of error resets (since you last cleared the report). Error resets occur if the CPU initiates a non-stoppable system reset. This occurs if the CPU detects a serious error.
- The time and date of the error resets
- The time and date of the power (manual) resets

Following is a sample System Error Report. Consult with your Service Representative if you have questions about the report.

```
SYSTEM ERROR REPORT for XYZ CORP
03/23/90 01:16:07
---------------------------------------
Error-logging files initialized on 00/00/00 00:00:00
Total Power Resets to date =  05
Total Error Resets to date =  21
--------------------
|   DATE  |  TIME   |
--------------------
| 03/16/90 11:38:00 |
| 03/16/90 11:37:28 |
| 03/06/90 15:31:46 |
| 03/06/90 14:46:13 |
| 03/01/90 13:30:05 |
| 02/28/90 15:50:26 |
| 02/28/90 15:47:37 |
| 02/28/90 15:46:54 |
| 02/28/90 15:46:26 |
| 02/28/90 11:35:34 |
| 02/27/90 14:54:37 |
| 02/27/90 14:52:17 |
| 02/27/90 14:48:14 |
| 02/26/90 14:21:47 |
| 02/26/90 14:19:37 |

Total Manual Resets to date = 00
--------------------
|   DATE  |  TIME   |
--------------------
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
| 00/00/00 00:00:00 |
```

R- ERROR LOG REPORT

Conditions
None

Default Value
None

Feature Reference
"System Reports, Diagnostics and Maintenance Utilities"

Instructions
To enter data on the PRF:
No entry required.

To enter data at the programming terminal:
1. Type R. The error log displays.

Description

Use this option to list the extension and system Speed Dial numbers. Refer to the Speed Dial feature for more information. Following are sample Extension Speed Dial and System Speed Dial listings.

Typical Extension Speed Dial Listing

```
==========================
EXT # 300  ANNA
==========================
SPEED DIAL # 20 - BRUCE           I:304

==========================
EXT # 304  BRUCE
==========================
SPEED DIAL # 50 - MARY            I:302
SPEED DIAL # 51 - HOME             90:9265499
SPEED DIAL # 52 - PARTS PLUS       90:9265444
SPEED DIAL # 20 -                  90:5552147
```

For example...

- I:nnn indicates Intercom function
- 90:9265499 indicates outside number 926-5499 will dial on trunk group 90

Typical System Speed Dial Listing

```
SPEED DIAL # 700 - MAIN OFFICE       90:12039265400P204
SPEED DIAL # 701 - PRESIDENT         90:12039265401
SPEED DIAL # 702 - TECH SERVICE      90:12039258801
```

For example...

- 90:12039265400 indicates outside number 1-203-926-5400 will dial on trunk group 90
- P indicates a pause in the bin

Conditions

If you program a bin with a group (e.g., 90) and change the group master number, the system substitutes the new master number for the group.

Default Value

No numbers programmed

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

S- SPEED DIAL
SL- LIST EXTENSION AND SYSTEM SPEED DIAL NUMBERS

Instructions

To enter data on the PRF:

1. Refer to Tables 12 and 13 for a listing of Extension and System Speed Dial numbers.

To list Extension (Personal) Speed Dial numbers

1. Type S. You see: S-CMD>
2. Type L. You see: (S)YSTEM OR (E)XTENSION
3. Type E. You see: FROM
4. - Enter the extension number you want to begin the listing and press RETURN.
   You see: TO Go to step 5.

   OR
   - Press RETURN to have the listing include all extensions. The listing displays.
5. - Enter the extension number you want to end the listing and press return. The listing displays.

   OR
   - Press RETURN to have the listing include all the remaining extensions. The listing displays.

To list System Speed Dial Numbers

1. Type S. You see: S-CMD>
2. Type L. You see: (S)YSTEM OR (E)XTENSION
3. Type S. You see: FROM
4. - Enter the System Speed Dial number you want to begin the listing and press RETURN.
   You see: TO Go to step 5.

   OR
   - Press RETURN to have the listing include all System Speed Dial numbers. The listing displays.
5. - Enter the System Speed Dial number you want to end the listing and press RETURN.
   The listing displays.

   OR
   - Press RETURN to have the listing include all the remaining System Speed Dial numbers.
   The listing displays.

Description

Use this option to enter System and Extension (Personal) Speed Dial numbers into the system. For each Speed Dial bin, you must enter:

- The trunk (e.g., 801) or trunk group (90-98) the stored number should dial out on. For an Intercom feature, enter I.
- The telephone number or feature code (up to 32 digits). Valid entries are the digits 0-9 and #.
  For a Pause, enter P.
  For a Flash, enter F (AUX $\geq$ 02.10 required)
  For a Delay, enter D (AUX $\geq$ 02.10 required)
- The name associated with the Speed Dial bin. The Speed Dial name can be up to 16 characters long, using any combination of letters (A-Z) and numbers (0-9). However, the first entry in the name must be a capital letter.

Refer to the Speed Dial feature for more information on storing and using Speed Dial numbers.

Conditions

You can program a Speed Dial bin from a telephone, and then program the same bin from the terminal. The terminal programming replaces the telephone programming. You can also program a Speed Dial bin first from the terminal, and then program the same bin from the telephone. In this case, the telephone programming replaces the terminal programming.

Default Value

No numbers entered.

Feature Reference

None

Instructions

To enter data on the PRF:

1. - Enter System Speed Dial numbers on Table 12.

   OR

   - Enter Extension (Personal) Speed Dial numbers on Table 13.

To program Extension (Personal) Speed Dial numbers:

1. Type S. You see: S-CMD>
2. Type P. You see: (S)YSTEM OR (E)XTENSION
3. Type E. You see: EXT # 300
4. - Press RETURN to program Speed Dial numbers for extension 300. You see: SPEED DIAL # 50

   OR

   - Enter the number of the extension you want to program Speed Dial numbers for and press RETURN. You see: SPEED DIAL # 50

   If you are programming a DSS Console, you see: DSS Speed Dial #01.
5. - Press RETURN to program Speed Dial bin 50 for the extension you select. The existing Speed Dial number displays (or OPEN if none programmed), followed by: LINE

   If you are programming a DSS Console, press RETURN for bin 01. Only program bins designated for Speed Dial in KD.

   OR

   - Enter another Speed Dial bin (51-59, 20-29) and press RETURN. The existing Speed Dial number displays (or OPEN if none programmed), followed by: LINE

If you are programming a DSS Console, your bins are 01-79. Only program bins designated for Speed Dial in KD.

6. Enter the trunk or group number the bin should dial out on and press RETURN. You see: TEL NO.

   You can enter the trunk number (e.g., 801) or a two-digit trunk group code (e.g., 90). To remove an assignment and the associated number and name, enter U.

   To leave an assignment unchanged, just press RETURN.

   To store an Intercom feature, enter I.

   To skip to the next bin without making an entry, enter N.

7. Enter the telephone number or feature code and press return. You see: NAME

   The number can be up to 32 digits long. If the number is longer than 16 digits, it uses the next consecutive bin as well. To edit an existing number, re-enter the number.

   If the number is 32 digits long, you don't have to press RETURN.

   To leave a number unchanged, just press ENTER.

8. Enter the Speed Dial Number name (up to 16 characters) and press RETURN.

   To remove a name, enter 0.

   If the name is 16 characters long, you don't have to press RETURN.

   To leave a name unchanged, just press RETURN.

9. Repeat steps 5-8 to program additional bins.

To program System Speed Dial numbers:

1. Type S. You see: S-CMD>
2. Type P. You see: (S)YSTEM OR (E)XTENSION
3. Type S. You see: SPEED DIAL # 700

   You may see 70 or 700, depending on how you program the QD option. Refer to the Speed Dial feature.

4. - Press RETURN to program System Speed Dial bin 700. The existing Speed Dial number displays (or OPEN if none programmed), followed by: LINE

     OR

   - Enter another System Speed Dial bin (700-799) and press RETURN. The existing Speed Dial number displays (or OPEN if none programmed), followed by: LINE

5. Enter the trunk or group number the bin should dial out on and press RETURN. You see: TEL NO.

   You can enter the trunk number (e.g., 801) or a two-digit trunk group code (e.g., 90). To remove an assignment and the associated number and name, enter U.

   To leave an assignment unchanged, just press RETURN.

   To store an Intercom feature, enter I.

6. Enter the telephone number or feature code and press RETURN. You see: NAME

   The number can be up to 32 digits long. If the number is longer than 16 digits, it uses the next consecutive bin as well. To edit an existing number, re-enter the number.

   If the number is 32 digits long, you don't have to press RETURN.

   To leave a number unchanged, just press RETURN.

7. Enter the Speed Dial Number name (up to 16 characters) and press RETURN.

   To remove a name, enter 0.

   If the name is 16 characters long, you don't have to press RETURN.

   To leave a name unchanged, just press RETURN.

8. Repeat steps 4-7 to program additional bins.

Description

Use this option to globally change the trunk assignments in Speed Dial bins. For example, you can convert all bins that currently use trunk group 90 to group 91. Or, you can convert all bins that used trunk 801 to trunk 805. The flexibility of rotary conversion helps if the relative cost of the connected services changes. You can easily reroute your Speed Dial calls over the most cost effective trunks. Refer to the Speed Dial feature for more information on storing and using Speed Dial numbers.

Keep the following in mind when using the SR- Rotary Conversion option:

- You can convert from an old trunk to a new trunk if the new trunk is not the first trunk in a trunk rotary.
- If you convert from an old trunk to a new trunk, and the new trunk is the first trunk in a rotary, the system selects the rotary instead of the new trunk
- When converting from a trunk or rotary to a new rotary, enter the rotary's master number. For example, to convert to a trunk rotary consisting of trunks 801 (master), 802 and 803, enter 801.

Conditions

None

Default Value

None

Feature Reference

None

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type S. You see: S-CMD>
2. Type R. You see: FROM
3. Enter the number of the trunk or group you want to convert and press RETURN. You see: TO
4. Enter the number of trunk or group that should replace the entry in step 3 and press RETURN. You see: ALL LINES CONVERTED and return to the Main Menu.

   If you see: NO LINES CONVERTED, check your entries and try again. The conversion was not successful.

- For Your Notes -

T- SET SYSTEM DATE AND TIME

Description

Use this option to display and set the system date and time. If you set the date and time using this option, it overrides the date and time set earlier from a telephone. Conversely, setting the date and time from a display telephone overrides the date and time set earlier using this option.

Conditions

None

Default Value

- Date=00/00/00
- Time=00:00:00

Feature Reference

"Time and Date Setting"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type T. You see: SET DATE ? (ENTER MM/DD/YY OR RETURN)
2. Enter the current date in the following format (with a slash between the entries):
   MM=Month (01 to 12)
   DD=Day (01 to 31)
   YY=Year (00 to 99)
   You can just press RETURN to leave the current date unchanged.
   After entering the year, you see: SET TIME ? (ENTER HH:MM:SS OR RETURN)
3. Enter the current time in the following format (with a colon between the entries):
   HH=Hour (24-hour format, 00-23)
   MM=Minutes (00-59)
   SS=Seconds (00-59)
   You can just press RETURN to leave the current time unchanged.
   You return to the Main Menu.

T- SET SYSTEM DATE AND TIME

- For Your Notes -

Description

Use this option to clear the System Error Report (see the R- Error Log Report option). After clearing the System Error Report, the total number of power, error and manual resets goes to 0. Use this option after the initial installation to clear out any unnecessary reports that may have occurred. The following example shows a cleared System Error Report.

```
SYSTEM ERROR REPORT for XYZ CORP
03/24/90 02:33:30
----------------------------------------
Error-logging files initialized on 03/24/90 02:23:42
Total Power Resets to date =  00
Total Error Resets to date =  00
Total Manual Resets to date = 00
```

Conditions

None

Default Value

None

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type V. You see: CLEAR ALL ERROR LOG RECORDS?
2. - Type Y to clear the System Error Report.

   OR

   - Type N to leave the System Error Report unchanged.

V- CLEAR ERROR LOG

- For Your Notes -

X- EXCHANGE EXTENSION DATA

Description

Use this option to swap two extensions or trunks without physically moving their ports. This allows extensions to retain their programmed options if you move them around a facility. Assume, for example, you swap extensions 304 and 305. Port 05 now has extension 304. Port 04 has extension 305.

Keep the following in mind when programming ports:

- The main attendant should stay at extension 300/port 00
- Use HH- Port/Extension Checker to make sure each port has only one assigned extension.
- You can optionally use E1- Port Number or EZ- Extension-Port Swap to change the port assignment for an extension/trunk
- Use QN- Restore Standard Port Numbers to reinstate the standard trunk/extension-to-port assignments.
- Use LP- Listing Data by Port to list the programmed options for extensions/trunks in port number order.

CAUTION:
Since this option also swaps E2- Circuit Type programming, make sure the extensions/trunks you swap are of the same type. When exchanging data for dual-channel telephones, exchange both channels (even-to-even, odd-to-odd).

Conditions

None

Default Value

Each extension/trunk is offset from its port by 300 (e.g., extension 320 is at port 20).

Feature Reference

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type X. You see: EXCHANGE EXT #
2. Enter the number of the first extension you want to swap and press RETURN. You see: WITH EXT #
3. Enter the number of the second extension you want to swap and press RETURN.
   You see: COMPLETED

   You return to the Main Menu.

X- EXCHANGE EXTENSION DATA

- For Your Notes -

Y- CHANGE SYSTEM PASSWORDS

Description

Use this option to change the level 1 or level 2 password. You must know the level 1 or level 2 password to change the level 1 password. You must know the level 2 password to change the level 2 password. Remember that entering a new password erases the old one. Keep a written record of the modified passwords.

Conditions

If you change your passwords and forget them, call your technical service representative for assistance.

Default Value

- The default level 1 password is carriage return.
- The default level 2 password for a key system is DS01K.
- The default level 2 password for a hybrid system is DS01H.
- If you install an AUX Module in the system and don't initialize, the level 2 password is shown below according to your base's software level.

Versions Prior to 02.40 base	02.40 and higher base
DCH or ONYXVSK (depending on your software version)	DS01K

Feature Reference

"System Programming Password Protection"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type Y. You see: ENTER LEVEL
2. Enter 1 or 2, depending on the level you want to change. You see: ENTER ACCESS CODE

   You must know the level 1 or level 2 password to change the level 1 password. You must know the level 2 password to change the level 2 password. If both passwords are the same, you can only program level 1. Change the level 1 password to give you access to both levels.

   If you recently entered the access code, the system will not ask you to enter it again.
3. Enter the current level 1 or 2 access code. You see: ENTER LEVEL N PASSWORD?
4. Enter the new password for the level you selected in step 2.

   You return to the Main Menu.

Y- CHANGE SYSTEM PASSWORDS

- For Your Notes -

Z- CLEAR ALL SMDR RECORDS

Description

Use this option to clear (erase) the SMDR records from the SMDR buffer without printing the SMDR report. Clear the record when you change the SMDR print options If you implement this option, all records stored in the buffer are lost.

Conditions

None

Default Value

N (Records will not be cleared)

Feature Reference

"Station Message Detail Recording"

"System Reports, Diagnostics and Maintenance Utilities"

Instructions

To enter data on the PRF:
No entry required.

To enter data at the programming terminal:

1. Type Z. You see: CLEAR ALL SMDR RECORDS?
2. - Type Y to clear the records from the SMDR buffer.

   OR

   - Type N to leave the SMDR buffer unchanged.

   You return to the Main Menu.

Z- CLEAR ALL SMDR RECORDS

- For Your Notes -

Appendix A

Automatic Route Selection

HOW TO USE THIS SUPPLEMENT

This supplement describes ARS in four sections as follows:

Section 1, DESCRIPTION

Section 1 introduces Automatic Route Selection and defines the common terms and abbreviations used in this supplement. Section 1 also provides an ARS overview.

Section 2, SOFTWARE CONFIGURATION

The SOFTWARE CONFIGURATION Section provides summarized and detailed instructions for compiling ARS data. The data is entered on the ARS Program Record Forms at the end of the section.

Section 3, PROGRAM ENTRY

This section consists of the instructions for entering ARS data on the Program Record Forms into system memory. The instructions are presented as Program Entry Charts.

Section 4, OPERATION

The OPERATION Section tells you how to place a call (from each type of telephone) if ARS is enabled for the system.

A Command Structure chart is included at the end of this appendix. Use this diagram as a quick reference for the ARS editor commands used during Program Entry.

Section 1, Description

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ARS INTRODUCTION

Automatic Route Selection (ARS) is a comprehensive and flexible on-line call routing scheme that you can customize from the programming terminal. ARS accommodates over 8000 call routing choices -- without a custom-ordered rate structure data base. Automatic Route Selection allows modifications to the routing choices to be made quickly and easily as the cost structure of the connected services change.

ARS provides:

Call Routing

3-digit (Area Code) and 6-digit (Area Code and Exchange) analysis can be applied to every number dialed.

Dialing Translation (Special Dialing Instructions)

Stored dialing instructions can be automatically executed when a route is chosen.

.

Time of Day Selection

Route selection can be independently programmed according to the time of day/day of week.

Hierarchical Class of Service Control

Call route choices are allowed or denied based on an extension's Class of Service.

Forced Authorization Code

Designated routes may require the user to enter an Authorization Code before routing is allowed. This code is verifiable and is enforced by station Class of Service.

Separate Routing For Operator Assisted, International and Equal Access Calls

To provide unique control, separate routing instructions may be programmed for Operator Assisted, International and Equal Access calls.

Independently Programmed Restriction for Exchanges 976 and 555

Restriction for these exchanges is hierarchical according to an extension's Class of Service.

- For Your Notes -

Call Route Option

The Call Route Option is a subset of the Selection Number and defines the routing of a call. The Call Route Option considers the maximum Class of Service permitted to access the route, assigns the route, and specifies the Dial Treatment that applies to the route selected. Each of the 64 Selection Numbers can have a total of 16 Call Route Options for each of the eight Rate Periods, for a system capacity of 8,192.

