

For More Info: Call AtlasTelephones.com
1-888-689-1711

Atlas III E

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

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

TABLE OF CONTENTS

Introduction	1
System Features	2
Feature Description	3
Hardware Programming	10
System DIP Switches	10
Initial Setup	12
Memory Protection	12
Software Programming	13
LCD Display Keyphone	13
List of Terms Used	13
Ports and Station Numbering	14
Trunk Numbers	15
Night Service - Day Mode and Night Mode Operation...	15
System Programming	
Accessing System Programming	16
Entering Password	17
Entering System Programming while on Trunk Call	17
Accessing a Mode	18
Exiting from System Programming	18
Using Programming Keys	19
Saving a Change	19
Enter a Station Number instead of a Port Number	20
Getting a Busy Signal	20
System Defaults	21

TABLE OF CONTENTS Continued**Programming Modes****Quick Programming Modes..... 27**

(Mode 01) Class-of-Service 1	27
(Mode 02) Class-of-Service 2	29
(Mode 03) Class-of-Service 3	30
(Mode 04) Station Toll Plan Assignment - Day	31
(Mode 05) Station Toll Plan Assignment - Night	33
(Mode 06) System Hold Recall Time	34
(Mode 07) Console Hold Recall Time	35
(Mode 08) Transfer Recall Time	36
(Mode 09) System Date & Time	37

Trunk Specifications

(Mode 10) Trunk Names	38
(Mode 11) Trunk Class-of-Service	40
(Mode 13) Pulse Dialing Pulses per Second	42
(Mode 14) Pulse Dialing Break / Make Ratio	42
(Mode 15) Trunk Flash Time	43
(Mode 16) Pause Time	44
(Mode 17) DTMF Tone Length	45

Tenant Service

(Mode 18) Trunk Tenant Service	46
(Mode 19) Station Tenant Service	47

Speed Dial

(Mode 20) Speed Dial Toll Restriction Break Point	48
---	----

Private Lines

(Mode 21) Private Line Assignment	49
(Mode 22) Private Line Access (Open / Close)	50
(Mode 23) Private Line - Common Ring Night	51
(Mode 24) Private Line Pickup	52

TABLE OF CONTENTS Continued**Trunk Hunt Groups**

(Mode 25) Trunk Hunt Group Programming	53
(Mode 26) Automatic Trunk Selection (0 or 9)	54
(Mode 27) Automatic Trunk Hunt Group Access	55
(Mode 28) Terminal Trunk Hunt Group Access	56

DVA Port

(Mode 29) DVA Port	57
--------------------------	----

Call Forward - No Answer

(Mode 30) No Answer Forward Time	58
--	----

Console

(Mode 31) Console	59
(Mode 32) Second Console	60
(Mode 33) Second Console Delay Time	61
(Mode 34) Console System Hold Recall Delay Time	62
(Mode 35) Console System Hold Recall Release Time ..	63

Forced Account Code

(Mode 36) Forced Account Code	64
(Mode 37) Forced Account Code Length	65
(Mode 38) Forced Account Code Table	66

Trunk Ringing

(Mode 39) Trunk Station Hunt Group Ringing -Day	67
(Mode 40) Trunk Station Hunt Group Ringing - Night ..	68
(Mode 41) Flexible Ring - Day	69
(Mode 42) Flexible Ring - Night	70
(Mode 43) Stepped Ringing	71

TABLE OF CONTENTS Continued**Trunk Ringing** Continued

(Mode 44) Console Incoming Call Ringing	72
(Mode 45) Second Console Incoming Call Ringing	72
(Mode 46) Common Ring Delay Time	73
(Mode 47) Common Ring - Day	74
(Mode 48) Common Ring - Night	76
(Mode 49) Common Ring Busy Remind	77
(Mode 50) Flexible Ring Busy Remind	78
Call Forwarding	79
(Mode 51) External Call Forwarding Delay Time	80
(Mode 52) External Call Forwarding - Day	81
(Mode 53) External Call Forwarding - Night	82
(Mode 54) External Call Forwarding Duration	82
Door Phone	
(Mode 55) Door Phone Ring Time	83
SMDR Operation	84
(Mode 56) SMDR Minimum Call Duration	84
(Mode 57) SMDR Detector Use	85
(Mode 58) SMDR Print Zero Pulses	86
(Mode 59) SMDR Pulse Cost	87
Trunk & Dialing Operation	
(Mode 60) No Dial Time-out	88
(Mode 61) Keyphone Trunk Dial Time	89
(Mode 62) SLP Dial Time	90
(Mode 63) Maximum Trunk Call Duration	91
(Mode 64) SLP Lower Flash Limit	92
(Mode 65) SLP Upper Flash Limit	93
(Mode 66) Call Duration Warning Tone Time	93

TABLE OF CONTENTS Continued**Station Hunt Groups**

(Mode 67) Station Hunt Groups	94
(Mode 68) Terminal Station Hunt Group Access	95
(Mode 69) Operator Call Destination	96

Station

(Mode 70) Flexible Station Number Assignment	97
(Mode 71) Station Names	98
(Mode 72) Station Group Assignment	100
(Mode 73) Softkey Assignment	101
(Mode 74) Trunk Hunt Group Assignment	105
(Mode 75) Reserve Recall Time	106
(Mode 76) Voice Announce Ring	107
(Mode 77) Keyphone Automatic Busy Release Time ..	108
(Mode 78) SLP Message Waiting Ring Time	109

General

(Mode 79) Toll Restriction Override Password	110
(Mode 81) System Password	111
(Mode 82) Clock Display Format (12 / 24 Hour)	112
(Mode 83) Urgent Call Time	113
(Mode 84) System Class-of-Service	114

System Alarms

(Mode 85) Weekday System Alarms	116
(Mode 86) Saturday System Alarms	117
(Mode 87) Sunday System Alarms	117
(Mode 88) Station Alarm Duration	118

Paging

(Mode 89) Zone Paging Port Assignment	119
(Mode 90) Paging Tone	120

TABLE OF CONTENTS Continued

Toll Restriction	121
(Mode 91) Common Restricted Numbers	122
(Mode 92) Common Unrestricted Numbers	123
(Mode 93) Long Distance Call Prefix	123
(Mode 94) Digit Length Restriction	124
(Mode 95) Class-of-Restriction - Trunk	125
(Mode 96) Local Call Restriction	126
(Mode 97) Long Distance Call Restriction	127
(Mode 98) PABX Trunk Access Code	128
(Mode 99) Ignore PABX Access Code	129
Automatic Route Selection	
(Mode *1) Use Automatic Route Selection	130
(Mode *2) Area Code Table	131
(Mode *3) Office Code Table	132
(Mode *4) Route Table	133
(Mode *5) Time Period	134
(Mode *6) Addition / Subtraction Table	135
(Mode *7) Holiday Table	137
(Mode *8) Automatic Route Selection Time-out	138
(Mode *9) Trunk Hunt Group Add/Sub Table.....	139
Quick Programming	141
Feature and Dial Codes	143
Keyphone Displays	144
Ring Cadences	151
Tone Cadences	152

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
 Console-less 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 PROG # + Station number .
Amplified Trunk Lines	A strapping option on the Trunk cards will raise the volume on Trunk lines.
Appointment Reminder	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 REDIAL 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. Salta 616 & KSX-32i only.
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 CAMP key while receiving busy tone, busy Station will be alerted, that another Station is calling. The tone is sent each time the CAMP key is pressed. On display Keyphones the Station number will also appear.

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 MSG 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.

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 REDIAL 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 MSG 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 loaded 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 - 211).
- 8 **Trunk Signal Type** - If DIP switch 8 is OFF, the system default signaling type for all Trunks will be DTMF. If DIP switch 8 is ON, the system default signaling 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 (up to 72 hours) 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 required when programming the system. Using a LCD Display Keyphone will greatly ease the programming process and allow it to proceed in a timely manner.

