

# Atlas III E

## **KSX 32i, KSX 64 & KSX 128 PROGRAMMING GUIDE**

**KEY SYSTEM US  
WEST PALM BEACH, FL.**



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## **Programming Introduction**

The *Programming Guide* introduces the step-by-step process for programming the system. Programming is divided into two parts: Hardware and Software.

Hardware Programming involves the use of the memory backup power switch to clear the memory and to load the default data, and the setting of the system DIP switches to effect proper system operation. (see *Hardware Programming Section*)

Software programming involves the use of a Keyphone to change the default data as defined by the Customer's needs. The changes are derived from a Plan detailing what the customer wants the System to do.

The process of programming the system is greatly simplified with a clearly detailed plan of the Customer needs, laid out in a manner that is easily understood. If this information is not readily available and clearly detailed, it must be done before beginning the default data changes.

### **Notice**

The information contained in this document is believed to be correct and accurate in all respects. The information contained in this document is subject to change without notice. Periodic changes may be made to the information contained in this document without any obligation to notify any person of such changes. No responsibility is assumed for any errors or omissions in this document.

## System Features

### SYSTEM FEATURES

Add-On Conference  
 Automatic Night Transfer  
 Battery Backup Memory  
 Call Park  
 Centrex/PABX Compatible  
 Class-of-Service  
 Conferencing  
 Console Hold Recall  
 Consoleless Operation  
 Distinctive Ringing  
 DTMF & Pulse Signaling  
 External Call Forwarding  
 External Page Interface  
 Flexible DSS Assignment  
 Flexible Incoming Ringing  
 Flexible Station Numbering  
 Hold Recall  
 Hook Flash Timing  
 House Phone / Hot Line  
 Hybrid Capability  
 Internal Call Forwarding  
 Loud Bell Control  
 Music on Hold  
 Night Service  
 On-Line Programming  
 Outgoing Call Restriction  
 Paging  
 Prime Line Access  
 Privacy on All Calls  
 Private Line Assignment  
 Private Line Pickup  
 Recall Identification  
 Remote Programming  
 Security Password  
 Station Group Assignment  
 Station Hunt Groups  
 Station Name Assignment  
 Station to Station Calling  
 Transfer Recall  
 Trunk Hunt Groups  
 Un-Interrupted Power Supply  
 Virtual Non-Blocking  
 Zone Paging

### KEY TELEPHONE

Alpha Numeric Display  
 Auto Redial  
 Automatic Call Answering  
 Automatic Call Back  
 Automatic Hold  
 Automatic Station Release  
 Background Music  
 Call Forward - All  
 Call Forward - Busy / No Answer  
 Call Park  
 Call Pickup  
 Call Timer  
 Call Waiting Indication  
 Conference  
 Consultation and Transfer  
 Daily Remind Call  
 Date and Time Display  
 Do-Not-Disturb  
 Emergency Call  
 Exclusive Hold  
 Executive Override  
 Flash Key  
 Flexible Softkey Assignment  
   Dual Color LED  
   Direct Station Selection  
   Direct Trunk Selection  
   One Touch Speed Dial  
 Handsfree Operation  
 Hold Pickup  
 Intercom Voice Announce  
 Last Number Redial  
 Line Queuing  
 Meet-Me Answer Page  
 Message Response  
 Message Waiting Indication  
 Microphone Mute  
 Off-Hook Signaling  
 On-Hook Dialing  
 Paging  
 Ring Volume Control  
 Saved Number Redial  
 Speaker Volume Control

Speed Dial - Personal  
 Speed Dial - System  
 Station Lock Code  
 System Programming  
 Transfer with Camp-On  
 Wall Mounting Kit  
 Wake Up / Remind Call

### SINGLE-LINE PHONE

Automatic Call Answering  
 Call Forward - All  
 Call Forward - Busy  
 Call Forward - No Answer  
 Call Park  
 Call Pickup  
 Conference  
 Consultation and Transfer  
 Daily Remind Call  
 Direct Trunk Selection  
 Do-Not-Disturb  
 Hold Pickup  
 Last Number Redial  
 Meet-Me Answer Page  
 Message Response  
 Message Waiting Indication  
 Paging  
 Speed Dial - Personal  
 Speed Dial - System  
 Station Lock Code  
 Transfer with Camp-On  
 Wake Up / Remind Call

### OPTIONAL

Direct Inward System Access  
 Door Phone / Room Monitor  
 DSS Unit  
 External Music Source  
 Headset Key Telephone  
 Second Console  
 SMDR  
 Voice Mail

## Feature Description

Add-On Conference	Up to 7 Stations can be added to a conference call.
All Call Paging	A Station can page all Stations simultaneously.
Alpha Numeric Display	Keyphones can be equipped with an optional 32 character alpha numeric display.
Alternate Attendant	The Attendant may transfer all Attendant functions to another Station by dialing <b>PROG #</b> + Station number.
Amplified Trunk Lines	A strapping option on the Trunk cards will raise the volume on Trunk lines.
Appointment Reminder	Each Station user can set an appointment reminder. At the set time the Station will give a unique ring. LCD Keyphones will also show "Appointment" on the display.
Attendant Overflow	Incoming Calls to the console can overflow to another Station after a programmable time.
Auto Attendant	Optional unit which allows Incoming Calls to be greeted by a recording, which direct callers to dial the desired extension number, or hold for the Operator.
Auto Redial	The Auto Redial function can be used by pressing the <b>REDIAL</b> key, when receiving a busy or no answer on an outside call. The system will seize an available line and dial the number automatically. The system can be programmed to repeat this process as often as required.
Automatic Call Answering	An Incoming Call or Intercom Call which is ringing a Station is automatically answered by lifting the handset.
Automatic Call Back	A user can queue onto a busy Trunk line or Station and be called back when the Trunk line or Station becomes available.
Automatic Hold	While on a Trunk Call, pressing a DSS key automatically places the call on hold. A transfer can then be made.
Automatic Night Transfer	The system may be programmed for automatic transfer of day or night service. This occurs at the time set at the Console(s). This feature may be manually overridden.
Automatic Night Transfer on Weekends	Auto Night Transfer can be programmed to operate all weekend and return to day service on monday.
Automatic Station Release	Keyphones may be programmed to automatically release and reset dial tone when receiving a busy signal on an Intercom Call.

Background Music	Music may be played through the speaker of an idle Keyphone.
Battery Backup Memory	System and User Defined Programming Data is maintained in memory during an extended power failure. The battery will last one week.
Busy Lamp Field (BLF)	The LED status on the Keyphones DSS keys tells a user when another Station is busy.
Busy Station Call Back	A user can queue onto a busy Station and be called back when the Station becomes idle.
Call Forward - All Calls	A Station can be programmed to forward all calls to another Station. The calls forward directly without ringing on the forwarding Station.
Call Forward - Busy / No Answer	A Station can be programmed to forward calls to another Station when busy or if not answered within the programmed no answer time.
Call Park	Calls may be placed in a park zone (0 - 9). By dialing 76 + (0 - 9). Calls may be retrieved from an occupied park zone.
Call Pickup	A call can be picked up by a Station even though it is ringing on another telephone.
Call Pickup Directed	Any ringing Station may be answered by dialing the ringing Station's extension number and *.
Call Pickup Group	Any ringing Station within a group may be answered by dialing the group number and *.
Call Timer	The duration of Trunk Calls is shown on the LCD display.
Call Timer Warning Tone	A timer may be programmed which will give users on outgoing Trunk Calls an alerting tone at set intervals.
Call Waiting Indication	Busy Keyphones with camped on calls will receive a short ring at programmable intervals.
Camp-On Tone to Single-Line Telephones	A double beep tone on Single-Line Telephones alerts for another call waiting.
Centrex/PABX Compatible	System programming can be set to ignore the dial 9 access code required for operation behind Centrex or PBX. Flexible keys can be programmed as feature access keys for Centrex / PBX services.
Class-of-Service	The system has Class-of-Service restrictions that define what service features a Station can use.
Conference	Up to 3 parties can be in conference in any combination of Trunk lines and Stations. Additional Stations can be added using Add-On Conference.

Console Hold Recall	A separate recall time is used for Trunk Calls put on hold at the Console(s). When set to 0 recall time, hold recall ringing is eliminated.
Console Recall	Abandoned transferred calls will recall to the Console(s) after a programmed time.
Consoleless Operation	The Console(s) can be set for no ringing on Incoming Calls.
Consultation and Transfer	Calls may be transferred as either screened or unscreened.
Date and Time Display	The optional liquid crystal display (LCD) shows the time and date when the Keyphone is idle.
Dial "7" Features	Features such as Call Forwarding, Do-Not-Disturb, alarm, send message may be denied from Single-Line Telephones.
Direct Station Selection	An Intercom Call can be placed with the touch of one button (DSS).
Direct Trunk Selection	A Trunk can be accessed from a Single-Line Telephone by dialing 77 + Trunk number.
Display Dialing Number	The LCD displays all telephone numbers dialed.
Display Intercom Calling	The LCD displays the Intercom number of the connected Station during Intercom Calls.
Distinctive Ringing	Intercom ringing, Incoming Call ringing, and call back tone have different sounds for ease of identification.
Do-Not-Disturb	A user can set Do-Not-Disturb to prevent all disturbances except Emergency Tone.
Door Phone	The system is equipped with one Door Phone circuit for connecting an optional Door Phone unit.
Door Release Relay	A Door Release Relay can be operated with the Door Phone unit to control door lock contacts.
DSS Unit	The optional DSS Unit has 64 softkeys that can be programmed for Direct Trunk Selection, Direct Station Selection (DSS/BLF), One Touch Speed Dial, or Park Bin Access. It can be added to any Keyphone and serve as an Attendant answering position. An optional DSS Unit can be added to any Keyphone. Each DSS Unit occupies a Station position.
DTMF & Pulse Signaling	The system will operate with both DTMF and Pulse signaling Trunk lines.
Emergency Call	By pressing the <b>CAMP</b> key while receiving busy tone, busy Station will be alerted, that another Station is calling. The tone is sent each time the <b>CAMP</b> key is pressed. On display Keyphones the Station number will also appear.

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Exclusive Hold	A Trunk Call can be put on exclusive hold so that it can be retrieved only by the Station putting the call on hold.
Executive Override	Special-classed Stations are able to intrude on existing telephone conversations.
External Call Forwarding	Incoming Calls may be programmed to forward to a telephone number outside the system. It can be set for Day Mode, Night Mode, or both for each individual Trunk line.
External Music Source	A customer-supplied External Music Source may be connected to supply for music-on-hold and background music. Internal music is standard.
External Page Interface	The system can interface with an external paging system to allow the user paging. Eight external paging zones are available.
Flash Key	The system is capable of sending a flash (programmable) for Centrex or PABX features.
Flexible Incoming Ringing	Trunk lines can be programmed to ring at different Stations in the system.
Flexible Softkey Assignment	Each softkey can be programmed for Direct Trunk Selection, Direct Station Selection (DSS/BLF), or One Touch Speed Dial.
Flexible Station Numbers	The system can be programmed to use any Station numbering scheme desired (1 - 4 digits).
Handsfree Operation	All Keyphones can be used handsfree to make and answer calls.
Handset Volume	The handset volume can be increased or decreased while on a Trunk Call by pressing the <b>MSG</b> key twice.
Headset Compatible	Keyphones may be, optionally, equipped with headsets for high call traffic positions.
Hold Pickup	The last call put on hold at another Station can be picked up by dialing 75 + Station number.
Hold Recall	A call on hold can be set to recall the originating Station after a programmable time.
Hook Flash Timing	An Upper and Lower Hook Flash Time can be programmed to define a valid hookswitch flash for Single-Line Telephones.
House Phone / Hot Line	A telephone can be programmed to automatically connect to the Operator when the handset is lifted.
Hybrid Capability	The system can be used with both Keyphone and Single-Line Telephone.

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Ignore PABX Access Code	The PABX Access Code can be ignored when doing Toll Restriction.
Internal Zone Paging	Up to 7 zones of internal paging over the Keyphones can be programmed. This provides paging to specific areas or departments.
Intercom Voice Announce	When receiving an Intercom Call, a Keyphone can be set to allow the calling Station to voice announce.
LCD Messages	There are 8 standard messages with time and date, plus each Keyphone may program one unique personal message.
Last Number Redial	The last number dialed may be redialed by pressing the <b>REDIAL</b> key.
Line Queuing	A user can queue onto a busy Trunk line and be called back when the Trunk line becomes idle.
Loud Bell Control	All Trunk lines may be set to ring an external loud bell for Incoming Calls.
Maximum Trunk Call Duration	Trunk Call duration can be limited by a programmed time. A warning tone is received 10 seconds before automatic disconnect.
Meet-Me Answer Page	The paged party may answer the calling Station from any telephone by lifting the handset and dialing # #.
Message Response	A Station can respond to a message waiting by pressing the flashing <b>MSG</b> key or dialing 744.
Message Waiting	A Station may leave an indication on another Station, which causes the message light to flash. The LCD displays the Station number when there is a Message Waiting.
Microphone Mute	The microphone on the Keyphones can be muted on handsfree calls so the connected party cannot hear the user.
Music-on-Hold	An internal music source is provided for music on hold. An optional external music source may be used to provide callers put on hold with radio or taped music.
Night Service	The Console can redirect Trunk ringing assignments, Toll Restriction, and External Call Forwarding by activating Night Transfer.
On-Line Programming	System Programming can be accessed using a password from any Keyphone with Programming Rights. All programming can be performed while the system is in use.
Outgoing Call Restriction	Various levels of outgoing call restriction are programmable for each Trunk and Station.
Prime Line Access	Stations can be programmed to automatically seize a Trunk line from a Trunk Hunt Group by lifting the handset.

Privacy on All Calls	All Trunk Calls and Intercom Calls are private.
Privacy Release	Privacy on Trunk Calls may be released to allow other Stations to join the conversation.
Private Line Assignment	A Trunk line can be assigned as a private line by assigning it up to eight Stations per line.
Private Line Night Transfer	Private lines can be set to ring Common Ring Stations at night, in addition to the Stations set to ring for each individual private line.
Private Line Pickup	Other Stations may be programmed to answer Incoming Calls on private lines.
Recall Identification	On a display Keyphone, any calls returning from hold or transfer will identify the call and the Station from which it returned.
Remote Programming	The system may be remotely programmed with optional modem and proprietary software.
Ring Volume Control	Each Keyphone is equipped with a ringer volume control.
Saved Number Redial	While on a trunk Call, a number can be stored for later dialing.
Security Password	To ensure system integrity, a password is required to access System Programming.
Speaker Volume Control	Each Keyphone is equipped with a speaker volume control.
Speed Dial - Personal	Each Station has 9 Speed Dial bins that allow telephone numbers containing up to 16 digit to be stored.
Speed Dial - System	The system has 400 Speed Dial bins that allow the storage of 24 digit telephone numbers for bins 100 - 499. Speed Dial bins above the Speed Dial Toll Restriction Break Point are NOT toll restricted.
Station Group Assignment	A Station may be assigned to more than one group. A Station group is used for Group Pickup and Group Paging.
Station Hunt Groups	Station Hunt Groups can be set for Trunk ringing, as the destination for Operator calls, and with Voice Mail systems since the 8 Station Hunt Groups can be accessed by 781 - 788.
Station Lock Code	A password can be used to lock or unlock a Station to restrict use.
Station Locking	The Console(s) can "lock" or "unlock" a Station's access to Trunk lines.
Station Name Assignment	Each Station may have a name of up to 8 characters assigned to ease caller identification. The name is displayed in place of the Station number.



Station to Station Calling	All Stations can make Intercom Calls. Keyphones can also put Stations on hold and transfer.
System Alarms	There are three sets of System Alarms each effective during a specific time of the week: Monday to Friday, Saturday, and Sunday.
System Programming	For security, a password is required to access System Programming.
Time and Date	The time and date can be changed without entering System Programming. The time and date appears on idle display Keyphones.
Toll Restriction	Various levels of outgoing call restriction are programmable on a per Trunk line and per Station basis.
Toll Restriction Override	The system will permit override of toll restriction for a toll restricted Keyphone through the use of a special security code.
Transfer Recall	A transferred call automatically recalls to the originating Station after a programmable time.
Transfer with Camp-On	A Station can camp a call on to a busy Station. The Station will receive a Camp-On indication.
Trunk Hold Pickup	Calls placed on hold by a Station may be picked up by any Station by dialing 77 + trunk number.
Trunk Hunt Groups	Trunk Hunt Groups allow access to specific Trunk lines or Trunk line groups from Single-Line Telephones and Keyphones.
Trunk Owner Identification	By selecting a busy Trunk line, the Station number of the Station using the Trunk will appear on the Keyphone display.
Virtual Non-Blocking	All Stations can access all Trunks. All Stations can call every Station.
Wall Mounting Kit	A wall mounting kit can be used to wall-mount Keyphones.

## Hardware Programming

The initial system programming is accomplished by setting the system DIP switches, and initializing the system. The system DIP switches settings effects system operation; therefore, they must be set correctly.

### System Dip Switches

The system DIP switches set the initial default programming of the system.

**Note:** Refer to the *Installation Manual* for the location of the DIP switches.

### DIP Switch settings

Switch	Function	ON	OFF
1	Backup Memory	User Defined	System Default
2	Dry Relay Contacts	C.O. Ring Loud Bell	MOHS Power Control
3	Incoming Ring Cadence	Long Ring Cadence	Normal Ring Cadence
4	DTMF on Intercom	DTMF	No DTMF
5	SLP DTMF Dial Time	Reset after each Digit	Absolute Timing
6	Station Numbering	3 digit number	2 digit number
7	Not Used		
8	Trunk Signal Type	Pulse	DTMF

If the setting of DIP switches 6 or 8 are changed, the system must be reset (power Off/On) with the System Default Programming Data to load the new DIP switch settings. If the setting of DIP switches 2, 3, or 5 are changed the system must be reset to effect the changes.

The following explains the DIP switch settings:

- 1 Backup Memory** - When DIP switch 1 is OFF, the System Default Programming Data is loaded when the system is reset (power Off/On). When DIP switch 1 is ON, the User Defined Programming Data will be saved if the system is reset. DIP switch 1 should remain ON at all times, to protect the User Defined Programming Data in the event of a power outage. The Memory Backup Switch should also remain ON.

See the *Initial Setup* and *Memory Protection* sections for a complete explanation of System startup and protecting User Defined Programming Data.

- 2 Dry Relay Contacts** - When DIP switch 2 is OFF, the contacts of CK1 will close and HOLD when Music is used by the System (External Music source power control). When DIP switch 2 is ON, the contacts of CK1 will close and HOLD on incoming Trunk ring (use for a Loud Bell).

See (Mode 11) Trunk Loud Bell Ringing for setting Trunks to ring.

- 3 Incoming Ring Cadence** - If DIP switch 3 is OFF, the normal Ring Cadence is used when detecting Incoming Calls. If DIP switch 3 is ON, a longer Ring Cadence is used when detecting Incoming Calls.
- 4 DTMF on Intercom** - If DIP switch 4 is ON, DTMF is available on Intercom calls from Keyphones when calling a Station port set as a Voice Mail Station or Door Phone.
- 5 SLP DTMF Dial Time** - If DIP switch 5 is OFF, the Dial Time will be an Absolute time. If DIP switch 5 is ON, the Dial Time will be reset after each digit dialed.

See (Mode 62) SLP Dial Time for how to set the Dial Time.

- 6 Station Numbering** - If DIP switch 6 is OFF, default Station numbers will be assigned as two digit numbers (10 - 69). If DIP switch 6 is ON, default Station numbers will be assigned as three digit numbers (100 - 699).
- 8 Trunk Signal Type** - If DIP switch 8 is OFF, the system default signalling type for all Trunks will be DTMF. If DIP switch 8 is ON, the system default signalling type for all Trunks will be Pulse. Set the default to DTMF signaling if any of the Trunks are to use DTMF signaling.