Carrier

The Carrier is the company which provides a service to which a call may be routed. Some typical Carriers are AT&T, MCI, GTE (US Sprint) and Western Union.

Conflict Code/Conflict Area

A Conflict Code is a local exchange code that uses 0 or 1 as the second digit. A Conflict Area is a dialing area (NPA) in which Conflict Codes exist.

Dial Treatment

A Dial Treatment contains any special dialing instructions that are to be automatically performed when a call is redialed on the selected route. The ARS system accommodates a total of 15 programmable Dial Treatments. Each Call Route Option can be assigned one of 16 Dial Treatments.

Equal Access

Equal Access allows a primary carrier for long distance calls to be selected. When a user dials 1 + NPA + NNX + nnnn, the call will go out on the preselected primary carrier service. To manually dial toll calls on services other than the primary carrier, the user dials 10XXX + NPA + NNX + nnnn. Note that 10XXX is the equal access code to an alternate carrier. Equal Access capability is not provided by all telcos.

Holiday

For the purposes of Rate Period selection, Holidays are defined as New Year’s Day (January 1), Independence Day (July 4), Labor Day (the first Monday in September), Thanksgiving Day (the fourth Thursday in November) and Christmas Day (December 25). Holidays nationally observed on days other than those listed above are not considered by ARS to be Holidays.

DEFINITION OF TERMS

Local Address

The Local Address is that portion of a telephone number that follows the NNX (local exchange). In the dialing format NPA + NNX + nnnn, the nnnn entries represent the Local Address.

Non-Protected Code

A Non-Protected Code is an exchange code in the home area code, which is also an exchange code in an adjacent area code, that can be dialed toll-free from some point in the home area.

Protected Code

A Protected Code is an exchange code, not used in the home area code, that is in an adjacent area code and can be dialed toll free from some point in the home area code.

Rate Period

For call cost structure purposes, each day of the week is divided into Rate Periods. ARS recognizes eight periods. A Rate Period can be from 30 minutes to 24 hours in length and can be programmed to start and stop on the hour or half hour.

Selection Number

ARS is programmed to assign each call dialed to one of 64 Selection Numbers. For each call dialed, ARS analyzes the time of day based on the Rate Periods programmed. ARS then routes the call on the preferred available Call Route Option programmed for the accessed Selection Number.

Service Number

A Service Number is a group of lines used for ARS and LCR routing. The lines within a Service Number should be the same type (e.g., WATS5, DDD). The system can have up to 10 Service Numbers, programmed in QL- SERVICE nn LINE NUMBER. Service Numbers are in addition to the Line Groups programmed in GROUP #9n LINE NUMBER. Service Numbers may overlap line groups, however, if desired.

NNX[1]

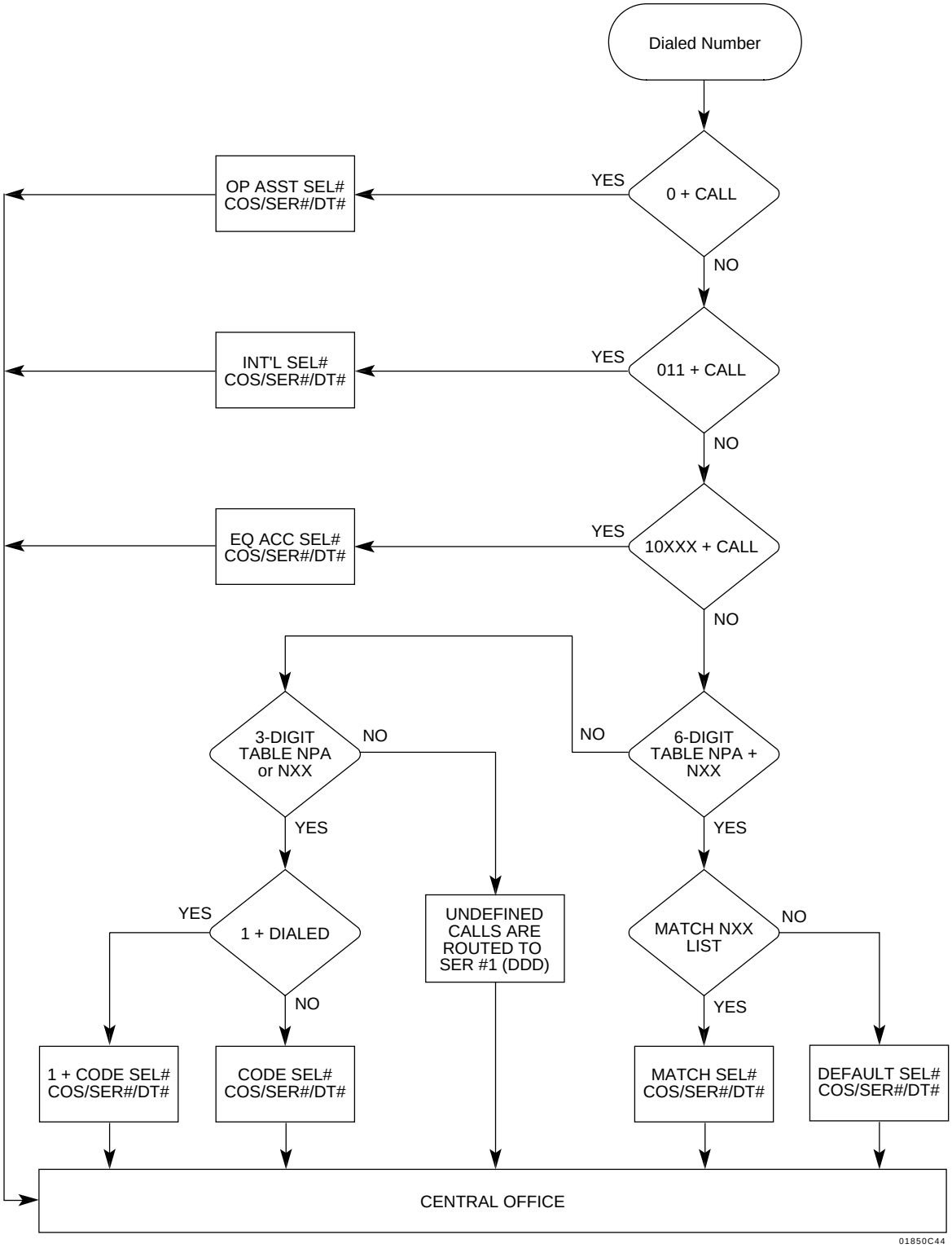
NNX is an abbreviation for a local exchange. Valid local exchanges are 220-299 through 920-999. In a Conflict Area, valid NNXs may be any code 200 through 999.

NPA[1]

NPA is an abbreviation for Area Code. Valid Area Codes are 200-219 through 900-919.

[1] As of January, 1995, the North American Numbering Plan may affect local exchanges and area codes in your region. For further information regarding the North American Numbering Plan, refer to NANP Compatibility in the Feature section of the ONYX Feature and Terminal Programming Manual (P/N N1850SWG04).

Figure 1-1, ARS Overview



The 6-Digit Table

Automatic Route Selection (Figure 1-1) examines the digits a user dials and determines which of the 64 available Selection Numbers should be used for the call. If the user dials an NPA, ARS looks first at the 6-digit table for routing instructions. The six digit table is a series of NNX lists assigned to each NPA. If the NPA a user dials is programmed into the 6-digit table, and the NNX dialed is in one of the NNX lists for the NPA, ARS routes the call according to the 6-digit table Match Selection Number. If the NPA is in the 6-digit table and the NNX is not in one of the NNX lists, ARS routes the call to the Default Selection Number.

The 3-Digit Table

If the NPA the user dials is not in the 6-digit table, or the user dials an NNX without an NPA, ARS looks at the 3-digit table. If the NNX or NPA is in the 3-digit table, ARS routes the call according to the 3-digit table Selection Number. If the NNX or NPA is not in the list, the call is placed on service # 1.

Rate Periods

Once ARS chooses a Selection Number, Automatic Route Selection examines the time of day and day of week. ARS then selects the current rate period using the Rate Period table. You can program a maximum of eight Rate Periods.

Call Route Options

ARS provides up to 16 Call Route Options for each Rate Period in a selection number. A Call Route Option defines:

- The maximum Class of Service permitted to use the option
- The service # accessed if ARS chooses the option
- The Dial Treatment instructions imposed on the initial number dialed

You program the Call Route Options into a list (from 1 - 16) for each Selection Number and Rate Period. Construct the list in order of routing preference. The option at the top of the list is the most-preferred. The option at the bottom of the list is the least-preferred. If the most-preferred Call Route Option is busy, ARS routes the call to the next-most-preferred option. If all the Call Route Options available to the extension are busy, the call cannot go through.

Dial Treatments

For each Call Route Option, a Dial Treatment is available to accommodate special dialing instructions. ARS has a total of 16 Dial Treatments, 15 of which you can program. These Dial Treatments can:

- Require that the user enter an authorization code when placing a call
- Automatically insert or delete a leading 1
- Insert or delete an NPA
- Add digits (such as a dial-up OCC number), pauses and waits to the dialing sequence

Once ARS selects the route for the call, the system seizes an available trunk in the service. The system then redials the call according to the requirements of the applicable Dial Treatment.

In addition to its other capabilities, ARS provides separate routing for:

- Operator and operator-assisted calls
- International calls
- Equal Access calls

Note: Toll Restriction does not restrict a call dialed using ARS.

Section 2, Software Configuration

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SOFTWARE CONFIGURATION

CONFIGURATION INTRODUCTION

The SOFTWARE CONFIGURATION Section provides the instructions for completing the ARS Program Record Forms (included at the end of this section). Once completed, these Program Record Forms (PRFs) become the ARS data base which defines system call routing. You enter the data compiled on the PRFs into system memory during programming.

How to Configure ARS

Before entering any data into the Program Record Forms, read this entire section. This gives you an overview of Automatic Route Selection and the type of data which must be entered.

To configure ARS:

Step 1
Compile data from the customer concerning service carriers used and service types installed. Enter this data in the Carrier List (Table 2-1).

Step 2
Ensure that similar trunks are correctly arranged into outbound groups. Refer to the E4 and EA Programs in the system Software Manual.

Step 3
Install ARS and assign service numbers to groups you programmed in Step 2 above. Refer to the QL Program in the system Software Manual. Be sure to program DDD (local) trunks into Service #1.

Step 4
Configure rate periods based on the cost structure for each service installed. Record these Rate Periods on the Rate Period PRF (Table 2-2).

Step 5
For each type of call, assign route selections for each rate period. Also, determine which COS can access each route option. Use the ARS Worksheet (Table 2-3).

Step 6
Configure any applicable dial treatments for each type of call. Make the entries on the Dial Treatment PRF (Table 2-4).

Step 7
Configure route selection options using the Carrier List, the Rate Periods PRF, the ARS Worksheet and the Dial Treatment PRF. Write your entries in the Call Route Options PRF (Table 2-5).

Step 8
Build 3-digit & 6-digit translations as needed. Use the 3-Digit Table PRF (Table 2-6) and the 6-Digit Table PRF (Table 2-7) to record your entries.

Step 9
Assign route selections to equal access, international, and operator-assisted calls. Record the entries on the 6-Digit Table PRF (Table 2-7).

Step 10
If required, program Authorization Codes. A user's Class of Service may require that the user enter an Authorization Code when placing a call. Refer to the QW Program in the System Software manual.

Completing the Carrier List

Use the Carrier List (Table 2-1) to record the carriers and services connected to the system. Make as many copies of this table as are required to record all the information. The entries on this table are never entered directly into system memory, although the information is used when establishing the Call Route Options.

In the CARRIER column, list all the carriers connected to the system (i.e, AT&T, GTE, etc). Next, record the various services (WATS 5, DDD, Dial Up, 1+ etc) in the SERVICE TYPE column. Since ARS uses Service # assignment in the QL program to locate each service type, each service type should be assigned to a dedicated Service #. Indicate that assignment in the SERVICE # column.

In the USAGE INFORMATION column, record the cost of calls for each service type. This entry establishes the relative cost of each connected service. This determines the order in which ARS selects each route option for each dialed telephone number.

Completing the Rate Period Table

The cost of calls usually changes at predetermined intervals throughout the day. At a given time of day, a certain service is the least costly way to send the call. These intervals are the Rate Periods. When ARS is first installed and initialized, three Rate Periods are defined according to the chart below. Note that all entries are in military time (e.g. 13:00 = 1:00 P.M.)

Day	Time Period	Rate Period Number
Mon - Fri	08:00 - 17:00 17:00 - 23:00 23:00 - 24:00 00:00 - 08:00	1 2 3 3
Saturday	08:00 - 23:00 23:00 - 24:00 00:00 - 08:00	2 3 3
Sunday	08:00 - 23:00 23:00 - 24:00 00:00 - 08:00	2 3 3
Holiday	08:00 - 23:00 23:00 - 24:00 00:00 - 08:00	2 3 3

Many of the carriers use these predefined rate periods. If the system is connected to carriers that use these Rate Periods, the initialized values can be used; however, if carriers are used that have different (or additional) Rate Periods, the Rate Period Table must be redefined. The following is an example showing how to construct a Rate Period Table.

To construct a Rate Period Table:

Step 1
Make extra copies of Table 2-2 as needed. For eight rate periods, you'll need the original plus three copies.

Step 2
On Table 2-2, assign time periods to the services defined in the Usage Information column of the Carrier List PRF. There are eight rate period numbers and each is defined by the programmer. Any rate period number may define any time period. Rate period 1 usually defines normal working hours, Monday through Friday.

Refer to the sample below and indicate the time span covered by Rate Period 1. For example the table below indicates that Rate Period 1 covers Monday-Friday, 7:00 A.M. to 5:00 P.M.

RATE PERIOD 1

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI								■	■	■	■	■	■	■	■	■	■	■							

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To indicate a half hour, begin on the line between two times. The following example indicates that Rate Period 1 covers Monday-Friday, 7:30 A.M. to 5:00 P.M.

RATE PERIOD 1

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI									■	■	■	■	■	■	■	■	■	■							

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Step 3
Determine if Rate Period 1 is applicable for any other days (Saturday, Sunday or Holidays). If so, indicate this on the Rate Period 1 Table.

Step 4
Using the same procedure as step 1 above, define the Rate Period 2 Table. Since a time of day cannot exist in two Rate Periods, it is not permissible for any Rate Periods to overlap. For example:
This is an unacceptable configuration.

RATE PERIOD 1

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI								■	■	■	■	■	■	■	■	■	■	■							

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RATE PERIOD 2

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI		■	■	■	■	■	■	■	■	■															

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This is an acceptable configuration.

RATE PERIOD 1

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI																									

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RATE PERIOD 2

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI																									

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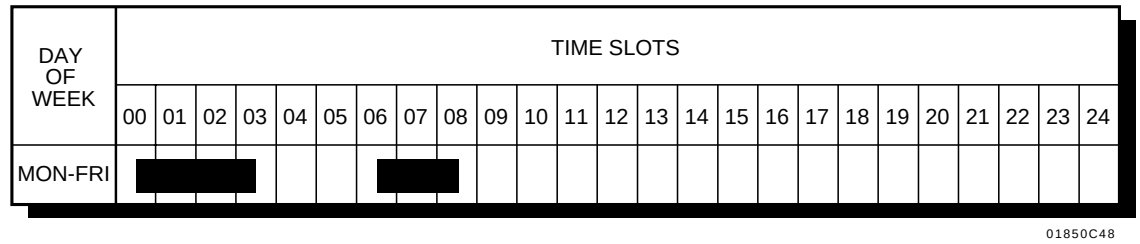
A new Rate Period can be introduced that divides an existing Rate Period. In the example below, Rate Period 3 divides Rate Period 2.

RATE PERIOD 2

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI																									



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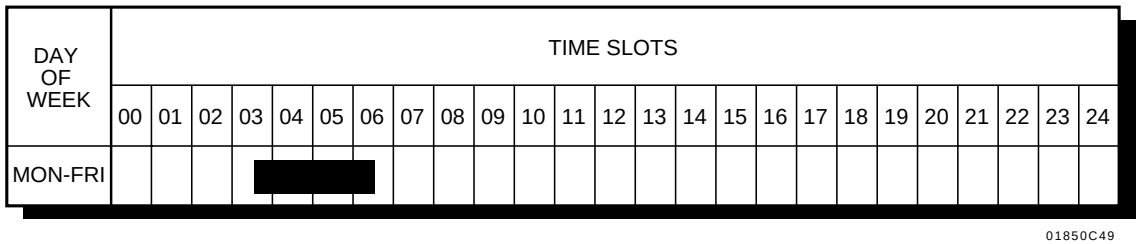
RATE PERIOD 3

DAY OF WEEK	TIME SLOTS																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI																									



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Step 5
Enter data for all applicable rate periods. After all the required Rate Period charts are completed, it is necessary to transpose the data from the graphic format of the chart to a numerical entry. You enter the numerical entry into the system during ARS programming. When transposing the data:

- The format is HH-HH/RP
- HH-HH = From Hour-To-Hour
- RP = Rate Period #
- Always use a 24-hour clock.
- Use the slash (/) to identify the rate period.
- If a Rate Period extends from evening of one day to morning of the next, it must be recorded as two entries (e.g. 11:00 P.M. to 08:00 A.M. is recorded as 23-24/3 and 00-08/3).
- All half hour entries are in the format HH:30.

Completing the ARS Worksheet

There are various types of calls that are switched by the DDD network. Among these calls are:

- NNX+nnnn (7-digit local call)
- 1+NNX+nnnn (1+7-digit home area toll call)
- NPX+NNX+nnnn or 1+NPX+NNX+nnnn (10-digit or 1+10-digit outside area code call)
- 0 or 0+Operator Assisted call
- 10xxx +Equal Access Other Common Carrier (OCC) call
- 011+International (IDDD) call
- 411, 1+411, 555+nnnn Directory Assistance call
- 900 or 976 Special Service calls (e.g., Dial a Joke)

Each of the above types of calls must be directed to the desired service(s) for each rate period for economic call processing. Use the steps listed below to fill out the ARS Worksheet (Table 2-3).