List of Terms

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

Ports and Station Numbering

Port numbering is fixed and determined by the position on the Station Card and the location of the Station Card in the system. The maximum number of Ports depends on the configuration of the system. The Port number is used when doing System Programming.

A Station number is a flexible number assigned to each Port for intercom calling and identification. Station numbers can be one to four digits and different length Station numbers can be mixed (e.g. 1 - 6, 10 - 69, 100 - 699, 1000 - 6999).

Note: Watch for Station numbering conflicts. For example, if Station number 20 is used, Station numbers 200 - 209 and 2000 - 2099 are unavailable.

The default Station numbering is set by System DIP switch 6. Refer to the *Hardware Programming* section for more on setting DIP switches.

Each Port can have only one Station number. Following is the default Station numbering:

Card No.	Port No. (2 / 3 digit)		Station Numbering (2 / 3 digit)	
1	01 - 08	001 - 008	10 - 17	100 - 107
2	09 - 16	009 - 016	18 - 25	108 - 115
3	17 - 24	017 - 024	26 - 33	116 - 123
4	25 - 32	025 - 032	34 - 41	124 - 131
5	33 - 40	033 - 040	42 - 49	132 - 139
6	41 - 48	041 - 048	50 - 57	140 - 147
7	49 - 56	049 - 056	58 - 65	148 - 155
8	57 - 64	057 - 064	66 - 69	156 - 163
9		065 - 072	N/A	164 - 171
10		073 - 080	N/A	172 - 179
11		081 - 088	N/A	180 - 187
12		089 - 096	N/A	188 - 195
13		097 - 104	N/A	196 - 203
14		105 - 112	N/A	204 - 211

NOTE:

Salta-616 uses Ports 01-16
 KSX-32 uses Ports 01-24
 KSX-64 uses Ports 01-56
 KSX-128 uses Ports 001-112

See (Mode 70) Flexible Station Number Assignment for setting Station numbers.

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 programming 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 (port 01 by Default).
2. Entering the System Password from the Console or from any Keyphone that 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 that 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 that 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 (**default password is 123**).

To access System Programming from any Keyphone, press:

PROG – PROG – 1 – 2 – 3 - HOLD

Note: This method of program entry will be referred to throughout the manual.

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 - 1 – 2 – 3 - 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. 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. Press **DATA** to clear Busy Signal.

Changing to a Different Mode

When in System Programming, press **DATA** to change to a different Mode. This returns to a LCD display prompt to: "Enter Mode No".

Exiting from System Programming

To exit from System Programming, press **RLS**, the Keyphone returns to the idle state. 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 each new bit of 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 **01 - 56** or **001 – 240** or Press **PROG + Station Number**.

e.g. Press **PROG** - Display prompts for a Station number. M:04 0
ST:

Enter a valid Station Number

e.g. Station Number 14 was entered. M:04 05 0
System will automatically insert the corresponding Port number. ST:14

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.

Programming Modes

Each feature that 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.
When programming KSX-128 system a 3-digit port number must be entered.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **01**

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

Step 3: Enter Port Number **01 – 56** or **001 - 112**

e.g. Port 23 is Station 32.

```
M:01 23 .
ST:32
```

Step 4: Enter Class-of-Service **1 - 8**

e.g. Port 23 can Receive Paging Calls.

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

Step 5: Press **MSG =Yes** or **FLASH =No**

e.g. Set to not receive Paging Calls

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

Step 6: Press **HOLD** to save change.

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

Step 7: (Optional) Press **CONF** to set All Stations the same.

e.g. All Stations can not receive paging calls

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

Step 8: (Optional) Press **TRF** to scroll forward to next Class of Service or **MIC** to move backward. Repeat from Step 4

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 System & Quick 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.

Programming Procedure:

See (Mode 01) and follow the same programming procedure for setting Class-of-Service 2.

(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 that 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)

Programming Procedure:

See (Mode 01) and follow the same programming procedure for setting Class-of-Service 3.

(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.

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

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.

Note: When programming KSX-128 system, 3-digit port numbering must be used.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **04**

```
M:04 .
TOLL PLAN - DAY
```

Step 3: Enter Port Number **01 – 56 or 001 - 112**

e.g. Port 37 is Station number 46
by default has no restriction

```
M:04 37      0
ST:46
```

Step 4: 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:46
```

Step 5: Press **HOLD** to save change.

```
*:04 37      7
ST:46
```

Step 6: (Optional) Press **TRF** to scroll forward to next Port or **MIC** to move backward.
Repeat from Step 4.

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

```
M:04 38      0
ST:47
```

(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.

Programming Procedure:

See (Mode 04) and follow the same programming procedure to assign a Night 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 that 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.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode: **06**

```
e.g. System Hold Recall is 180 seconds M:06          180
SYS HOLD RECALL
```

Step 3: Press **FLASH** to clear an existing time.

```
e.g. Set to Infinite Hold Recall M:06          0
SYS HOLD RECALL
```

Step 4: Enter new System Hold Recall Time **1- 9999**

```
e.g. Set System Hold Recall to M:06          90
90 seconds. SYS HOLD RECALL
```

Step 5: 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.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 07

e.g. Console Hold Recall
is 30 seconds

M:07 30
CONS HOLD RECALL

Step 3: Press **FLASH** to clear an existing time.

e.g. Set to Infinite Hold Recall.

M:07 0
CONS HOLD RECALL

Step 4: Enter new Console Hold Recall Time **1- 9999**

e.g. Set Console Hold Recall
to 60 seconds

M:07 60
CONS HOLD RECALL

Step 5: 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 that 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.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

M:.
Enter Mode No.

Step 2: Enter Mode 08

e.g. Transfer Recall Time is
30 seconds.

M:08 30
TRANSFER RECALL

Step 3: Press **FLASH** to clear an existing time.

e.g. Set to normal Hold Recall

M:08 0
TRANSFER RECALL

Step 4: Enter new Transfer Recall Time **1- 9999**

e.g. Set Transfer Recall to
20 seconds.

M:08 20
TRANSFER RECALL

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **09**

e.g. The current Date is shown

M:09 1
Date 98/01/01

Step 3: Enter Date -**YYMMDD**

e.g. 990215 for 15th February 1999

M:09 1
Date 99/02/15

Display automatically changes.

Step 4: Enter Time - **HHMM** (in 24 Hour format).

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

M:09 2
Time 15:47

Display automatically changes.

Step 5: Enter Day of Week **0 - 6**.

e.g. 4 for Thursday

M:09 3
Day of Week Thu

Step 6: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **10**

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

Step 3: Enter Trunk number **1 – 8** or **01 - 24**

e.g. Trunk 3 which has no name

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

Step 4: Press **FLASH** to erase an existing name.

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


Step 5: Enter name by pressing the correct lettered key.

e.g. Press 5 five times for M:10 3 L
 "L' in Local 3. TRUNK NAME

Step 6: Move to next letter. # moves right and * moves back to the left.

e.g. Move to next letter M:10 3 L
 TRUNK NAME

Step 7: Enter next letter.

e.g. Press 6 six times for M:10 3 Lo
 'o' in Local 3. TRUNK NAME

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

Step 8: Press **HOLD** to save change.

*:10 3 Local 3
TRUNK NAME

Step 9: (Optional) 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 signaling.
When a Trunk is connected to a Central Office (or PABX) which recognizes both DTMF and Pulse signaling set the Trunk to DTMF. Set a Trunk to Pulse signaling only when that is the only type of signaling 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 signaling if any Trunks use DTMF signaling.
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 re-access 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 11

M:11 .
TRUNK COS

Step 3: Enter Trunk number 1 – 8 or 01 - 24

e.g. Trunk 3

M:11 3 .
TRUNK COS

Step 4: Enter Class-of-Service 1 - 8

e.g. Trunk 3 is set for DTMF signaling.

M:11 3 2 DTMF
TRUNK SIGNAL

Step 5: Press **MSG** (Yes) for DTMF or **FLASH** (No) for Pulse.

e.g. Set to Pulse Signaling

M:11 3 2 PULSE
TRUNK SIGNAL

Step 6: Press **HOLD** to save change.

*:11 3 2 PULSE
TRUNK SIGNAL

Step 7: (Optional) 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 10pps or 20pps.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 13

M:13 10
PULSE PER SECOND

Step 3: Press **MSG** for 10pps or **FLASH** for 20pps.

e.g. Set to 20pps

M:13 20
PULSE PER SECOND

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 14

M:14 60/40
B/M RATIO

Step 3: Press **MSG** for 66 / 33 or **FLASH** for 60 / 40

e.g. Set to 66 / 33pps

M:14 66/33
B/M RATIO

Step 4: 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 x 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M:.
Enter Mode No.

Step 2: Enter Mode **15**

e.g. Currently set to 1800 ms

M:15 180
TRUNK FLASH TIME

Step 3: Press **FLASH** to clear an existing time.

M:15 0
TRUNK FLASH TIME

Step 4: Enter new Flash Time **5 - 255**

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

M:15 120
TRUNK FLASH TIME

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 16

e.g. Currently set to 1500 ms

M:16 150
PAUSE TIME

Step 3: Press FLASH to clear an existing time.

M:16 0
PAUSE TIME

Step 4: Enter new Pause Time 50 - 255

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

M:16 180
PAUSE TIME

Step 5: 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 x 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 17

e.g. Currently set to 70 ms