See (Mode 11) Trunk Signal Type for the individual setting of Trunks to DTMF and Pulse.

**Note:** DIP switch 7 is not used.

### Initial Setup

*Caution:* When the system is first installed, the System Default Programming Data must be loaded into memory. To ensure the default condition, the memory must be cleared before loading the data.

Before proceeding with system initialization and loading of the System Default Programming Data, ensure that the system DIP switches are set correctly as they effect the System Default Programming Data.

*Caution:* The following procedure erases all User Defined Programming Data previously entered and stored in memory.

### Memory Protection

The User Defined Programming Data is stored in memory as it is changed. A small battery provides power to the memory to ensure that the stored Data is not erased during a power loss.

A memory backup switch is used to disconnect the battery from the memory circuit. When the switch is ON, battery power is applied to the circuit to provide protection in case of system power failure. When the switch is OFF, battery power is removed from the circuit and the memory contents are erased if system power is removed.

**Note:** Refer to the Installation Manual for the location of the memory backup switch on the CPU Card.

To clear the memory and load the System Default Programming Data:

- (a) Set the system power On/Off switch to OFF. The power indicator is off.
- (b) Set System DIP switch 1 to OFF. Set the memory backup switch to OFF.
- (c) Set the system power On/Off switch to ON. The power indicator is on and the memory is cleared.
- (d) Wait 1 minute to ensure proper loading. Set System DIP switch 1 to ON. Set the memory backup switch to ON. The default data is now loaded into memory.

## Software Programming

Software Programming involves changing the default data to make the system fully comply with the needs of the user. Software Programming is divided into two parts: Quick Programming and System Programming. The difference between the two is the method used to access each.

**Note:** Only one person at a time is allowed access to Software Programming.

## LCD Display Keyphone

An LCD Display Keyphone is a required tool when programming the system. Using a LCD Display Keyphone will greatly ease the programming process and allow it to proceed in a timely manner. Without an LCD Display Keyphone, the process is difficult and cumbersome.

## List of Terms

<b>C.O.</b>	Central Office.
<b>C.O. Line</b>	Central Office Line (Telephone line coming into the building).
<b>Console</b>	Attendant / Operator Station.
<b>DTMF</b>	Dual Tone Multi-Frequency. Trunk type.
<b>Keyphone</b>	Key Telephone.
<b>LCD</b>	Liquid Crystal Display.
<b>PABX</b>	Private Automatic Branch Exchange.
<b>Port</b>	A Port for a Telephone.
<b>Pulse</b>	Pulse Dialing. Trunk type.
<b>SLP</b>	Single-Line Telephone.
<b>Trunk</b>	Can be a C.O. Line or PABX Line.



**Note:** No Error Message or Busy Signal will be given if duplicate Station numbers are entered. For Station calling the first one found will be used.

### Trunk Numbers

Trunk numbers are fixed by the position of the Trunk on the Trunk Card and the location of the Trunk Card in the system.

For ease of operation for the Station user, Trunk numbers are displayed as 1 - 24.

For Large Systems, which can have up to 24 Trunks, Trunks 01 - 09, use **0** at the start when using Trunk numbers in System Programming. Dial 77,tk to access a Trunk requires a **0** only when more than 8 Trunks are installed in the System.

For Small Systems, with up to 8 Trunks, use 1 - 8 for all operations.

Card No.	Large	Small
1	01 - 04	1 - 4
2	05 - 08	5 - 8
3	09 - 12	N/A
4	13 - 16	N/A
5	17 - 20	N/A
6	21 - 24	N/A

### Night Service - Day Mode and Night Mode Operation

For some features it is desirable to separate the operation of the system into Day Mode and Night Mode. The features include Trunk Ringing, Toll Plans, and External Call Forwarding.

Day Mode and Night Mode are used for Day and Night operation, respectively when the user's requirements are generally very different for the affected features. The Day Mode and Night Mode transfer times are set and controlled by the Console.

Refer to the *Easy Reference Guide* for more information on setting Night Service.

## **System Programming**

The majority of Software Programming is done in System Programming.

The Quick Programming Modes are also part of System Programming, but include only the first 9 modes of System Programming.

### **Accessing System Programming**

Access to System Programming is protected by the use of a password. Only one user can enter System Programming at a time.

There are three ways to enter System Programming.

1. Entering the Master Password from the Console.
2. Entering the System Password from the Console or from any Keyphone which has Programming Rights.
3. Entering the System Password as an account number while on an outside Trunk Call from the Console, or from any Keyphone which has Programming Rights.

Any time the Busy Signal is received when attempting to access System Programming, it means the attempt was unsuccessful. There are four possible reasons for an unsuccessful access:

1. Pressing the wrong key.
2. Entering an incorrect password.
3. Using a Keyphone which is not the current Console or does not have Programming Rights.
4. Another system user is already using System Programming or Quick Programming.



### Entering Password

There are two passwords for System Programming: Master and System.

#### **Master Password**

The Master Password allows the current Console to access System Programming. To enter System Programming from the Console using the Master Password, press:

**PROG, PROG, DATA, DATA, 6, HOLD**

#### **System Password**

The System Password allows the Console or any Keyphone with (Mode 02 - COS 1) Programming Rights to access System Programming.

See (Mode 81) System Password for setting the System Password (See page 27 for default).

To access System Programming from any Keyphone, press:

**PROG, PROG, enter password, HOLD**

Pressing the **PROG** key lights the **PROG** lamp. Accessing System Programming starts the **PROG** lamp flashing.

If the Busy Signal is received, press **RLS** and start again.

### Entering System Programming while on a Trunk Call

To access System Programming while on a Trunk Call, press:

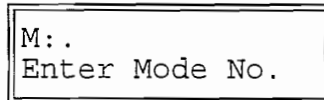
**MSG, enter password, PROG**

Accessing System Programming starts the **PROG** lamp flashing.

**Note:** When the **RLS** key is pressed to exit from System Programming, the outside Trunk line will be released.

### Selecting a Mode

After accessing System Programming, a Mode must be selected to change. The LCD display prompts for a Mode number.



M: .  
Enter Mode No.

### Entering a New Mode

All Mode numbers are two-digit numbers (01 - 99). The dot on the LCD display is a prompt for entering a digit. If an invalid digit is entered a Busy Signal is returned.

**Note:** Not all the Mode numbers 01 - 99 are used. A Busy Signal is returned if an invalid Mode number is entered.

### Changing to a Different Mode

When in System Programming, press **DATA** to change to a different Mode. This returns to a LCD display prompt for entering a Mode number.

### Exiting from System Programming

To exit from System Programming, press **RLS**, the Keyphone idle. System Programming and Quick Programming are now available for others to use.

**Note:** Make sure any changes to a Mode have been saved before exiting from System Programming. Press **HOLD** to save changes.

### Using Programming Keys

Some keys on the Keyphone have a special function during System Programming. The keys and functions are listed below. Some keys also have a special function for a particular Mode; they are explained in the description of the applicable Mode.

Key	Function
DATA	To select a new Mode
MSG	To set
FLASH	To clear existing value
MIC	To scroll backward
TRF	To scroll forward
HOLD	To save changed Data
RLS	To exit System Programming
CONF	To save changed Data to all Stations

### Saving a Change

Press **HOLD** to save a change after new information is entered. An \* in the top left-hand corner of the LCD display confirms the saved change.

Press **HOLD** to save change.

*:12 1	DTMF
TRUNK SIGNAL	

**Note:** Attempting to save out-of-range data displays the original data value.

**Entering a Station Number instead of Port Number**

Where System Programming requires a Port number to be entered, a Station number can be entered instead. To enter a Station number, press the **PROG** key and then enter the Station number. Once a valid Station number has been entered, proceed with the next step.

Examples:

Enter Port number (1# - 16 or 1# - 240).

e.g. Press **PROG** then enter Station number

M:04	0
ST:	

Enter new Port for Console.

e.g. Press **PROG** then enter Station number

M:31 1	ST:
CONSOLE 1	

**Note:** A Station number saved as data is shown as the corresponding Port number.

**Getting a Busy Signal**

Anytime a Busy Signal is returned, an invalid key or operation was attempted.

To recover from an error when in System Programming, press **DATA**. The LCD display will prompt for a new Mode number.

Press **RLS** to exit from Quick Programming when an error occurs.

## System Defaults

### Quick Programming Modes

(Mode 01) Class-of-Service 1	Put Call on Hold	Yes
	Call Pickup	Yes
	Intercom Call Voice Announce	Yes → NO
	Intercom Microphone On	Yes
	Receive Paging Calls	Yes
	Make Paging Calls	Yes
	Pulse Single Line Telephone	No
	Idle Trunk Access Microphone	Yes
(Mode 02) Class-of-Service 2	Programming Rights	Yes
	Use Dial 7 Features	Yes
	Ring for System Alarm	Yes
	Be Barged Into	Yes
	Barge Another Station	No ← YES
	Operator Call	Yes
	Call Duration Warning Tone	No
	Camp-On Tone	Yes
(Mode 03) Class-of-Service 3	House Phone	No
	Door Phone	No
	Ring for Door Phone	No
	Automatic Outside Line	No
	Voice Mail Port	No
	Force ARS	No
	OHVA Keyphone	No
	Speed Dial Directory	No
(Mode 04) Station Toll Plan Assignment - Day	Toll Plan 0 - No Restriction	
(Mode 05) Station Toll Plan Assignment - Night	Toll Plan 0 - No Restriction	
(Mode 06) System Hold Recall Time	180 Seconds	
(Mode 07) Console Hold Recall Time	30 Seconds	
(Mode 08) Transfer Recall Time	No Recall	
(Mode 09) System Date & Time	N/A	

**Trunk Specifications**

(Mode 10) Trunk Names	None
(Mode 11) Trunk Class-of-Service	
Trunk Type	C.O. Line
Trunk Signal Type	System DIP Switch 8
Centrex Trunk Operation	No
Loud Bell - Day	Ring
Loud Bell - Night	Ring
Loop Supervision Disconnect	No
SMDR Incoming	No Print
SMDR Transferred	No Print
(Mode 13) Pulse Dialing Pulses per Second	20 pps
(Mode 14) Pulse Dialing Break Make Ratio	60 / 40
(Mode 15) Trunk Flash Time	1000 ms
(Mode 16) Pause Time	1800 ms
(Mode 17) DTMF Tone Length	70 ms

**Tenant Service**

(Mode 18) Trunk Tenant Service	None
(Mode 19) Station Tenant Service	None

**Speed Dial**

(Mode 20) Speed Dial Toll Restriction Break Point	200
---	-----

**Private Lines**

(Mode 21) Private Line Assignment	None
(Mode 22) Private Line Access	Closed
(Mode 23) Private Line - Common Ring Night	No
(Mode 24) Private Line Pickup	Denied

**Trunk Hunt Groups**

(Mode 25) Trunk Hunt Group Programming	All Trunks in Group 1 only.
(Mode 26) Automatic Trunk Selection	Dial 9
(Mode 27) Automatic Trunk Hunt Group Access	Automatic
(Mode 28) Terminal Trunk Hunt Group Access	Yes

**DVA Port**

(Mode 29) DVA Port None

**Call Forward - No Answer**

(Mode 30) No Answer Forward Time 10 Seconds

**Console**

(Mode 31) Console Port 11  
(Mode 32) Second Console None  
(Mode 33) Second Console Delay Time No Delay  
(Mode 34) Console System Hold Recall Delay Time 60 Seconds  
(Mode 35) Console System Hold Recall Release Time 60 Seconds

**Forced Account Code**

(Mode 36) Forced Account Code No  
(Mode 37) Forced Account Code Length 6  
(Mode 38) Forced Account Code Table Empty

**Trunk Ringing**

(Mode 39) Trunk Station Hunt Group Ringing - Day None  
(Mode 40) Trunk Station Hunt Group Ringing - Night None  
(Mode 41) Flexible Ring - Day None  
(Mode 42) Flexible Ring - Night None  
(Mode 43) Stepped Ringing No  
(Mode 44) Console Incoming Call Ringing Ring  
(Mode 45) Second Console Incoming Call Ringing Ring  
(Mode 46) Common Ring Delay Time No Delay  
(Mode 47) Common Ring - Day None  
(Mode 48) Common Ring - Night None  
(Mode 49) Common Ring Busy Remind No Remind  
(Mode 50) Flexible Ring Busy Remind No Remind

---

**External Call Forwarding**

(Mode 51) External Call Forwarding Delay Time	No Delay
(Mode 52) External Call Forwarding - Day	No Forwarding
(Mode 53) External Call Forwarding - Night	No Forwarding
(Mode 54) External Call Forwarding Duration	0 Second

**Door Phone**

(Mode 55) Door Phone Ring Time	10 Seconds
--------------------------------	------------

**SMDR Operation**

(Mode 56) SMDR Minimum Call Duration	10 Seconds
(Mode 57) SMDR Detector Use	None
(Mode 58) SMDR Print Zero Pulses	N/A
(Mode 59) SMDR Pulse Cost	N/A

**Trunk & Dialing Operation**

(Mode 60) No Dial Time-out	No Time-out
(Mode 61) Keyphone Trunk Dial Time	No Limit
(Mode 62) SLP Dial Time	20 Seconds
(Mode 63) Maximum Trunk Call Duration	No Limit
(Mode 64) SLP Lower Flash Limit	120 ms
(Mode 65) SLP Upper Flash Limit	600 ms
(Mode 66) Call Duration Warning Tone Time	180 Seconds

**Station Hunt Groups**

(Mode 67) Station Hunt Groups	N/A
(Mode 68) Terminal Station Hunt Group Access	Yes
(Mode 69) Operator Call Destination	Console



**Station**

(Mode 70)	Flexible Station Number Assignment	System DIP Switches 6 & 7
(Mode 71)	Station Names	None
(Mode 72)	Station Group Assignment	Same as Station Card
(Mode 73)	Softkey Assignment	Trunks only
(Mode 74)	Trunk Hunt Group Assignment	Trunk Hunt Group 1
(Mode 75)	Reserve Recall Time	20 seconds
(Mode 76)	Voice Announce Ring	Tone
(Mode 77)	Keyphone Automatic Busy Release Time	5 seconds
(Mode 78)	SLP Message Waiting Ring Time	No Ring

**General**

(Mode 79)	Toll Restriction Override Password	None
(Mode 81)	System Password	123
(Mode 82)	Clock Display Format	12 Hour format
(Mode 83)	Urgent Call Time	Disabled
(Mode 84)	System Class-of-Service	
	Automatic Night Transfer on Weekends	Yes
	Camp-On Ring for Station calling a busy Operator	Yes
	Ring both Consoles when calling Operator	No
	Message Waiting indication on DSS Unit	No
	Monitor Tone	No
	Auto Attendant Exclusive Hold on Transfer	Yes
	Headset Operation	No
	Caller ID Name	No

**System Alarms**

(Mode 85)	Weekday System Alarms	None
(Mode 86)	Saturday System Alarms	None
(Mode 87)	Sunday System Alarms	None
(Mode 88)	Station Alarm Duration	25 Seconds

**Paging**

(Mode 89)	Zone Paging Port Assignment	None
(Mode 90)	Page Tone	Yes

**Toll Restriction**

(Mode 91) Common Restricted Numbers	None
(Mode 92) Common Unrestricted Numbers	911
(Mode 93) Long Distance Call Prefix	1
(Mode 94) Digit Length Restriction	None
(Mode 95) Class-of-Restriction - Trunk	None
(Mode 96) Local Call Restriction	None
(Mode 97) Long Distance Call Restriction	None
(Mode 98) PBX Trunk Access Code	9
(Mode 99) Ignore PBX Access Code	No

**Automatic Route Selection**

(Mode *1) Use Automatic Route Selection	No
(Mode *2) Area Code Table	Empty
(Mode *3) Office Code Table	Empty
(Mode *4) Route Table	Trunk Hunt Group 1
(Mode *5) Time Period	None
(Mode *6) Addition / Subtraction Table	Empty
(Mode *7) Holiday Table	Empty
(Mode *8) Automatic Route Selection Time-out	5 seconds
(Mode *9) Trunk Hunt Group Addition / Subtraction Table	Empty

## Programming Modes

Each feature which can be programmed has a unique Mode number. The Modes have been grouped into categories.

## Quick Programming Modes

These Modes can be accessed by both Quick Programming and System Programming.

Refer to the *Quick Programming* section for more information on Quick Programming.

### (Mode 01) Class-of-Service 1

Class-of-Service is used to restrict the use of features for individual Stations.

There are twenty-four Class-of-Service features, eight in each of (Mode 01) Class-of-Service 1, (Mode 02) Class-of-Service 2, and (Mode 03) Class-of-Service 3.

1. **Put Call on Hold:** A Station can be restricted from putting a Trunk or Intercom Call on hold. (Yes = Put Call on Hold)
2. **Call Pickup:** A Station can be restricted from doing Call Pickup. (Yes = Can Pickup)
3. **Intercom Call Voice Announce:** When receiving an Intercom Call, a Keyphone can be set to either ring until answered or give a short tone before switching to Voice Announce. (Yes = Voice Announce)
4. **Intercom Microphone On:** When a Voice Announce Intercom Call is made to a Keyphone, the microphone can be set to automatically turn on. If the microphone is set to turn on for a Voice Announce Call, then the call is considered to be answered (i.e. Call Pickup will not work).
5. **Receive Paging Calls:** A Keyphone can be restricted from receiving Paging Calls. (Yes = Receive Paging Calls)
6. **Make Paging Calls:** A Station can be restricted from making a Paging Call. (Yes = Make Paging Calls)

- 7. **Pulse Single-Line Telephone:** A single-line telephone uses either DTMF or Pulse signaling. If set to Pulse, a DTMF Decoder will not be assigned. (Yes = Pulse)
- 8. **Idle Trunk Access Microphone:** When a Keyphone accesses an idle Trunk, the microphone can be set to automatically turn on. (Yes = Microphone On)

**Note:** Some Class-of-Service restrictions only apply to Keyphone Ports.

**Programming Procedure:**

Enter Mode 01

```
M:01 .
COS 1
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 23 which is Station 132

```
M:01 23 .
ST:132
```

Enter Class-of-Service (1 - 8).

e.g. Port 23 can receive Paging Calls

```
M:01 23 5 YES
RECEIVE PAGING
```

Press **MSG** for Receive Paging Calls (Yes) or **FLASH** for No.

e.g. Set to not receive Paging Calls

```
M:01 23 5 NO
RECEIVE PAGING
```

Press **HOLD** to save change.