Step 1
Make additional copies of the ARS Worksheet, if required.

Step 2
Under the TYPE OF CALL column, enter one of the above types (e.g. 1+NNX).

Step 3
Under the OPT # column, enter the option number of the route selection you are about to develop. The range is 1-16.

Note: Arrange options by cost. The cheapest route should be Option 1.

Step 4
Under the SERVICE TYPE/Rate Period column enter the desired service for each rate period (e.g. DDD, WATS3, MCI). If a rate period is not used, enter a dash.

Step 5
Determine the COS required to use each option and enter it in the column marked REQ COS. The range is 0-27.

Step 6
After you define all options for all rate periods for a type of call, assign the group a Selection number in the column marked SEL #. The range is 1-64.

In the example below, the worksheet entries are for:

- 1+NNX-nnnn type calls
- Using 5 rate periods, where MCI is the least expensive during rate periods 1, 3, & 5. DDD is the least expensive during rate periods 2 & 4.
- The customer wishes to have both services available at all times to users with a COS of 3 or less, but all COS's can access the cheapest route during any rate period.

TYPE OF CALL	OPT #	SERVICE TYPE Rate Period								REQ COS	SEL #
		1	2	3	4	5	6	7	8		
1+ NNX	1	MCI	DDD	MCI	DDD	MCI	—	—	—	27	1
	2	DDD	MCI	DDD	MCI	DDD	—	—	—	03	

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Compile all the necessary data and complete the ARS worksheet. The data on the worksheet can be transposed to the appropriate PRF's for data entry into the system.

Completing the Dial Treatment Table

The Dial Treatment allows specific dialing instructions to be applied to each call, independent of the NNX and local address dialed. ARS accommodates a total of 15 programmable Dial Treatments. A Dial Treatment can be up to 32 characters and contains a combination of the option codes listed below. The options are listed in the order that they MUST be entered on the Dial Treatment Table PRF (Table 2-4). If an option is not required, omit it. (Note that n represents any digit 0-9.)

Fnn
Fnn is the Forced Authorization Code entry. If the extension from which the call is placed has a Class of Service equal to or greater than the COS specified by nn, then an Authorization Code must be entered before the call will be processed. For example, F04 indicates that all extensions with a COS equal to or greater than 04 must enter an Authorization Code. Only one Fnn code per Dial Treatment is allowed.

3
Entering 3 causes the NPA to be deleted during ARS redial if it was dialed as part of the initial call. For example, a 1 + NPA + NNX + nnnn call is routed to an FX. The NPA must be stripped before the call is redialed into the remote exchange. Only 1+NNX-nnnn would be dialed out by ARS if the 3 entry is used.

2
Entering 2 causes the leading 1 to be deleted during ARS redial if it was dialed as part of the initial call. Only one 2 code per Dial Treatment is allowed. The 2 option code may not be used with the 1 option code below in the same Dial Treatment.

1
Entering 1 causes a leading 1 to be added during ARS redial if it was not dialed as part of the initial call. This code can be used for all NNXs in the home NPA that are toll calls from the system. The leading 1 is automatically inserted in the redial if the user inadvertently omits it. Only one 1 code per Dial Treatment is allowed. The 1 option code may not be used with the 2 option code above in the same Dial Treatment.

Inpa
Inpa is used to insert an NPA during ARS redial. This code can be used if a 1 + NNX + nnnn call is routed to a service which requires an NPA (e.g., WATS, or dial-up MCI). For example, I203 would automatically insert the NPA 203 whenever the Dial Treatment is selected. Only one Inpa code per Dial Treatment is allowed.

Dnn
Dnn instructs the system to dial the nn digits or codes that follow. ARS uses the Dnn option code to insert digits, pauses, or timed waits into the number as it is redialed. When programming the Dnn option code, the following rules apply:

- The nn entry specifies the number of characters that follow that are included in the Dnn option. For example, D11 indicates that the next 11 characters immediately following D11 should be dialed.

- A Wnn entry indicates the number of seconds ARS should pause before outdialing or continuing to outdial. The Wnn is always counted as three characters. For example, D03W30 instructs ARS to wait 30 seconds before dialing. All nn entries must be 2 digits in length (e.g. 06 = six seconds).

- P indicates a programmed interval the system will wait for a second (OCC) dial tone. Each P is always counted as a character. To wait for more than one interval, enter more than one P. The interval of each P is equal to three times (3X) the Dialtone Detect Count programmed in system timers (QT). For example, D02PP instructs ARS to wait up to 2 intervals (6 Dialtone Detect Counts) for a second dial tone.

  If the second dial tone is detected before the wait interval expires, the system immediately continues with the rest of the dial treatment. (Dialing a * during this interval will also override this wait and continue with the rest of the dial treatment.) If second dial tone is not detected within the programmed time frame, the route is considered unavailable and the call will be denied (or routed to the next selection).

- Digits that are not part of a Wnn or P option are redialed just as they are entered in the Dial Treatment. For example, D079262000 instructs ARS to dial 9262000 whenever this Dial Treatment is chosen.

R
R instructs ARS to redial the initially dialed number including any modifications, if any were made using the above entries in the dial treatment. Only one R code is permitted per Dial Treatment.

If the R code is not inserted in a Dial Treatment, ARS will never redial the number initially dialed. In this case, ARS will redial only if a Dnn entry specifies that a different number be dialed.

E
E designates the end of a Dial Treatment. All Dial Treatments must end with the E code. The E code will only display as part of the dial treatment, when initially programming the dial treatment.

The following Dial Treatment code (F053D039PPRE) tells the system ARS that:

- (F05) Extensions with Classes of Service equal to or greater than 05 must enter an authorization code.
- (3) Strip the NPA from the digits dialed.
- (D039PP) The system outdials the digit 9 and waits for up to six Dialtone Detection counts.
- (R) The initial call will be redialed (less the NPA).
- (E) This is the end of the Dial Treatment.

Note: Dial Treatment number 00 (no dial treatment) directs the system to outdial the initial number exactly as it was dialed.

To enter a Dial Treatment:

Step 1
Enter the required Dial Treatment options.

Step 2
Enter E to finish the Dial Treatment.

Completing the Call Route Option PRF

Each Selection Number has up to 16 Call Route Options available for each of the 8 Rate Periods. It is the Call Route Option that determines the actual routing for a call after the Selection Number is chosen.

Call Route Option data consists of three entries:

- The required class of services which have access to the route
- The service which the call should be dialed out on
- The dial treatment to the initial number dialed to make it acceptable to the service selected

To enter the required Call Route Option data:

Step 1
Make enough copies of the Call Route Option PRF (Table 2-5). Each sheet is for one Selection Number and one Rate Period.

Step 2
Using the ARS Worksheet (Table 2-3) as a guide, enter data on Table 2-5 according to the routing preference. When a Selection Number is chosen, and the Call Route Option sheet for the correct Rate Period is configured, Option 1 should be the most preferred route. List the remaining options in decreasing order of preference.

Step 3
In the COS column for each Call Route Option, enter the maximum Class of Service permitted to use the route. Extensions with a COS equal to or lower than this entry can use the route; those with a higher COS cannot.

When a route is busy, ARS selects the next route on the list. If that and all other routes available to the extension are busy, the call is denied.

ARS requires hierarchical CLASS OF SERVICE programming (i.e, the lower COS numbers are the least restricted; the higher numbers are the most restricted). The Class of Service numbers are 00-27.

Note: ARS overrides TOLL RESTRICTION programming.

Step 4
In the SER # column, enter the number of the service desired for the routing as entered in the QL program. The range is 01-10.

Step 5
In the Dial Treatment column, enter the number of the dial treatment necessary for the initially dialed number to be transmitted over the desired route. The range is 00-15.

DT# 00 redials the original number with no modifications.

Completing the 3-Digit Table PRF

ARS uses the 3-Digit Table PRF to direct the number dialed to a Selection Number. Data is entered in the 3-digit table for all NNXs (exchange codes), and for all NPAs that do not require 6-digit analysis (in the 6-digit table). If ARS does not find an entry for a code in the 3-digit table, the call will be placed automatically on Service #1. Before completing the 3-digit Table the following routing conditions must be considered:

If the system is installed in a Non-Conflict Area:

- ARS automatically recognizes NPA and NNX codes. If a leading 1 is dialed, the call is routed according to the 1+CODE SEL # entry. If the leading 1 is not dialed, the call is routed according to the CODE SEL # entry.

- If an NPA is dialed, ARS first determines if 6-digit analysis is required. (6-digit analysis can occur if the NPA is dialed with or without a leading 1.) If no data for the NPA exists in the 6-digit table, and the call is dialed with a leading 1, the call is routed on the 3-digit table 1+CODE SEL # entry. If no 6-digit table data for the NPA exists and the call is dialed without a leading 1, the call is routed according to the 3-digit table CODE SEL # entry.

To enter data in a Non-Conflict Area:

Step 1
For all NNXs that are dialed without a leading 1 (i.e., toll-free), enter a Selection Number in the CODE SEL # column.

Step 2
For all NNXs that are dialed with a leading 1 (i.e., NNXs that are toll calls), enter a Selection Number in the 1+CODE SEL # column. If the 1+CODE SEL # and the CODE SEL # routing is the same, enter the same Selection Number in both columns.

Note: Steps 3 and 4 below are only used for NPAs that will not be entered on the 6-digit table.

Step 3
For all NPAs that are not dialed with a leading 1, enter a Selection Number in the CODE SEL # column.

Step 4
For all NPAs that are dialed with a leading 1, enter a Selection Number in the 1+CODE SEL # column. If the 1+CODE SEL # and the CODE SEL # routing is the same, enter the same Selection Number in both columns.

If the system is installed in a Conflict Code Area:

- ARS automatically recognizes NPA and NNX codes. If a leading 1 is dialed, the call is routed according to the 1+CODE SEL # entry. If the leading 1 is not dialed, the call is routed according to the CODE SEL # entry.

- All NPAs dialed must be preceded by a leading 1. (6-digit analysis can only occur if the NPA is dialed with a leading 1.) If a leading 1 is not dialed, ARS assumes that the code is a Conflict Code, routes the call according to the CODE SEL # entry, and does not attempt 6-digit analysis.

- If the code is dialed with a leading 1, ARS determines if 6-digit analysis is required. If 6-digit analysis is required, the call is routed according to the 6-digit table entries. If 6-digit analysis is not required, the call is routed to the 1+CODE SEL # entry.

To enter data in a Conflict Code Area:

Step 1
For all NNXs that are dialed without a leading 1 (i.e., non toll calls), enter a Selection Number in the CODE SEL # column.

Step 2
For all NNXs that are dialed with a leading 1 (i.e., that are toll calls), enter a Selection Number in the 1+CODE SEL # column. If the 1+CODE SEL # and the CODE SEL # routing is the same, enter the same Selection Number in both columns.

Step 3
For all Conflict Codes, enter a Selection Number in the 1+CODE SEL # column to determine the routing when the code is an NPA; enter a Selection Number in the CODE SEL # column to determine the routing when the code is an exchange.

Step 4
For all NPAs, enter a 1+CODE SEL # entry. All NPAs must be dialed with a leading 1.

3-Digit Initialization Programming

If the system is installed in an area where Conflict Codes exist, check the YES box for the heading: SYSTEM IN A CONFLICT AREA. If the system is not in a Conflict Code area, check the NO box. The entry for this prompt is made during 3-digit table initialization.

Calls to exchange 976, usually used for dial-up services for which there is a fixed charge per call (such as DIAL-A-JOKE), are normally restricted. In the box marked: MINIMUM COS TO DIAL 976 indicate the minimum Class of Service required to access the 976 services. Extensions with a COS greater than that programmed will be denied access the 976 exchange. The entry for this prompt is made during 3-digit table initialization. This restriction is enforced, whether or not the 976 is preceded by an NPA.

Programming Exchange 555

Selection Number assignments for exchange 555 must be made in the 3-digit table. The Selection Numbers programmed are used regardless of the NPA dialed. Because of this, exchange 555 does not have to be separately programmed into the 6-digit table for each NPA.

Completing the 6-Digit Table PRF

ARS uses the 6-digit table to provide 6-digit analysis for programmed NPA codes. If an NPA is listed on the table, and the NPA is dialed (with or without a leading 1), ARS checks the NNX list for that NPA. If the NNX is found in the list, the match selection number (MATCH SEL #) is chosen. If the NNX is not found in the list, or the NPA does not have an NNX list, the default selection number (DEFAULT SEL #) is chosen. If the NPA is not listed in the 6-digit table, route selection is made according to the programmed entries in the 3-digit table.

To enter data for the 6-Digit Table:

Step 1
Enter each NPA for which 6-digit analysis is required.

Step 2
Under the NNX LIST heading, enter all NNXs that should cause the MATCH SEL # to be chosen. The entries must follow the guidelines below:

- Each NPA can have more than one NNX list. If more than one list is created, each list should have a different MATCH SEL #.

- Entries in an NNX list can be individual (e.g, 926, 929, 888, etc.) or in a range (e.g, 926-929, 950-959, etc.). If a range is used, the first number must always be the lowest number. In addition, the first two digits of a range must always be the same (e.g, 330-339, 453-458).

Step 3
Enter the DEFAULT SEL # for each NPA. If more than one NNX list is programmed for an NPA, the NNX list programmed at the "top" of the table determines the DEFAULT SEL # for the NNX lists "beneath" it. In other words, although many lists can be created for the same NPA, and each list can have its own MATCH SEL #, all NNX lists for a given NPA share the same DEFAULT SEL #.

Completing the E.A. & OPR-ASSIST Assignments

Operator-Assisted Calls

A Selection Number for operator-assisted calls must be specified in the OPERATOR-ASSISTED CALLS column. It is recommended that the Selection Number and its associated Call Route Options be highly restrictive to prevent abuse of the operator-assist capability. Remember that call cost control is effectively bypassed when an outside operator is accessed.

International Calls

The INTERNATIONAL CALLS column is used to designate the Selection Number to be used when an international call is dialed. Due to the relatively high cost of international calls, this selection should be highly restrictive.

Equal Access Calls

The EQUAL ACCESS CALLS column designates the Selection Number used whenever a system user dials a 10XXX Equal Access code. Since this bypasses the 3-digit and 6-digit tables, the EQUAL ACCESS CALLS entry should be highly restrictive.

RELATED PROGRAMS FROM THE SYSTEM MAIN MENU

Required Programming

E- Trunks, "E4- Next Trunk in Outbound Rotary"
ARS requires trunk rotaries. This prompt determines the selection sequence for trunks within each rotary.
E- Trunks, "E7- Trunk Service Number"
Assign a Service Number [1-10] to each trunk used for ARS. ARS routes calls to Service Numbers, not individual trunks.
E- Trunks, "EA- Trunk Group Assign. (First Trunk in Group), Hybrid"
Group trunks in rotaries by assigning each one the same First Trunk in Group number.
"GA- ARS Editor"
Program the ARS options. Refer to Appendix A for details.
"QL- LCR/ARS/Account Codes, LCR or ARS Enable (Hybrid Only)"
Enter 2 to enable ARS.
"QL- LCR/ARS/Account Codes, Number of Services"
Designate how many services (trunk rotaries) ARS will use. [01-10]
"QL- LCR/ARS/Account Codes, Service Line Numbers"
Indicate the trunk rotary master number for each of the rotaries used by ARS. This should correspond to the **EA- First Trunk in Group** entry. If the Service Line Number is entered as 00, or left at default (00), this will deny calls using that Service Number.

Other Programming

E- Extensions, "E3- Class of Service"
ARS routing is based on an extension's COS number. [00-27, 30 for operators]
E- Extensions, "E8- Line Access Options, Allow Line Code Dial-Up"
If enabled, users may be able to dial trunk access codes (e.g., 801) to bypass ARS. [Y=allow, N=deny]
E- Extensions, "E8- Line Access Options, Access to Groups 90-95"
Allow access to group 90 (the ARS access code). If you allow access to 91-95, users may be able to dial these codes to bypass ARS. Users can always dial groups 96-98. [Y=allow, N=deny]
E- Extensions, "E8- Line Access Options, Key Access to Outbound Lines"
If enabled, users may be able to press a line key to bypass ARS.
[Y=allow, N=deny]
E- Extensions, "ED- Trunk Control, Access Control"
An extension must have access to the trunks selected by ARS.
[Y=allow, N=deny]
E- Extensions, "ED- Trunk Control, Call-Out Control"
An extension must have Call-Out to the trunks selected by ARS.
[Y=allow, N=deny]
E- Trunks, "E2- Trunk Circuit Type"
Trunks within each ARS Service Group should have the same circuit type.
"KS- Programming Keys for Keysets"
An extension can have a loop key for ARS access.
["9"=switched loop, "9" and a line group # (0-8)=fixed loop]

"QC- Operator Programming, Operator Extensions"
Make sure the main operator is port 00 (normally extension 300).
"QF- Line Grp Access (First Trunk in Group), Hybrid Only"
Correlate the first trunk in a trunk rotary (e.g., 801) to one of nine trunk rotary numbers (90-98). The system requires this correlation when setting up trunk rotaries. Use the trunk access code (e.g., 801 or L01) that corresponds to the **EA- First Trunk in Group** entry.
"QQ- "1" Prefix Required for NPA Calls"
If the system is in a conflict area, enter Y. Enter N if the system is not in a conflict area. In an area with a 10-digit numbering plan and this option is enabled (Y), then create a Dial Treatment that strips the "1" prefix. See page 2-19 for more details.
"QT- System Timers, Dialtone Detection Counter"
Set the length of the dial tone detection interval. ARS Dial Treatments (option P) use this interval [1-6]. See page 2-15 for more details.
"QW- ARS Authorization Codes"
If required, enter ARS Dial Treatment Authorization codes [10 digits max]. See page 2-14 for more details.
"QX- Suppress '#' When Speed Dialing"
If ARS Dial Treatments outdial the # digit, enter N. To suppress outdialing #, enter Y.
"QY- Single Digit Line Access"
If enabled, users can dial 9 (instead of 90) for ARS. [Y=allow, N=deny]

EXAMPLE OF SAMPLE CORPORATION

This example develops ARS data for a fictitious company (Sample Corporation) located in Shelton, Connecticut. The paragraphs that follow show how the ARS Program Record Forms are completed for the Sample Corporation application. Sample Corporation has purchased four dialing services, as follows:

- AT&T WATS (Band 5)
- MCI (dial-up to network)
- AT&T FX (to Chicago - NPA 312, exchange 355)
- AT&T DDD

Note: Only calls within the continental United States are considered for this example.