```
M:17          7
DTMF TONE LENGTH
```

Step 3: Press **FLASH** to clear an existing length.

```
M:17          0
DTMF TONE LENGTH
```

Step 4: Enter new DTMF Tone Length **5 - 25**

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

```
M:17          8
DTMF TONE LENGTH
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 18

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

Step 3: Enter Trunk number **1 – 8** or **01 - 24**

e.g. Trunk 1 (Small System)

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

Step 4: Press **FLASH** to clear an existing Tenant number.

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

Step 5: Enter new Tenant number **1 - 8**

e.g. Set Trunk 1 to Tenant 3

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

Step 6: Press **HOLD** to save change.

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

Step 7: (Optional) Move to next Trunk. Press **MIC** to scroll backward, **TRF** to scroll forward repeat from Step 4.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 19

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

Step 3: Enter Port number **01 - 56 or 001 - 112**

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

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

Step 4: Press **FLASH** to clear an existing Tenant number.

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

Step 5: Enter new Tenant number **1 - 8**

e.g. Set Station 12 to Tenant 3

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

Step 6: Press **HOLD** to save change.

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

Step 7: (Optional) 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 **ignore** 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **20**

```
M:20      200
SPD BREAK POINT
```

Step 3: Press **FLASH** to clear an existing Break Point.

```
M:20      0
SPD BREAK POINT
```

Step 4: Enter new Break Point.

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

```
M:20      400
SPD BREAK POINT
```

Step 5: 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 (Mode 22) 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 what Station Ports will ring for each Private Line.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 21

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

Step 3: Enter a Trunk number **1- 8** or **01- 24**

e.g. Trunk 1 (Small System)

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

Step 4: Enter a memory position **1 - 8**. **Note:** The memory position is a counter to keep track of how many ports have been entered, up to 8 ports can be assigned per Trunk.

e.g. The second Station assigned to Trunk 1 is port 24.

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

Step 5: Press **FLASH** to clear an existing Port number.

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

Step 6: Enter Port number 01 - 56 or 001 - 112

e.g. Set to Port 21

M:21 1 2 21
PRIV LINE ASSIGN**Step 7: Press HOLD to save change.***:21 1 2 21
PRIV LINE ASSIGN**Step 8: (Optional) Press TRF to scroll forward to next memory position or MIC to move backward. Repeat from Step 5.**e.g. Move to the next position. Port
25 is the third station port
assigned for Trunk 1.M:21 1 3 25
PRIV LINE ASSIGN**Entry Definitions:**

TT-Trunk No.

P - Position No.

XX- Station Port

M:21 TT P XX

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

M:.
Enter Mode No.**Step 2: Enter Mode 22**M:22 CLOSD
PRIV LINE ACCESS**Step 3: Press MSG for Open or FLASH for Closed.**

e.g. Open Private Line access

M:22 OPEN
PRIV LINE ACCESS**Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **23**

```
M:23          NO
PRIV NITE RING
```

Step 3: 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
```

Step 4: Press **HOLD** to save change.

```
*:23          YES
PRIV NITE RING
```

(Mode 24) Private Line Pickup

Normally, only Stations that 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **24**

M:24 NO
PRIV LINE PICKUP

Step 3: Press **MSG** to allow pickup (Yes) or **FLASH** to deny (No).

e.g. Set to allow Pickup

M:24 YES
PRIV LINE PICKUP

Step 4: 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.

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.

Note: KSX-32 uses 1 digit Position No's. KSX-64 & 128 uses 2 digit Position No's.

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

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **25**

M:25 .
TRUNK HUNT GROUP

Step 3: Enter Trunk Hunt Group number **1 - 8**

e.g. Trunk Hunt Group 2

M:25 2 .
TRUNK HUNT GROUP

Step 4: Enter a position **1 - 8 or 01 - 24**

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

M:25 2 04 04
TRUNK HUNT GROUP

Step 5: Press **FLASH** to clear an existing Trunk.

M:25 2 04
TRUNK HUNT GROUP

Step 6: Enter new Trunk **1 - 8 or 01 - 24**

e.g. Set to Trunk 21

M:25 2 04 21
TRUNK HUNT GROUP

Step 7: Press **HOLD** to save change.

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

Step 8: (Optional) Press **TRF** to scroll forward to next memory position or **MIC** to move backward. Repeat from Step 5.

```
e.g. Move to next position      M:25 2 05      05
    Trunk 5 is the fifth Trunk  TRUNK HUNT GROUP
    In the Group 2.
```

(Mode 26) Automatic Trunk Selection

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

Automatic Trunk Selection is 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **26**

```
M:26          9
AUTO TRUNK SELCT
```

Step 3: Press **MSG** for 0 or **FLASH** for 9.

```
e.g. Set 0 for Automatic Trunk      M:26          0
    Selection.                       AUTO TRUNK SELCT
```

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **27**

M:27 NO
AUTO TRUNK GROUP

Step 3: Press **MSG** (Yes) for Automatic Access or **FLASH** (No) for No Automatic Access.

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

M:27 YES
AUTO TRUNK GROUP

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .  
Enter Mode No.
```

Step 2: Enter Mode **28**

```
M:28          YES  
TERMINAL TK ACC
```

Step 3: Press **MSG** (Yes) for Terminal Access or **FLASH** (No) for Distributed Access.

e.g. Set to use distributed Access

```
M:28          NO  
TERMINAL TK ACC
```

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **29**

```
M: 29
DVA PORT
```

Step 3: Press **FLASH** to erase any current entry.

```
M: 29
DVA PORT
```

Step 4: Enter Station Port number **01 - 56 or 001 - 112**

e.g. Set to Port 13

```
M: 29          13
DVA PORT
```

OR Press **MSG + Station Hunt Group 1 - 8**

e.g. Set to Station Hunt Group 1

```
M: 29          STGP:1
DVA PORT
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **30**

e.g. Currently set to 10 seconds

```
M:30          10
NO ANSWER TIME
```

Step 3: Press **FLASH** to clear existing time.