```
*:01 23 5 NO
RECEIVE PAGING
```

Press **CONF** to set All Stations the same.

e.g. All Stations can not receive Paging

```
C:01 23 5 NO
RECEIVE PAGING
```

Move to next Class-of-Service or Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Class-of-Service  
Port 23 can make Paging Calls

```
M:01 23 6 YES
MAKE PAGING CALL
```

**(Mode 02) Class-of-Service 2**

Class-of-Service is used to restrict the use of features for individual Stations.

There are twenty-four Class-of-Service features, eight in each of (Mode 01) Class-of-Service 1, (Mode 02) Class-of-Service 2, and (Mode 03) Class-of-Service 3.

1. **Programming Rights:** A Keyphone can be restricted from doing Programming. (Yes = Programming Rights)
2. **Use Dial 7 Features:** A Station can be restricted from using the Dial 7 features. Do-Not-Disturb and Phone Locking are also restricted. (Yes = Use Dial 7 features)
3. **Ring for System Alarm:** A Keyphone can be restricted from ringing for System Alarms. (Yes = Ring)
4. **Be Barged Into:** A Station can be protected from being Barged. (Yes = Not Protected)
5. **Barge Another Station:** A Station can be restricted from barging another Station. (Yes = Can Barge)
6. **Operator Call:** A Station on a Trunk can be restricted from dialing 0 for the Operator. (Yes = Can Dial 0 for Operator)
7. **Call Duration Warning Tone:** A Station can be set to receive a warning tone when making a Trunk Call. (Yes = Warning Tone)  
See (Mode 66) Call Duration Warning Tone Time for setting the warning tone time.
8. **Camp-On Tone:** A Station can be set to receive a Camp-on indication when a call is camped on to the Station. (Yes = Camp-On Tone)

**Note:** Some Class-of-Service restrictions only apply to Keyphone Ports.

See (Mode 01) Class-of-Service 1 and follow the programming procedure for setting Class-of-Service.

**(Mode 03) Class-of-Service 3**

Class-of-Service is used to restrict the use of features for individual Stations.

There are twenty-four Class-of-Service features, eight in each of (Mode 01) Class-of-Service 1, (Mode 02) Class-of-Service 2, and (Mode 03) Class-of-Service 3.

1. **House Phone:** A Station can be set to work as a House Phone. Lifting the handset automatically calls the Operator Console. (Yes = House Phone)
2. **Door Phone:** A Station can be set to work as a Door Phone. Lifting the handset rings all the Stations set to ring for the Door Phone. (Yes = Door Phone)
3. **Ring for Door Phone:** A Station can be set to ring for the Door Phone(s). (Yes = Ring)  
See (Mode 55) Door Phone Ring Time for setting the ring duration.
4. **Automatic Outside Line:** A Station can be set so that lifting the handset automatically accesses a Trunk from a Trunk Hunt Group. (Yes = Automatic Outside Line)  
See (Mode 25) Trunk Hunt Group Programming for how to set the Trunk Hunt Groups.  
See (Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station.
5. **Voice Mail Port:** A single-line telephone Port can be set as a Voice Mail Port. (Yes = Voice Mail Port)
6. **Force ARS:** A Station can be forced to use Automatic Route Selection when trying to access an individual Trunk when using 77 to access. This only applies when using Automatic Route Selection. (Yes = Force ARS)
7. **OHVA Keyphone:** A Keyphone can be set to receive Off-hook Voice Announce when busy. The OHVA feature is an optional hardware feature which requires special Keyphones and uses two Station ports per OHVA Keyphone.
8. **Speed Dial Directory:** A Keyphone can be set to use the Speed Dial Directory when accessing Speed Dial to preview the number and name before accessing a Trunk and dialing. (Yes = Use Speed Dial Directory)

See (Mode 01) Class-of-Service 1 and follow the programming procedure for setting Class-of-Service.

---

**(Mode 04) Station Toll Plan Assignment - Day**

Toll Plans are designed to restrict Station user access for making outgoing calls. There are fifteen separate Toll Plans.

<b>Toll Plan</b>	<b>Restriction</b>	<b>Key</b>
0	No Restriction	<b>FLASH</b>
1	Fully Programmable	<b>1</b>
2	Fully Programmable	<b>2</b>
3	Fully Programmable	<b>3</b>
4	Fully Programmable	<b>4</b>
5	Digit Length Restriction	<b>5</b>
6	Digit Length Restriction	<b>6</b>
7	1st digit cannot be 0	<b>7</b>
8	1st digit cannot be 1	<b>8</b>
9	1st digit cannot be 0 or 1	<b>9</b>
A	1st digit must be 1	<b>0</b>
B	1st two digits cannot be 00	<b>*</b>
C	1st two digits cannot be 09	<b>#</b>
D	Use only Common Unrestricted Numbers	<b>CONF</b>
E	Use only System Speed Dial	<b>CAMP</b>
F	No outward dialing	<b>REDIAL</b>

If a Station is set to Toll Plan 0, there is no call restriction.

Toll Plans 1 to 6 have a Digit Length Restriction (Mode 94).

Toll Plans 1 to 4 can have a Class-of-Restriction (Toll Plan) set for each Trunk. See (Mode 95) Class-of-Restriction - Trunk, (Mode 96) Local Call Restriction, and (Mode 97) Long Distance Call Restriction.

Toll Plans 1 to F can be further restricted using Common Restriction tables. See (Mode 91) Common Restricted Numbers and (Mode 92) Common Unrestricted Numbers.

**(Mode 04) Station Toll Plan Assignment - Day** Continued

Each Station Port can be assigned two different Toll Plans. One for Day Mode and one for Night Mode.

Toll Plans are designed to restrict what calls the user can make on the system. There are fifteen separate Toll Plans. If a Station Port is set to Toll Plan 0, it will have no call restriction.

Refer to the *Toll Restriction* section for more detailed information on Toll Plans.

**Programming Procedure:**

Enter Mode 04

M:04 .	
TOLL PLAN - DAY	

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 37 which is Station number 37  
Currently has no restriction

M:04 37	0
ST:37	

Press **FLASH** to reset a Toll Plan to 0.

M:04 37	0
ST:37	

Enter new Toll Plan (0 - F).

e.g. Set Port 37 to Toll Plan 7  
Cannot dial numbers starting with 0

M:04 37	7
ST:37	

Press **HOLD** to save change.

*:04 37	7
ST:37	

Move to next Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Port  
Port 38 currently has no restriction

M:04 38	0
ST:38	



**(Mode 05) Station Toll Plan Assignment - Night**

Each Station Port can be assigned two different Toll Plans. One for Day Mode and one for Night Mode.

Toll Plans are designed to restrict what calls the user can make on the system. There are fifteen separate Toll Plans. If a Station Port is set to Toll Plan 0, it will have no call restriction.

Refer to the *Toll Restriction* section for more detailed information on Toll Plans.

See (Mode 04) Station Toll Plan Assignment - Day and follow the programming procedure to assign a Toll Plan.

**(Mode 06) System Hold Recall Time**

The System Hold Recall Time for a Trunk or Intercom Call can be set from 1 to 9999 seconds.

If the System Hold Recall Time is set to 0, a call put on hold will never recall (Infinite Hold Recall).

System Hold Recall Time is also used by all Intercom Calls put on hold and only the Station which put the Intercom Call on hold will be recalled.

See (Mode 07) Console Hold Recall Time for setting the Hold Recall Time for Trunk Calls put on hold by the Console and Second Console.

See (Mode 08) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

**Programming Procedure:**

Enter Mode 06

e.g. System Hold Recall is 180 seconds

M:06	180
SYS HOLD RECALL	

Press **FLASH** to clear an existing time.

e.g. Set to Infinite Hold Recall

M:06	0
SYS HOLD RECALL	

Enter new System Hold Recall Time.

e.g. Set System Hold Recall to 90 seconds

M:06	90
SYS HOLD RECALL	

Press **HOLD** to save change.

*:06	90
SYS HOLD RECALL	

**(Mode 07) Console Hold Recall Time**

The Console Hold Recall Time for a Trunk Call can be set from 1 to 9999 seconds.

If the Console Hold Recall Time is set to 0, a Trunk Call put on hold by the Console or Second Console will never recall (Infinite Hold Recall).

The System Hold Recall Time is used for Intercom Calls put on hold by the Console or Second Console.

See (Mode 06) System Hold Recall Time for setting the System Hold Recall Time.

See (Mode 08) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

**Programming Procedure:**

Enter Mode 07

e.g. Console Hold Recall is 30 seconds

M:07	30
CONS HOLD RECALL	

Press **FLASH** to clear an existing time.

e.g. Set to Infinite Hold Recall

M:07	0
CONS HOLD RECALL	

Enter new Console Hold Recall Time.

e.g. Set Console Hold Recall to 60 seconds

M:07	60
CONS HOLD RECALL	

Press **HOLD** to save change.

*:07	60
CONS HOLD RECALL	

(Mode 08) Transfer Recall Time

The Transfer Recall Time for a Trunk Call can be set from 1 to 9999 seconds.

If the Transfer Recall Time is set to 0, a transferred Trunk Call which is not answered by the target Station will not recall to the Station which transferred the Trunk.

Transfer Recall Time is not used for transferred Intercom Calls.

See (Mode 06) System Hold Recall Time for setting the System Hold Recall Time.

See (Mode 07) Console Hold Recall Time for setting the Hold Recall Time for Trunk Calls put on hold by the Console and Second Console.

**Programming Procedure:**

Enter Mode 08

e.g. Transfer Recall Time is 30 seconds

M:08	30
TRANSFER RECALL	

Press **FLASH** to clear an existing time.

e.g. Set to normal Hold Recall

M:08	0
TRANSFER RECALL	

Enter new Transfer Recall Time.

e.g. Set Transfer Recall to 20 seconds

M:08	20
TRANSFER RECALL	

Press **HOLD** to save change.

*:08	20
TRANSFER RECALL	

**(Mode 09) System Date & Time**

The System is equipped with a real-time clock.

The real-time clock is used for setting the start time of Trunk Calls and for the date and time displayed on the LCD displays.

See (Mode 82) Clock Display Format to change the time format on the LCD display between 24 Hour and 12 Hour.

Day of Week (0 = Sun, 1 = Mon, 2 = Tues, 3 = Wed, 4 = Thurs, 5 = Fri, 6 = Sat)

**Programming Procedure:**

Enter Mode 09

e.g. The current Date is shown

```
M:09 1
Date   98/01/01
```

Press **TRF** or enter new Date (must be YYMMDD).

e.g. 990215 for 15th February 1999

```
M:09 1
Date   99/02/15
```

Display automatically changes.

Enter new Time (must be HHMM in 24 Hour format).

e.g. 1547 for 3:47 in the afternoon

```
M:09 2
Time   15:47
```

Display automatically changes.

Enter Day of Week (0 - 6).

e.g. 4 for Thursday

```
M:09 3
Day of Week  Thu
```

Press **HOLD** at any stage to save a change.

```
*:09 3
Day of Week  Thu
```

## Trunk Specifications

### (Mode 10) Trunk Names

Each Trunk can be assigned a Name up to eight characters long. The name is used in place of the Trunk number when making Trunk Calls, etc.

#### Keys:

1	QqZz
2	AaBbCc
3	DdEeFf
4	GgHhIi
5	JjKkLl
6	MmNnOo
7	PpQqRrSs
8	TtUuVv
9	WwXxYy
0	Space then complete range of characters.
*	Move left one space.
#	Move right one space.

#### Programming Procedure:

Enter Mode 10

```
M:10 .
TRUNK NAME
```

Enter Trunk number (1# - 24).

e.g. Trunk 3 which has no name

```
M:10 3
TRUNK NAME
```

Press **FLASH** to erase an existing name.

```
M:10 3
TRUNK NAME
```

Enter name by pressing the correct lettered key.

e.g. Press 5 five times for 'L' in Local 3

```
M:10 3 L
TRUNK NAME
```

Move to next letter. # moves right and \* moves back to the left.

e.g. Move to next letter

```
M:10 3 L
TRUNK NAME
```

Enter next letter.

e.g. Press 6 six times for 'o' in Local 3

```
M:10 3 Lo
TRUNK NAME
```

Repeat the above two steps until the Trunk name is entered.

Press **HOLD** to save change.

```
*:10 3 Local 3
TRUNK NAME
```

Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk

```
M:10 4
TRUNK NAME
```

---

### (Mode 11) Trunk Class-of-Service

Trunk Class-of-Service is used to define the operation of individual Trunks.

There are eight Trunk Class-of-Service features.

- 1. Trunk Type:** The system is normally connected directly to C.O. Lines but can be set to work behind another PABX. (**MSG** = PABX, **FLASH** = C.O.)  
When a Trunk is set as a PABX Line the PABX Trunk Access Code will be ignored for Toll Restriction, and will not be shown on the SMDR output.  
See (Mode 98) PABX Trunk Access Code for setting the PABX Trunk Access Code.
- 2. Trunk Signal Type:** Each Trunk can be set for either DTMF or Pulse signalling. When a Trunk is connected to a Central Office (or PABX) which recognizes both DTMF and Pulse signalling, set the Trunk to DTMF. Set a Trunk to Pulse signalling only when that is the only type of signalling recognized.  
(**MSG** = DTMF, **FLASH** = Pulse)  
Refer to the *System DIP Switches* section for how to set the Trunk Signal Type default. Set the default to DTMF signalling if any Trunks use DTMF signalling. Refer to the *Easy Reference Guide* for how to change the signal type while dialing on a Trunk.
- 3. Centrex Trunk Operation:** Each Trunk can be set to support Centrex Trunk operation for Single-Line Telephones. (**MSG** = Yes = Centrex)  
When set for Centrex operation, Single-Line Telephones can do a Flash on a Trunk by putting the Trunk on Hold then immediately dial a 6 to reaccess the Trunk.
- 4. Trunk Loud Bell Ringing - Day:** Each Trunk can be set to ring a Loud Bell for an Incoming Call during Day Mode. The Loud Bell will ring immediately using the standard Trunk Ring cadence. (**MSG** = Ring, **FLASH** = Not Ring)  
Refer to the *System DIP Switches* section for how to set the System to use the Loud Bell.
- 5. Trunk Loud Bell Ringing - Night:** Each Trunk can be set to ring a Loud Bell for an Incoming Call during Night Mode. The Loud Bell will ring immediately using the standard Trunk Ring cadence. (**MSG** = Ring, **FLASH** = Not Ring)
- 6. Loop Supervision Disconnect:** Each Trunk can be set to support Loop Supervision Disconnect operation for automatic termination of Trunk calls by the Central Office exchange. (**MSG** = Yes = Loop Supervision Disconnect)



**Note:** The facility used by Loop Supervision Disconnect is supplied by the Central Office exchange and is not available to every exchange (or country).

7. **SMDR Incoming:** Normally the SMDR output shows only the outgoing calls. Incoming Calls can also be set to print. (**MSG** = Yes = Print Incoming Calls)
8. **SMDR Transferred:** Normally the SMDR output shows only the outgoing calls. Trunk Calls can be set to print each time they are transferred. (**MSG** = Yes = Print for Transfer)  
When set the Call duration is reset each time a Trunk is transferred. Refer to the *Installation Guide* for more information on the SMDR.

### Programming Procedure:

Enter Mode 11

```
M:11 .
TRUNK COS
```

Enter Trunk number (1# - 24).

e.g. Trunk 3

```
M:11 3 .
TRUNK COS
```

Enter Class-of-Service (1 - 8).

e.g. Trunk 3 is set for DTMF Signaling

```
M:11 3 2 DTMF
TRUNK SIGNAL
```

Press **MSG** for DTMF (Yes) or **FLASH** for Pulse (No).

e.g. Set to Pulse Signaling

```
M:11 3 2 PULSE
TRUNK SIGNAL
```

Press **HOLD** to save change.

```
*:11 3 2 PULSE
TRUNK SIGNAL
```

Move to next Class-of-Service or Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Class-of-Service

```
M:11 3 3 YES
CENTREX TRUNK
```

(Mode 13) Pulse Dialing Pulses per Second

Trunk Pulse Dialing can be set to either 10 pps or 20 pps.

**Programming Procedure:**

Enter Mode 13

M:13	10
PULSE PER SECOND	

Press **MSG** for 10 pps or **FLASH** for 20 pps.

e.g. Set to 20 pps

M:13	20
PULSE PER SECOND	

Press **HOLD** to save change.

*:13	20
PULSE PER SECOND	

(Mode 14) Pulse Dialing Break / Make Ratio

Trunk Pulse Dialing can use either a 60 / 40 or 66 / 33 Break / Make Ratio.

**Programming Procedure:**

Enter Mode 14

M:14	60/40
B/M RATIO	

Press **MSG** for 66 / 33 or **FLASH** for 60 / 40

e.g. Set to 66 / 33 pps

M:14	66/33
B/M RATIO	

Press **HOLD** to save change.

*:14	66/33
B/M RATIO	

**(Mode 15) Trunk Flash Time**

The Flash Time used on Trunks can be set from 50 ms to 2550 ms ( $n \times 10$  ms).

When the Trunk Flash Time is used for Redial it is set for a duration which will guarantee the termination of the Trunk Call.

When the Trunk Flash Time is used for Centrex Trunk Operation it is set for a shorter period than the minimum Flash time required for terminating a Trunk Call.

**Note:** The facility used for Centrex operation is supplied by the Central Office exchange and is not available to every exchange (or country).

See (Mode 11) Centrex Trunk Operation for how to set a Trunk for Centrex operation.

**Programming Procedure:**

Enter Mode 15

e.g. Currently set to 1800 ms

M:15	180
TRUNK FLASH TIME	

Press **FLASH** to clear an existing time.

M:15	0
TRUNK FLASH TIME	

Enter new Flash Time.

e.g. Set to 1200 ms ( $n = 120$ )

M:15	120
TRUNK FLASH TIME	

Press **HOLD** to save change.

*:15	120
TRUNK FLASH TIME	

**Note:** The minimum Trunk Flash Time is 50 ms ( $n = 5$ ), and the maximum time is 2550 ms ( $n = 255$ ).

**(Mode 16) Pause Time**

The Pause Time used on Trunks can be set from 500 ms to 2550 ms (n x 10 ms).

The Trunk Pause Time is used with Redial, Auto Redial, and Speed Dial. It is the delay after accessing a Trunk before automatic dialing.

**Programming Procedure:**

Enter Mode 16

e.g. Currently set to 1500 ms

M:16	150
PAUSE TIME	

Press **FLASH** to clear an existing time.

M:16	0
PAUSE TIME	

Enter new Pause Time.

e.g. Set to 1800 ms (n = 180)

M:16	180
PAUSE TIME	

Press **HOLD** to save change.

*:16	180
PAUSE TIME	

**Note:** The minimum Pause Time is 500 ms (n = 50).

**(Mode 17) DTMF Tone Length**

The DTMF Tone Length can be set from 50 ms to 250 ms ( $n \times 10$  ms).

The DTMF Tone Length determines how quickly a Trunk generates DTMF dialing. Setting the DTMF Tone Length too short results in the Central Office exchange missing DTMF digits or ignoring the dialing completely.

**Programming Procedure:**

Enter Mode 17

e.g. Currently set to 70 ms

M:17	7
DTMF TONE LENGTH	

Press **FLASH** to clear an existing length.

M:17	0
DTMF TONE LENGTH	

Enter new DTMF Tone Length.

e.g. Set to 80 ms ( $n = 8$ )

M:17	8
DTMF TONE LENGTH	

Press **HOLD** to save change.

*:17	8
DTMF TONE LENGTH	

**Note:** The minimum DTMF Tone Length is 50 ms ( $n = 5$ ), and the maximum is 250 ms ( $n = 25$ ).

## Tenant Service

### (Mode 18) Trunk Tenant Service

Up to eight Tenants can be supported on the same system. Stations can be restricted to accessing Trunks with the same Tenant number. 0 means the Trunk is unrestricted and can be accessed by any Station.

See (Mode 19) Station Tenant Service for setting Tenant Service for Stations.

#### Programming Procedure:

Enter Mode 18

```
M:18 .  
TRUNK TENANT
```

Enter Trunk number (1# - 24).

e.g. Trunk 1 (Small System)

```
M:18 1  
TRUNK TENANT
```

Press **FLASH** to clear an existing Tenant number.

```
M:18 1 0  
TRUNK TENANT
```

Enter new Tenant number (1 - 8).

e.g. Set Trunk 1 to Tenant 3

```
M:18 1 3  
TRUNK TENANT
```

Press **HOLD** to save change.