Setting Up a Sample Corporation

To set up a Sample Corporation:

Step 1
Complete the Carrier List PRF (Table 2-1). The Carrier List is completed below for Sample Corporation.

Carrier List for Sample Corporation

CARRIER	SERVICE TYPE	SERVICE #	USAGE INFORMATION
AT&T	WATS 5	5	Preferred service for all toll calls outside of the home NPA, except for calls to NPA 312 - NNX 355. Second preferred service for calls to 312-355. Cannot be used for calls within the home NPA.
MCI	DIAL-UP	1	Preferred service for all toll calls within the home NPA. Second preferred service for all toll calls outside of the home NPA. Third preferred service for calls to NPA 312 - NNX 355. MCI has a special Rate Period (M-F, 8-10 AM). MCI is the preferred service for toll calls outside of the home NPA (except 312-355) during Rate Period four.
AT&T	FX	3	FX terminated at NPA 312 and NNX 355. Preferred service for all calls to 312-355 (Chicago). Not economical outside of the 312-355 local dialing area.
AT&T	DDD	1	Preferred service for all local calls within the home NPA. Also used for N11 calls. COS5 & lower may call info, 0+ or 011 calls.

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Step 2
Assign a Service Number to lines and/or outbound rotaries.

- In line programming (E4-NEXT LINE IN ROTARY and EA-FIRST LINE IN ROTARY), assign the WATS trunks to a rotary, the FX lines to a rotary, and the DDD trunks to a rotary. Since MCI is a dial-up service, it is accessed over DDD trunks and is assigned Service #1.

Step 3
- In the QL program, assign the first line in each EA rotary a service number. DDD lines must be Service #1.

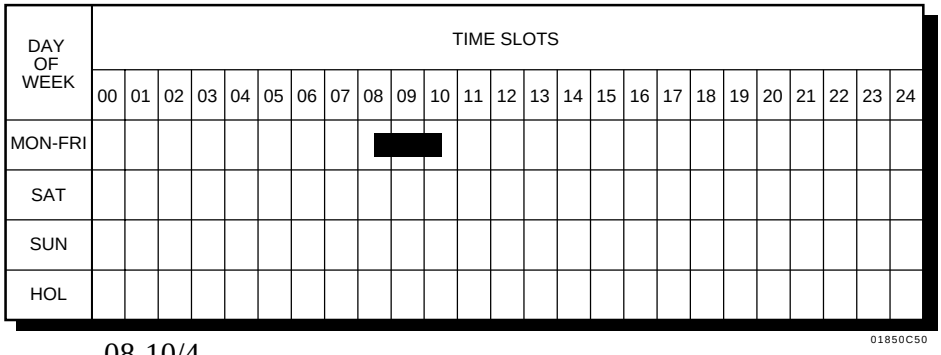
- In CP- CLASS OF SERVICE programming, verify that the Class of Service table is constructed so that the low COS numbers (toward 00) have the least dialing restrictions and the high COS numbers (toward 27) have the most dialing restrictions.

Note: If a dialed code is not entered into either the 3- or 6-digit table, the call will be routed by default to Service #1. If DDD trunks are assigned to Service #1, the call will be placed on a DDD trunk.

Step 4
Complete the Rate Periods PRF (Table 2-2).

The AT&T services use the standard three Rate Periods. These standard Rate Periods are configured when I= INITIALIZE is used to initialize Rate Periods data. MCI uses the standard Rate Periods plus a fourth rate period covering Monday through Friday, 8:00 AM to 10:00 AM. This fourth Rate Period must be created. The Rate Period Table is completed below to show this additional Rate Period.

Rate Period 4 for Sample Corporation



MON-FRI 08-10/4 SAT _____

SUN _____ HOL _____

Step 5
Complete the ARS Worksheet.

As discussed earlier, each type of call must be directed to the desired service(s) for each rate period for economic call processing. Enter the information compiled so far in this chapter into the proper columns on the ARS Worksheet (Table 2-3). This includes:

- TYPE OF CALL
- OPT #
- SERVICE TYPE for each Rate Period
- COS required for each option
- SELECTION NUMBER assignment

EXAMPLE OF SAMPLE CORPORATION

The Sample Corporation worksheet entries follow.

TYPE OF CALL	OPT #	SERVICE TYPE Rate Period								REQ COS	SEL #
		1	2	3	4	5	6	7	8		
NNX	1	DDD	DDD	DDD	DDD	—	—	—	—	27	0[1]

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TYPE OF CALL	OPT #	SERVICE TYPE Rate Period								REQ COS	SEL #
		1	2	3	4	5	6	7	8		
1+ NNX	1	MCI	MCI	MCI	MCI	—	—	—	—	27	1

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TYPE OF CALL	OPT #	SERVICE TYPE Rate Period								REQ COS	SEL #
		1	2	3	4	5	6	7	8		
1+ NPA-NXX (less 312-355)	1	WATTS5	WATTS5	WATTS5	MCI	—	—	—	—	27	2
	2	MCI	MCI	MCI	WATTS5	—	—	—	—	05	

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[1] Assigning Selection Number 0 automatically routes these types of calls to Service Number 1. Make sure you program Service Number 1 with the DDD lines.

TYPE OF CALL	OPT #	SERVICE TYPE Rate Period								REQ COS	SEL #
		1	2	3	4	5	6	7	8		
1+ 312-355	1	FX	FX	FX	FX	—	—	—	—	27	3
	2	WATS5	WATS5	WATS5	MCI	—	—	—	—	05	
	3	MCI	MCI	MCI	WATS5	—	—	—	—	05	

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TYPE OF CALL	OPT #	SERVICE TYPE Rate Period								REQ COS	SEL #
		1	2	3	4	5	6	7	8		
Direct. assist. call (411, or 555 in any NPA)	1	DDD	DDD	DDD	DDD	DDD	—	—	—	05	4

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After compiling all the necessary data and completing the ARS Worksheet, the data on the worksheet can be transposed to the appropriate PRF's for data entry into the system.

Step 6
Complete the Dial Treatments Table PRF (Table 2-4).

The next step is constructing any dial treatments necessary to accommodate the services switching the outgoing calls. The first and only choice for routing NNX (local) calls is on the DDD circuits (Service #1). By not assigning a Selection Number to any NNX we can accomplish the correct routing.

Note: If a Selection Number is not assigned to a number, the call will automatically be routed on Service Number 1 (DDD) with no Dial Treatment
.
The routing for toll calls within the home NPA directly dialed with or without the leading 1 is determined by Selection Number 01. The choice is the MCI dial-up service which uses Dial Treatment 01 when used for this Selection Number. This treatment:

- Strips the leading 1 (if dialed)
- Inserts the home NPA (required by MCI dial-up)
- Dials the local number for MCI access
- Pauses up to six Dial Tone Detection counts for MCI dial tone
- Dials the MCI access code
- Outdials the original number.

The MCI service is available to all Classes of Service for this Selection Number.

DT#	DIAL TREATMENT ENTRY
1	2 I 2 0 3 D 1 4 9 2 6 2 0 2 7 P P 2 4 5 5 4 R E

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The first choice for calls outside the home NPA, except to (312-355) calls is WATS5 (Service #5). Class of Service will not restrict access to WATS5 and no special dial treatment is required (just a redial of the initially dialed digits). Second choice for the above calls outside of the home NPA is the MCI dial-up service. Only extensions with a COS of 05 or lower can use MCI, and Dial Treatment 02 must be used. Dial Treatment 02 will:

- Strip the leading 1 (if dialed)
- Dial the MCI local number
- Pause for up to six Dialtone Detection counts
- Dial the MCI access code
- Outdial the initial number dialed.

DT#	DIAL TREATMENT ENTRY
1	2 I 2 0 3 D 1 4 9 2 6 2 0 2 7 P P 2 4 5 5 4 R E
2	2 D 1 4 9 2 6 2 0 2 7 P P 2 4 5 5 4 R E

01850C64

EXAMPLE OF SAMPLE CORPORATION

The next type of calls to consider are those placed to Area Code 312 exchange 355. Since the extension user will dial this call the same way as any long distance call, each route option must be considered. The first option for this type of call is the FX route. Since the FX line(s) are directly terminated to the system, a call to this area code and exchange is a local call. Hence, we need a dial treatment (03) that will convert the dialed number into a local type number. It must strip the leading 1, strip the area code (NPA), and redial the original number.

DT#	DIAL TREATMENT ENTRY
1	2 I 2 0 3 D 1 4 9 2 6 2 0 2 7 P P 2 4 5 5 4 R E
2	2 D 1 4 9 2 6 2 0 2 7 P P 2 4 5 5 4 R E
3	3 2 R E

01850C62

Since the second route chosen for this type of call is WATS5, no Dial Treatment was necessary for this option. The last option for this call is MCI. Since the NPA would be dialed in the original number, Dial Treatment #2 is required for this route.

Step 7
Complete the Call Route Options PRF (Table 2-5).

Using the information compiled thus far, fill in the Call Route options for the four rate periods of each selection number. The Sample Corporation has five Selection Numbers and four rate periods. Although 19 copies of the table are required to completely document the routing choices, much of the information is repetitive.

Selection Number 01 - Rate Periods 1-4

The routing for toll calls within the home NPA dialed with or without the leading 1 is determined by Selection Number 01. The choice is the MCI dial-up service. The service is available to all extensions.

SELECTION # 1

RATE PERIOD 1-4

OPT #	COS	SER #	DT #
1	27	01	01
2			
3			
16			

01850C73

Selection Number 02 - Rate Periods 1, 2, and 3

Selection Number 02 is used primarily for toll calls outside the home NPA. First choice for these calls is WATS5 (Service #5). Class of Service will not restrict access to WATS5. Second choice for calls outside of the home NPA is the MCI dial-up service. Only extensions with a COS of 05 or lower can use MCI.

SELECTION # 2

RATE PERIOD 1-3

OPT #	COS	SER #	DT #
1	27	05	00
2	05	01	01
3			
16			

01850C74

Selection Number 02 - Rate Period 4

For Rate Period 4, the MCI dial-up service is more economical than the WATS service. For Selection Number 02, the route preference and Class of Service restrictions are reversed from what they are for Rate Periods 1, 2 and 3.

SELECTION # 2

RATE PERIOD 4

OPT #	COS	SER #	DT #
1	27	01	01
2	05	05	00
3			
16			

01850C70

Selection Number 03, Rate Periods 1 - 3

Selection Number 03 is used for routing calls to 312 - 355. The first routing choice is the FX terminated at 312 - 355. The second choice is the WATS 5 service; the third choice is MCI. The FX and WATS 5 services are available to all Classes of Service, while the MCI service is available only to extensions with a COS 05 or lower. The FX service uses Dial Treatment 03 to strip the NPA and leading 1 from the call. WATS 5 requires no special dialing, and Dial Treatment 02 is used for MCI. This treatment strips the leading 1, dials the MCI local number, waits for MCI dial tone, dials the MCI access code and the initial number dialed.

EXAMPLE OF SAMPLE CORPORATION

SELECTION # 3

RATE PERIOD 1-3

OPT #	COS	SER #	DT #
1	27	03	03
2	27	05	00
3	05	01	02
16			

01850C72

Selection Number 03 - Rate Period 4 uses the same routing as Rate Periods 1-3 except that the positions of the WATS5 and MCI services are reversed. In addition, the Class of Service restriction on MCI is removed and placed on WATS 5. Dial Treatments remain the same.

SELECTION # 3

RATE PERIOD 4

OPT #	COS	SER #	DT #
1	27	03	03
2	27	01	02
3	05	05	00
16			

01850C71

Selection Number 04, Rate Periods 1 - 4

Selection number 04 is used to apply Class of Service restrictions on Directory Assistance calls. All 411 and 555 calls are routed to the AT&T DDD service; however, these calls can be placed only from extensions with Class of Service 05 or lower. Call routing is identical for all four Rate Periods. Dial Treatment 00 is specified.

SELECTION # 4

RATE PERIOD 1-4

OPT #	COS	SER #	DT #
1	27	01	00
2			
3			
16			

01850C75

Step 8
Complete the 3-digit and 6-Digit Tables

The 3-Digit Table

The 3-digit Table PRF (Table 2-6) is used to assign Selection Numbers to NPA and NNX codes. Codes with similar routing requirements should have the same Selection Number. To enter data for Sample Corporation on the 3-digit table, refer to the sample table (on the page 2-42) and use the procedure that follows:

- Initially assign all NPA codes to Selection Number 02. This data will be block-loaded into the system during program entry (refer to Section 3). Since the system is in a leading 1 area, and all NPAs must be dialed with a leading 1, enter the same Selection Number into the 1+CODE SEL # and the CODE SEL # columns.

  Note: If an NPA is dialed without a leading 1, the C.O. will intercept the call.

- Area code 312 requires 6-digit translation. Although this code is included on the 3-digit table as part of a block of NPAs, ARS will never look at the 3-digit table if the code is correctly entered on the 6-digit table.

- Assign all NNX codes Selection 01. This data will also be block-loaded in system programming. Enter this Selection Number in both columns of the 3-digit table. Since all local NNX's are being routed to the DDD lines, we must now remove these codes and assign them no Selection Number (00), in both columns. For the Sample Corporation the local NNX's are 881-888; 926-929.

- A separate Selection Number (04) for exchange 555 is required because long distance directory assistance (1 + NPA + 555 + 1212) is a fixed rate toll charge. Although 555 calls will be routed over AT&T DDD lines, access to 555 will be restricted according to an extension's Class of Service (refer to Step 7). Local Directory Assistance is toll free.

- Since Sample Corporation is not in a Conflict Area, check the NO box for the SYSTEM IN A CONFLICT AREA? prompt.

- For the MINIMUM COS TO DIAL 976? prompt, enter 00. Only extensions with Class of Service 00 can dial exchange 976.

- 800 is a Toll-Free NPA for DDD, and should be assigned no Selection #.

Note: 911 and in some cases 1+911 are EMERGENCY codes used on the DDD Network. These codes MUST be routed to the DDD Network and access MUST be granted to all instruments with access to outgoing lines.

EXAMPLE OF SAMPLE CORPORATION

3-Digit Table for Sample Corporation

3-DIGIT CODE	CODE SEL #	1+CODE SEL #	
200-219	02	02	
300-319	02	02	
400-419	02	02	
500-519	02	02	
600-619	02	02	
700-719	02	02	
801-819	02	02	*
900-919	02	02	
911	00	00	**
411	04	04	

3-DIGIT CODE	CODE SEL #	1+CODE SEL #
220-299	01	01
320-399	01	01
420-499	01	01
520-554; 556-599	01	01
620-699	01	01
720-799	01	01
820-880; 889-899	01	01
881-888	00	00
926-929	00	00
920-925; 930-999	01	01
555	04	04
800	00	00

01850C68

SYSTEM IN A CONFLICT AREA?

	X
YES	NO

MINIMUM COS TO DIAL 976?

00

* 800 is a Toll-Free NPA for DDD and should not be assigned a Selection #.

** 911 (and in some cases 1+911) are Emergency Codes used on the DDD network. These codes must be routed to the DDD network and access must be granted to all telephones with access to outgoing lines.

The 6-Digit Table

The 6-Digit Table PRF (Table 2-7) is used for NPA 312 to identify calls to the 312-355 FX exchange. If a MATCH occurs, Selection Number 03 is chosen. All other calls to NPA 312 are routed as long distance calls outside of the home NPA. Enter NPA 312 and an NNX list of 355 as shown below:

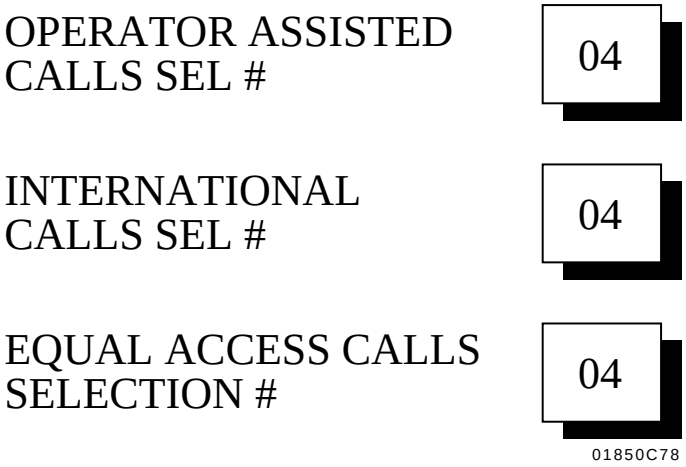
6-Digit Table for Sample Corporaton

AREA CODE	MATCH SEL #	DEFAULT SEL #	NNX LIST
312	03	02	355

01850C77

Step 9
Assign E.A. & OPER-ASSIST data to Table 2-7.

Enter the Selection Number required to route Operator assisted, Equal access, and International calls as described in the carrier list. Only COS5 and lower have access and route to these types of calls.



Step 10
Program Authorization Codes.

Authorization codes (QW) are not required by this example.