```
M:30          0
NO ANSWER TIME
```

Step 4: Enter No Answer Forward Time **10 - 9999**

e.g. Set to 16 seconds

```
M:30          16
NO ANSWER TIME
```

Step 5: 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 that is to be the main Console can be assigned. The Console can be assigned two different Station Ports. One Station port for Day Mode and one Station port 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 31

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

Step 3: Enter **1** for Day or **2** for Night.

e.g. The Day Console is currently
Port 01.

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

Step 4: Press **FLASH** to erase an existing Port number.

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

Step 5: Enter new Port for Console **01 - 56** or **001 - 112**

e.g. Set Day Console to Port 14

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

Step 6: Press **HOLD** to save change.

```
*:31 1      14  
CONSOLE 1
```

Step 7: (Optional) Press **TRF** to scroll forward and change the Night Console. Repeat from Step 5.

```
e.g. Night Console is Port 01      M:31 2      01  
CONSOLE 1
```

(Mode 32) Second Console

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

Programming Procedure:

See (Mode 31) and follow the same 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **33**

e.g. The Delay Time is currently
30 seconds.

```
M:33          30
CONS2 DELAY TIME
```

Step 3: Press **FLASH** to clear an existing time.

```
M:33          0
CONS2 DELAY TIME
```

Step 4: Enter new Second Console Delay Time **0 - 9999**

e.g. Set Delay Time to 15 seconds

```
M:33          15
CONS2 DELAY TIME
```

Step 5: 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. When set to 0 there is 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 35) Console System Hold Recall Release Time for setting the Console Hold Recall Release Time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **34**

e.g. The Delay Time is currently
60 seconds.

```
M:34          60
SYS HLD REC DELY
```

Step 3: Press **FLASH** to clear an existing time.

```
M:34          0
SYS HLD REC DELY
```

Step 4: Enter new Console System Hold Recall Delay Time **0 - 9999**

e.g. Set Delay Time to 45 seconds

```
M:34          45
SYS HLD REC DELY
```

Step 5: 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. When set to 0 there is no release.

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

Programming procedure:

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

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **35**

```
e.g. The Release Time is currently 60 seconds.
M:35          60
SYS HLD RLS TIME
```

Step 3: Press **FLASH** to clear an existing time.

```
e.g. Set for No Release
M:35          0
SYS HLD RLS TIME
```

Step 4: Enter new Console System Hold Recall Release Time **1 - 9999**

```
e.g. Set Release Time to 120 seconds
M:35          120
SYS HLD RLS TIME
```

Step 5: 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 recognize account code numbers.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **36**

```
M: 36          NO
FORCE ACC CODE
```

Step 3: Press **MSG** (Yes) for Forced or **FLASH** (No) for no Forced Account Code.

e.g. Set to use Forced Account Code

```
M: 36          YES
FORCE ACC CODE
```

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **37**

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

M:37 6
ACC CODE LENGTH

Step 3: Press **FLASH** to clear an existing length.

M:37 0
ACC CODE LENGTH

Step 4: Enter new Account Code Length **0 - 6**.

e.g. Set for 4 digit Account Codes

M:37 4
ACC CODE LENGTH

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **38**

M:38 .
ACC CODE TABLE

Step 3: Enter position **01 – 96**

e.g. first Account Code

M:38 01 4728
ACC CODE TABLE

Step 4: Press **FLASH** to erase an existing Account Code.

M:38 01
ACC CODE TABLE

Step 5: Enter new Account Code up to 6 digits.

e.g. Set Account Code to 2881

M:38 01 2881
ACC CODE TABLE

Step 6: Press **HOLD** to save change.

*:38 01 2881
ACC CODE TABLE

Step 7: (Optional) Press **TRF** to scroll forward to next Account Code or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next Account Code

M:38 02 5532
ACC CODE TABLE

Trunk Ringing

A. Private Lines

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

B. Normal Trunks

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **39**

M: 39 .
ST GP RING - DAY

Step 3: Enter Trunk number 1- 8 or 01- 24

e.g. Trunk 4 has no Station Hunt Group set (Small System). M:39 4 0
ST GP RING - DAY

Step 4: 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

Step 5: Press HOLD to save change.

*:39 4 2
ST GP RING - DAY

Step 6: (Optional) Press TRF to scroll forward to next Trunk or MIC to move backward Repeat from Step 4.

e.g. Move to next Trunk. M:39 5 0
Trunk 5 has no Station Hunt Group set. 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) and follow the same 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 Station 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 50) Flexible Ring Busy Remind for how to set Busy Remind for Flexible Ring Stations.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 41

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

Step 3: Enter Trunk number **1 – 8** or **01 - 24**

e.g. Trunk 5 (small system)

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

Step 4: Enter a memory position **01 – 16** **Note:** A memory position is a counter to keep track of how many ports have been entered, up to 16 ports can be set to ring per Trunk.

e.g. Memory position 01

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

Step 5: Press **FLASH** to erase an existing Port number.

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

Step 6: Enter new Port number **01 - 56** or **001 - 112**

e.g. set Port 12 to ring

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**Step 7:** Press **HOLD** to save change.*:41 5 01 12
FLEX RING - DAY**Step 8:** (Optional) Press **TRF** to scroll forward to next memory position or **MIC** to go Backwards. Repeat from Step 6.e.g. Move to next mem. Pos. o2
set Port 21 to ring.M:41 5 02 21
FLEX RING - DAYEntry Definitions:

TT-Trunk No.

PP - Mem Pos. No. M:21 **TT PP XX**

XX- Station Port PRIV LINE ASSIGN

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

Programming Procedure:

See (Mode 41) and follow the same 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **43**

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

Step 3: Enter Trunk number **1 – 8** or **01 – 24**

e.g. Trunk 2 (small system)

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

Step 4: Press **MSG** (YES) for Stepped Ringing or **FLASH** (NO) for normal ringing.

e.g. Set Trunk to use Stepped Ringing

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

Step 5: Press **HOLD** to save change.

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

Step 6: Press **TRF** to scroll forward to next Trunk or **MIC** to move backward. Repeat from Step 4.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **44**

```
M:44          RING
CONS 1 INCOMING
```

Step 3: Press **MSG** for Ring or **FLASH** for Not Ring.

e.g. Set the Console to not ring

```
M:44          NOT RING
CONS 1 INCOMING
```

Step 4: 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.

Programming Procedure:

See (Mode 44) and follow the same 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. When set to 0 there is no delay.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **46**

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

Step 3: Enter Trunk number **1 – 8** or **01 - 24**.

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

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

Step 4: Press **FLASH** to clear an existing time.

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

Step 5: Enter new Common Ring Delay Time **0 - 9999**

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

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

Step 6: Press **HOLD** to save change.

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

Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** key to move backward.
Repeat from Step 4.

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

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

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .  
Enter Mode No.
```

Step 2: Enter Mode 47

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

Step 3: Enter a memory position **01 - 24**. (the memory position is a counter to keep track of how many ports have been entered, up to 24 ports can be set to ring for all Trunks).

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

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

Step 4: Press **FLASH** to erase an existing Port number.

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

Step 5: Enter new Port number **01 - 56** or **001 - 112**

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
```

Step 6: Press **HOLD** to save change.

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

Step 7: (Optional) Press **TRF** to scroll forward to the next memory position or **MIC** to move backward. Repeat from Step 4.

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.

Programming Procedure:

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

(Mode 49) Common Off Hook ringing

Common Ring Stations that are busy when an Incoming Call is trying to ring can be given an Off Hook ring signal, that there is an Incoming Call.

The Off Hook Ring Signal Time can be set from 1 to 9999 seconds. When set to 0 there is **no** Off Hook Ring signal.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 49

e.g. The Remind Time is currently
30 seconds.

```
M:49          30
COMM BUSY REMIND
```

Step 3: Press FLASH to clear an existing time.

```
M:49          0
COMM BUSY REMIND
```

Step 4: Enter new Common Off Hook Ring Time 1 - 9999

e.g. Set Remind Time to 60 seconds

```
M:49          60
COMM BUSY REMIND
```

Step 5: Press HOLD to save change.