```
*:18 1 3  
TRUNK TENANT
```

Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk

```
M:18 2 0  
TRUNK TENANT
```

**(Mode 19) Station Tenant Service**

Up to eight Tenants can be supported on the same system. Stations can be restricted to calling Stations with the same Tenant number. 0 means the Station is unrestricted and can be called by any Station.

See (Mode 18) Trunk Tenant Service for setting Tenant Service for Trunks.

**Programming Procedure:**

Enter Mode 19

```
M:19 .
STATION TENANT
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 12 which has not been assigned a Tenant number

```
M:19 12      0
ST:12
```

Press **FLASH** to clear an existing Tenant number.

```
M:19 12      0
ST:12
```

Enter new Tenant number (1 - 8).

e.g. Set Station 12 to Tenant 3

```
M:19 12      3
ST:12
```

Press **HOLD** to save change.

```
*:19 12      3
ST:12
```

Move to next Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Station

```
M:19 13      0
ST:13
```

## Speed Dial

### (Mode 20) Speed Dial Toll Restriction Break Point

A range of System Speed Dial bins can be set to be NOT restricted by Toll Restriction. The Speed Dial Break Point can be set from 100 to 499.

If the Break Point is set to 200 then System Speed Dial bins 100 - 199 are Toll Restricted while System Speed Dial bins 200 - 499 are **NOT** Toll Restricted.

**Note:** If a Station is set to Toll Plan 0 (No Restriction) then it can dial any System Speed Dial bins with NO restriction.

Refer to the *Easy Reference Guide* for how to program System Speed Dial numbers.

### Programming Procedure:

Enter Mode 20

M:20	200
SPD BREAK POINT	

Press **FLASH** to clear an existing Break Point.

M:20	0
SPD BREAK POINT	

Enter new Break Point.

e.g. Set only Speed Dial bins 400 - 499 as NOT Toll Restricted

M:20	400
SPD BREAK POINT	

Press **HOLD** to save change.

*:20	400
SPD BREAK POINT	



## Trunk Access

### (Mode 21) Private Line Assignment

Each Trunk can be set as a Private Line for up to eight Stations. Only the set Stations can access a Private Line unless Private Line Access is set to open.

Incoming Calls for a Private Line will ring only the assigned Flexible Ring Stations and the assigned Station Hunt Group for that Trunk (they do not need to be assigned to the Private Line). However, if the first position of the Private Line Assignment for the Trunk is vacant, the Private Line will ring as a normal Trunk.

See (Mode 39) Trunk Station Hunt Group Ringing - Day and (Mode 40) Trunk Station Hunt Group Ringing - Night for setting a Station Hunt Group to ring for each Private Line.

See (Mode 41) Flexible Ring - Day and (Mode 42) Flexible Ring - Night for setting which Station Ports will ring for each Private Line.

#### Programming Procedure:

Enter Mode 21

```
M:21 .
PRIV LINE ASSIGN
```

Enter Trunk number (1# - 24).

e.g. Trunk 1 (Small System)

```
M:21 1 .
PRIV LINE ASSIGN
```

Enter which position (1 - 8).

e.g. The second position which is Port 24

```
M:21 1 2      24
PRIV LINE ASSIGN
```

Press **FLASH** to clear an existing Port number.

```
M:21 1 2
PRIV LINE ASSIGN
```

Enter new Port number (01 - 16 or 001 - 240).

e.g. Set to Port 021

```
M:21 1 2 21
PRIV LINE ASSIGN
```

Press **HOLD** to save change.

```
*:21 1 2 21
PRIV LINE ASSIGN
```

Move to next Trunk or position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position  
Port 25 is the third Station Port

```
M:21 1 3 25
PRIV LINE ASSIGN
```

**(Mode 22) Private Line Access**

Access to Trunks assigned as Private Lines is normally restricted to the Stations assigned to the Private Line. Private Line access can be set open.

**Programming Procedure:**

Enter Mode 22

```
M:22 CLOSED
PRIV LINE ACCESS
```

Press **MSG** for Open or **FLASH** for Closed.

e.g. Open Private Line access

```
M:22 OPEN
PRIV LINE ACCESS
```

Press **HOLD** to save change.

```
*:22 OPEN
PRIV LINE ACCESS
```

**(Mode 23) Private Line - Common Ring Night**

When in Night Mode, Incoming Calls on Private Lines can be set to also ring the Common Ring Night Stations.

See (Mode 48) Common Ring - Night for setting Common Ring Night Stations.

**Programming Procedure:**

Enter Mode 23

M:23	NO
PRIV NITE RING	

Press **MSG** for Ring (Yes) or **FLASH** for Not Ring (No).

e.g. Set to ring Common Ring Night Stations

M:23	YES
PRIV NITE RING	

Press **HOLD** to save change.

*:23	YES
PRIV NITE RING	

**(Mode 24) Private Line Pickup**

Normally, only Stations which can access a Private Line can pickup a ringing Private Line. Private Line Pickup can be allowed by all Stations.

See (Mode 01 - COS 2) Call Pickup for how to set Call Pickup for Stations.

**Programming Procedure:**

Enter Mode 24

M:24	NO
PRIV LINE PICKUP	

Press **MSG** to allow pickup (Yes) or **FLASH** to deny (No).

e.g. Set to allow Pickup

M:24	YES
PRIV LINE PICKUP	

Press **HOLD** to save change.

*:24	YES
PRIV LINE PICKUP	

**(Mode 25) Trunk Hunt Group Programming**

The system has eight Trunk Hunt Groups (1 - 8) which are used for Automatic Trunk Selection. Redial, Speed Dial, Auto Redial, and External Call Forwarding all use the Trunk Hunt Group assigned to the Station.

**Note:** Remove all unused Trunks from the Trunk Hunt Groups.

Each Trunk Hunt Group can have the maximum number of Trunks available for the system assigned to it.

See (Mode 74) Trunk Hunt Group Assignment for assigning a Trunk Hunt Group to a Station.

**Programming Procedure:**

Enter Mode 25

```
M:25 .
TRUNK HUNT GROUP
```

Enter Trunk Hunt Group number (1 - 8).

e.g. Trunk Hunt Group 2

```
M:25 2 .
TRUNK HUNT GROUP
```

Enter which position (1 - 8 or 1# - 24).

e.g. The fourth position which is Trunk 4  
(Large System)

```
M:25 2 04      04
TRUNK HUNT GROUP
```

Press **FLASH** to clear an existing Trunk.

```
M:25 2 04
TRUNK HUNT GROUP
```

Enter new Trunk.

e.g. Set to Trunk 21

```
M:25 2 04      21
TRUNK HUNT GROUP
```

Press **HOLD** to save change.

```

* : 25 2 04      21
TRUNK HUNT GROUP
  
```

Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position  
Trunk 5 is the fifth Trunk in the Group

```

M : 25 2 05      05
TRUNK HUNT GROUP
  
```

### (Mode 26) Automatic Trunk Selection

Automatic Trunk Selection will get the first idle Trunk in a Trunk Hunt Group.

Automatic Trunk Selection can be done by dialing either 9 or 0. If 9 is used for Automatic Trunk Selection then 0 is the Operator (if 0 is used then 9 is the Operator). If Automatic Trunk Hunt Group Access is not set, a second digit (1 - 8) must be dialed to specify which Trunk Hunt Group to use.

See (Mode 27) Automatic Trunk Hunt Group Access also.

#### Programming Procedure:

Enter Mode 26

```

M : 26           9
AUTO TRUNK SELCT
  
```

Press **MSG** for 0 or **FLASH** for 9.

e.g. Set 0 for Automatic Trunk Selection

```

M : 26           0
AUTO TRUNK SELCT
  
```

Press **HOLD** to save change.

```

* : 26           0
AUTO TRUNK SELCT
  
```

**(Mode 27) Automatic Trunk Hunt Group Access**

When using Automatic Trunk Selection (9 or 0), either the Trunk Hunt Group assigned to the Station is automatically used, or a second digit (1 - 8) must be dialed to specify which Trunk Hunt Group to use.

**Programming Procedure:**

Enter Mode 27

M:27	NO
AUTO TRUNK GROUP	

Press **MSG** for Automatic Access (Yes) or **FLASH** for No.

e.g. Set to use Automatic Trunk Hunt Group  
Access

M:27	YES
AUTO TRUNK GROUP	

Press **HOLD** to save change.

*:27	YES
AUTO TRUNK GROUP	

(Mode 28) Terminal Trunk Hunt Group Access

Trunks are always accessed from a Trunk Hunt Group starting at the first position of the Trunk Hunt Group and accessing the first available idle Trunk found.

An alternative to terminal access is distributed access where the Trunks are accessed in rotation.

**Programming Procedure:**

Enter Mode 28

M:28	YES
TERMINAL TK ACC	

Press **MSG** for Terminal Access (Yes) or **FLASH** for Distributed Access (No).

e.g. Set to use distributed Access

M:28	NO
TERMINAL TK ACC	

Press **HOLD** to save change.

*:28	NO
TERMINAL TK ACC	



## DVA Port

### (Mode 29) DVA Port

When a Station has been set up with a Wake-up / Remind Call the Station will ring at the programmed time. When answered the Station will receive either music or be connected to the DVA Port. If there is no assigned DVA Port or if the DVA Port is busy then the Station will only get music.

A Station Hunt Group can also be assigned as the DVA Port. Only one Station from the Station Hunt Group will be selected.

Refer to the *Easy Reference Guide* for how to set Station Wake-Up / Remind Calls.

### **Programming Procedure:**

Enter Mode 29

M:29
DVA PORT

Press **FLASH** to erase an existing Station Port number.

M:29
DVA PORT

Enter new Station Port number (01 - 16 or 001 - 240).

e.g. Set to Port 13

M:29	13
DVA PORT	

**OR** Press **MSG** for Station Hunt Group (1 - 8).

e.g. Set to Station Hunt Group 1

M:29	STGP:1
DVA PORT	

Press **HOLD** to save change.

*:29	13
DVA PORT	

**Call Forward - No Answer**

**(Mode 30) No Answer Forward Time**

When using Call Forward - Busy / No Answer a Station can be programmed to forward calls to another Station (or External number) if not answered within a programmed time.

The No Answer Forward Time can be set from 10 to 9999 seconds. One Trunk ring cycle equals 4 seconds.

**Programming Procedure:**

Enter Mode 30

e.g. Currently set to 10 seconds

M:30	10
NO ANSWER TIME	

Press **FLASH** to clear an existing time.

M:30	0
NO ANSWER TIME	

Enter new No Answer Forward Time.

e.g. Set to 16 seconds

M:30	16
NO ANSWER TIME	

Press **HOLD** to save change.

*:30	16
NO ANSWER TIME	

**Note:** The minimum No Answer Forward Time is 10 seconds.

## Console

The system can operate with one or two consoles.

The Second Console can work either in parallel with the main Console or after a delay time expires.

When the Operator is dialed, only the main Console will ring. The Second Console will ring only if the main Console is busy.

### (Mode 31) Console

The Station which is to be the main Console can be chosen. The Console can be assigned two different Station Ports. One for Day Mode and one for Night Mode.

There must always be a Console and the Console must be a Keyphone.

Refer to the *Easy Reference Guide* on how to set an alternate Operator for the Operator Stations.

### **Programming Procedure:**

Enter Mode 31

```
M:31 .
CONSOLE 1
```

Enter position (1 for Day, 2 for Night).

e.g. The Day Console is currently Port 01

```
M:31 1      01
CONSOLE 1
```

Press **FLASH** to erase an existing Port number.

```
M:31 1
CONSOLE 1
```

Enter new Port for Console (01 - 16 or 001 - 240).

e.g. Set Day Console to Port 14

```
M:31 1      14
CONSOLE 1
```

Press **HOLD** to save change.

*:31 1	14
CONSOLE 1	

Move to Night Console. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Night Console is Port 01

M:31 2	01
CONSOLE 1	

**(Mode 32) Second Console**

The Station which is to be the Second Console can be chosen. The Second Console can be assigned two different Station Ports. One for Day Mode and one for Night Mode.

The Second Console can work either in parallel with the main Console or after a delay time expires.

When the Operator is dialed, only the main Console will ring. The Second Console will ring only if the main Console is busy. However both the Console and Second Console can ring simultaneously when the Operator is called.

Refer to the *Easy Reference Guide* on how to set an alternate Operator for the Operator Stations.

See (Mode 31) Console and follow the programming procedure to set the Second Console.

**(Mode 33) Second Console Delay Time**

The Second Console can work either in parallel with the main Console or after a delay time expires.

The Delay Time applies to Incoming Calls, Console Hold Recall, and System Hold Recall.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay, and the two consoles will work in parallel.

**Programming Procedure:**

Enter Mode 33

e.g. The Delay Time is currently 30 seconds

M:33	30
CONS2 DELAY TIME	

Press **FLASH** to clear an existing time.

M:33	0
CONS2 DELAY TIME	

Enter new Second Console Delay Time.

e.g. Set Delay Time to 15 seconds

M:33	15
CONS2 DELAY TIME	

Press **HOLD** to save change.

*:33	15
CONS2 DELAY TIME	

**(Mode 34) Console System Hold Recall Delay Time**

When a Trunk has been on hold for the System Hold Recall Time it will try to ring the Station which put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). The delay after a Station is recalled can be programmed. After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

Intercom Calls on hold, by another Station, for the System Hold Recall Time will not recall to the Console and Second Console.

See (Mode 06) System Hold Recall Time for setting the System Hold Recall Time.

See (Mode 07) Console Hold Recall Time for setting the Console Hold Recall Time.

See (Mode 08) Transfer Recall Time for setting the Recall Time for unanswered transferred Trunk Calls.

See (Mode 35) Console System Hold Recall Release Time for setting the Console Hold Recall Release Time.

**Programming Procedure:**

Enter Mode 34

e.g. The Delay Time is currently 60 seconds

M:34	60
SYS HLD REC DELY	

Press **FLASH** to clear an existing time.

M:34	0
SYS HLD REC DELY	

Enter new Console System Hold Recall Delay Time.

e.g. Set Delay Time to 45 seconds

M:34	45
SYS HLD REC DELY	

Press **HOLD** to save change.

*:34	45
SYS HLD REC DELY	

**(Mode 35) Console System Hold Recall Release Time**

When a Trunk has been on hold for the System Hold Recall Time it will try to ring the Station which put it on hold. After a Trunk Call recalls a Station it will also recall the Console(s). After the Console(s) have been ringing for the Console System Hold Recall Release Time, and is unanswered, the Trunk Call will be released. This does not effect Trunk Calls put on hold by the Console(s).

The Release Time can be set from 1 to 9999 seconds. If set to 0 there will be no release.

See (Mode 06) System Hold Recall Time for setting the System Hold Recall Time.

See (Mode 34) Console System Hold Recall Delay Time for setting the Console System Hold Recall Delay Time.

**Programming Procedure:**

Enter Mode 35

e.g. The Release Time is currently 60 seconds

M:35	60
SYS HLD RLS TIME	

Press **FLASH** to clear an existing time.

e.g. Set for No Release

M:35	0
SYS HLD RLS TIME	

Enter new Console System Hold Recall Release Time.

e.g. Set Release Time to 120 seconds

M:35	120
SYS HLD RLS TIME	

Press **HOLD** to save change.

*:35	120
SYS HLD RLS TIME	

## Forced Account Code

### (Mode 36) Forced Account Code

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

Forced Account Code can use either a length or a verification table to recognise account code numbers.

#### Programming Procedure:

Enter Mode 36

M:36	NO
FORCE ACC CODE	

Press **MSG** for Forced (Yes) or **FLASH** for No.

e.g. Set to use Forced Account Code

M:36	YES
FORCE ACC CODE	

Press **HOLD** to save change.

*:36	YES
FORCE ACC CODE	



**(Mode 37) Forced Account Code Length**

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

The account code length can be set from 1 to 6 digits. If set to 0 the Forced Account Code Table will be used to verify the account codes.

**Programming Procedure:**

Enter Mode 37

e.g. Account Code Length is set to 6 digits

M:37	6
ACC CODE LENGTH	

Press **FLASH** to clear an existing length.

M:37	0
ACC CODE LENGTH	

Enter new Account Code Length (0 - 6).

e.g. Set for 4 digit Account Codes

M:37	4
ACC CODE LENGTH	

Press **HOLD** to save change.

*:37	4
ACC CODE LENGTH	

**(Mode 38) Forced Account Code Table**

Forced Account Code can be used to ensure an account code is entered before an idle Trunk is accessed.

The account code table can have up to 96 different account codes. Forced Account Code Length must be set to 0 to use the account code table to verify the account codes.

**Programming Procedure:**

Enter Mode 38

```
M:38 .  
ACC CODE TABLE
```

Enter position (1# - 96).

e.g. first Account Code

```
M:38 01 4728  
ACC CODE TABLE
```

Press **FLASH** to erase an existing Account Code.

```
M:38 01  
ACC CODE TABLE
```

Enter new Account Code (up to 6 digits).

e.g. Set Account Code to 2881

```
M:38 01 2881  
ACC CODE TABLE
```

Press **HOLD** to save change.

```
*:38 01 2881  
ACC CODE TABLE
```

Move to next Account Code. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Account Code

```
M:38 02 5532  
ACC CODE TABLE
```

## Trunk Ringing

### A. Private Line Ringing

1. Ring the Flexible Ring Stations.
2. Ring a Station from a Station Hunt Group if set to ring.
3. If it is Night Mode ring all the Common Ring Night Stations if set to ring.

### B. Normal Trunk Ringing

1. Ring the Flexible Ring Stations.
2. Ring a Station from a Station Hunt Group if set to ring.
3. Ring the Console if set to ring.
4. After Second Console Delay Time expires, ring the Second Console if set to ring.
5. After Common Ring Delay Time expires, ring all the Common Ring Stations.

### (Mode 39) Trunk Station Hunt Group Ringing - Day

Each Trunk can be set to ring a Station Hunt Group for Incoming Calls.

A Station Hunt Group can be set for both Day Mode and Night Mode.

If one or more Stations from the assigned Station Hunt Group are already ringing due to being a Flexible Ring Station, Console, or Second Console, no extra Station from the Station Hunt Group will ring.

If set to 0 no Station Hunt Group will be used.

See (Mode 67) Station Hunt Groups for how to set up a Station Hunt Group.

#### **Programming Procedure:**

Enter Mode 39

M:39 . ST GP RING - DAY
----------------------------

Enter Trunk number (1# - 24).

e.g. Trunk 4 has no Station Hunt Group set  
(Small System)

M:39 4	0
ST GP RING - DAY	

Enter Station Hunt Group number (1 - 8) or press **FLASH** to set to 0.

e.g. Set to Station Hunt Group 2

M:39 4	2
ST GP RING - DAY	

Press **HOLD** to save change.

*:39 4	2
ST GP RING - DAY	

Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk  
Trunk 5 has no Station Hunt Group set

M:39 5	0
ST GP RING - DAY	

**(Mode 40) Trunk Station Hunt Group Ringing - Night**

Each Trunk can be set to ring a Station Hunt Group for Incoming Calls when the system is in Night Mode.

A Station Hunt Group can be set for both Day Mode and Night Mode.

If one or more Stations from the assigned Station Hunt Group are already ringing due to being a Flexible Ring Station, Console, or Second Console, no extra Station from the Station Hunt Group will ring.

If set to 0 no Station Hunt Group will be used.

See (Mode 67) Station Hunt Groups for how to set up a Station Hunt Group.

See (Mode 39) Trunk Station Hunt Group Ringing - Day and follow the programming procedure to set Trunk Station Hunt Group Ringing - Night.

**(Mode 41) Flexible Ring - Day**

Each Trunk can ring up to sixteen selected Stations for an Incoming Call. These Stations are known as the Flexible Ring Stations. The Flexible Ring Stations will ring immediately for an Incoming Call.

Flexible Ring Stations can be set for Day Mode, Night Mode, or both.

If a Flexible Ring Stations is busy, it will be reminded if Flexible Ring Busy Remind has been set.

A Station from a Station Hunt Group can also be set to ring. Only one Station from the Station Hunt Group will be set to ring. Other Stations in the Station Hunt Group will not be busy reminded.