Table 2-1, CARRIER LIST PROGRAM RECORD FORM

CARRIER	SERVICE TYPE	SERVICE #	USAGE INFORMATION

01850C65

PROGRAM RECORD FORM

TABLE 2-2, RATE PERIODS PROGRAM RECORD FORM

RATE PERIOD _____

DAY OF WEEK	TIME SLOTS																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI																									
SAT																									
SUN																									
HOL																									

01850C51

MON-FRI _____ SAT _____

SUN _____ HOL _____

RATE PERIOD _____

DAY OF WEEK	TIME SLOTS																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MON-FRI																									
SAT																									
SUN																									
HOL																									

01850C51

MON-FRI _____ SAT _____

SUN _____ HOL _____

TABLE 2-3, ARS WORKSHEET

TYPE OF CALL	OPT #	SERVICE TYPE Rate Period								REQ COS	SEL #
		1	2	3	4	5	6	7	8		

PROGRAM RECORD FORM

Table 2-4, DIAL TREATMENT TABLE PROGRAM RECORD FORM

DT#	DIAL TREATMENT ENTRY

01850C61

Table 2-5, CALL ROUTE OPTIONS PROGRAM RECORD FORM

SELECTION # _____

RATE PERIOD _____

OPT #	COS	SER #	DT #
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

01850C69

PROGRAM RECORD FORM

Table 2-6, 3-DIGIT TABLE PROGRAM RECORD FORM

3-DIGIT CODE	CODE SEL #	1+CODE SEL #

3-DIGIT CODE	CODE SEL #	1+CODE SEL #

SYSTEM IN A CONFLICT AREA?

YES NO

MINIMUM COS TO DIAL 976?

01850C67

Table 2-7, 6-DIGIT TABLE PROGRAM RECORD FORM

AREA CODE	MATCH SEL #	DEFAULT SEL #	NNX LIST

01850C76

OPERATOR ASSISTED CALLS SEL #

INTERNATIONAL CALLS SEL #

EQUAL ACCESS CALLS SELECTION #

- For Your Notes -

Section 3, Program Entry

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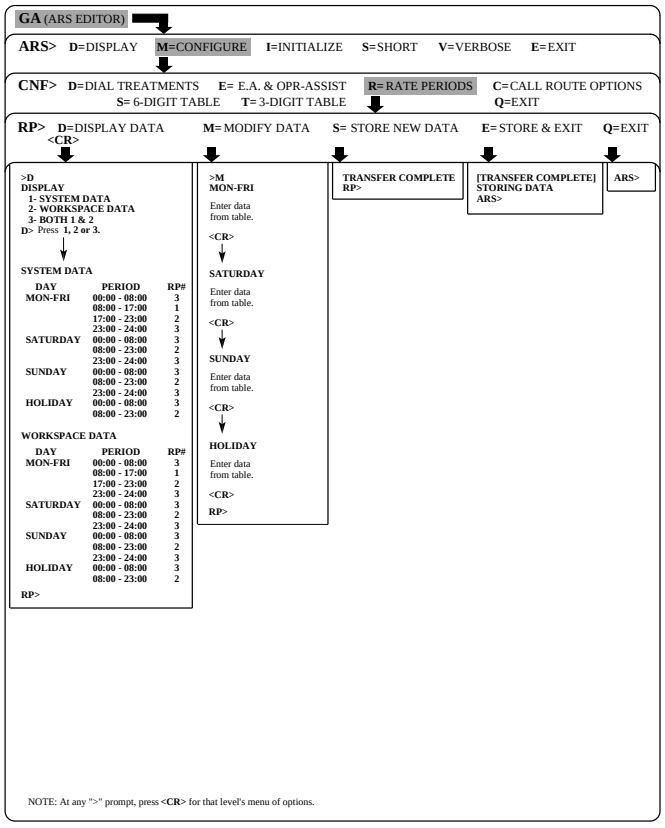
PROGRAM ENTRY

This section describes the procedures for entering data into system memory for each of the Automatic Route Selection (ARS) programmable fields (i.e, options). The entries are obtained from the ARS Program Record Forms (PRFs) located at the end of Section 2, SOFTWARE CONFIGURATION. This section is arranged according to the order of the ARS commands that appear on the programming terminal during program entry. These commands are outlined in the Command Structure chart at the end of this appendix. This chart shows the various levels of ARS commands. Program entry is much easier if you frequently refer to this chart.

Using the Program Entry Charts

The program entry charts that follow provide you, as the programmer, with the instructions you need to enter ARS data into system memory. The charts show each of the subsets within the ARS Command Level. The highlighted portions are the entries made to reach the final level shown. For example, the following chart shows that by entering GA you can use the Display, Configure, Initialize, Short or Verbose commands. If you choose "M" to Configure, you will have access to the Dial Treatments, E.A. & Opr-Assist, Rate Periods, Call Route Options, 6-Digit Table or 3-Digit Table commands. If Rate Periods is chosen, you can Display, Modify or Store programming for that option. The chart then shows each prompt available within that level and what will be seen if the prompt is chosen.



PROGRAM ENTRY INTRODUCTION

Storing ARS Data

While you are programming ARS data, your entries (i.e., modified ARS data) are temporarily stored in a dedicated section of Random Access Memory (RAM) called the Workspace. When you use the Store (S) command, your entries (in the Workspace) are transferred to the system RAM where they are used as current data by ARS. When you use the Exit (E) command, any modified data will be stored in RAM. If you use Exit without Store, your entries are automatically stored in system RAM.

The Quit (Q or ESC) command allows the ARS data previously stored in system memory to be written into the working RAM, overriding whatever data you may have entered during your programming session. If you inadvertently enter a lot of inappropriate data, this capability can be used to return ARS to the state it was in before your programming session began.

Abbreviated Programming

Once you are familiar with the ARS Editor, you may use Abbreviated Programming to reduce the number of steps required to enter data. To use Abbreviated Programming, enter the command letter, the data to be entered (in the proper entry syntax), and press <CR>. Following are several examples.

- If you are at the 6-DIGIT TABLE COMMAND LEVEL, the entry:

  D3<CR>

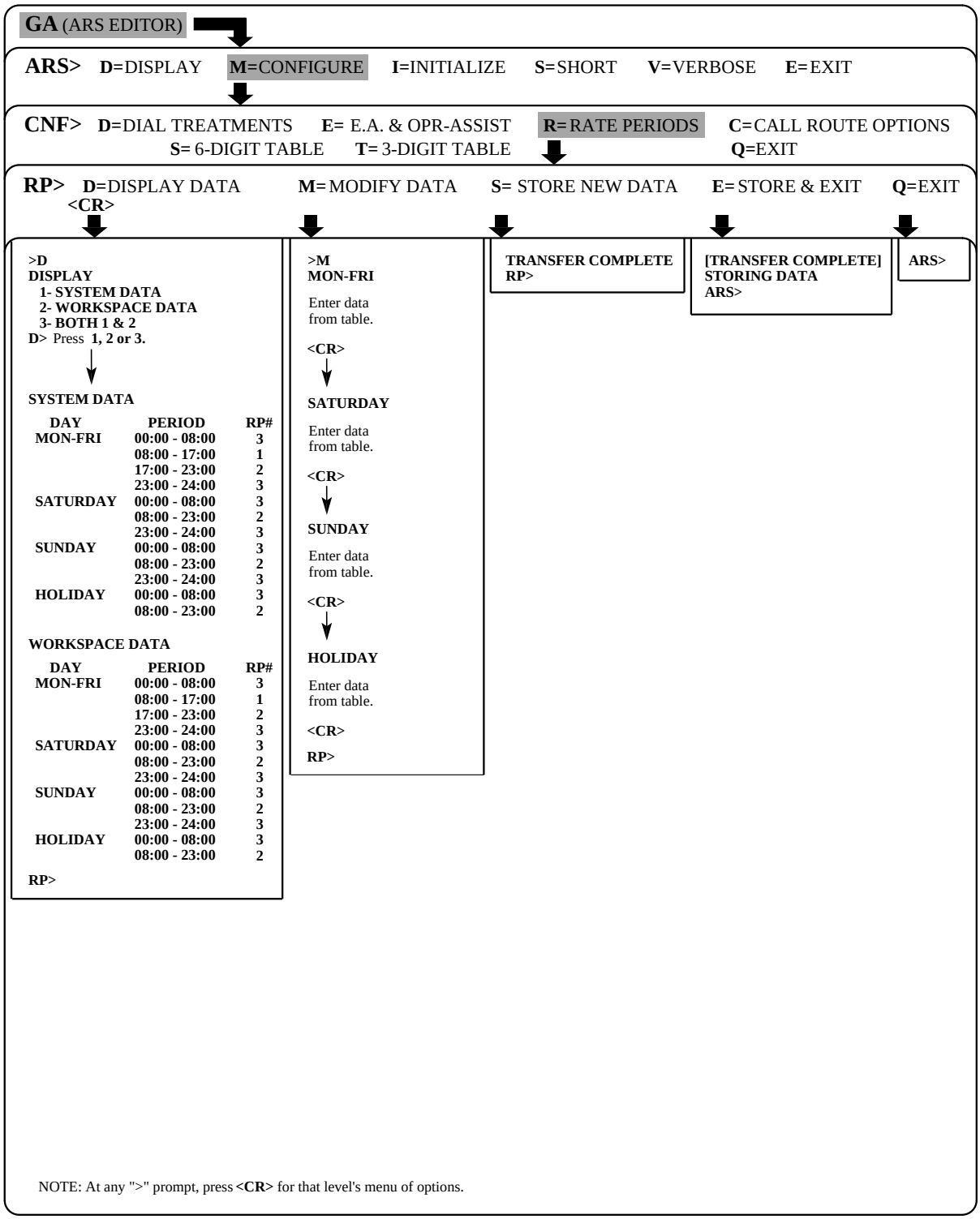
  displays both workspace and system RAM data for the 6-digit table.

- If you are at the MODIFY DATA COMMAND LEVEL for D= DIAL TREATMENTS, the entry:

  CF0613D01PRE<CR>

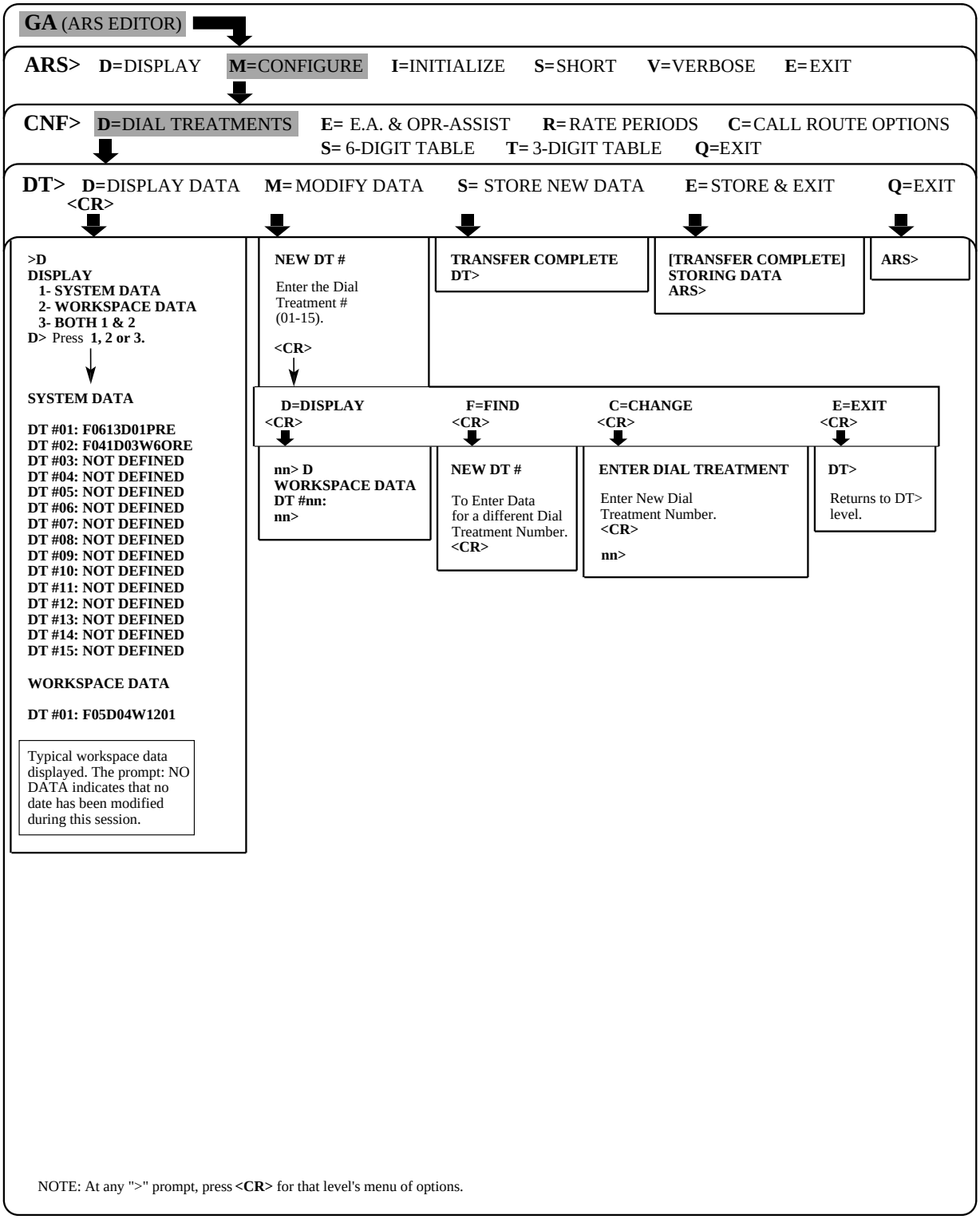
  changes the current Dial Treatment entry from its previous entry to F0613D01PRE.