```
*:49          60
COMM BUSY REMIND
```

(Mode 50) Flexible Off Hook Ringing

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

The Flexible Off Hook Ring Time can be set from 1 to 9999 seconds. When set to 0 there will be **no** Off Hook Ring Signal.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **50**

e.g. There is currently no
Busy Remind.

```
M:50          0
FLEX BUSY REMIND
```

Step 3: Press **FLASH** to clear an existing time.

```
M:50          0
FLEX BUSY REMIND
```

Step 4: Enter new Flexible Off Hook Ring Time **1 - 9999**

e.g. Set Remind Time to 60 seconds

```
M:50          60
FLEX BUSY REMIND
```

Step 5: 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. When set to 0 there is no delay.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **51**

e.g. There is no delay

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

Step 3: Press **FLASH** to clear an existing time.

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

Step 4: Enter new External Call Forwarding Delay Time **0 - 9999**

e.g. Set Delay Time to 15 seconds

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

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **52**

M:52 .
EXT C/F - DAY

Step 3: Enter Trunk number **1 – 8 or 01 - 24**.

e.g. Trunk 18 is not Externally Call Forwarded (Large System).

M:52 18 0
EXT C/F - DAY

Step 4: Press **FLASH** to clear an existing Speed Dial.

e.g. Set No Call Forwarding

M:52 18 0
EXT C/F - DAY

Step 5: Enter new Speed Dial bin **01 – 09 or 100 - 499**

e.g. Set to Speed Dial bin 167

M:52 18 167
EXT C/F - DAY

Step 6: Press **HOLD** to save change.

*:52 18 167
EXT C/F - DAY

Step 7: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward. Repeat from Step 4.

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.

Programming Procedure:

See (Mode 52) and follow the same 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **54**

e.g. Call Duration is currently
180 seconds.

```
M:54          180
EXT C/F DURATION
```

Step 3: Press **FLASH** to clear an existing time.

```
M:54          0
EXT C/F DURATION
```

Step 4: Enter new Call Duration **1 - 9999**

e.g. Set Call Duration 300 seconds

```
M:54          300
EXT C/F DURATION
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **55**

```
M:55          10
DPHONE RING TIME
```

Step 3: Press **FLASH** to clear an existing time.

```
M:55          0
DPHONE RING TIME
```

Step 4: Enter new Door Phone ring time **5 - 60**

e.g. Set to 15 seconds

```
M:55          15
DPHONE RING TIME
```

Step 5: 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. A Call Accounting device, Innfone Front Desk package, or a Property Management System (PMS) can also use the Call Records.

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

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

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

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **56**

e.g. Minimum Time is currently
15 seconds.

```
M:56          15
SMDR MIN DURATON
```

Step 3: Press **FLASH** to clear an existing time.

```
M:56          0
SMDR MIN DURATON
```

Step 4: Enter new Minimum Call Duration **0 - 9999**

e.g. Set Minimum Time to 10 seconds

```
M:56          10
SMDR MIN DURATON
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **57**

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

Step 3: Enter Trunk Card number.

```
e.g. Trunk Card 1 has no Detectors set M:57 1      0
SMDR DETECTOR
```

Step 4: Enter Detector type **0 - 9**

```
e.g. Set to using LRD cards M:57 1      1
SMDR DETECTOR
```

Step 5: Press **HOLD** to save change.

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

Step 6: (Optional) Press **TRF** to scroll forward to next Trunk card.

```
e.g. Move to next Trunk Card M:57 2      0
Trunk Card 2 has no Detectors set. 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **58**

```
M:58          NO
PRINT ZERO PULSE
```

Step 3: Press **MSG** (Yes) for Print or **FLASH** (No) for No Print.

e.g. Set to printing Zero Pulse calls

```
M:58          YES
PRINT ZERO PULSE
```

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 59

e.g. Pulse Cost is currently 1

M:59 1
PULSE COST

Step 3: Press FLASH to clear an existing cost.

M:59 0
PULSE COST

Step 4: Enter new Pulse Cost 0 - 9999

e.g. Set Pulse Cost to 14 cents

M:59 14
PULSE COST

Step 5: Press HOLD to save change.

*:59 14
PULSE COST

Trunk & Dialing Operation

(Mode 60) No Dial Time-out

A time 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **60**

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

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

Step 3: Press **FLASH** to clear an existing time.

e.g. Set to no Time-out

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

Step 4: Enter new No Dial Time **1 - 9999**

e.g. Set No Dial Time to 20 seconds

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

Step 5: Press **HOLD** to save change.

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

(Mode 61) Keyphone Trunk Dial Time

A time 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 61

e.g. Dial Time is currently 40 seconds

```
M:61          40
KEY TK DIAL TIME
```

Step 3: Press FLASH to clear an existing time.

e.g. Set no Dial Time limit

```
M:61          0
KEY TK DIAL TIME
```

Step 4: Enter new Dial Time 1 - 9999

e.g. Set Dial Time to 25 seconds

```
M:61          25
KEY TK DIAL TIME
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **62**

```
e.g. Dial Time is currently 40 seconds  M:62          40
                                         SLP DIAL TIME
```

Step 3: Press **FLASH** to clear an existing time.

```
e.g. Clear before entering new time  M:62          0
                                         SLP DIAL TIME
```

Step 4: Enter new Dial Time **5 - 9999**

```
e.g. Set Dial Time to 25 seconds      M:62          25
                                         SLP DIAL TIME
```

Step 5: Press **HOLD** to save change.

```
*:62          25
SLP DIAL TIME
```

(Mode 63) Maximum Trunk Call Duration

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. When set to 0 there is no Maximum Trunk Call Duration.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M:.
Enter Mode No.

Step 2: Enter Mode **63**

e.g. Maximum Time is currently
600 seconds.

M:63 .
MAX TK CALL TIME

Step 3: Enter Port number **1 - 8 or 01 - 112**

e.g. Port 16 which is Station
number 116

M:63 16 600
ST:116

Step 4: Press **FLASH** to clear an existing time.

M:63 16 0
ST:116

Step 5: Enter new Maximum Trunk Call Duration **1 - 9999**

e.g. Set Maximum Time to 1200 seconds

M:63 16 1200
ST:116

Step 6: Press **HOLD** to save change.

*:63 16 1200
ST:116

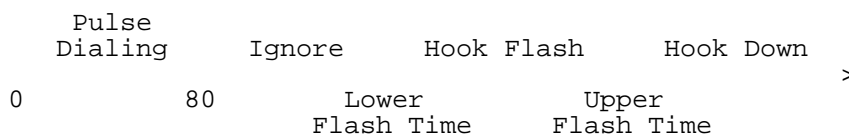
Step 7: (Optional) Press **TRF** to scroll forward to next station port or **MIC** to move backward. Repeat from Step 5.

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, less than 80ms, are considered to be Pulse dialing.

All pulses or flashes between 80ms and the **Lower Flash Time** is 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 a disconnect.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **64**

e.g. Lower Flash Time is
currently 80 ms.

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

Step 3: Press **FLASH** to clear an existing time.

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

Step 4: Enter new Lower Flash Time **8 - 100**

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

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

Step 5: 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.

Programming Procedure:

See (Mode 64) and follow the same 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **66**

e.g. Currently set to 180 seconds

```
M:66          180
WARN TONE TIME
```

Step 3: Press **FLASH** to clear an existing time.

```
M:66          0
WARN TONE TIME
```

Step 4: Enter new Warning Tone Time **30 - 9999**

e.g. Set to 120 seconds

```
M:66          120
WARN TONE TIME
```

Step 5: Press **HOLD** to save change.