See (Mode 21) Private Line Assignment if setting Flexible Ring for a Private Line.

See (Mode 47) Common Ring - Day and (Mode 48) Common Ring - Night for how to set Common Ring Stations.

See (Mode 50) Flexible Ring Busy Remind for how to set Busy Remind for Flexible Ring Stations.

**Programming Procedure:**

Enter Mode 41

```
M:41 .
FLEX RING - DAY
```

Enter Trunk number (1# - 24).

e.g. Trunk 5  
To set Station Ports 12 & 21 to ring.

```
M:41 5 .
FLEX RING - DAY
```

Enter which Flexible Ring Station position (1# - 16).

```
M:41 5 01
FLEX RING - DAY
```

Press **FLASH** to erase an existing Port number.

```
M:41 5 01
FLEX RING - DAY
```

Enter new Port number (01 - 16 or 001 - 240).

e.g. Set to Port 12

```
M:41 5 01      12
FLEX RING - DAY
```

**OR** Press **MSG** for Station Hunt Group (1 - 8).

e.g. Set to Station Hunt Group 8

```
M:41 5 01 STGP:8
FLEX RING - DAY
```

Press **HOLD** to save change.

```
*:41 5 01      12
FLEX RING - DAY
```

Move to next Trunk or position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position  
To set Port 21 to ring.

```
M:41 5 02
FLEX RING - DAY
```

**(Mode 42) Flexible Ring - Night**

Each Trunk can ring up to sixteen selected Stations for an Incoming Call when the system is in Night Mode. These Stations are known as the Flexible Ring Stations. The Flexible Ring Stations will ring immediately for an Incoming Call.

If a Flexible Ring Stations is busy it will be reminded if Flexible Ring Busy Remind has been set.

A Station from a Station Hunt Group can also be set to ring. Only one Station from the Station Hunt Group will be set to ring. Other Stations in the Station Hunt Group will not be busy reminded.

See (Mode 21) Private Line Assignment if setting Flexible Ring for a Private Line.

See (Mode 47) Common Ring - Day and (Mode 48) Common Ring - Night for how to set Common Ring Stations.

See (Mode 50) Flexible Ring Busy Remind for how to set Busy Remind for Flexible Ring Stations.

See (Mode 41) Flexible Ring - Day and follow the programming procedure to set Flexible Ring - Night.

**(Mode 43) Stepped Ringing**

The Flexible Ring Stations for a Trunk can be set to ring all at once or in a stepped pattern.

When Stepped Ringing is set for a Trunk, only one Flexible Ring Station will initially ring for an Incoming Call, an additional Flexible Ring Station will start ringing every six seconds. They will ring in the order set in (Mode 41) Flexible Ring - Day and (Mode 42) Flexible Ring - Night.

Stepped Ringing affects both Private Lines and normal Trunks.

**Programming Procedure:**

Enter Mode 43

```
M:43 .
  STEPPED RINGING
```

Enter Trunk number (1# - 24).

e.g. Trunk 2 (small system)

```
M:43 2      NO
  STEPPED RINGING
```

Press **MSG** for Stepped Ringing (Yes) or **FLASH** for normal (No).

e.g. Set Trunk to use Stepped Ringing

```
M:43 2      YES
  STEPPED RINGING
```

Press **HOLD** to save change.

```
*:43 2      YES
  STEPPED RINGING
```

Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk

```
M:43 3      NO
  STEPPED RINGING
```

**(Mode 44) Console Incoming Call Ringing**

Incoming Calls can be set to ring at the Console.

If the Console is set to Ring, it will be reminded when busy if Common Ring Busy Remind has been set. If set to Not Ring, it will still ring if set as a Flexible Ring Station or Common Ring Station.

See (Mode 49) Common Ring Busy Remind for how to set the Common Ring Busy Remind Time.

**Programming Procedure:**

Enter Mode 44

M:44	RING
CONS 1	INCOMING

Press **MSG** for Ring or **FLASH** for Not Ring.

e.g. Set the Console to not ring

M:44	NOT RING
CONS 1	INCOMING

Press **HOLD** to save change.

*:44	NOT RING
CONS 1	INCOMING

**(Mode 45) Second Console Incoming Call Ringing**

Incoming Calls can be set to ring at the Second Console (after the Second Console Delay Time).

If the Second Console is set to Ring, it will be reminded when busy if Common Ring Busy Remind has been set. If set to Not Ring, it will still ring if set as a Flexible Ring Station or Common Ring Station.

See (Mode 44) Console Incoming Call Ringing and follow the programming procedure to set Second Console Incoming Call Ringing.



**(Mode 46) Common Ring Delay Time**

Each Trunk can have a Delay Time before the Common Ring Stations will ring for an Incoming Call.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

**Programming Procedure:**

Enter Mode 46

```
M:46 .
COMM RING DELAY
```

Enter Trunk number (1# - 24).

e.g. Trunk 3 has a 15 second Common Ring Delay Time

```
M:46 3      15
COMM RING DELAY
```

Press **FLASH** to clear an existing time.

```
M:46 3      0
COMM RING DELAY
```

Enter new Common Ring Delay Time.

e.g. Set Delay Time to 10 seconds for Trunk 3

```
M:46 3      10
COMM RING DELAY
```

Press **HOLD** to save change.

```
*:46 3      10
COMM RING DELAY
```

Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk

```
M:46 4      0
COMM RING DELAY
```

**(Mode 47) Common Ring - Day**

The system can ring up to twenty-four selected Stations for an Incoming Call. These Stations are known as the Common Ring Stations. The Common Ring Stations will ring for an Incoming Call only after the Common Ring Delay Time expires.

Common Ring Stations will ring for Incoming Calls on all Trunks. (Private Lines are a possible exception depending on how the Private Line is set up.)

Common Ring Stations can be set for Day Mode, Night Mode, or both.

If a Common Ring Station is busy it will be reminded if Common Ring Busy Remind has been set.

A Station from a Station Hunt Group can also be set to ring. Only one Station from the Station Hunt Group will be set to ring. Other Stations in the Station Hunt Group will not be busy reminded.

See (Mode 21) Private Line Assignment if setting Common Ring for a Private Line.

See (Mode 41) Flexible Ring - Day and (Mode 42) Flexible Ring - Night for how to set Flexible Ring Stations.

See (Mode 46) Common Ring Delay Time for how to set the Delay Time for Common Ring Stations.

See (Mode 49) Common Ring Busy Remind for how to set Busy Remind for Common Ring Stations.

**Programming Procedure:**

Enter Mode 47

```
M:47 .
COMM RING - DAY
```

Enter which Common Ring Station position (1# - 24).

e.g. Set Ports 13, 14, 16, and 18 as Common Ring Stations.

```
M:47 01
COMM RING - DAY
```

Press **FLASH** to erase an existing Port number.

```
M:47 01
COMM RING - DAY
```

Enter new Port number (01 - 16 or 001 - 240).

e.g. Set to Port 13

```
M:47 01      13
COMM RING - DAY
```

**OR** Press **MSG** for Station Hunt Group (1 - 8).

e.g. Set to Station Hunt Group 1

```
M:47 01      STGP:1
COMM RING - DAY
```

Press **HOLD** to save change.

```
*:47 01      13
COMM RING - DAY
```

Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position to set Port 14

```
M:47 02
COMM RING - DAY
```

**(Mode 48) Common Ring - Night**

The system can ring up to twenty-four selected Stations for an Incoming Call when the system is in Night Mode. These Stations are known as the Common Ring Stations. The Common Ring Stations will ring for an Incoming Call only after the Common Ring Delay Time expires.

Common Ring Stations will ring for Incoming Calls on all Trunks. (Private Lines are a possible exception depending on how the Private Line is set up.)

Common Ring Stations can be set for Day Mode, Night Mode, or both.

If a Common Ring Station is busy it will be reminded if Common Ring Busy Remind has been set.

A Station from a Station Hunt Group can also be set to ring. Only one Station from the Station Hunt Group will be set to ring. Other Stations in the Station Hunt Group will not be busy reminded.

See (Mode 21) Private Line Assignment if setting Common Ring for a Private Line.

See (Mode 41) Flexible Ring - Day and (Mode 42) Flexible Ring - Night for how to set Flexible Ring Stations.

See (Mode 46) Common Ring Delay Time for how to set the Delay Time for Common Ring Stations.

See (Mode 49) Common Ring Busy Remind for how to set Busy Remind for Common Ring Stations.

See (Mode 47) Common Ring - Day and follow the programming procedure to set Common Ring - Night.

**(Mode 49) Common Ring Busy Remind**

Common Ring Stations which are busy when an Incoming Call is trying to ring can be given a Remind signal that there is an Incoming Call.

The Common Ring Busy Remind Time can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

The Console and Second Console will also be reminded when busy if the Consoles have been set to ring.

See (Mode 44) Console Incoming Call Ringing and (Mode 45) Second Console Incoming Call Ringing for how to set the Consoles to ring.

**Programming Procedure:**

Enter Mode 49

e.g. The Remind Time is currently 30 seconds

M:49	30
COMM BUSY REMIND	

Press **FLASH** to clear an existing time.

M:49	0
COMM BUSY REMIND	

Enter new Common Ring Busy Remind Time.

e.g. Set Remind Time to 60 seconds

M:49	60
COMM BUSY REMIND	

Press **HOLD** to save change.

*:49	60
COMM BUSY REMIND	

**(Mode 50) Flexible Ring Busy Remind**

Flexible Ring Stations which are busy when an Incoming Call is trying to ring can be given a Remind signal that there is an Incoming Call.

The Flexible Ring Busy Remind Time can be set from 1 to 9999 seconds. If set to 0 there will be no Busy Remind.

**Programming Procedure:**

Enter Mode 50

e.g. There is currently no Busy Remind

M:50	0
FLEX BUSY REMIND	

Press **FLASH** to clear an existing time.

M:50	0
FLEX BUSY REMIND	

Enter new Flexible Ring Busy Remind Time.

e.g. Set Remind Time to 60 seconds

M:50	60
FLEX BUSY REMIND	

Press **HOLD** to save change.

*:50	60
FLEX BUSY REMIND	

## **Call Forwarding**

There are two methods of Call Forwarding: External and Station.

### **External Call Forwarding**

External Call Forwarding can be set individually for each Trunk for Day Mode and for Night Mode.

External Call Forwarding to an External number is achieved by the use of Speed Dial bins.

After the External Call Forwarding Delay Time expires, a second Trunk is accessed, using Automatic Trunk Selection, and then the number in the assigned Speed Dial bin is dialed. After the External Call Forwarding Duration time expires, both Trunks are automatically released.

Incoming Calls cannot be Call Forwarded to an external number when the Station set to Call Forward is busy. Each Station can handle only ONE External Call Forwarding at a time.

**Note:** Ensure that the Speed Dial bin is not restricted for the Station that has to dial the number. Speed Dial bins above the (Mode 20) Speed Dial Toll Restriction Break Point are NOT Toll restricted.

### **Internal Call Forwarding**

Internal Call Forwarding can be set individually for each Station.

A Station has the choice of two ways to forward calls: All or Busy / No Answer. Each can be set to Call Forward to either another Station or to an External number. Call Forwarding to an External number is achieved by the use of Speed Dial bins.

Call Forwarding - All Calls - All Calls are automatically forwarded with no delay.

Call Forwarding - Busy / No Answer - All Calls will be forwarded if the Station is busy or after the Station rings for the programmed no answer time.

Call Forwarding to an External number - A Trunk ringing the Station is treated the same as External Call Forwarding. Stations calling the Station will access a Trunk automatically and dial the number in the assigned Speed Dial bin.

A Call can not be transferred to a Station which has Call Forwarding - All Calls or Call Forwarding - Busy (when busy) set to an External number. This would automatically connect the calling Station to an outside line.

Refer to the *Easy Reference Guide* for how to set Call Forwarding for a Station.

### (Mode 51) External Call Forwarding Delay Time

A Delay Time can be set for Incoming Call ringing duration, before External Call Forwarding is executed.

The Delay Time can be set from 0 to 9999 seconds. If set to 0 there will be no delay.

#### Programming Procedure:

Enter Mode 51

e.g. There is no delay

```
M:51          0
EXT C/F DELAY
```

Press **FLASH** to clear an existing time.

```
M:51          0
EXT C/F DELAY
```

Enter new External Call Forwarding Delay Time.

e.g. Set Delay Time to 15 seconds

```
M:51          15
EXT C/F DELAY
```

Press **HOLD** to save change.

```
*:51          15
EXT C/F DELAY
```



**(Mode 52) External Call Forwarding - Day**

Speed Dialing is used to store the number to be dialed for External Call Forwarding. A separate Speed Dial bin (01 - 09, 100 - 499) can be assigned to each Trunk for Day Mode, Night Mode, or both.

If set to 0 there will be no External Call Forwarding.

**Programming Procedure:**

Enter Mode 52

```
M:52 .
EXT C/F - DAY
```

Enter Trunk number (1# - 24).

e.g. Trunk 18 is not External Call Forwarding  
(Large System)

```
M:52 18      0
EXT C/F - DAY
```

Press **FLASH** to clear an existing Speed Dial.

e.g. Set No Call Forwarding

```
M:52 18      0
EXT C/F - DAY
```

Enter new Speed Dial bin (01 - 09, 100 - 499)

e.g. Set to Speed Dial bin 167

```
M:52 18      167
EXT C/F - DAY
```

Press **HOLD** to save change.

```
*:52 18      167
EXT C/F - DAY
```

Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk  
No Call Forwarding is set

```
M:52 19      0
EXT C/F - DAY
```

**(Mode 53) External Call Forwarding - Night**

Speed Dialing is used to store the number to be dialed for External Call Forwarding. A separate Speed Dial bin (01 - 09, 100 - 499) can be assigned to each Trunk for Day Mode, Night Mode, or both.

See (Mode 52) External Call Forwarding - Day and follow the programming procedure to set External Call Forwarding - Night.

**(Mode 54) External Call Forwarding Duration**

The External Call Forwarding Duration determines the length of the call before the Trunks are automatically released.

The call duration can be set from 1 to 9999 seconds. If set to 0 there will be no External Call Forwarding.

**Programming Procedure:**

Enter Mode 54

e.g. Call Duration is currently 180 seconds

M:54	180
EXT C/F DURATION	

Press **FLASH** to clear an existing time.

M:54	0
EXT C/F DURATION	

Enter new Call Duration.

e.g. Set Call Duration 300 seconds

M:54	300
EXT C/F DURATION	

Press **HOLD** to save change.

*:54	300
EXT C/F DURATION	

## Door Phone

### (Mode 55) Door Phone Ring Time

The Ring Time for a dedicated Door Phone can be set from 5 to 60 seconds.

See (Mode 03 - COS 2) Door Phone for how to set a normal Station as a Door Phone.

See (Mode 03 - COS 3) Ring for Door Phone for how to set Stations to ring.

**Note:** Some systems do not have the facility to use a dedicated Door Phone.

#### Programming Procedure:

Enter Mode 55

M:55	10
DPHONE RING TIME	

Press **FLASH** to clear an existing time.

M:55	0
DPHONE RING TIME	

Enter new Door Phone ring time.

e.g. Set to 15 seconds

M:55	15
DPHONE RING TIME	

Press **HOLD** to save change.

*:55	15
DPHONE RING TIME	

**SMDR Operation**

The SMDR is used to output details of Call Records in ASCII format to a printer. The Call Records can also be used by a Call Account device, Inn Fone Front Desk package, or a Property Management System (PMS).

Incoming Calls, Transferred Calls, Intercom Calls, Appointment / Wake-up Calls can also be printed by the SMDR.

Refer to the *Installation Manual* on how to set up the SMDR.

**(Mode 56) SMDR Minimum Call Duration**

A Minimum Call Duration for Outgoing Calls being printed by the SMDR (Station Message Detail Recorder) can be set. Outgoing Calls of duration less then the minimum will not be printed.

The Minimum Call Duration can be set from 0 to 9999 seconds.

**Programming Procedure:**

Enter Mode 56

e.g. Minimum Time is currently 15 seconds

M:56	15
SMDR MIN DURATON	

Press **FLASH** to clear an existing time.

M:56	0
SMDR MIN DURATON	

Enter new Minimum Call Duration.

e.g. Set Minimum Time to 10 seconds

M:56	10
SMDR MIN DURATON	

Press **HOLD** to save change.

*:56	10
SMDR MIN DURATON	

**(Mode 57) SMDR Detector Use**

The SMDR can be set to use Line Reversal Detector (LRD) cards or Pulse Metering cards for accurate call duration and call costing respectively.

SMDR Detector Use can be set for each Trunk Card, it can be set to 0 for no extra use, 1 for LRD cards, 2 for Pulse Metering cards, or 3 for Battery Reversal Detector (BRD) use.

Refer to the *Installation Manual* on how to set up the SMDR.

**Note:** The facility used by these Detector cards is supplied by the Central Office exchange, and is not available in every country.

See (Mode 59) SMDR Pulse Cost for how to set the cost for each pulse.

**Programming Procedure:**

Enter Mode 57

```
M:57 .
SMDR DETECTOR
```

Enter Trunk Card number.

e.g. Trunk Card 1 has no Detectors set

```
M:57 1 0
SMDR DETECTOR
```

Enter Detector type (0 - 9).

e.g. Set to using LRD cards

```
M:57 1 1
SMDR DETECTOR
```

Press **HOLD** to save change.

```
*:57 1 1
SMDR DETECTOR
```

Move to next Trunk Card. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk Card  
Trunk Card 2 has no Detectors set

```
M:57 2 0
SMDR DETECTOR
```

**(Mode 58) SMDR Print Zero Pulses**

When using Pulse Metering cards the SMDR can be set to not print Outward Calls with Zero Pulses.

This Mode need only be set when the system is using Pulse Metering cards.

See (Mode 57) SMDR Detector Use for more information about how to set up the system for using Pulse Metering cards.

**Note:** The facility used by the Pulse Metering cards is supplied by the Central Office exchange, and is not available in every country.

**Programming Procedure:**

Enter Mode 58

M:58	NO
PRINT ZERO PULSE	

Press **MSG** for Print (Yes) or **FLASH** for No Print (No).

e.g. Set to printing Zero Pulse calls

M:58	YES
PRINT ZERO PULSE	

Press **HOLD** to save change.

*:58	YES
PRINT ZERO PULSE	

**(Mode 59) SMDR Pulse Cost**

The cost of a Pulse must be set to provide accurate Call Costing.

Pulse Cost can be set for 0 to 9999. To get the number of pulses set Pulse Cost to 1.

This Mode need only be set when the system is using Pulse Metering cards.

See (Mode 57) SMDR Detector Use for more information about how to set up the system for using Pulse Metering cards.

**Note:** The facility used by the Pulse Metering cards is supplied by the Central Office exchange, and is not available in every country.

**Programming Procedure:**

Enter Mode 59

e.g. Pulse Cost is currently 1

M:59	1
PULSE COST	

Press **FLASH** to clear an existing cost.

M:59	0
PULSE COST	

Enter new Pulse Cost.

e.g. Set Pulse Cost to 14 cents

M:59	14
PULSE COST	

Press **HOLD** to save change.

*:59	14
PULSE COST	

## Trunk & Dialing Operation

### (Mode 60) No Dial Time-out

A time duration can be set to limit Trunk access with no digits being dialed. The Trunk is released once the time has expired.

The No Dial Time can be set from 1 to 9999 seconds. If set to 0 there will be no Time-out.

**Note:** A Trunk can be accessed at the same time it is about to ring. This means the user connects with the Incoming Call but for the system it is an Outgoing Call. If this occurs when No Dial Time has been set, a digit has to be dialed, otherwise, the Trunk will be released once the No Dial Time has expired.