Rate Periods

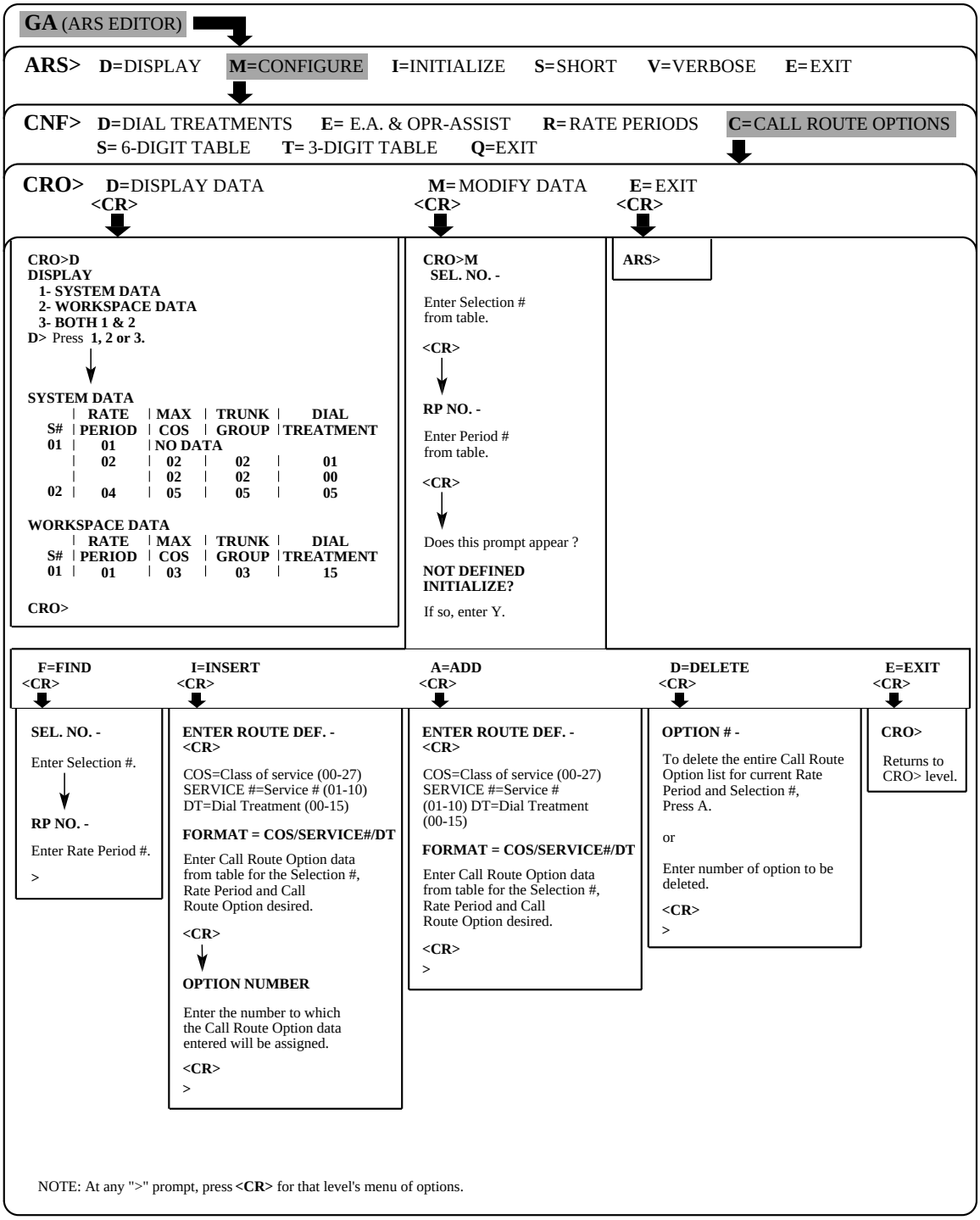


PROGRAM ENTRY CHARTS

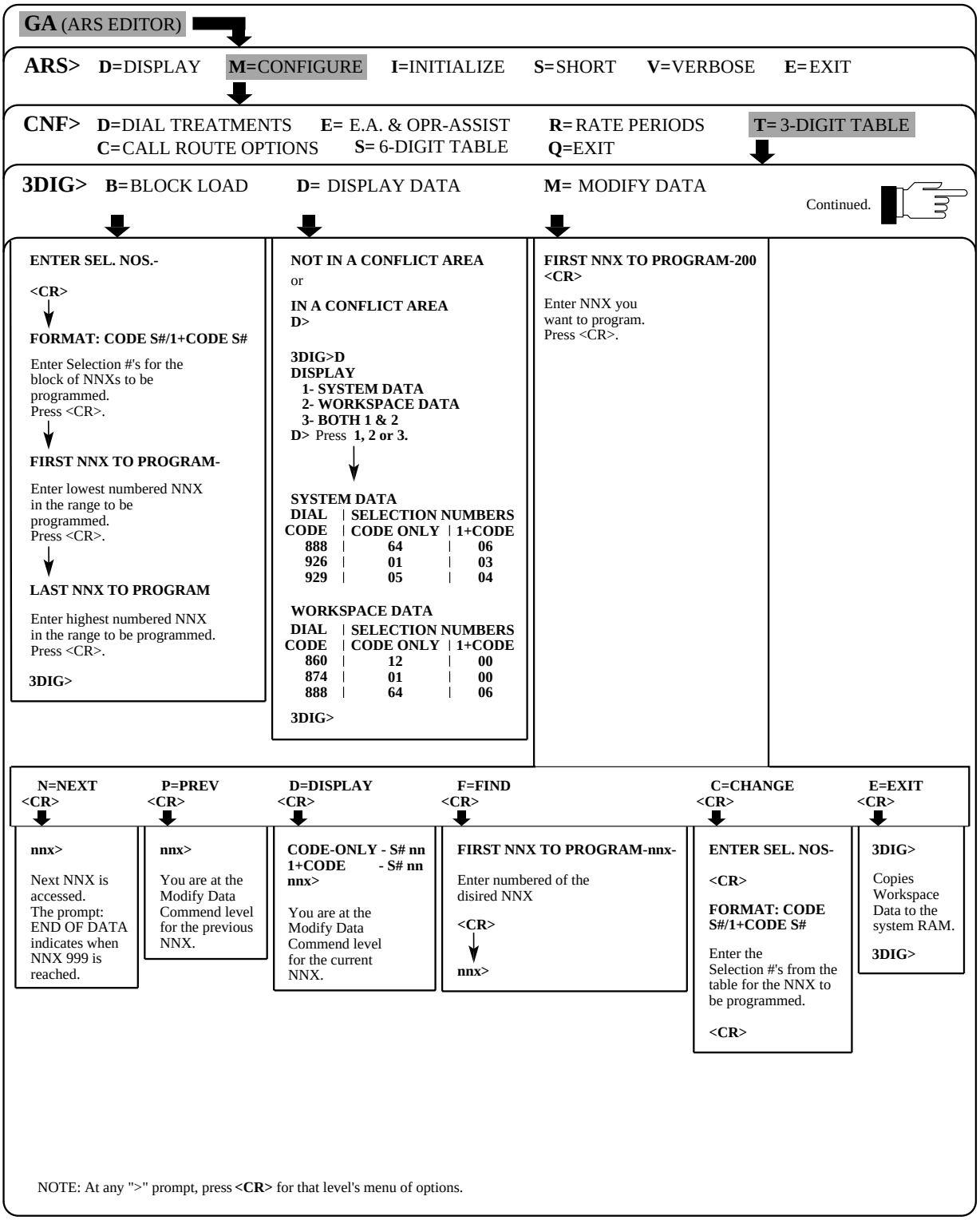
Dial Treatments



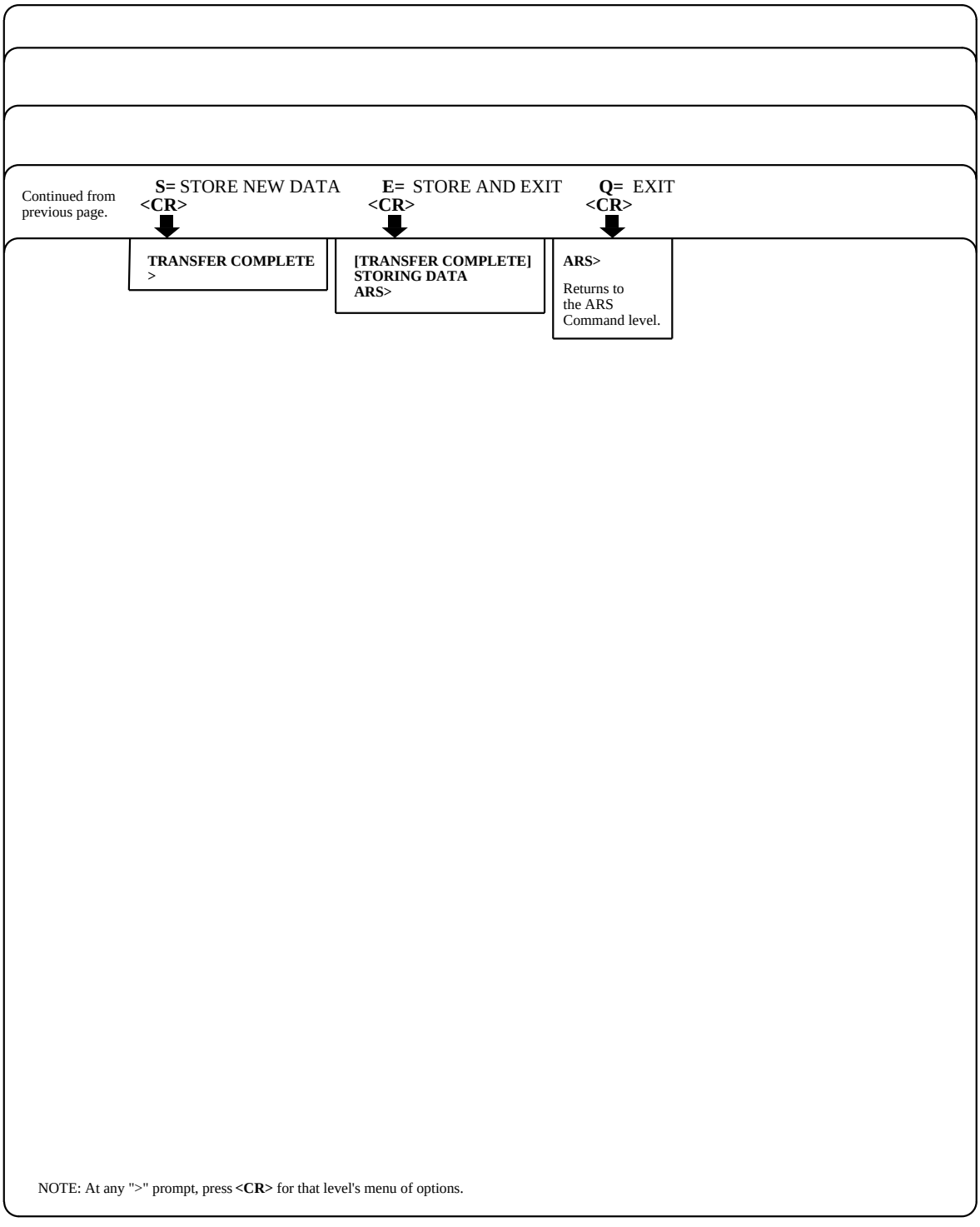
Call Route Options



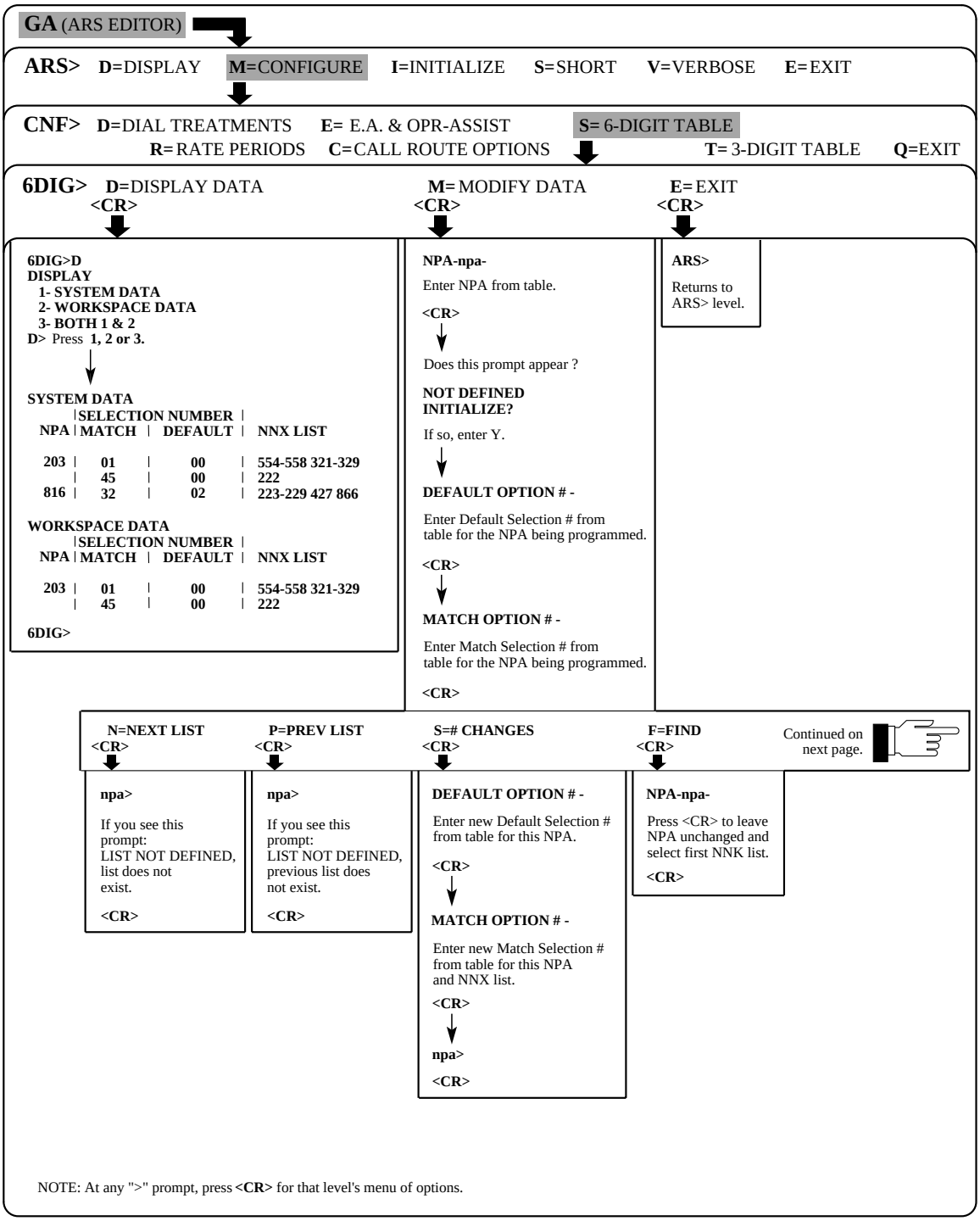
3-Digit Table



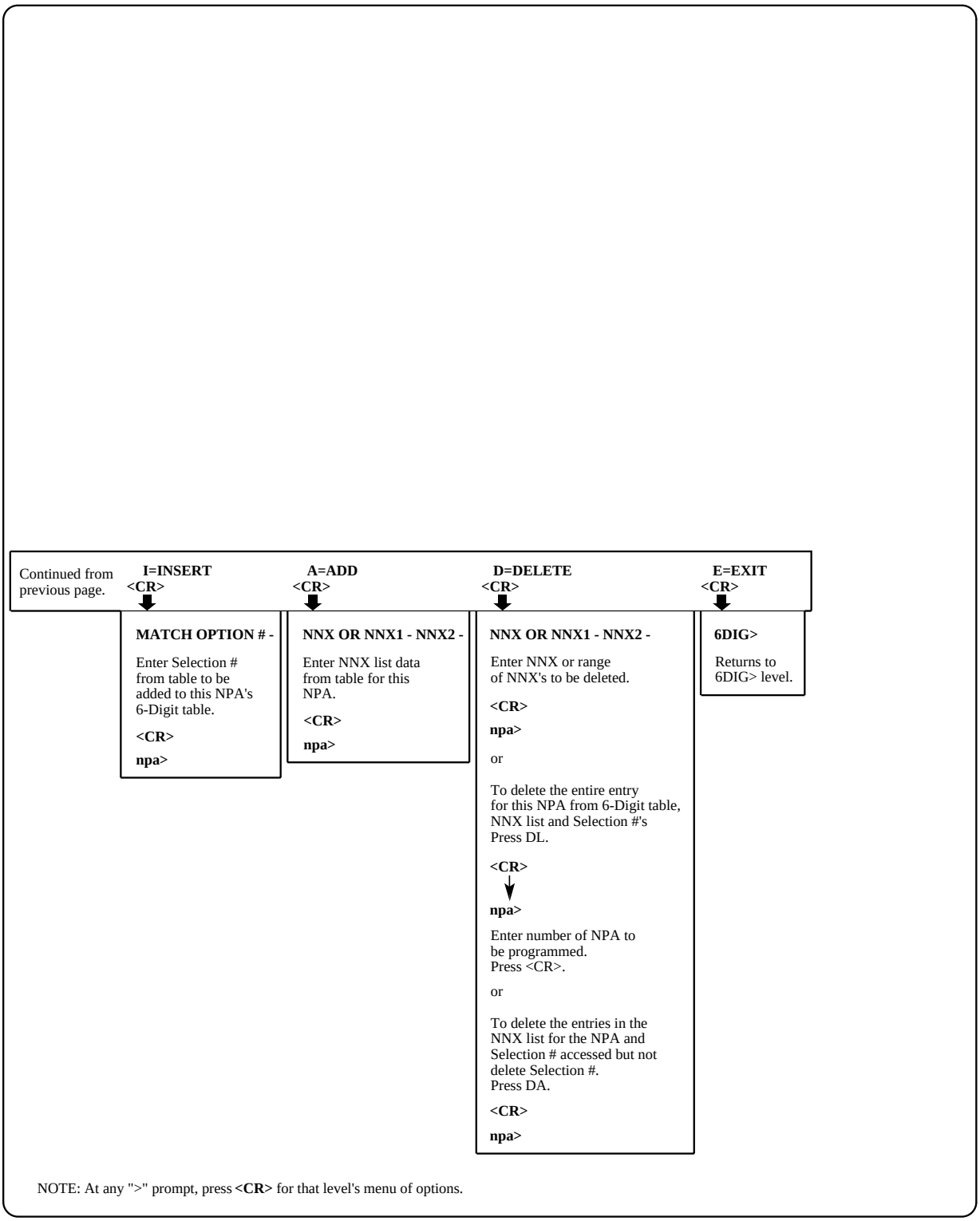
3-Digit Table (cont.)



6-Digit Table

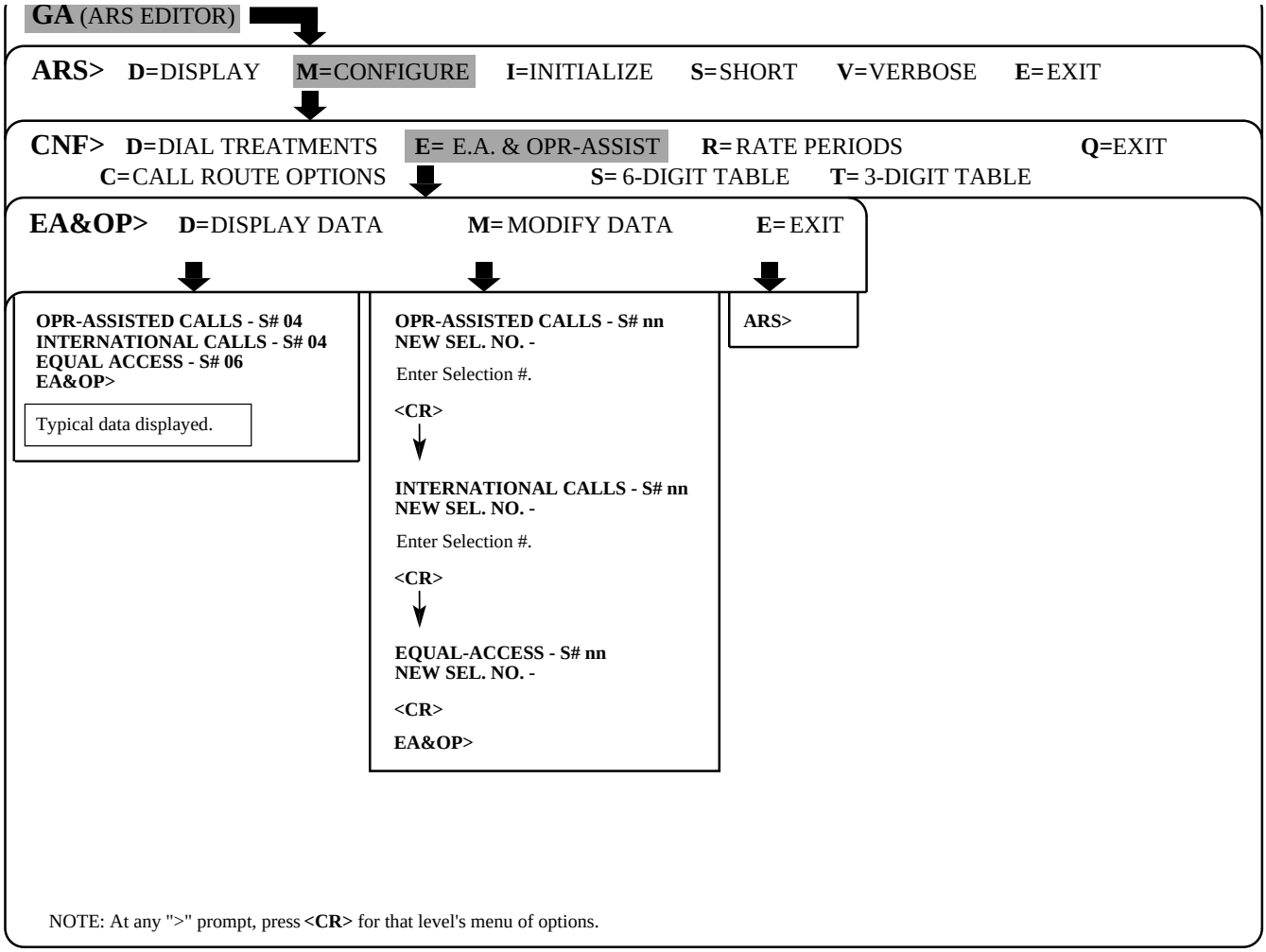


6-Digit Table (cont.)