```
*:66          120
WARN TONE TIME
```

Station Hunt Groups

(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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **67**

```
M:67 .
ST HUNT GROUP
```

Step 3: Enter Station Hunt Group number **1 - 8**

e.g. Station Hunt Group 1

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

Step 4: Enter a memory position **01 - 16**. (a memory position is a counter to keep track of how many Station ports have been entered, up to 16 ports can be assigned per Group).

e.g. The fourth position is not set

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

Step 5: Press **FLASH** to clear an existing Station.

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


Step 6: Enter new Port number 01 - 56 or 001 - 112

e.g. Set to Port 21

M:67 1 04 21
ST HUNT GROUP**Step 7: Press HOLD to save change.***:67 1 04 21
ST HUNT GROUP**Step 8: Press TRF to scroll forward to next memory position or MIC to move backward.
Repeat from Step 6.**

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:**Step 1: Enter Programming Mode by Pressing [PROG-PROG-1-2-3-HOLD] from any Display phone or If already in Prog.Mode simply press DATA.**M:.
Enter Mode No.**Step 2: Enter Mode 68**M:68 YES
TERMINAL ST ACC**Step 3: Press MSG (YES) for terminal or FLASH (No) for distributed.**

e.g. Set to use distributed Access

M:68 NO
TERMINAL ST ACC**Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **69**

e.g. Dial "0" calls are set to ring
the Console.

M:69 0
OPERATOR DESTN

Step 3: Press **FLASH** to clear an existing Station Hunt Group.

e.g. Set to Console

M:69 0
OPERATOR DESTN

Step 4: Enter Station Hunt Group number **1 - 8**

e.g. Dial "0" calls are set to ring
Station Hunt Group 2.

M:69 2
OPERATOR DESTN

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **70**

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

Step 3: Enter Port number **01 - 56** or **001 - 112**

```
e.g. Port 16 is Station number 116      M:70 16      25
                                           ST:25
```

Step 4: Press **FLASH** to erase an existing Station number.

```
e.g. Erase Station number              M:70 16
                                           ST:25
```

Step 5: Enter new Station number.

```
e.g. Set Port 16 to Station            M:70 16      219
    number 219.                          ST:25
```

Step 6: Press **HOLD** to save change.

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

Step 7: (Optional) Press **TRF** to scroll forward to the next port or **MIC** to move backward.

```
e.g. Move to next Port                 M:70 17      26
    Port 17 is Station number 26.       ST:26
```

(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 a complete range of characters, including 0 - 9.
*	Move left one space.
#	Move right one space.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **71**

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

Step 3: Enter Port number **01 - 56** or **001 - 112**

e.g. Port 12 which is Station 112

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

Step 4: Press **FLASH** to erase an existing name.

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

Step 5: Enter name by pressing the correct lettered key.

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

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

Step 6: Move to next letter. # moves right and * moves back to the left.

e.g. Move to next letter

M:71 12 A
ST:112

Step 7: Enter next letter.

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

M:71 12 Ac
ST:112

Step 8: Repeat the above two steps until the Station name is entered.

Step 9: Press **HOLD** to save change.

*:71 12 Accounts
ST:112

Step 10: (Optional) Press **TRF** to scroll forward to next Station Port or **MIC** to move backwards.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **72**

M:72 .
ST GROUP ASSIGN

Step 3: Enter Port number **01 - 56** or **001 - 112**

e.g. Port 11 which is Station 111

M:72 11 .
ST:111

Step 4: Enter Group number **1 - 7**

e.g. Group 3

M:72 11 3 NO
ST:111

Step 5: Press **MSG** (Yes) to assign Station Group or **FLASH** (No) to remove.

e.g. Set Port 11 to Group 3

M:72 11 3 YES
ST:111

Step 6: Press **HOLD** to save change.

*:72 11 3 YES
ST:111

Step 7: (Optional) Press **TRF** to move to next port or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next position. Port 11 is not assigned to 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 features that 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **73**

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

Step 3: Enter Station Port number **01 – 56** or **001 - 112**

e.g. Port 18

```
M:73 18 .
ST:27
```

Step 4: Enter softkey **01 - 48**

e.g. The fifth softkey is Trunk 5

```
M:73 18 05 TK:5
ST:27
```

Step 5: Press **FLASH** to erase the existing setting.

```
M:73 18 05Prt:
ST:27
```

Press **MSG** to step through the features: 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.

Step 6: Assign key to one of the following options:

1. Direct Station Selection (DSS/BLF):

Enter new Port number **01 - 56** or **001 - 112**

e.g. Set to Port 34 M:73 18 05 34
ST:27

2. Station Hunt Group Access:

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

M:73 18 05STGP:
ST:27

Enter Station Hunt Group number **1 - 8**

e.g. Set to Station Hunt Group 4 M:73 18 05STGP:4
ST:27

3. Direct Trunk Selection:

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

M:73 18 05 TK:
ST:27

Enter Trunk number.

e.g. Set to Trunk 2 M:73 18 05 TK:2
ST:27

4. Trunk Hunt Group Access:

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

M:73 18 05TKGP:
ST:27

Enter Trunk Hunt Group number **1 – 8**.

e.g. Set to Trunk Hunt Group 2 M:73 18 05TKGP:2
ST:27

Entry Definitions:

MM=Mode Number
 PP=Port Number M:MM PP BBDDDDDD
 BB=Button Number ST:27
 DDDDDD=Button Data

5. One Touch Speed Dial:

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

```
M:73 18 05SD
ST:27
```

Enter Speed Dial bin **01 – 09** or **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 for All or 2 for 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
```

Entry Definitions:

MM=Mode Number

PP=Port Number

BB=Button Number

DDDDDD=Button Data

```
M:MM PP BBDDDDDD
ST:27
```

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
```

Entry Definitions:

MM=Mode Number

PP=Port Number

BB=Button Number

DDDDDD=Button Data

M:MM PP BBDDDDDD

ST:27

(Mode 74) Trunk Hunt Group Assignment

There are eight Trunk Hunt Groups (1 - 8) that 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **74**

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

Step 3: Enter Port number **01 - 56 or 001 - 112**

e.g. Port 14 is using Trunk Hunt Group 3.

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

Step 4: Enter new Trunk Hunt Group **1 - 8**

e.g. Set to Trunk Hunt Group 2

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

Step 5: Press **HOLD** to save change.

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

Step 6: (Optional) Press **TRF** to scroll forward to next port or **MIC** to move backwards. Repeat from Step 4.

e.g. 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 75

e.g. Reserve Recall Time is 20 seconds M:75 20
RESERVE RECALL

Step 3: Press **FLASH** to clear an existing time.

M:75 0
RESERVE RECALL

Step 4: Enter Reserve Recall Time.

e.g. Set Reserve Recall Time to M:75 15
15 seconds. RESERVE RECALL

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **76**

M:76 YES
VOICE RING

Step 3: Press **MSG** (Yes) for Ring or **FLASH** (No) for Tone.

e.g. Set to Tone

M:76 NO
VOICE RING

Step 4: 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. When set to 0 there is no Automatic Release.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode 77

e.g. Automatic Release after
15 seconds.

M:77 15
AUTO RLS TIME

Step 3: Press FLASH to clear an existing time.

e.g. Set no Automatic Release

M:77 0
AUTO RLS TIME

Step 4: Enter Keyphone Automatic Release Time 1 - 9999

e.g. Set Automatic Release Time to
10 seconds.

M:77 10
AUTO RLS TIME

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **78**

```
M:78          0
SLP MESSAGE WAIT
```

Step 3: Press **FLASH** to clear an existing time.

e.g. Set to no ring for Message waiting.

```
M:78          0
SLP MESSAGE WAIT
```

Step 4: Enter Message Waiting Ring Time **1 - 15**

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

```
M:78          2
SLP MESSAGE WAIT
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **79**

```
M:79
TOLL OVERRIDE
```

Step 3: Enter Password number **1 - 8**.

e.g. Password 1 is currently not set

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

Step 4: Press **FLASH** to erase an existing password.

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

Step 5: Enter new password up to 6 keys **0-9,*,#**.

e.g. Enter key combination

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

Step 6: Press **HOLD** to save new password.