### **Programming Procedure:**

Enter Mode 60

e.g. It is set for no Time-out

```
M:60      0
NO DIAL TIME-OUT
```

Press **FLASH** to clear an existing time.

e.g. Set to no Time-out

```
M:60      0
NO DIAL TIME-OUT
```

Enter new No Dial Time.

e.g. Set No Dial Time to 20 seconds

```
M:60      20
NO DIAL TIME-OUT
```

Press **HOLD** to save change.

```
*:60      20
NO DIAL TIME-OUT
```



**(Mode 61) Keyphone Trunk Dial Time**

A time duration can be set to limit Keyphone dialing time on a seized Trunk at the start of a Trunk Call.

Once the time expires the Keyphone can not dial out on the Trunk.

The Keyphone Trunk Dial Time can be set from 1 to 9999 seconds. If set to 0 there will be no Dial Time limit.

**Programming Procedure:**

Enter Mode 61

e.g. Dial Time is currently 40 seconds

M:61	40
KEY TK DIAL TIME	

Press **FLASH** to clear an existing time.

e.g. Set no Dial Time limit

M:61	0
KEY TK DIAL TIME	

Enter new Dial Time.

e.g. Set Dial Time to 25 seconds

M:61	25
KEY TK DIAL TIME	

Press **HOLD** to save change.

*:61	25
KEY TK DIAL TIME	

**(Mode 62) SLP Dial Time**

Only two single-line telephones on the same Station Card can receive Dial Tone at the same time. For equal sharing of this facility a time limit for dialing must be set. The single-line telephone will receive a Busy Tone after the Dial Time has expired if not making a Trunk or Intercom Call.

The SLP Dial Time can be either an absolute time beginning from when the single-line telephone first receives Dial Tone or a time-out after the last digit dialed.

DTMF single-line telephones can still dial through on a Trunk after the elapsed time.

Pulse single-line telephones can be set to ignore the limitation of two single-line telephones per Station Card by not assigning a DTMF Decoder to the single-line telephone.

See (Mode 01 - COS 7) Pulse Single-Line Telephone to set Pulse single-line telephones.

The SLP Dial Time can be set from 5 to 9999 seconds.

Refer to the *System DIP Switches* section for how the SLP Dial Time is implemented.

**Programming Procedure:**

Enter Mode 62

e.g. Dial Time is currently 40 seconds

M:62	40
SLP DIAL TIME	

Press **FLASH** to clear an existing time.

e.g. Clear before entering new time

M:62	0
SLP DIAL TIME	

Enter new Dial Time.

e.g. Set Dial Time to 25 seconds

M:62	25
SLP DIAL TIME	

Press **HOLD** to save change.

*:62	25
SLP DIAL TIME	

**(Mode 63) Maximum Trunk Call Duration**

A Maximum Trunk Call Duration time can be set. If the duration is exceeded the Trunk Call is terminated. A warning tone will be given ten seconds before the call is terminated.

The Maximum Trunk Call Duration can be set from 1 to 9999 seconds. If set to 0 there will be no Maximum Trunk Call Duration.

**Programming Procedure:**

Enter Mode 63

e.g. Maximum Time is currently 600 seconds

```
M:63 .
MAX TK CALL TIME
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 16 which is Station number 116

```
M:63 16      600
ST:116
```

Press **FLASH** to clear an existing time.

```
M:63 16      0
ST:116
```

Enter new Maximum Trunk Call Duration.

e.g. Set Maximum Time to 1200 seconds

```
M:63 16      1200
ST:116
```

Press **HOLD** to save change.

```
*:63 16      1200
ST:116
```

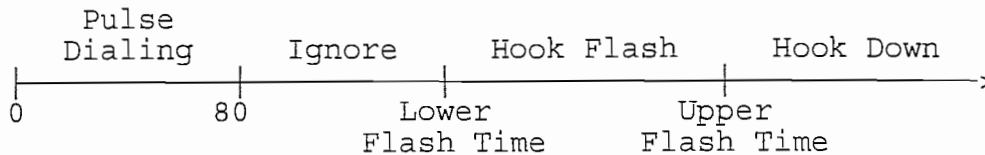
Move to next Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Port  
Port 17 has no limit

```
M:63 17      0
ST:117
```

**(Mode 64) SLP Lower Flash Time**

The Upper and Lower SLP Flash Times can be set to ensure accurate Flash or Hook Flash detection (n x 10 ms).



Any pulses with a duration less than 80 ms are considered to be Pulse dialing.  
 All pulses or flashes with a duration between 80 ms and the Lower Flash Time are ignored.  
 Any flashes between the Upper and Lower Flash Time are considered to be a hookswitch Flash.  
 All flashes greater than the Upper Flash Time are considered to be a disconnect.

**Programming Procedure:**

Enter Mode 64

e.g. Lower Flash Time is currently 80 ms

```
M:64      8
MIN SLP FLASH
```

Press **FLASH** to clear an existing time.

```
M:64      0
MIN SLP FLASH
```

Enter new Lower Flash Time.

e.g. Set Lower Flash Time to 120 ms (n = 12)

```
M:64     12
MIN SLP FLASH
```

Press **HOLD** to save change.

```
*:64     12
MIN SLP FLASH
```

**Note:** The minimum SLP Upper and Lower Flash Time is 80 ms (n = 8); maximum time is 1000 ms (n = 100).

**(Mode 65) SLP Upper Flash Time**

The Upper and Lower SLP Flash Times can be set to ensure accurate Flash or Hook Flash detection (n x 10 ms).

The Upper Flash Time should be higher than the Lower Flash Time.

See (Mode 64) SLP Lower Flash Time and follow the programming procedure to set the SLP Upper Flash Time.

**(Mode 66) Call Duration Warning Tone Time**

When a Station is on an Outgoing Call an audible Warning Tone is given to the Station at a regular interval to indicate the duration of the call.

The time interval for the Warning Tone can be set from 30 to 9999 seconds.

**Programming Procedure:**

Enter Mode 66

e.g. Currently set to 180 seconds

M:66	180
WARN TONE TIME	

Press **FLASH** to clear an existing time.

M:66	0
WARN TONE TIME	

Enter new Warning Tone Time.

e.g. Set to 120 seconds

M:66	120
WARN TONE TIME	

Press **HOLD** to save change.

*:66	120
WARN TONE TIME	

**Station Hunt Groups**

1 = ~~ADMIN~~  
2 = ~~ADMIN~~ Voice Mail  
3 = ADMIN  
4 = SHOP

**(Mode 67) Station Hunt Groups**

The system has eight Station Hunt Groups. Each group can have up to sixteen Stations assigned. Each Station Hunt Group has a dial access code (78 n). Stations assigned to Station Hunt Groups can still be dialed normally.

See (Mode 39) Trunk Station Hunt Group Ringing - Day and (Mode 40) Trunk Station Hunt Group Ringing - Night for how to set a Trunk to ring a Station Hunt Group.

See (Mode 68) Terminal Station Hunt Group Access for how a Station is selected from a Station Hunt Group.

Refer to the *Easy Reference Guide* on how to access a Station Hunt Group.

**Programming Procedure:**

Enter Mode 67

M:67 .  
ST HUNT GROUP

Enter Station Hunt Group number (1 - 8).

e.g. Station Hunt Group 1

M:67 1 .  
ST HUNT GROUP

Enter which position (1# - 16).

e.g. The fourth position which is not set

M:67 1 04  
ST HUNT GROUP

Press **FLASH** to clear an existing Station.

M:67 1 04  
ST HUNT GROUP

Enter new Port number (01 - 16 or 001 - 240).

e.g. Set to Port 21

```
M:67 1 04      21
ST HUNT GROUP
```

Press **HOLD** to save change.

```
*:67 1 04      21
ST HUNT GROUP
```

Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position

```
M:67 1 05
ST HUNT GROUP
```

### (Mode 68) Terminal Station Hunt Group Access

Stations are always accessed from a Station Hunt Group starting at the first position of the Station Hunt Group and accessing the first idle Station.

An alternative to terminal hunting is distributed hunting where the Stations are accessed in rotation.

#### Programming Procedure:

Enter Mode 68

```
M:68          YES
TERMINAL ST ACC
```

Press **MSG** for terminal (Yes) or **FLASH** for distributed (No).

e.g. Set to use distributed Access

```
M:68          NO
TERMINAL ST ACC
```

Press **HOLD** to save change.

```
*:68          NO
TERMINAL ST ACC
```

**(Mode 69) Operator Call Destination**

Normally when the Operator is dialed (0 or 9), the Console or Second Console will ring.

A Station Hunt Group can be assigned as the destination for Operator Calls. This allows a group of Stations to share the Operator duties.

**Programming Procedure:**

Enter Mode 69

e.g. Operator is Console and Second Console

M:69	0
OPERATOR DESTN	

Press **FLASH** to clear an existing Station Hunt Group.

e.g. Set to Console

M:69	0
OPERATOR DESTN	

Enter Station Hunt Group number (1 - 8).

e.g. Set Operator to Station Hunt Group 2

M:69	2
OPERATOR DESTN	

Press **HOLD** to save change.

*:69	2
OPERATOR DESTN	



## Station

### (Mode 70) Flexible Station Number Assignment

A Station number is a flexible number assigned to each Port for Intercom Calling and identification. Each Port can be assigned only one Station number.

Station numbers can be one to four digits and different length Station numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 - 699, and 1000 - 6999).

Refer to the *Ports and Station Numbering* section for more information on Station numbers.

#### **Programming Procedure:**

Enter Mode 70

```
M:70 .
FLEX NO. ASSIGN
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 16 which is Station number 116

```
M:70 16      116
ST:116
```

Press **FLASH** to erase an existing Station number.

e.g. Erase Station number

```
M:70 16
ST:116
```

Enter new Station number.

e.g. Set Port 16 to Station number 219

```
M:70 16      219
ST:116
```

Press **HOLD** to save change.

```
*:70 16      219
ST:219
```

Move to next Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Port  
Port 17 is Station number 117

```
M:70 17      117
ST:117
```

**(Mode 71) Station Names**

Each Station can be assigned a Name up to eight characters long. The name is used in place of the Station number when making Intercom Calls, etc.

**Keys:**

1	QqZz
2	AaBbCc
3	DdEeFf
4	GgHhIi
5	JjKkLl
6	MmNnOo
7	PpQqRrSs
8	TtUuVv
9	WwXxYy
0	Space then complete range of characters.
*	Move left one space.
#	Move right one space.

**Programming Procedure:**

Enter Mode 71

```
M:71 .
STATION NAMES
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 12 which is Station 112

```
M:71 12
ST:112
```

Press **FLASH** to erase an existing name.

```
M:71 12
ST:112
```

Enter name by pressing the correct lettered key.

e.g. Press 2 for 'A' in Accounts

```
M:71 12 A
ST:112
```

Move to next letter. # moves right and \* moves back to the left.

e.g. Move to next letter

M:71 12 A
ST:112

Enter next letter.

e.g. Press 2 six times for 'c' in Accounts

M:71 12 Ac
ST:112

Repeat the above two steps until the Station name is entered.

Press **HOLD** to save change.

*:71 12 Accounts
ST:112

Move to next Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Port

M:71 13
ST:113

**(Mode 72) Station Group Assignment**

There are seven Station Groups (1 - 7) to which Stations can be assigned. Stations are grouped together for Paging a Group of Keyphones, and Group Call Pickup. A Station can be assigned to more than one Group or no groups.

**Programming Procedure:**

Enter Mode 72

```
M:72 .
ST GROUP ASSIGN
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 11 which is Station 111

```
M:72 11 .
ST:111
```

Enter Group number (1 - 7).

e.g. Group 3

```
M:72 11 3      NO
ST:111
```

Press **MSG** to set Station Group (Yes) or **FLASH** to clear (No).

e.g. Set Port 11 to Group 3

```
M:72 11 3      YES
ST:111
```

Press **HOLD** to save change.

```
*:72 11 3      YES
ST:111
```

Move to next Port or position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position  
Port 11 is not part of Station Group 4

```
M:72 11 4      NO
ST:111
```

**(Mode 73) Softkey Assignment**

Each Keyphone has twenty-four programmable softkeys (01 - 24). Softkey positions (25 - 48) can also be programmed to provide additional Softkeys which are accessed using the **FLASH** key when the Keyphone is idle.

Each DSS Unit has sixty-four programmable softkeys (01 - 64) used when a DSS Unit is identified as being connected to the Port.

Each softkey can be used for Direct Station Selection (DSS/BLF), Station Hunt Group Access, Direct Trunk Selection, Trunk Hunt Group Access, One Touch Speed Dial, Park Bin Access, Wake-Up Call Access, Check Out / In Access, or Call Forwarding Access.

Softkey plans are ignored for Single-Line Telephone Ports as they have no effect.

**Programming Procedure:**

Enter Mode 73

```
M:73 .
SOFTKEY ASSIGN
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 18

```
M:73 18 .
ST:18
```

Enter which softkey (1# - 24).

e.g. The fifth softkey which is Trunk 5

```
M:73 18 05 TK:5
ST:18
```

Press **FLASH** to erase the existing setting.

```
M:73 18 05Prt:
ST:18
```

Press **MSG** to step through the softkey types : Direct Station Selection (DSS/BLF), Station Hunt Group Access, Direct Trunk Selection, Trunk Hunt Group Access (Trunk Pool key), One Touch Speed Dial, Park Bin Access, Call Forward Access, Wake-Up Call Access, Check Out / In Access, or Record Button.

**1. Direct Station Selection (DSS/BLF):**

Enter new Port number (01 - 16 or 001 - 240).

e.g. Set to Port 34

```
M:73 18 05 34
ST:18
```

**2. Station Hunt Group Access:**

Press **MSG** once to enter new Station Hunt Group.

```
M:73 18 05STGP:
ST:18
```

Enter Station Hunt Group number (1 - 8).

e.g. Set to Station Hunt Group 4

```
M:73 18 05STGP:4
ST:18
```

**3. Direct Trunk Selection:**

Press **MSG** twice to enter new Trunk.

```
M:73 18 05 TK:
ST:18
```

Enter Trunk number.

e.g. Set to Trunk 2

```
M:73 18 05 TK:2
ST:18
```

**4. Trunk Hunt Group Access:**

Press **MSG** three times to enter new Trunk Hunt Group.

```
M:73 18 05TKGP:
ST:18
```

Enter Trunk Hunt Group number (1 - 8).

e.g. Set to Trunk Hunt Group 2

```
M:73 18 05TKGP:2
ST:18
```

**5. One Touch Speed Dial:**

Press **MSG** four times to enter new Speed Dial.

```
M:73 18 05SD→  
ST:18
```

Enter Speed Dial bin (01 - 09, 100 - 499).

e.g. Set to Speed Dial bin 109

```
M:73 18 05SD→109  
ST:18
```

**6. Park Bin Access:**

Press **MSG** five times to enter Park Bin Access.

```
M:73 18 05Park  
ST:18
```

Enter Park bin (0 - 9).

e.g. Set to Park bin 2

```
M:73 18 05Park 2  
ST:18
```

**7. Call Forwarding Access:**

Press **MSG** six times to enter new Call Forwarding Access.

```
M:73 18 05Fwrd  
ST:18
```

Enter type of Call Forwarding 1 - 2 for All or Busy / No Answer.

e.g. Set to 2 for Call Forward - Busy / No Answer

```
M:73 18 05Fwrd 2  
ST:18
```

**8. Wake-Up Call Access:**

Press **MSG** seven times to enter Wake-Up Call Access.

```
M:73 18 05WAKEUP  
ST:18
```

**9. Check Out / In Access:**

Press **MSG** eight times to enter Check Out / In Access.

```
M:73 18 05CHKOUT
ST:18
```

**10. Record Button:**

Press **MSG** nine times to enter Record button.

```
M:73 18 05RECORD
ST:18
```

Press **HOLD** to save change.

```
*:73 18 05 TK:2
ST:18
```

Press **CONF** to set All Stations the same.

e.g. Set to Speed Dial 109 for all Stations

```
C:73 18 05SD→109
ST:11
```

Move to next softkey. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next softkey  
The sixth Softkey is Trunk 6

```
M:73 18 06 TK:6
ST:18
```



**(Mode 74) Trunk Hunt Group Assignment**

There are eight Trunk Hunt Groups (1 - 8) which can be used by Stations for Automatic Trunk Selection.

See (Mode 25) Trunk Hunt Group Programming for how to set the Trunk Hunt Groups.

**Programming Procedure:**

Enter Mode 74

```
M:74 .
TK GROUP ASSIGN
```

Enter Port number (1# - 16 or 1# - 240).

e.g. Port 14 which is Station 114 is using  
Trunk Hunt Group 3

```
M:74 14      3
ST:114
```

Enter new Trunk Hunt Group (1 - 8).

e.g. Set to Trunk Hunt Group 2

```
M:74 14      2
ST:114
```

Press **HOLD** to save change.

```
*:74 14      2
ST:114
```

Move to next Port. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Port  
Port 15 is using Trunk Hunt Group 1

```
M:74 15      1
ST:115
```

**(Mode 75) Reserve Recall Time**

When a Station is ringing for a reserved Trunk or Station, the callback will be automatically cancelled if not answered within the Reserve Recall Time.

The Reserve Recall Time can be set from 1 to 9999 seconds.

Refer to the *Easy Reference Guide* for how to reserve a busy Trunk or Station.

**Programming Procedure:**

Enter Mode 75

e.g. Reserve Recall Time is 20 seconds

M:75	20
RESERVE RECALL	

Press **FLASH** to clear an existing time.

M:75	0
RESERVE RECALL	

Enter Reserve Recall Time.

e.g. Set Reserve Recall Time to 15 seconds

M:75	15
RESERVE RECALL	

Press **HOLD** to save change.

*:75	15
RESERVE RECALL	

**(Mode 76) Voice Announce Ring**

When an Intercom Call is made to a Keyphone which is set for Voice Announce, either a one-second ring or a short tone is received before the caller can announce the call.

See (Mode 01 - COS 3) Intercom Call Voice Announce for how to set Voice Announce for Keyphones.

**Programming Procedure:**

Enter Mode 76

M:76	YES
VOICE RING	

Press **MSG** for Ring (Yes) or **FLASH** for Tone (No).

e.g. Set to Tone

M:76	NO
VOICE RING	

Press **HOLD** to save change.

*:76	NO
VOICE RING	

**(Mode 77) Keyphone Automatic Busy Release Time**

A Keyphone receiving Busy Tone automatically releases and resets after the Automatic Busy Release Time expires. A Keyphone in System Programming does not release.

The Automatic Busy Release Time can be set from 1 to 9999 seconds. If set to 0 there is no Automatic Release.

**Programming Procedure:**

Enter Mode 77

e.g. Automatic Release after 15 seconds

M:77	15
AUTO RLS TIME	

Press **FLASH** to clear an existing time.

e.g. Set no Automatic Release

M:77	0
AUTO RLS TIME	

Enter Keyphone Automatic Release Time.

e.g. Set Automatic Release Time to 10 seconds

M:77	10
AUTO RLS TIME	

Press **HOLD** to save change.

*:77	10
AUTO RLS TIME	

**(Mode 78) SLP Message Waiting Ring Time**

When an SLP has a Message Waiting it can be set to give a RING RING at a programmable interval.

The SLP Message Waiting Ring Time can be set from 1 to 15 minutes. If set to 0 there is no ring for Message Waiting.

Refer to the *Easy Reference Guide* for more information about setting and answering a Message Waiting.

**Programming Procedure:**

Enter Mode 78

M:78	0
SLP MESSAGE WAIT	

Press **FLASH** to clear an existing time.

e.g. Set to no ring for Message Waiting

M:78	0
SLP MESSAGE WAIT	

Enter Message Waiting Ring Time.

e.g. Set SLP to ring every 2 minutes for  
Message Waiting

M:78	2
SLP MESSAGE WAIT	

Press **HOLD** to save change.

*:78	2
SLP MESSAGE WAIT	

**General**

**(Mode 79) Toll Restriction Override Password**

Toll Restriction on a Trunk Line can be overridden by a password. There are eight Toll Restriction Override Passwords available to the system.

The password is a combination of up to six keys (0 - 9, \*, #).

**Programming Procedure:**

Enter Mode 79

```
M:79
TOLL OVERRIDE
```

Enter Password number (1 - 8).

e.g. Password 1 is currently not set

```
M:79 1
TOLL OVERRIDE
```

Press **FLASH** to erase an existing password.