PROGRAM ENTRY CHARTS

Equal Access and Operator Assistance



Section 4, Operation

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"Using SMDR Account Codes" 79

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USING ARS TO PLACE A CALL

This section tells you how to place a call from your telephone if ARS is enabled for your system. For additional information on how to use your telephone, refer to your extension's Feature Handbook.

Placing a Call from a Multibutton Telephone

To place a call using ARS:

- Lift handset.
- Press INTERCOM. You hear Intercom dial tone.
- Dial 9 or 90. You hear ARS dial tone.
  Check with your communications manager to see which code you should dial. You may also be able to press a programmable key to access ARS.
- Dial number.
  After a route for your call is selected, you hear ARS redial the number you dialed.

  If you are not permitted to place the call you dial, you hear reorder tone and the call is denied.

  If the preferred route for the call is busy (and your call is redirected), you hear the voice message, "The lowest cost line is busy. Please wait for the next one." If your system doesn't have a VAU PCB, you hear two short beeps instead.

  If the preferred route for your call is busy and you are not allowed access to any other route, you hear, "All lines are busy. For automatic callback, please press the Callback key."

  Use Trunk Queuing to wait for an available line. Refer to your telephone's Feature Handbook.

USING ARS TO PLACE A CALL

Placing a Call from a Single Line Telephone

To place a call using ARS:

- Lift handset. You hear Intercom dial tone.
- Dial 9 or 90. You hear ARS dial tone.
  Check with your communications manager to see which code you should dial.
- Dial number.
  After a route for your call is selected, you hear ARS redial the number you dialed.

  If you are not permitted to place the call you dial, you hear reorder tone and the call is denied.

  If the preferred route for the call is busy (and your call is redirected), you hear the voice message, "The lowest cost line is busy. Please wait for the next one." If your system doesn't have a VAU PCB, you hear two short beeps instead.

  If the preferred route for your call is busy and you are not allowed access to any other route, you hear, "All lines are busy. For automatic callback, please press the Callback key."

  Use Trunk Queuing to wait for an available line. Refer to your telephone's Feature Handbook.

ARS WITH SMDR ACCOUNT CODES (FORCED ACCOUNT CODES)

ARS may require you to enter an SMDR Account Code before the call you dial can be placed. The number entered can be any valid SMDR Account Code (refer to SMDR Account Code in your extension's Feature Handbook). The Forced Account Code feature is enabled in system programming. If activated, it applies to all calls placed using ARS. Check with your attendant or communications manager to see if these Account Codes are required.

Using SMDR Account Codes

To enter an SMDR Account Code:

- Place call.
- Dial #.
- Dial SMDR Account Code (up to 10 digits).
- Dial #.
  The system routes the call.

  If you hear dial tone after you enter the SMDR Account Code, you must also enter a Dial Treatment Authorization Code (see page 4-6 of this appendix).

  You can optionally use Speed Dial for one-button SMDR Account Code entry.

ARS WITH DIAL TREATMENT AUTHORIZATION CODES

You may be required to enter a Dial Treatment Authorization code before certain calls can be placed. Check with your attendant or communications manager to see if you are required to enter these codes, and, if so, what the valid Dial Treatment Authorization Codes are. If an SMDR Account Code is also required, the Dial Treatment code is entered after the SMDR Account Code.

Using Dial Treatment Authorization Codes

To enter a Dial Treatment Authorization Code:

- Place call. You hear ARS dial tone.
- Dial #. Dial tone stops.
- Dial Authorization Code (up to 10 digits).
- Dial #.
  The system routes the call.

  You can optionally use Speed Dial for one-button SMDR Account Code entry.

BYPASSING ARS

Your extension may be allowed to bypass ARS for certain types of calls. Check with your attendant or communications manager to see if you have this capability.

Note: When ARS is bypassed, the call is restricted according to Toll Restriction and Class of Service programming.

To bypass ARS:

- Press any loop key not assigned to trunk group 90.

OR

- Use a two-digit dial-up trunk group code (91-98).

OR

- Use Direct Trunk Access (396-427).

OR

- Press any line key.

OR

- Dial the three-digit trunk access code (801-832).

Refer to your extension's Feature Handbook for step-by-step instructions on the above procedures.

COMMAND STRUCTURE, ARS

ARS COMMAND LEVEL (ARS>)				
D= DISPLAY (ALL DATA)				Display all ARS data.
M= CONFIGURE				Enter or change ARS data.
	CONFIGURE COMMAND LEVEL (CNF>)			
	D= DIAL TREATMENTS			
		DIAL TREATMENTS COMMAND LEVEL (DT>)		
		D= DISPLAY DATA		Display workspace and/or system RAM data.
		M= MODIFY DATA		Enter or change Dial Treatment data.
			MODIFY DATA COMMAND LEVEL (DT#>)	
			D= DISPLAY	Display entry for Dial Treatment currently being modified.
			F= FIND	Select another Dial Treatment for modification.
			C= CHANGE	Change entry for the Dial Treatment currently being modified.
			E= EXIT	Store Dial Treatment entries.
		S= STORE NEW DATA		Store new Dial Treatment entries in system RAM.
		E= STORE & EXIT		Store entries and exit to the ARS Command Level.
		Q= EXIT		Exit without saving entries from programming session.
	E= E.A. & OPR-ASSIST			
		E.A. & OPR-ASSIST COMMAND LEVEL (EA&OP>)		
		D= DISPLAY DATA		Display workspace and/or system RAM data.
		M= MODIFY DATA		Enter or change E.A. & OPR-ASSIST data.
			MODIFY DATA COMMAND LEVEL	
			OPR-ASSISTED CALLS - S#	Specify Selection Number for operator-assisted calls.
			INTERNATIONAL CALLS - S#	Specify Selection Number for international calls.
			EQUAL-ACCESS - S#	Specify Selection Number for Equal Access calls.
		E= EXIT		Store entries and exit to the ARS Command Level.
	R= RATE PERIODS			
		RATE PERIODS COMMAND LEVEL (RP>)		
		D= DISPLAY DATA		Display workspace and/or system RAM data.
		M= MODIFY DATA		Enter or change Rate Periods data.
			MODIFY DATA COMMAND LEVEL	
			MON-FRI	Program or change Monday through Friday Rate Periods.
			SATURDAY	Program or change Saturday Rate Periods.
			SUNDAY	Program or change Sunday Rate Periods.
			HOLIDAY	Program or change Holiday Rate Periods.
		S= STORE NEW DATA		Store new Rate Periods data in system RAM.
		E= STORE & EXIT		Store entries and exit to the ARS Command Level.
		Q= EXIT		Exit to the ARS Command Level without saving changes.
	C= CALL ROUTE OPTIONS			
		CALL ROUTE OPTIONS COMMAND LEVEL (CRO>)		
		D= DISPLAY DATA		Display workspace and/or system RAM data.

		CALL ROUTE OPTIONS MODIFY DATA COMMAND LEVEL (>) (cont.)		
		M= MODIFY DATA		Enter or change Call Route Options data.
		SEL. NO. -		Designate Selection Number for option to be modified.
		RP NO.		Designate Rate Period for option to be modified.
			MODIFY DATA COMMAND LEVEL	
			F= FIND	Select another Selection # and Rate Period for modification.
			I= INSERT	Create and insert option at specified point in option list.
			A= ADD	Create and insert option at bottom of option list.
			D= DELETE	Delete option (s) from option list.
			E= EXIT	Store Call Route Option entries.
		E= EXIT		Store entries and exit to the ARS Command Level.
	S= 6-DIGIT TABLE			
		6-DIGIT TABLE COMMAND LEVEL (6DIG>)		
		D= DISPLAY DATA		Display workspace and/or system RAM data.
		M= MODIFY DATA		Enter or change 6-digit table data.
		NPA -		
			MODIFY DATA COMMAND LEVEL (NPA #)	
			N= NEXT LIST	Enter NNX codes in next NNX list for NPA selected.
			P= PREV LIST	Enter NNX codes in previous NNX list for NPA selected.
			S= S# CHANGES	Change Selection Numbers for NPA selected.
			F= FIND	Select another NPA for modification.
			I= INSERT	Create and insert a new NNX list for NPA selected.
			A= ADD	Add NNX codes to NNX list currently selected for NPA.
			D= DELETE	Delete specified portions of 6-digit table.
			E= EXIT	Store 6-digit table entries.
		E= EXIT		Store entries and exit to the ARS Command Level.
	T= 3-DIGIT TABLE			
		3-DIGIT TABLE COMMAND LEVEL (3DIG>)		
		B= BLOCK LOAD		Enter data for a block (consecutive group) of codes.
		D= DISPLAY DATA		Display workspace and/or system RAM data.
		M= MODIFY DATA		Enter or change individual codes in 3-digit table.
		FIRST NNX TO PROGRAM		
			MODIFY DATA COMMAND LEVEL (NPA # OR NNX #)	
			N= NEXT	Select next consecutive code for modification.
			P= PREV	Select previous consecutive code for modification.
			D= DISPLAY	Display entered value for code selected for modification.
			F= FIND	Select a new code for modification.
			C= CHANGE	Change programmed entries for code selected for modification.
			E= EXIT	Store 3-digit table entries.
		S= STORE NEW DATA		Load current 3-digit table entries into system RAM.

COMMAND STRUCTURE, ARS

		3-DIGIT TABLE COMMAND LEVEL (3DIG>) *(cont.)*	
		E= STORE & EXIT	Store entries and exit to the ARS Command Level.
		Q= EXIT	Exit to the ARS Command Level without saving changes.
	Q= EXIT		Exit from the M= Configure Command Level.
I= INITIALIZE			
	INITIALIZE COMMAND LEVEL (INI>)		
	A= ALL DATA		Initialize all data.
	D= DIAL TREATMENTS		Initialize just the Dial Treatments data.
	O= OPR-ASSIST & E.A. SEL. NOS		Initialize just the E.A. & OPR. ASSIST data.
	R= RATE PERIODS		Erase current Rate Periods table and load standard values.
	S= 6-DIGIT & SEL. NO. LISTS		Initialize the 6-digit table and the Call Route Options.
	T= 3-DIGIT TABLE		Initialize just the 3-digit table.
	C= CHECK DATA		Verify that all portions of ARS have been initialized.
	E= EXIT		Store entries and exit to the ARS Command Level.
	Q= QUIT		Exit to the ARS Command Level without storing changes.
S= SHORT			Suppress command level menu displays.
V= VERBOSE			Allow command level menu displays.
E= EXIT			Exit to main menu of commands.

CHARTS

Table 1 SYSTEM FLASH RATES (Page 1 of 3)

Graphite Phone with Dual Color LEDs	
Your phone is idle (not on a call)	All LEDs out (dark)
Outside Calls	
An outside line is busy	The line key is **On Red**
An outside call is ringing your phone	The line key flashes **Slowly Red** if it's shared, **Off** then **Quickly Flashing Green** if it's just for you
And then you answer it	The line key is **On Green**
Or answer it with Privacy released	The line key flashes **Quickly Green**
You place the outside call on Hold	The line key is **On** then **Slowly Flashing Green**
Or a co-worker places it on Hold	The line key flashes **Moderately Red**
Or you place the outside call on Exclusive Hold	The line key is **On** then **Quickly Flashing Green**
If a call on Hold recalls to you	The line key is **Off** then **Quickly Flashing Green**
Intercom Calls	
An Intercom call rings your phone	ICM flashes **Slowly Green**
You answer the Intercom call	ICM flashes **Quickly Red**
You place the Intercom call on Hold	HOLD flashes **Quickly Green** then **On**
And then it recalls to you	ICM flashes **Slowly Green**
Miscellaneous Features	
You activate Microphone Mute	MIC/DND is **On Red**
You activate Do Not Disturb	MIC/DND flashes **Quickly Red**
You have a Message Waiting	MSG flashes **Quickly Red**
You activate Call Forwarding, Personal Greeting or Selectable Display Messaging	MSG flashes **Slowly Green**

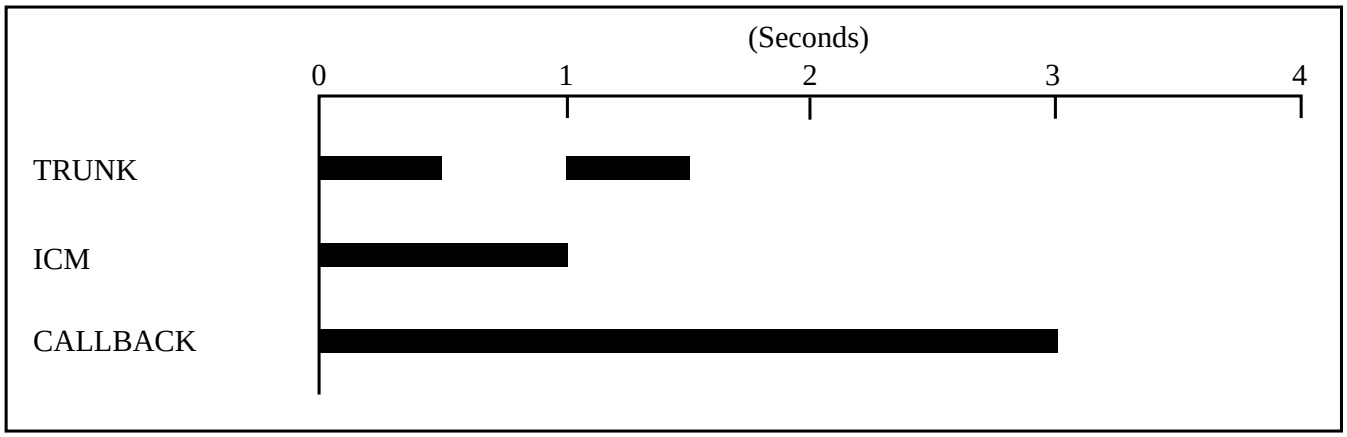
Table 1 SYSTEM FLASH RATES (Page 2 of 3)

Phone with Single Color (Red) LEDs	
Your phone is idle (not on a call)	All LEDs out (dark)
Outside Calls	
An outside line is busy	The line key is **On**
An outside call is ringing your phone	The line key flashes **Slowly** if it's shared, **Off** then flashing **Quickly** if it's just for you
And then you answer it	The line key is **On**
Or answer it with Privacy released	The line key flashes **Quickly**
You place the outside call on Hold	The line key is **On** then flashing **Moderately**
Or a co-worker places the call on Hold	The line key flashes **Moderately**
Or you place the outside call on Exclusive Hold	The line key is **On** then flashing **Quickly**
If a call on Hold recalls to you	The line key is **Off** then flashing **Quickly**
Intercom Calls	
An Intercom call rings your phone	ICM flashes **Slowly**
You answer the Intercom call	ICM flashes **Quickly**
You place the Intercom call on Hold	HOLD is **ON** then flashes **Quickly**
And then it recalls to you	ICM flashes **Slowly**
Miscellaneous Features	
You activate Microphone Mute	MIC/DND is **On**
You activate Do Not Disturb	MIC/DND flashes **Quickly**
You have a Message Waiting	MSG flashes **Quickly**
You activate Call Forwarding, Personal Greeting or Selectable Display Messaging	MSG flashes **Slowly**

Table 1 SYSTEM FLASH RATES (Page 3 of 3)

DSS Console	
All programmed extensions idle (not on a call)	All LEDs out (dark)
Outside Calls	
An outside line is busy	The line key on **ON Red**
Intercom Calls	
You place an Intercom call	DSS key being called flashes **Quickly Red**
You place the Intercom call on Hold	HOLD flashes **Moderately Red**
Miscellaneous Features	
An extension activates Do Not Disturb	DSS key for that extension flashes **Quickly Red**

Table 2 SYSTEM RING RATES



Note: Each group of four extensions rings with different tones. This is called Distinctive Ringing. For example, extension 300 rings differently than extension 301. Extension 301 rings differently than extension 302.

Every fourth extension, the Distinctive ringing pattern repeats. For example, extension 300 rings the same as extension 304. Extension 301 rings the same as extension 305, and so on.