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

Step 7: (Optional) Press **TRF** to scroll forward to next Password or **MIC** to move backward. Repeat from Step 5.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **81**

M: 81
PASSWORD

Step 3: Press **FLASH** to erase an existing or default password.

M: 81
PASSWORD

Step 4: Enter new password up to 6 keys **0-9,*,#**.

e.g. Enter key combination

M: 81 #92*13
PASSWORD

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **82**

M:82 24 HOUR
CLOCK FORMAT

Step 3: Press **MSG** for 12 Hour or **FLASH** for 24 Hour.

e.g. Set to 12 Hour format

M:82 12 HOUR
CLOCK FORMAT

Step 4: 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. When set to 0 there is no Urgent Call Time.

Programming Procedure:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **83**

M:83 0
URGENT CALL TIME

Step 3: Press **FLASH** to clear an existing time.

e.g. Set to no Urgent Call Time

M:83 0
URGENT CALL TIME

Step 4: Enter Urgent Call Time **1 - 9999**

e.g. Set SLP to ring after 2 minutes

M:83 120
URGENT CALL TIME

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **84**

```
M:84 .
SYSTEM COS
```

Step 3: Enter Class-of-Service **1 - 8**.

```
e.g. System does not put Message      M:84 4          NO
waiting indication on DSS Unit.       MESS WAIT ON DSS
```

Step 4: Press **MSG** for Yes or **FLASH** for No.

```
e.g. Set to show Message Waiting      M:84 4          YES
Indication.                           MESS WAIT ON DSS
```

Step 5: Press **HOLD** to save change.

```
*:84 4          YES
MESS WAIT ON DSS
```

Step 6: (Optional) Press **TRF** to scroll forward to next Class of Service or **MIC** to move backward. Repeat from Step 4.

```
e.g. Move to previous Class-of-Service M:84 3          NO
System rings only one Console.       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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **85**

```
M:85 .
SYS ALARMS
```

Step 3: Enter Alarm number **1 - 8**.

e.g. Alarm 1 is currently not set

```
M:85 1      00:00
SYS ALARMS  0
```

Step 4: Press **FLASH** to clear an existing Alarm.

```
M:85 1      00:00
SYS ALARMS  0
```

Step 5: 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
```

Step 6: Enter Alarm duration - 1 to 9999

e.g. Set to 15 seconds

M:85 1 17:25
SYS ALARMS 15**Step 7: Press HOLD to save change.***:85 1 17:25
SYS ALARMS 15**Step 8: (Optional) Press TRF to scroll forward to next Alarm or MIC to move backward.
Repeat from Step 4.**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.

Programming Procedure:

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.

Programming Procedure:

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode 88

e.g. Station Alarm Time is 25 seconds

```
M:88          25
ST ALARM TIME
```

Step 3: Press **FLASH** to clear an existing time.

```
M:88          0
ST ALARM TIME
```

Step 4: Enter Station Alarm Time.

e.g. Set Station Alarm Time to 30 seconds.

```
M:88          30
ST ALARM TIME
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **89**

```
M:89 .
ZONE PAGE ASSIGN
```

Step 3: Enter Zone number **1 - 7**

e.g. Zone 1 is currently set to
Port 26.

```
M:89 1      26
ZONE PAGE ASSIGN
```

Step 4: Press **FLASH** to erase an existing Port number.

```
M:89 1
ZONE PAGE ASSIGN
```

Step 5: Enter new Port number **01 - 56 or 001 - 112**

e.g. Set to Port 065

```
M:89 1      65
ZONE PAGE ASSIGN
```

Step 6: Press **HOLD** to save change.

```
*:89 1      65
ZONE PAGE ASSIGN
```

Step 7: (Optional) Press **TRF** to scroll forward to next Zone or **MIC** to move backward.
Repeat from Step 4.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **90**

M: 90 NO
PAGE TONE

Step 3: Press **MSG** (Yes) for Page Tone **or** **FLASH** (No) for none.

e.g. Set to use Page Tone

M: 90 YES
PAGE TONE

Step 4: 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.

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

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **91**

```
M:91 .
COMMON RESTRICT
```

Step 3: Enter a memory position **1 - 8**

e.g. first number is currently 1
set to 1411.

```
M:91 1 1411
COMMON RESTRICT
```

Step 4: Press **FLASH** to erase an existing number.

```
M:91 1
COMMON RESTRICT
```

Step 5: Enter new number up to 6 digits.

e.g. Set number to 1900

```
M:91 1 1900
COMMON RESTRICT
```

Step 6: Press **HOLD** to save change.

```
*:91 1 1900
COMMON RESTRICT
```

Step 7: (Optional) Press **TRF** to scroll forward to the next memory position or **MIC** to move backward. Repeat from Step 4.

e.g. Move to next memory position
which 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) and follow the same 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **93**

```
e.g. Long Distance Call Prefix is 1      M:93          1
                                          LONG DIST PREFIX
```

Step 3: Press **FLASH** to ignore Long Distance Call Restriction tables.

```
M:93
LONG DIST PREFIX
```

Step 4: Enter new Long Distance Call Prefix.

```
e.g. Set Long Distance Call Prefix to "0".      M:93          0
                                          LONG DIST PREFIX
```

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **94**

M:94 .
DIGIT LENGTH

Step 3: Enter Toll Plan number **1 - 6**

e.g. Toll Plan 3 has Length
Restriction 7.

M:94 3 7
DIGIT LENGTH

Step 4: Press **FLASH** to clear an existing length.

e.g. Set no Digit Length Restriction

M:94 3 0
DIGIT LENGTH

Step 5: Enter new Length Restriction **1 - 32**

e.g. Set Length Restriction to 8

M:94 3 8
DIGIT LENGTH

Step 6: Press **HOLD** to save change.

*:94 3 8
DIGIT LENGTH

Step 7: (Optional) Press **TRF** to scroll forward to next Toll Plan or **MIC** to move backward. Repeat from Step 4.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **95**

M:95 .
COR TRUNK

Step 3: Enter Toll Plan number **1 - 4**

e.g. Toll Plan 2

M:95 2 .
COR TRUNK

Step 4: Enter Trunk number **1 – 8 or 01 - 24**

e.g. Trunk 15 has Class-of-Restriction 0 (Large System).

M:95 2 15 0
COR TRUNK

Step 5: Press **FLASH** to clear an existing Class-of-Restriction.

e.g. Set to Class-of-Restriction 0.

M:95 2 15 0
COR TRUNK

Step 6: Enter new Class-of-Restriction **1 - F**

e.g. Set to Class-of-Restriction 5

M:95 2 15 5
COR TRUNK

Step 7: Press **HOLD** to save change.

*:95 2 15 5
COR TRUNK

Step 8: (Optional) Press **TRF** to scroll forward to next Trunk or **MIC** to move backward. Repeat from Step 6.

e.g. Move to next Trunk.
Trunk 16 has Class-of-Rest.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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **96**

M:96 .
LOCAL RESTRICT

Step 3: Enter Class-of-Restriction number **1 - 4**

e.g. Class-of-Restriction 2

M:96 2 .
LOCAL RESTRICT

Step 4: Enter a bin number **01 – 24**

e.g. bin 01 has no number set

M:96 2 01
LOCAL RESTRICT

Step 5: 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**Step 6:** Press **HOLD** to save change.*:96 2 01 3*7
LOCAL RESTRICT**Step 7:** (Optional) Press **TRF** to scroll forward to next bin or **MIC** to move backward.
Repeat from Step 5.e.g. Move to next bin
bin 02 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) and follow the same 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode **98**

e.g. PABX Trunk Access Code is 1

M:98 1
PABX TK ACCESS

Step 3: Enter new PABX Trunk Access Code.

e.g. Set PABX Trunk Access Code to 0

M:98 0
PABX TK ACCESS

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode **99**

```
M: 99          NO
IGNORE PABX CODE
```

Step 3: 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
```

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode *1

```
M:*1          NO
AUTO ROUTE SELCT
```

Step 3: Press **MSG** (Yes) to use ARS or **FLASH** (No) to not use ARS.

e.g. Set to use Automatic Route Selection.

```
M:*1          YES
AUTO ROUTE SELCT
```

Step 4: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode *2

```
M:*2 .
AREA CODE TABLE
```

Step 3: Enter a Bin Number **01 - 96**

e.g. first position is empty

```
M:*2 01      1
AREA CODE TABLE
```

Step 4: Press **FLASH** to erase an existing Area Code.

```
M:*2 01      1
AREA CODE TABLE
```

Step 5: Enter new Area Code - 3 digits

e.g. Set number to 213

```
M:*2 01      213 1
AREA CODE TABLE
```

Step 6: Enter new Route **1 - 8**

e.g. Set to route 3

```
M:*2 01      213 3
AREA CODE TABLE
```

Step 7: Press **HOLD** to save change.

```
*:*2 01    213 3
AREA CODE TABLE
```

Step 8: (Optional) Press **TRF** to scroll forward to next Bin Number or **MIC** to move backward. Repeat from Step 5.