```
M:79 1
TOLL OVERRIDE
```

Enter new password (up to 6 keys).

e.g. Enter key combination

```
M:79 1 #11*22
TOLL OVERRIDE
```

Press **HOLD** to save new password.

```
*:79 1 #11*22
TOLL OVERRIDE
```

Move to next Password. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Password which is not set

```
M:79 2
TOLL OVERRIDE
```

**(Mode 81) System Password**

The System Password is used when accessing System Programming.

The System Password is a combination of up to six keys (0 - 9, \*, #).

Refer to the start of the *Programming Guide* on how to enter System Programming.

**Programming Procedure:**

Enter Mode 81

M:81 PASSWORD
------------------

Press **FLASH** to erase an existing or default password.

M:81 PASSWORD
------------------

Enter new password (up to 6 keys).

e.g. Enter key combination

M:81           #92*13 PASSWORD
-----------------------------------

Press **HOLD** to save new password.

*:81           #92*13 PASSWORD
-----------------------------------

**(Mode 82) Clock Display Format**

The clock display on LCD Keyphones can be set to either 12 Hour or 24 Hour format. This mode also sets the format used with the SMDR output of Call Records.

**Programming Procedure:**

Enter Mode 82

M:82	24 HOUR
CLOCK FORMAT	

Press **MSG** for 12 Hour or **FLASH** for 24 Hour.

e.g. Set to 12 Hour format

M:82	12 HOUR
CLOCK FORMAT	

Press **HOLD** to save change.

*:82	12 HOUR
CLOCK FORMAT	



**(Mode 83) Urgent Call Time**

When a Single-line Telephone goes off-hook it can be made to call the Operator after a period of time to notify about the off-hook condition. Urgent Call Time sets the time after which the off-hook Single-line Telephone will ring the Operator.

The Urgent Call Time can be set from 1 to 9999 seconds. If set to 0 there is no Urgent Call Time.

**Programming Procedure:**

Enter Mode 83

M:83	0
URGENT CALL TIME	

Press **FLASH** to clear an existing time.

e.g. Set to no Urgent Call Time

M:83	0
URGENT CALL TIME	

Enter Urgent Call Time.

e.g. Set SLP to ring after 2 minutes

M:83	120
URGENT CALL TIME	

Press **HOLD** to save change.

*:83	120
URGENT CALL TIME	

**(Mode 84) System Class-of-Service**

The eight System Class-of-Service features are used to restrict specific features for the entire system.

1. **Automatic Night Transfer on Weekends:** When Night Service has been set to use Automatic Night Transfer for automatically switching between Day Mode and Night Mode, it is often undesirable to have the system perform Automatic Night Transfer on weekends.

The system can be set to ignore Automatic Night Transfer on weekends. Thus, when the system switches to Night Mode on Friday, it stays in Night Mode until switching to Day Mode on Monday.

(Yes = Do Automatic Night Transfer on Weekends)

**Note:** Automatic Night Transfer on Weekends has no affect when Night Service is set using Manual Night Transfer.

Refer to the *Easy Reference Guide* on how to set Night Service and Automatic Night Transfer.

2. **Camp-On Ring for Station calling a busy Operator:** When a Station calls the Operator and it is busy, the Station gets Busy Tone. Instead, the Station can camp-on to the Operator and be connected when the Operator becomes available. (Yes = Camp-On Ring to busy Operator)
3. **Ring both Consoles when calling Operator:** When a Station calls the Operator both the Console and Second Console can be made to ring (if idle). If the Operator is set to a Station Hunt Group then two idle Stations are selected to ring from the Group. (Yes = Ring both Consoles)
4. **Message Waiting indication on DSS Unit:** When a Station has a Message Waiting, the DSS Unit can also be set to show an indication. (Yes = Indication on DSS Unit).
5. **Monitor Tone:** A Tone can be set for when a Station or Trunk is being Monitored. (Yes = Monitor Tone)
6. **Auto Attendant Exclusive Hold on Transfer:** When the Auto Attendant transfers a call to a busy Operator it camps the call on and sets it to Exclusive Hold. To allow another Station to pickup the call, it must be transferred without using Exclusive Hold. (Yes = Transfer using Exclusive Hold)

7. **Headset Operation:** All Keyphones can be restricted from setting Headset operation. (Yes = Allow Headset Operation)

**Note:** Only certain types of Keyphone can use Headset operation.

8. **Caller ID Name:** When using an external Caller ID box the Name or Number can be shown on the LCD on a Keyphone. (Yes = Caller ID Name)

### Programming Procedure:

Enter Mode 01

```
M:84 .
SYSTEM COS
```

Enter Class-of-Service (1 - 8).

e.g. System does not put Message Waiting indication on DSS Unit

```
M:84 4 NO
MESS WAIT ON DSS
```

Press **MSG** for Yes or **FLASH** for No.

e.g. Set to show Message Waiting indication

```
M:84 4 YES
MESS WAIT ON DSS
```

Press **HOLD** to save change.

```
*:84 4 YES
MESS WAIT ON DSS
```

Move to next Class-of-Service. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to previous Class-of-Service  
System rings only one Console

```
M:84 3 NO
RING BOTH CONSL
```

## System Alarms

There are three sets of System Alarms, each effective during a specific time of the week. Monday to Friday inclusive (Mode 85), Saturday (Mode 86), and Sunday (Mode 87).

### (Mode 85) Weekday System Alarms

There can be up to eight System Alarms set for the weekdays (effective for Monday to Friday inclusive). A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

See (Mode 02 - COS 3) Ring for System Alarm for how to stop the System Alarm for individual Keyphones.

Refer to the *Easy Reference Guide* for how to set Station Alarms.

#### **Programming Procedure:**

Enter Mode 85

```
M:85 .
SYS ALARMS
```

Enter Alarm number (1 - 8).

e.g. Alarm 1 is currently not set

```
M:85 1      00:00
SYS ALARMS  0
```

Press **FLASH** to clear an existing Alarm.

```
M:85 1      00:00
SYS ALARMS  0
```

Enter new Alarm Time (must be HHMM in 24 Hour format).

e.g. 1725 for 5:25 in the afternoon

```
M:85 1      17:25
SYS ALARMS  0
```

Enter Alarm duration (1 to 9999 seconds).

e.g. Set to 15 seconds

M:85 1	17:25
SYS ALARMS	15

Press **HOLD** to save change.

*:85 1	17:25
SYS ALARMS	15

Move to next alarm. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next alarm  
No Alarm has been set

M:85 2	00:00
SYS ALARMS	0

### (Mode 86) Saturday System Alarms

There can be up to eight System Alarms set for Saturday. A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

See (Mode 85) Weekday System Alarms and follow the programming procedure to set Saturday System Alarms.

### (Mode 87) Sunday System Alarms

There can be up to eight System Alarms set for Sunday. A System Alarm puts the Background Music over the External Paging Port and through the Keyphone speakers.

See (Mode 85) Weekday System Alarms and follow the programming procedure to set Sunday System Alarms.

**(Mode 88) Station Alarm Duration**

The duration for a Station to ring for a Wake-Up / Remind Call can be set.

The Station Alarm Duration can be set from 10 to 9999 seconds.

Refer to the *Easy Reference Guide* for how to set Station Wake-Up / Remind Calls.

**Programming Procedure:**

Enter Mode 88

e.g. Station Alarm Time is 25 seconds

M:88	25
ST ALARM TIME	

Press **FLASH** to clear an existing time.

M:88	0
ST ALARM TIME	

Enter Station Alarm Time.

e.g. Set Station Alarm Time to 30 seconds

M:88	30
ST ALARM TIME	

Press **HOLD** to save change.

*:88	30
ST ALARM TIME	

## Paging

### (Mode 89) Zone Paging Port Assignment

There can be up to eight Zones assigned for External Paging. The eighth Zone is the External Paging connection built into the system. The other seven Zones use normal Station Ports.

Refer to the *Easy Reference Guide* for how to do Paging.

#### Programming Procedure:

Enter Mode 89

```
M:89 .
ZONE PAGE ASSIGN
```

Enter Zone number (1 - 7).

e.g. Zone 1 is currently set to Port 26

```
M:89 1      26
ZONE PAGE ASSIGN
```

Press **FLASH** to erase an existing Port number.

```
M:89 1
ZONE PAGE ASSIGN
```

Enter new Port number (01 - 16 or 001 - 240).

e.g. Set to Port 065

```
M:89 1      65
ZONE PAGE ASSIGN
```

Press **HOLD** to save change.

```
*:89 1      65
ZONE PAGE ASSIGN
```

Move to next Zone. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Zone  
No Port has been set

```
M:89 2
ZONE PAGE ASSIGN
```

**(Mode 90) Page Tone**

When making a Paging Call, a tone can be given at the start to announce the Paging Call.

Refer to the *Easy Reference Guide* for how to do Paging.

**Programming Procedure:**

Enter Mode 90

M:90	NO
PAGE TONE	

Press **MSG** for Page Tone (Yes) or **FLASH** for none (No).

e.g. Set to use Page Tone

M:90	YES
PAGE TONE	

Press **HOLD** to save change.

*:90	YES
PAGE TONE	



## Toll Restriction

Toll Plans are designed to restrict Station user access for making outgoing calls. There are fifteen separate Toll Plans.

<b>Toll Plan</b>	<b>Restriction</b>	<b>Key</b>
0	No Restriction	<b>FLASH</b>
1	Fully Programmable	<b>1</b>
2	Fully Programmable	<b>2</b>
3	Fully Programmable	<b>3</b>
4	Fully Programmable	<b>4</b>
5	Digit Length Restriction	<b>5</b>
6	Digit Length Restriction	<b>6</b>
7	1st digit cannot be 0	<b>7</b>
8	1st digit cannot be 1	<b>8</b>
9	1st digit cannot be 0 or 1	<b>9</b>
A	1st digit must be 1	<b>0</b>
B	1st two digits cannot be 00	<b>*</b>
C	1st two digits cannot be 09	<b>#</b>
D	Use only Common Unrestricted Numbers	<b>CONF</b>
E	Use only System Speed Dial	<b>CAMP</b>
F	No outward dialing	<b>REDIAL</b>

If a Station is set to Toll Plan 0, there is no call restriction.

Toll Plans 1 to 6 have a Digit Length Restriction (Mode 94).

Toll Plans 1 to 4 can have a Class-of-Restriction (Toll Plan) set for each Trunk. See (Mode 95) Class-of-Restriction - Trunk, (Mode 96) Local Call Restriction, and (Mode 97) Long Distance Call Restriction.

Toll Plans 1 to F can be further restricted using Common Restriction tables. See (Mode 91) Common Restricted Numbers and (Mode 92) Common Unrestricted Numbers.

See (Mode 04) Station Toll Plan Assignment - Day and (Mode 05) Station Toll Plan Assignment - Night for setting the Toll Plan for Stations.

**(Mode 91) Common Restricted Numbers**

There can be up to eight Common Restricted Numbers set.

Common Restricted Numbers affect all Stations restricted by Toll Plans 1 to C and can be used for setting system-wide restrictions.

**Programming Procedure:**

Enter Mode 91

```
M:91 .
COMMON RESTRICT
```

Enter position (1 - 8).

e.g. first number is currently set to 1411

```
M:91 1    1411
COMMON RESTRICT
```

Press **FLASH** to erase an existing number.

```
M:91 1
COMMON RESTRICT
```

Enter new number (up to 6 digits).

e.g. Set number to 1900

```
M:91 1    1900
COMMON RESTRICT
```

Press **HOLD** to save change.

```
*:91 1    1900
COMMON RESTRICT
```

Move to next number. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next number  
second number is currently set to 1975

```
M:91 2    1975
COMMON RESTRICT
```

**(Mode 92) Common Unrestricted Numbers**

There can be up to eight Common Unrestricted Numbers set.

Common Unrestricted Numbers affect all Stations restricted by Toll Plans 1 to F and can be used for setting system-wide restrictions.

See (Mode 91) Common Restricted Numbers and follow the programming procedure to set Common Unrestricted Numbers.

**(Mode 93) Long Distance Call Prefix**

The Long Distance Call Prefix needs to be set for use with (Mode 97) Long Distance Call Restriction. These tables can be ignored by clearing the Long Distance Call Prefix.

**Programming Procedure:**

Enter Mode 93

e.g. Long Distance Call Prefix is 1

M:93	1
LONG DIST PREFIX	

Press **FLASH** to ignore Long Distance Call Restriction tables.

M:93	
LONG DIST PREFIX	

Enter new Long Distance Call Prefix.

e.g. Set Long Distance Call Prefix to 0

M:93	0
LONG DIST PREFIX	

Press **HOLD** to save change.

*:93	0
LONG DIST PREFIX	

**(Mode 94) Digit Length Restriction**

Toll Plans 1 - 6 have a Digit Length Restriction (0 - 32).

Digit Length Restriction provides a simple call restriction. When set to 7 only local numbers can be dialed. When set to 0 there will be no Digit Length Restriction.

**Programming Procedure:**

Enter Mode 94

```
M:94 .
DIGIT LENGTH
```

Enter Toll Plan number (1 - 6).

e.g. Toll Plan 3 has Length Restriction 7

```
M:94 3      7
DIGIT LENGTH
```

Press **FLASH** to clear an existing length.

e.g. Set no Digit Length Restriction

```
M:94 3      0
DIGIT LENGTH
```

Enter new Length Restriction (1 - 32).

e.g. Set Length Restriction to 8

```
M:94 3      8
DIGIT LENGTH
```

Press **HOLD** to save change.

```
*:94 3      8
DIGIT LENGTH
```

Move to next Toll Plan. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to previous Toll Plan  
Toll Plan 2 has Length Restriction 9

```
M:94 2      9
DIGIT LENGTH
```

**(Mode 95) Class-of-Restriction - Trunk**

Toll Plans 1 - 4 can have a Class-of-Restriction (Toll Plan) set for each Trunk.

This allows very complex Toll Restrictions.

**Programming Procedure:**

Enter Mode 95

```
M:95 .
COR TRUNK
```

Enter Toll Plan number (1 - 4).

e.g. Toll Plan 2

```
M:95 2 .
COR TRUNK
```

Enter Trunk number (1# - 24).

e.g. Trunk 15 has Class-of-Restriction 0  
(Large System)

```
M:95 2 15      0
COR TRUNK
```

Press **FLASH** to clear an existing Class-of-Restriction.

e.g. Set to Class-of-Restriction 0.

```
M:95 2 15      0
COR TRUNK
```

Enter new Class-of-Restriction (1 - F).

e.g. Set to Class-of-Restriction 5

```
M:95 2 15      5
COR TRUNK
```

Press **HOLD** to save change.

```
*:95 2 15      5
COR TRUNK
```

Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Trunk  
Trunk 16 has Class-of-Restriction 7

```
M:95 2 16      7
COR TRUNK
```

**(Mode 96) Local Call Restriction**

Class-of-Restrictions 1 - 4 each have two Call Restriction tables of twenty-four numbers. One set of tables is used for Local Call Restriction and the other for Long Distance Call Restriction. The tables can be used for listing which numbers to be allowed or denied.

The table default is Allow, so a Deny (**CAMP**) must be put at the top of the table when listing which numbers to be denied. When used as an "Allow" table only entries in the table will be allowed, everything else is automatically denied. When used as a "Deny" table only entries in the table will be denied, everything else is automatically allowed.

The digit \* is a "wildcard" entry (\* = all digits 0 - 9). More than one wildcard can be used in a number.

**Programming Procedure:**

Enter Mode 96

```
M:96 .
LOCAL RESTRICT
```

Enter Class-of-Restriction number (1 - 4).

e.g. Class-of-Restriction 2

```
M:96 2 .
LOCAL RESTRICT
```

Enter which position (1# - 24).

e.g. position 1 has no number set

```
M:96 2 01
LOCAL RESTRICT
```

Press **FLASH** to erase an existing number.

```
M:96 2 01
LOCAL RESTRICT
```

1. Press **CAMP** to set the table for Deny.

e.g. Set table to Deny

```
M:96 2 01 D
LOCAL RESTRICT
```

2. Enter new number (up to 6 digits).

e.g. Enter number 5571

```
M:96 2 01 5571
LOCAL RESTRICT
```

3. Enter new number (up to 6 digits) with a wildcard.

e.g. Enter number 3\*7  
(i.e. 307, 317, 327, 337, ..., 397)

```
M:96 2 01 3*7
LOCAL RESTRICT
```

Press **HOLD** to save change.

```
*:96 2 01 3*7
LOCAL RESTRICT
```

Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next position  
position 2 has number 55567 entered

```
M:96 2 02 55567
LOCAL RESTRICT
```

### (Mode 97) Long Distance Call Restriction

Class-of-Restrictions 1 - 4 each have two Call Restriction tables of twenty-four numbers. One set of tables is used for Local Call Restriction and the other for Long Distance Call Restriction. The tables can be used for listing which numbers to be allowed or denied.

When using the Long Distance Restriction tables, the Long Distance Call Prefix is assumed so it is not required to be entered into the tables.

The table default is Allow, so a Deny (**CAMP**) must be put at the top of the table when listing which numbers to be denied. When used as an "Allow" table only entries in the table will be allowed, everything else is automatically denied. When used as a "Deny" table only entries in the table will be denied, everything else is automatically allowed.

See (Mode 93) Long Distance Call Prefix for how to set the Long Distance Call Prefix.

See (Mode 96) Local Call Restriction and follow the programming procedure to set Long Distance Call Restriction tables.

**(Mode 98) PABX Trunk Access Code**

A PABX Trunk Access Code can be set for PABX Lines.

When a Trunk is as a PABX Line the PABX Trunk Access Code will not be appear on the SMDR output.

See (Mode 11) Trunk Type for setting a Trunk as a PABX Line.

**Programming Procedure:**

Enter Mode 98

e.g. PABX Trunk Access Code is 1

M:98	1
PABX TK ACCESS	

Enter new PABX Trunk Access Code.

e.g. Set PABX Trunk Access Code to 0

M:98	0
PABX TK ACCESS	

Press **HOLD** to save change.

*:98	0
PABX TK ACCESS	



**(Mode 99) Ignore PABX Access Code**

The system can be set to ignore the PABX Access Code on PABX Lines when using Toll Restriction.

**Programming Procedure:**

Enter Mode 99

M:99	NO
IGNORE PABX CODE	

Press **MSG** to ignore PABX Access Code or **FLASH** to not ignore.

e.g. Set to ignore PABX Access Code

M:99	YES
IGNORE PABX CODE	

Press **HOLD** to save change.

*:99	YES
IGNORE PABX CODE	

## Automatic Route Selection

### (Mode \*1) Use Automatic Route Selection

Automatic Route Selection can be used to direct calls to specific Trunk Hunt Groups when placing outside calls. This allows the user to access the most economical line available.

When Automatic Route Selection is set the system waits until Keyphone users have dialed three or four digits before accessing a Trunk. For Single-Line Telephone users the system waits until there is a pause in dialing before accessing a Trunk.

#### **Programming Procedure:**

Enter Mode \*1

M:*1	NO
AUTO ROUTE SELCT	

Press **MSG** to use ARS (Yes) or **FLASH** to not use ARS (No).

e.g. Set to use Automatic Route Selection

M:*1	YES
AUTO ROUTE SELCT	

Press **HOLD** to save change.

*:*1	YES
AUTO ROUTE SELCT	

**(Mode \*2) Area Code Table**

There can be up to ninety-six Area Codes set in the Area Code Table. The Area Code Table is used when the telephone number dialed starts with the Long Distance Call Prefix.

Each three digit Area Code can be set to one of eight routes. The order is 01 - 96 with the first match being the one used. If an Area Code is not present in the Area Code Table the default route 1 is used.

The digit \* can be used as a "wildcard" (\* = all digits 0 - 9). More than one wildcard can be used in a Area Code.

See (Mode 93) Long Distance Call Prefix for setting the Long Distance Call Prefix.

See (Mode \*4) Route Table for how to set up the routes.

**Programming Procedure:**

Enter Mode \*2

```
M:*2 .
AREA CODE TABLE
```

Enter position (1# - 96).

e.g. first position is empty

```
M:*2 01      1
AREA CODE TABLE
```

Press **FLASH** to erase an existing Area Code.