Table 3 SYSTEM TONES

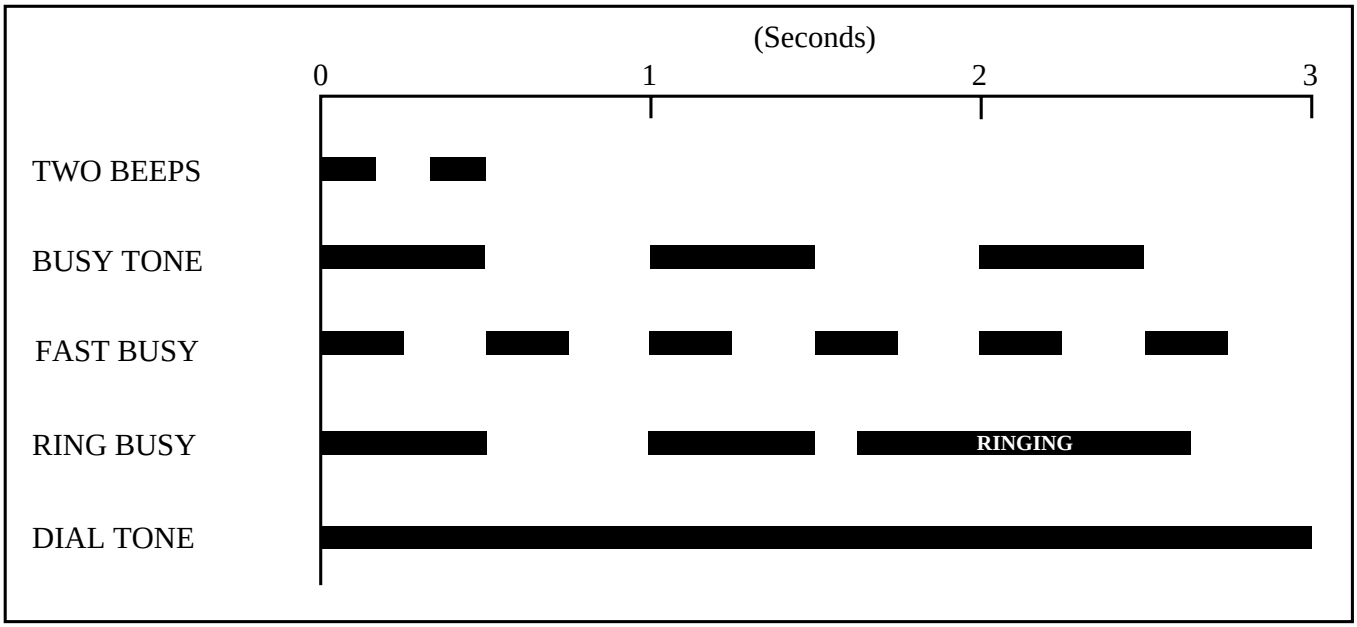


Table 4 SYSTEM NUMBER PLAN

	Note: All the functions below are from Intercom dial tone (except where noted).
Code	**Function**
	Account Codes
#+10 dig.	Account Code Number
	Automatic Call Distribution
4#	ACD agent puts self back in service
6#	ACD agent removes self from service
#+6+8+6+9 or 6	Erase OPA/ACD messages (dial 9) or abort procedure (dial 6)
#+DSS Con.+4	ACD supervisor puts agent back in service
#+DSS Con.+7	ACD supervisor removes agent from service
	Call Forwarding
#	Cancel Call Forwarding
#+0	Forward calls to main attendant
#+ext+1	Call Forwarding option 1 (ring no answer)
#+ext+2	Call Forwarding option 2 (ring no answer and busy)
#+ext+3	Call Forwarding option 3 (all calls)
#+ext+4	
	Call Parking
60-69	Park Orbits
*560-*569	At ASI/OPX, transfer call to Park Orbits 60-69
	Call Timer
#8	Call Timer On/Off
	Call Waiting
*2	Call Waiting (answering a waiting call from an ESL set)
	Callback
2	When hearing busy/ring busy, dial 2 and hang up to leave Callback
*FTR	Cancel Callback left at own extension
#*	Cancel all Callbacks at own extension
	Central Office Calls (Trunk Numbers and Access Codes)
348-363	Trunk numbers (without AUX)
372-395	Trunk numbers (with AUX)
801-808	DS01 trunk access codes (without AUX)
801-824	DS01 trunk access codes (with AUX)
9	Single digit access to group 1 (90)
90-98	Trunk group access (groups 1-9)
	Conference
11,12	Meet-Me Conference
*#	Retrieve or establish Conference from Hold at ASI/OPX/ESL
	Dialing Number Preview
* or FTR	While idle, dial * or FTR to activate Dialing Number Preview

Table 4 SYSTEM NUMBER PLAN

	Note: All the functions below are from Intercom dial tone (except where noted).
Code	**Function**
	Digital Door Box
310,311,322, 323	Digital Door Box extension numbers
FTR	At keyset, press and hold FTR to activate the associated Relay Box relay
*	At ASI/OPX/ESL, press (do not hold) * to activate the associated Relay Box relay
	Directed Call Pickup
*300-*347	Directed Call Pickup codes for one and two cabinet systems
*300-*371	Directed Call Pickup codes for three cabinet systems
	Directory Dialing
3	While idle, dial 3 to activate Directory Dialing
32	While idle, dial 32 to access the Company-Wide Directory
34	While idle, dial 34 to access the Directory
37	While idle, dial 37 to access the Personal Speed Dial directory
	Forced Line Disconnect
#	While hearing busy, dial # to disconnect trunk
	Flash
FTR	Flash the trunk
	Group Call Pickup
*1	Group Call Pickup
#+key+3	From idle, assign delayed ringing to pickup key
#+key+5	From idle, assign lamp-only (no ringing) to pickup key
#+key+7	From idle, assign immediate ringing to pickup key
	Group Ring
364-371	Ring Groups (without AUX)
396-403	Ring Groups (with AUX)
	Hold
*7	Retrieve a call from Hold from an ESL or ASI
*801-*808	Retrieve trunk call from Hold (without AUX)
* 801-*824	Retrieve trunk call from Hold (with AUX)
	Intercom
l + ext	Intercom call, forced ringing
300-323	Extension numbers (without AUX)
300-371	Extension numbers (with AUX)
0	Your attendant
01-04	Attendants 1-4
#0	While idle, incoming Voice Announce off
#1	While idle, incoming Voice Announce on
	Intrusion
4	When hearing busy/ring busy, dial 4 to intrude

Table 4 SYSTEM NUMBER PLAN

Code	Function
	Note: All the functions below are from Intercom dial tone (except where noted).
	Last Number Redial
**	Last Number Redial
DIAL+LAST	From idle, redial last number dialed
	Message Waiting
6	While hearing busy tone at ASI/OPX/ESL set, dial 6 to send message
*6	Retrieve Message Waiting
#*	Cancel all Messages Waiting left at own extension
	Night Answer
*0	Pick up night mode call ringing External Paging
	Operator Assistance
#6+8+02-07	Record OPA message 02-07
#6+8+5+02-07	Listen to previously recorded message 02-07
#6+8+#+9 or 6	Erase OPA/ACD messages (dial 9) or abort procedure (dial 6)
	Paging
1*	All Call Paging
2*	Page Zone 1
3*	Page Zone 2
4*	Page Zone 3
5*	Page Zone 4
6*	Page Zone 5
7*	Page Zone 6
8*	Page Zone 7
	Removing Lines and Extensions from Service
#+ext+0	Remove extension from service
	Save
DIAL SAVE	Steps for saving the last number dialed or dialing a saved number
	Selectable Display Messages
#600-#615	Select messages 600-615
	Silent Monitor
#+ext+6	Activate Silent Monitor for extension dialed
6	When busy/ring busy, dial 6 to activate Silent Monitor
	Speed Dial
20-29	Personal Speed Dial bins (second 10 bins)
50-59	Personal Speed Dial bins (first 10 bins)
70-7999	System Speed Dial bins
#20-#29	Program Personal Speed Dial (second 10 bins)
#50-#59	Program Personal Speed Dial (first 10 bins)
#70-7999	Program System Speed dial bins
#+key	From idle, program One-Touch Speed Dial key

Table 4 SYSTEM NUMBER PLAN

	Note: All the functions below are from Intercom dial tone (except where noted).
Code	**Function**
DIAL+key	From idle, dial Speed Dial number stored under key
	Split
*7	Retrieve second call
	Time and Date
#8	Set Time
#9	Set Date
6	While idle, dial 6 to hear the extension number
8	While idle, dial 8 to hear the time
	Walking Class of Service
##	Digits dialed before Walking Class of Service code
	Miscellaneous
#+0	From attendant, set baud rate of COM ports (see page 7)
0-5	After attendant dials #+0+1 or 2, 0-5 sets baud rate (see page 7)

Table 5 ATTENDANT DISPLAYS		
This display...	**Appears when using...**	**And shows...**
0-5=300-19200	Terminal Programming	Attendant has dialed ICM, #, 0,selected port to program (1 or 2), and system is asking for port speed entry
300	Terminal Programming	Port speed of 300 baud selected
1200	Terminal Programming	Port speed of 1200 baud selected
2400	Terminal Programming	Port speed of 2400 baud selected
4800	Terminal Programming	Port speed of 4800 baud selected
9600	Terminal Programming	Port speed of 9600 baud selected
19200	Terminal Programming	Port speed of 19,200 baud selected
ABORTED	Selectable Display Messages	Attendant has dialed N to abort the procedure which cancels all Selectable Display Message selections
ALT OPR ASSIGNED	Alternate Operator	Attendant just enabled Alternate Operator
CANCEL ALT OPR	Alternate Operator	Attendant pressed MIC/DND to cancel Alternate Operator
COMPLETED	Selectable Display Messages	Attendant has dialed Y to cancel all Selectable Display Message selections
DELETE ALL MSG ?	ACD/Personal Greeting/OPA	Attendant/supervisor dialed ICM #68# to cancel all messages
EXPD KSU FAILED	Automatic Fault Reporting	Shows attendant that expansion KSU has failed
LINE nnn FAILED	Automatic Fault Reporting	Trunk circuit nnn failed
MAJOR ALARM	Automatic Fault Reporting	Major alarm(s) has occurred in system
MAJOR/MINOR ALRM	Automatic Fault Reporting	Both major and minor alarms have occurred in system
MINOR ALARM	Automatic Fault Reporting	Minor alarm(s) has occurred in system
NIGHT MODE OFF	Night Answer	Attendant pressed MIC/DND to disable Night Mode operation
NIGHT MODE ON	Night Answer	Attendant pressed MIC/DND to enable Night Mode operation
PARKED IN nn	Park	Attendant parked call in orbit nn
STA nnn FAILED	Automatic Fault Reporting	Extension nnn failed

Table 6 ACD SUPERVISOR DISPLAYS		
This display...	**Appears when using...**	**And shows...**
02 X-304 1:23	Automatic Call Distribution	Two calls are waiting and extension 304 has the longest waiting call (1 minute, 23 seconds)
01 L-01 3:21	Automatic Call Distribution	Line 01 has one call waiting for 3:21
4=INST,7=REMOVE	Automatic Call Distribution	ACD Supervisor dialed ICM # and pressed DSS Console key for member extension
ABORTED	Selectable Display Messages	ACD supervisor has dialed N to abort the procedure which cancels all Selectable Display Message selections
COMPLETED	Selectable Display Messages	ACD supervisor has dialed Y to cancel all Selectable Display Message selections
DELETE ALL MSG ?	Selectable Display Messages	ACD supervisor dials ICM #68# to cancel all Selectable Display Message selected by extension users

Table 7 TELEPHONE DISPLAYS		
This display..	**Appears when using...**	**And shows...**
0,1,PK,SPD KEY	Intercom, Speed Dial	Options when programming Intercom Voice Announce, Group Call Pickup ringing and One-Touch Speed Dial keys
A-Y,0=SPACE,Q,Z	Speed Dial	In the Speed Dial programming mode, user has dialed Y to program Speed Dial names
A-Y,0=QZ,#=ALL	Directory Dialing	After dialing I, P or C for Directory Dialing, user dials * for options
ACCESS DENIED	Directory Dialing	User tries to use company-wide directory (System Speed Dial) from a restricted phone
AUTHORIZATION NO	ARS	User places an outside call and ARS requests an Authorization Code
AUTO TIMER ON	Call Timer	User activates Call Timer
AUTO TIMER OFF	Call Timer	User deactivates Call Timer
B Assigned name	Transfer	User answered Trunk recalling from busy extension (with indicated name) after an incomplete Transfer
BUSY RECALL nnn	Transfer	User answered Trunk recalling from busy extension nnn after an incomplete Transfer
CALL FROM nnn	Call Waiting, Intercom ,Hotline, Station Call Coverage	Intercom call from extension nnn
CALL FROM Lnn	Central Office Calls, Answ.	User presses a line key to answer a trunk without an assigned name
CALL FROM ORBIT	Park	Call retrieved from Orbit
CALL WAITING	Call Waiting	Caller (with programmed name) waiting
Callers name	Call Waiting, Intercom, Hotline, Station Call Coverage, Central Office Calls	Call from extension or trunk with indicated name
CFWD FROM nnn	Call Forwarding	Call forwarded from extension nnn
COMPANY WIDE DIR	Directory Dialing	User dialed C for company-wide directory
CONFERENCE CALL	Conference, Privacy	User established Conference or joined a call using Privacy Release
Date and Time	Time and Date Setting	The current date and time (while the extension is idle)
DELAYR,RING,LAMP	Station Call Coverage	User is programming ringing options for a Call Coverage key
DIAL PREVIEW	Dialing Number Preview	User dialed * to activate Dialing Number Preview
Digits	Central Office Calls, Last Number Redial, Save, Speed Dial	Digits as trunk call dials out
DIRECTORY I,P,C	Directory Dialing	User dials D when extension is on hook to view Directory Dialing options
DND OFF	Do Not Disturb	User disabled DND
DND ON	Do Not Disturb	User enabled DND

Table 7 TELEPHONE DISPLAYS		
This display..	**Appears when using...**	**And shows...**
DO NOT DISTURB	Intercom, Station Call Coverage	User called extension in DND
DSS LAMP FIELD	Intercom, Direct Station Selection	User pressed ICM and enabled DSS keys
DSS,EXT,6,9,8 ?	Call Forwarding, DSS, Selectable Display Messages	User dialed ICM # and system shows selection options
ENTER A/C CODE	ARS	User places an outside call and system requests an Account Code
ENTER BIN #	Speed Dial	User is programming Speed Dial bins
ENTER FEAT. CODE	Speed Dial	User is programming Intercom Feature in a Speed Dial bin (or under a One-Touch Speed Dial key)
EXT	Call Forwarding Selectable Display Messages	User (with DSS suppressed) dials ICM # and system shows selection options
F Assigned name FWD TO nnn	Call Forwarding, Intercom	User placed Intercom call to extension forwarded to extension nnn
GROUP-R PICK-UP	Group Ring	User answered an outside call ringing a Ring Group (of which the user's extension is not a member)
HF CIRCUIT BUSY	Intercom	User tries to use Handsfree and no system Speakerphone circuits are available
HOLD RECALL nnn	Hold	User picks up a call abandoned on Hold by extension nnn
HOLD/WAIT xx/yy	Transfer	User is Transferring a call to a busy extension that has xx calls on Hold and yy calls camped-on (waiting)
ICM ANNOUNCE ON	Intercom	User dialed #1 to allow incoming Intercom voice announcements
ICM ANNOUNCE OFF	Intercom	User dialed #0 to block incoming Intercom Voice announcements
ICM DIRECTORY	Directory Dialing	User dialed I for Intercom directory
LINE [01-31,9X]	Speed Dial	User is programming a Speed Dial bin or One-Touch Speed dial key, and system is asking for a trunk number
LINE nn	Central Office Calls	User placing an outside call has seized trunk nn
MIKE MUTED	Microphone Mute	User pressed MIC/DND to mute the phone's mic
MSG. FRM. nnn	Message Waiting	User is viewing messages, and has Message Waiting from extension nnn
Name	Central Office Calls, Intercom, Hotline, Message Waiting, Station Call Coverage	User is placing a call, answering a call,or viewing a message for an extension with a programmed name
NO RAM INSTALLED	Directory Dialing	User trying to use Directory Dialing in a system without an AUX Module

Table 7 TELEPHONE DISPLAYS		
This display..	**Appears when using...**	**And shows...**
NO SPEED DIAL	Speed Dial	User is trying to enter the users Personal Directory with no Speed Dial blocks assigned in programming
NO. OF MSG=nn	Voice Mail Compatibility	User pressed MSG to check the number of Voice Mail messages waiting
ORBIT RECALL nnn	Park	Call user parked is recalling user extension (nnn)
P Assigned name	Directed Call Pickup, Group Pickup	User has picked up a call from extension with assigned name
PARKED IN nn	Park	User Parks call in orbit
PERSONAL DIR.	Directory Dialing	User dialed P for personal directory
PICKUP FROM nnn	Group Call Pickup	User picked up a call ringing extension nnn
PRIVACY	Privacy Release Groups	User presses line key to have privacy
PRIVATE CALL	Privacy Release Groups	User pressed line key for trunk that has Privacy enabled by Hotline partner. Trunk normally must have Privacy released.
PROGM NAME Y/N	Speed Dial	User is programming Speed Dial and system is asking for a name entry
PROG MESSAGE	Personal Greeting	User is programming a Personal Greeting
R Assigned name	Hold, Park, Transfer	User answered recalling trunk call from extension with assigned name
RELEASE PRIVACY	Privacy	User pressed a line key to release privacy on a call where privacy was previously established
RING NO ANS nnn	Hold, Park, Transfer	User answered trunk call recalling from extension nnn
SELECTED IDLE LINE	Dialing Number Preview	After entering number, user pressed DIAL to place call
SET DATE MMDDYY	Time and Date Setting	User is setting system date
SET TIME HHMMSS	Time and Date Setting	User is setting system time
SPEED DIAL BINS	Speed dial	User presses DIAL to program or use Speed dial
Speed Dial name	Speed Dial	User dialing out a Speed Dial with a stored name
TEL NUMBER?	Speed Dial	User is programming Speed Dial and the system is requesting a number
UNLISTED NAME	Directory Dialing	User tries to access Directory Dialing, and the system has no names programmed
VACANT NUMBER	Direct Station Selection	User has pressed an undefined DSS Console key
WELCOME		Initial message after system start-up or reset

- For Your Notes -

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Technical Service: 203-925-8801
Discontinued Product Service: 900-990-2541
Technical Training: 203-926-5430
Emergency Technical Service (After Hours) 203-929-7920
(Excludes discontinued products)

ABBREVIATED NUMBER PLAN

	Without AUX Module	With AUX Module
EXTENSIONS	300-347	300-371
PORTS	00-47	00-71
TRUNKS	01-16 or 348-363 or 801-816	01-24 or 372-396 or 801-824
PORTS	48-63	72-96
RING GROUPS	364-371	396-403
SELECTABLE DISPLAY MESSAGES	600-615	600-615
SPEED DIAL BLOCKS	1-57	1-57