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.

Programming Procedure:

See (Mode *2) and follow the same programming procedure to set up Office Code Table.

(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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode *4

M:*4 .
ROUTE TABLE

Step 3: Enter Route number 1 - 8

e.g. Route 3

M:*4 3 .
ROUTE TABLE

Step 4: Enter Time Period 1 - 8

e.g. Time Period 2

M:*4 3 2 1
ROUTE TABLE

Step 5: Enter new Trunk Hunt Group 1 - 8

e.g. Set to Trunk Hunt Group 5

M:*4 3 2 5
ROUTE TABLE

Step 6: Press **HOLD** to save change.

*:*4 3 2 5
ROUTE TABLE

Step 7: (Optional) Press **TRF** to scroll forward to the next Time Period or **MIC** to move backward. Repeat from Step 5.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
 Enter Mode No.

Step 2: Enter Mode *5

M:*5 .
 ARS TIME PERIOD

Step 3: Enter Time 1 - 6

e.g. Time 1

M:*5 1 0
 ARS TIME PERIOD

Step 4: Press **FLASH** to erase an existing Time.

e.g. Time Period 1

M:*5 1 0
 ARS TIME PERIOD

Step 5: Enter new Time 0 - 24

e.g. Set to 8:00 am

M:*5 1 8
ARS TIME PERIOD**Step 6: Press HOLD to save change.***:*5 1 8
ARS TIME PERIOD**Step 7: (Optional) Press TRF to scroll forward to next Time Period or MIC to move backward. Repeat from Step 5.**

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.**Step 2: Enter Mode *6**M:*6 .
ADD / SUB TABLE**Step 3: Enter route 1 - 8**

e.g. route 2 has no modification set

M:*6 2

Step 4: Press **FLASH** to erase an existing entry.

M:*6 2

Step 5:

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

Step 6: Press **HOLD** to save change.

*:*6 2
R49584

Step 7: (Optional) Press **TRF** to scroll forward to the next Route or **MIC** to move backward.
Repeat from Step 5.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

```
M: .
Enter Mode No.
```

Step 2: Enter Mode *7

```
M:*7 .
HOLIDAY TABLE
```

Step 3: Enter a memory position **01 - 16**

e.g. fourth date is March 15

```
M:*7 04    03/15
HOLIDAY TABLE
```

Step 4: Press **FLASH** to erase an existing Date.

```
M:*7 04    /
HOLIDAY TABLE
```

Step 5: Enter new Date (MM/DD).

e.g. Set date to April 25

```
M:*7 04    04/25
HOLIDAY TABLE
```

Step 6: Press **HOLD** to save change.

```
*:*7 04    04/25
HOLIDAY TABLE
```

Step 7: (Optional) Press **TRF** to scroll forward to next Date or **MIC** to move backward. Repeat from Step 5.

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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone or If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode ***8**

e.g. ARS Time-out is 5 seconds

M:*8 5
ARS TIME-OUT

Step 3: Press **FLASH** to clear an existing time.

M:*8 0
ARS TIME-OUT

Step 4: Enter ARS Time-out.

e.g. Set ARS Time-out to 3 seconds

M:*8 3
ARS TIME-OUT

Step 5: 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:

Step 1: Enter Programming Mode by Pressing [**PROG-PROG-1-2-3-HOLD**] from any Display phone **or** If already in Prog.Mode simply press **DATA**.

M: .
Enter Mode No.

Step 2: Enter Mode ***9**

M:*9 .
TK GRP ADD / SUB

Step 3: Enter Trunk Hunt Group number **1 - 8**

e.g. Trunk Hunt Group 3 has no modification.

M:*9 3

Step 4: Press **FLASH** to erase an existing entry.

M:*9 3

Step 5: 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

Step 6: Enter new digits to be added **1 - 16** digits.

e.g. Dial access code 0105 before number.

M:*9 3
R30105

Step 7: Press **HOLD** to save change.

*:*9 3
R30105

Step 8: (Optional) Press **TRF** to scroll forward to next Trunk Hunt Group or **MIC** to move backward. Repeat from Step 4.

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

Dial:	Feature:
10 - 69 / 100 - 699	Station Intercom dialing
1 - 7 *	Group Call Pickup
1 - 7 #	Page a Group of Keyphones
71 * + Station no.	Call Forward - Follow Me
71 + Station no.	Call Forwarding - All Calls
72 + Station no.	Call Forwarding - Busy / No Answer
73 + Station Hunt Group no.	Transfer to Ring Station Hunt Group (1 - 8)
730 + Station Hunt Group no.	Transfer to Ring Station Hunt Group (1 - 8)
741 + HHMM	Daily Wake-up / Remind Call
742 + HHMM	Once only Wake-up / Remind Call
743 + Station no.	To Set a Message
744	To Respond to a Message
745	To Answer a Paging Call
746 + 01 - 09	Program Personal Speed Dial
747	Do-Not-Disturb
748	SLP Conference
749 + lock code	To Lock your Phone
740 + Station no.	To Clear a Message
75 + Station no.	Hold Pickup
76 + 0 - 9	Call Parking
77 + Trunk no.	To Access an Outside Line
78 + Station Hunt Group no.	Call Station in Station Hunt Group (1 - 8)
780 + Station Hunt Group no.	Call Station in Station Hunt Group (1 - 8)
79	Call the Dedicated Door Phone
70 + Speed Dial bin	System / Personal Speed Dial
70 00	Redial
70 #	Redial
8	Trunk Hunt Group 8
9, 91 - 98	Trunk Hunt Groups (1 - 8)
0	Call the Attendant
*	System Call Pickup
# + 1 - 8	Page an External Zone (1 - 8)
# 8 1	Turn Music over External Page Zone On/Off
# 9	Page All Internal
# 0	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

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 Hold ST:117
117

Station Hold Recalling

e.g. Station 28 recalling Recall ST:28

Conference with Station

e.g. In conference with Station 113 Talk ST:113
(no trunks) 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 CallsAll 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:      Nov 8  Thu 15:47
   "a" for Auto, "m" for Manual  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 Auto Redial
   attempts                    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.

Continuous Ring continuous

Used to generate short bursts of Ringing: Off-Hook Voice Announce, Flexible Ring Busy Remind, and Common Ring Busy Remind.

Trunk Ring 1 sec Ring, 3 sec Pause

Used for Incoming Trunk Calls and for Trunk Calls transferred to a Station.

Intercom Ring 0.5 sec Ring, 1.5 sec Pause

Used for Station Intercom Calling.

Reserve Ring 0.25 sec Ring, 0.25 sec Pause

Used for a reserved Trunk or Station recalling a Station to indicate availability.

Hold Recall Ring 0.25 sec Ring, 0.25 sec Pause,
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.