```
M:*2 01      1
AREA CODE TABLE
```

Enter new Area Code (3 digits).

e.g. Set number to 213

```
M:*2 01      213 1
AREA CODE TABLE
```

Enter new Route (1 - 8).

e.g. Set to route 3

```
M:*2 01      213 3
AREA CODE TABLE
```

Press **HOLD** to save change.

*:*2 01	213 3
AREA CODE TABLE	

Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next number

M:*2 02	1
AREA CODE TABLE	

**(Mode \*3) Office Code Table**

There can be up to ninety-six Office Codes set in the Office Code Table. The Office Code Table is used when the telephone number dialed does not start with the Long Distance Call Prefix.

Each three digit Office Code can be set to one of eight routes. The order is 01 - 96 with the first match being the one used. If an Office Code is not present in the Office Code Table the default route 1 is used.

The digit \* can be used as a "wildcard" (\* = all digits 0 - 9). More than one wildcard can be used in a Office Code.

See (Mode \*4) Route Table for how to set up the routes.

**(Mode \*4) Route Table**

Each route can have a Trunk Hunt Group set for each Time Period (1 - 8). Time Periods 1 - 7 are programmable while Time Period 8 is used for Holidays and Weekends.

See (Mode \*5) Time Period for how to set Time Periods for routes.

See (Mode \*7) Holiday Table for setting Holidays.

**Programming Procedure:**

Enter Mode \*4

```
M:*4 .
ROUTE TABLE
```

Enter Route number (1 - 8).

e.g. Route 3

```
M:*4 3 .
ROUTE TABLE
```

Enter Time Period (1 - 8).

e.g. Time Period 2

```
M:*4 3 2 1
ROUTE TABLE
```

Enter new Trunk Hunt Group (1 - 8).

e.g. Set to Trunk Hunt Group 5

```
M:*4 3 2 5
ROUTE TABLE
```

Press **HOLD** to save change.

```
*:*4 3 2 5
ROUTE TABLE
```

Move to next Time Period. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Time Period

```
M:*4 3 3 1
ROUTE TABLE
```

**(Mode \*5) Time Period**

Each route has eight Time Periods (1 - 8). Time Periods 1 - 7 are programmable while Time Period 8 is used for Holidays and Weekends.

The seven programmable Time Periods are defined by six programmable times. The times can be set to the hour.

- Time Period 1 - Midnight to Time 1
- Time Period 2 - from Time 1 to Time 2
- Time Period 3 - from Time 2 to Time 3
- Time Period 4 - from Time 3 to Time 4
- Time Period 5 - from Time 4 to Time 5
- Time Period 6 - from Time 5 to Time 6
- Time Period 7 - from Time 6 to Midnight

If the times are not set then Time Period 1 is used by default. If a Time is not set then it is treated as midnight.

See (Mode \*4) Route Table for setting Routes.

See (Mode \*7) Holiday Table for setting Holidays.

**Programming Procedure:**

Enter Mode \*5

M:*5 .
ARS TIME PERIOD

Enter Time (1 - 6).

e.g. Time 1

M:*5 1	0
ARS TIME PERIOD	

Press **FLASH** to erase an existing Time.

e.g. Time Period 1

M:*5 1	0
ARS TIME PERIOD	

Enter new Time (0 - 24).

e.g. Set to 8:00 am

M:*5 1	8
ARS TIME PERIOD	

Press **HOLD** to save change.

*:*5 1	8
ARS TIME PERIOD	

Move to next Time Period. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next Time Period

M:*5 1	0
ARS TIME PERIOD	

### (Mode \*6) Addition / Subtraction Table

Each route can have a number dialed modifier to route the number through the selected telephone service. This provides for the deletion and addition of digits.

The deletion and addition of digits occur at the front of the number dialed. Up to sixteen digits can be set for addition for each route.

See (Mode \*4) Route Table for how to set up the routes.

### **Programming Procedure:**

Enter Mode \*6

M:*6 .
ADD / SUB TABLE

Enter route (1 - 8)

e.g. route 2 has no modification set

M:*6 2
--------

Press **FLASH** to erase an existing entry.

M:\*6 2

Press **REDIAL** to enter the number of digits to delete.

M:\*6 2

Enter the number of digits to delete (1 - 9 digits).

e.g. Delete 4 digits

M:\*6 2  
R4

Enter new digits to be added (1 - 16 digits).

e.g. Dial access code 9584 before number

M:\*6 2  
R49584

Press **HOLD** to save change.

\*:\*6 2  
R49584

Move to next position. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next number

M:\*6 3



(Mode \*7) Holiday Table

There can be up to sixteen Holidays set for Automatic Route Selection.

When a Holiday is set the day is treated the same as a Weekend. The set Time Periods are ignored and the Trunk Hunt Group set for Time Period 8 is used instead.

See (Mode \*4) Route Table for how to set up the routes.

See (Mode \*5) Time Period for how to set Time Periods for routes.

**Programming Procedure:**

Enter Mode \*7

```
M:*7 .
HOLIDAY TABLE
```

Enter position (1# - 16).

e.g. fourth date is March 15

```
M:*7 04    03/15
HOLIDAY TABLE
```

Press **FLASH** to erase an existing Date.

```
M:*7 04    /
HOLIDAY TABLE
```

Enter new Date (MM/DD).

e.g. Set date to April 25

```
M:*7 04    04/25
HOLIDAY TABLE
```

Press **HOLD** to save change.

```
*:*7 04    04/25
HOLIDAY TABLE
```

Move to next date. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to next date (blank)

```
M:*7 05    /
HOLIDAY TABLE
```

**(Mode \*8) Automatic Route Selection Time-out**

For Automatic Route Selection, Keyphones automatically access a Trunk after 3 to 4 digits, Single-Line Telephones require a pause after dialing to show the complete number has been dialed. This is because the DTMF signals generated by the Single-Line Telephone will interfere with the Auto Dialing after the system has determined which Trunk to access.

The Automatic Route Selection Time-out can be set from 1 to 9999 seconds. A time of 3 to 5 seconds is recommended.

**Programming Procedure:**

Enter Mode \*8

e.g. ARS Time-out is 5 seconds

M:*8	5
ARS TIME-OUT	

Press **FLASH** to clear an existing time.

M:*8	0
ARS TIME-OUT	

Enter ARS Time-out.

e.g. Set ARS Time-out to 3 seconds

M:*8	3
ARS TIME-OUT	

Press **HOLD** to save change.

*:*8	3
ARS TIME-OUT	

**(Mode \*9) Trunk Hunt Group Addition / Subtraction Table**

Each Trunk Hunt Group can have a number dialed modifier to route the number through the selected telephone service. This provides for the deletion and addition of digits.

The deletion and addition of digits occur at the front of the number dialed. Up to sixteen digits can be set for addition for each route.

See (Mode \*4) Route Table for how to set up the routes.

**Programming Procedure:**

Enter Mode \*9

```
M:*9 .
TK GRP ADD / SUB
```

Enter Trunk Hunt Group number (1 - 8)

e.g. Trunk Hunt Group 3 has no modification

```
M:*9 3
```

Press **FLASH** to erase an existing entry.

```
M:*9 3
```

Press **REDIAL** to enter the number of digits to delete.

```
M:*9 3
```

Enter the number of digits to delete (1 - 9 digits).

e.g. Delete 3 digits

```
M:*9 3
R3
```

Enter new digits to be added (1 - 16 digits).

e.g. Dial access code 0105 before number

```
M:*9 3
R30105
```

Press **HOLD** to save change.

*:*9 3 R30105
------------------

Move to next Trunk Hunt Group. Press **MIC** to scroll backward, **TRF** to scroll forward.

e.g. Move to Trunk Hunt Group 4

M:*9 4
--------

## Quick Programming

Quick Programming is a group of nine System Programming Modes which can be accessed without entering System Programming.

The Quick Programming Modes (1 - 9) are System Programming Modes 01 - 09.

Only one person can enter Quick Programming at a time and only if no one is using System Programming.

### **Entering Quick Programming**

Only the current Console or Keyphones with Programming Rights can enter Quick Programming. No Password is needed to access Quick Programming, simply press:

**PROG, n** (n = number from 1 - 9)

Once the **PROG** key is pressed the **PROG** lamp is on. Once the Quick Programming Mode is accessed the **PROG** lamp starts flashing.

The Modes operate the same way as all other System Programming Modes.

Press **RLS** and start again if the Busy Signal is received.

### Exiting from Quick Programming

To exit from Quick Programming simply press **RLS**. This exits you from Programming and makes the Keyphone idle. Quick Programming is now available for someone else to use.

Pressing **HOLD** to save any change before exiting from a Quick Programming Mode.

**Quick Programming Modes**

(Mode 01) Class-of-Service 1 .....	28
(Mode 02) Class-of-Service 2 .....	30
(Mode 03) Class-of-Service 3 .....	31
(Mode 04) Station Toll Plan Assignment - Day .....	32
(Mode 05) Station Toll Plan Assignment - Night .....	34
(Mode 06) System Hold Recall Time .....	35
(Mode 07) Console Hold Recall Time .....	36
(Mode 08) Transfer Recall Time .....	37
(Mode 09) System Date & Time .....	38

Features and Dial Codes

Key System Support

800-833-3446

525-1904

OR STEVE @

TWA COMM

OR VM/CALL  
TRANSFER Dial:

10 - 69 / 100 - 699

1 - 7 \*

1 - 7 #

71 \* + Station no.

71 + Station no.

72 + Station no.

73 + Station Hunt Group no.

730 + Station Hunt Group no.

741 + HHMM

742 + HHMM

743 + Station no.

744

745

746 + 01 - 09

747

748

749 + lock code

740 + Station no.

75 + Station no.

76 + 0 - 9

77 + Trunk no.

78 + Station Hunt Group no.

780 + Station Hunt Group no.

79

70 + Speed Dial bin

70 00

70 #

8

9, 91 - 98

0

\*

# + 1 - 8

# 8 1

# 9

# 0

# \*

# #

Feature:

Station Intercom dialing

Group Call Pickup

Page a Group of Keyphones

Call Forward - Follow Me

Call Forwarding - All Calls

Call Forwarding - Busy / No Answer

Transfer to Ring Station Hunt Group (1 - 8)

Transfer to Ring Station Hunt Group (1 - 8)

Daily Wake-up / Remind Call

Once only Wake-up / Remind Call

To Set a Message

To Respond to a Message

To Answer a Paging Call

Program Personal Speed Dial

Do-Not-Disturb

SLP Conference

To Lock your Phone

To Clear a Message

Hold Pickup

Call Parking

To Access an Outside Line

Call Station in Station Hunt Group (1 - 8)

Call Station in Station Hunt Group (1 - 8)

Call the Dedicated Door Phone

System / Personal Speed Dial

Redial

Redial

Trunk Hunt Group 8

Trunk Hunt Groups (1 - 8)

Call the Attendant

System Call Pickup

Page an External Zone (1 - 8)

Turn Music over External Page Zone On/Off

Page All Internal

Page All External

Page All Internal & External

To Answer a Paging Call

## Keyphone Displays

The LCD displays below show examples using two and three digit Station numbering.

### Idle

e.g. Station 11

```
Nov 8  Thu 15:47
      Station 11
```

### Operator

```
Nov 8  Thu 15:47
m  OPERATOR
```

### Music

```
Nov 8  Thu 15:47
      Music
```

### Message Waiting

e.g. Message from Station 54

```
Nov 8  Thu 15:47
Message <ST:54
```

### Call Forwarding

e.g. Call Forwarding has been set

```
Nov 8  Thu 15:47
Forward ->ST:114
```

### Incoming Call Ringing Station

e.g. First Trunk is ringing

```
Ring->TK:1
```

### Talking on an Outside Line

e.g. Talking on Seventh Trunk

```
Talk->TK:7  3:57
```

### Dialing on an Outside Line

e.g. Dialing on Tenth Trunk

```
Talk->TK:10  1:29
3974895
```



**Speed Dialing**

e.g. Speed Dialing on Third Trunk

Talk→TK:3 SD→.

**Set Saved Number Speed Dial**

e.g. Twenty-fourth Trunk

Talk→TK:24 Save  
34771**Outside Line Hold Recalling**

e.g. Fifteenth Trunk recalling

Recall→TK:15

**Outside Line Hold Recalling from another Station**e.g. The Sixth Trunk recalling from  
Station 122Recall→TK:6  
→ST:122**Conference with Outside Line**

e.g. In conference with Ninth Trunk

Talk→TK:9  
Conference**Reserved Outside Line Calls Back**

e.g. Eighth Trunk is now available

Ring→TK:8  
Reserved**Dial 9 for Trunk Hunt Group Selection**

Trunk Group:.

**Dial 77 for Outside Line**

TK:.

**Outside Line is Busy**e.g. Seventh Trunk is being used by  
Station 113Busy→TK:7  
→ST:113

**Calling Another Station**

e.g. Calling Station 114

Call→ST:114

**Station is Calling**

e.g. Station 18 calling

Ring→ST:18

**Intercom Call**

e.g. Talking to Station 16

Talk→ST:16

**Station has been Put on Hold**e.g. Station put on hold by Station  
117

Hold→ST:117

**Station Hold Recalling**

e.g. Station 28 recalling

Recall→ST:28

**Conference with Station**e.g. In conference with Station 113  
(no trunks)Talk→ST:113  
Conference**Reserved Station Calls Back**

e.g. Station 131 is now available

Ring→ST:131  
Reserved**Call Parking**

e.g. Call Park Bin 3 is empty

Call Park:3

**Call Parking**

e.g. Call Park Bin 4 has Trunk 7

Call Park:4  
→TK:7

**Directed Hold Pickup**

e.g. Pickup last call put on hold  
by Station 47

```
Hold Pickup  
→ST:4.
```

**Call Station which Forwards (1)**

e.g. Called Station 32  
(Station 11)

```
Call→ST:17  
Forward →ST:32
```

**Station Forwards (2)**

e.g. Station 32 Forwards  
(Station 32)

```
Ring→ST:11  
Forward →ST:17
```

**Station Receives Forwarded Call (3)**

e.g. Station 32 Forwarded  
(Station 17)

```
Ring→ST:11  
Forward →ST:32
```

**Station is Busy**

e.g. Station 121 is talking to  
Station 115

```
Busy→ST:121  
→ST:115
```

**Do-Not-Disturb**

e.g. Called Station 41

```
Busy→ST:41  
Do Not Disturb
```

**Station is not Connected**

e.g. Called Station 37

```
Busy→ST:37  
Not Connected
```

**Station is doing Programming**

e.g. Called Station 121

```
Busy→ST:121  
Programming
```

**Paging to a Group**

e.g. Station Group 2

```
Page→Group 2
```

**Paging to All Internal**

```
Page→Internal
```

**Paging to an External Zone**

e.g. Zone 5

```
Page→Zone 5
```

**Paging to All External**

```
Page→External
```

**Paging to All Internal and External**

```
Page→All
```

**Call Forwarding - All Calls**

```
All Calls  
Forward →ST:.
```

**Call Forwarding - Busy**

```
Busy  
Forward →ST:.
```

**Call Forwarding - No Answer**

```
No Answer  
Forward →ST:.
```

**Call Forwarding to an External number**

e.g. Call Forwarding - No Answer

```
No Answer  
Forward → SD .
```

**Call Forward - Follow Me**

```
Follow Me
from      →ST:.
```

**Setting Daily Wake-Up / Remind Call**

```
Daily Alarm
:
```

**Setting Once Only Wake-Up / Remind Call**

```
Once Only Alarm
:
```

**Automatic Wake-Up / Remind Call**

```
Nov 8 Thu 15:47
Appointment
```

**System Alarm**

```
Nov 8 Thu 15:47
System Alarm
```

**Set Station Message Lamp**

```
Message
Set      →ST:.
```

**Clear Station Message Lamp**

```
Message
Clear    →ST:.
```

**Program Speed Dial**

e.g. Speed Dial bin 110

```
001-412-575-8615
69          SD→110
```

**Intercom Voice Announce Microphone Default**

e.g. Microphone will turn On.

```
Intercom Mic ON
```

**Night Service**

Day Mode	Manual
08:35	17:20

**Operator - Night Service**

e.g. Operator will show:  
"a" for Auto, "m" for Manual

Nov 8	Thu 15:47
a	OPERATOR

**Setting Once Only Wake-Up / Remind Calls from Console**

e.g. Set for Station 23

Once Only Alarm	
ST:23	:

**Program Auto Redial (1)**

e.g. 15 times

Auto Redial	
Times	15x

**Program Auto Redial (2)**

e.g. Ring for 25 seconds

Auto Redial	
Duration	25s

**Program Auto Redial (3)**

e.g. Pause 15 seconds between  
attempts

Auto Redial	
Pause	15s






**Set Alternate Operator**

e.g. Set alternate for Console 1

Operator 1	
->ST:.	

## Ring Cadences


There are five Ring Cadences used to distinguish the type of Call ringing a Station.

- |                         |  |   |
|-------------------------|--|---|
| <b>Continuous Ring</b>  | continuous   |    |
|                         | Used to generate short bursts of Ringing: Off-Hook Voice Announce, Flexible Ring Busy Remind, and Common Ring Busy Remind. |   |
| <b>Trunk Ring</b>       | 1 sec Ring, 3 sec Pause  |    |
|                         | Used for Incoming Trunk Calls and for Trunk Calls transferred to a Station.  |   |
| <b>Intercom Ring</b>    | 0.5 sec Ring, 1.5 sec Pause  |    |
|                         | Used for Station Intercom Calling.   |   |
| <b>Reserve Ring</b>     | 0.25 sec Ring, 0.25 sec Pause  |  |
|                         | Used for a reserved Trunk or Station recalling a Station to indicate availability.   |   |
| <b>Hold Recall Ring</b> | 0.25 sec Ring, 0.25 sec Pause,<br>0.25 sec Ring, 1.25 sec Pause  |  |
|                         | Used for a Trunk or Station put on Hold and recalling to a Station.  |   |


The System directly controls the Ring Cadences for the Single-Line Telephones while the Ring Cadences for Keyphones are controlled by the Keyphone.

### Tone Cadences


There are four Tones received by a Station during general operation.

**Dial Tone**                            continuous                            


Station is Off Hook (or Handsfree) and the System is waiting for the Station to start dialing.

**Busy Tone**                            0.5 sec Tone, 0.5 sec Pause                            

Trunk or Station is busy, Toll Restricted number was dialed, or access to a feature is denied.

**Ring-Back Tone**                            0.25 sec Tone, 0.25 sec Pause,  
1 sec Tone, 2.5 sec Pause                            

During Intercom Calls, Station at other end is ringing.

**Special Tone**                            0.75 sec Tone, 0.25 sec Pause,  
0.25 sec Tone, 0.75 sec Pause                            

Confirms to Single-Line Telephone that **Do-Not-Disturb** has been set.





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