

STARPLUS™
STS
Key Systems

System Programming & Operations Manual

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Contents

1 Introduction

General Description	1-2
System Features	1-3
Digital Keypad Telephones	1-4
Digital Keypad/Button Diagram	1-5

2 Features and Operation

About This Manual	2-2
Content Summary	2-2
Manual Format & Description	2-3
911 Feature	2-4
911 Alert	2-5
Enhanced 911 Integration	2-6
Enhanced 911 Power Failure Station	2-7
Account Codes	2-7
Account Codes - Forced	2-8
Account Codes - Traveling COS (Verified)	2-9
Initialize Verified Account Code Table	2-12
Print Verified Account Codes	2-13
Answering Machine Emulation	2-14
Attendant Assignment/Features	2-15
Automatic Privacy	2-16
Background Music	2-16
Battery Backup (Memory)	2-17
Baud Rate Assignments	2-17
Call Back	2-18
Manual Callback	2-18
Call Back Button Flash Rate	2-19
Automatic Call Back Timer	2-19
Auto Callback - DSS/BLF	2-20
Message Callback - DSS/BLF Flash Rate	2-20
Call Coverage	2-21
Call Coverage Ring Timer	2-22
Call Forward	2-23
Call Forwarding	2-23
Call Forward - All Calls	2-25
Call Forward - Busy	2-26
Call Forward - Busy / No Answer	2-26
Call Forward - Follow Me	2-27
Call Forward - No Answer	2-29
Call Forward - External (Off-Net)	2-30

Call Forward Button Flash Rate	2-31
Call Forward Display	2-31
Call Forward - Preset	2-32
Preset Call Forward - Station	2-33
Preset Call Forward - CO Line	2-35
Preset Forward Voice Mail ID	2-36
Preset Forward Timer (Incoming Call to a Destination)	2-37
Calling Forward Override	2-38
Calling Station Handsfree Mode Override	2-38
Calling Station Tone Mode Override	2-38
Call Park	2-39
Call Park - System	2-39
Call Park Recall Timer	2-40
Call Park - Personal	2-40
Call Park - Station	2-42
Call Pickup	2-43
Directed Call Pickup	2-44
Group Call Pickup	2-45
Call Transfer	2-46
Ringback on Transfer	2-47
Unanswered CO Call Transfer	2-48
Camp On	2-49
Camp On Button Flash Rate	2-50
Camp On Recall	2-50
Card Slot Programming	2-50
Centrex/PBX	2-52
CO / PBX Programming	2-52
Off-Hook Preference	2-53
Private Line Appearance	2-53
Programming *, #, and Hook-Flashes into Speed Dial	2-53
Centrex/PBX Flash	2-53
Centrex/PBX Flash Timer	2-54
Centrex/PBX Transfer	2-55
PBX Dialing Codes	2-55
Class Of Service	2-56
Class of Service - CO Line	2-57
Station Day Class of Service	2-58
Station Night Class of Service	2-59
CO Flexible Port Assignment	2-61
CO Line - Access	2-63
CO Line Attributes	2-64
Initialize CO Line Attributes	2-64
Print CO Line Attributes	2-65
CO Line DTMF Sending	2-67
DTMF / Dial Pulse Programming	2-67

DTMF On/Off Time Operation	2-68
CO Line Group	2-69
Line Group Access - Station	2-69
CO Line Group Programming	2-70
CO Line Group Queuing	2-72
CO Line - Identification	2-73
CO Line Identification Display	2-73
CO Line - Incoming Ringing Assignment	2-75
CO Line Ringing Assignments	2-75
Incoming CO Line Ringing - Setting Flash Rate	2-77
Display Ring Assignments	2-77
Release Timer	2-79
Reseize Timer	2-80
Guard Timer	2-80
Seize Timer	2-81
Transmit Volume	2-81
CO Line Loop and Pool Buttons	2-82
In-Use Hold (I-Hold) Flash Rate	2-84
CO Line - Loop Supervision	2-85
Loop Supervision Programming	2-85
SLT Loop Supervision Programming	2-86
CO Line - Queue	2-87
Line Queuing	2-87
CO Line Queue Button Flash Rate	2-89
CO Line - Ringing Options	2-90
Transfer CO Ringing	2-91
Recall CO Ringing	2-92
Queued CO Ringing Flash Rate	2-92
Reminder Ring Timer	2-93
CO Direction	2-93
CO Port Parameters and Feature Codes	2-95
Initialize CO Port Assignments / Flexible Numbering Assignments	2-95
Print CO Port Parameters and Feature Codes	2-95
CO Ring Detect Timer	2-96
Conference	2-97
Conference Enable/Disable	2-97
Conference / DISA Timer	2-98
Conference Combinations	2-99
Cordless Key Telephone Unit Feature Button	2-101
Database Administration	2-103
Administration Access	2-103
Administration Password	2-104
Database Printout (Dump)	2-105
Dial Pulse Sending	2-106
Dial Pulse Parameters	2-106

Pulse Dial Inter-Digit Timer	2-107
Pulse-to-Tone Switchover	2-107
Direct Inward Dialing	2-107
DID Phone Number	2-110
Name Assigned to DID Number	2-111
Erasing a DID Table Entry	2-111
DID/ICLID Ringing Assignments	2-112
View DID/ICLID Ringing Assignments	2-114
DID Digits	2-115
DID Incoming Signaling	2-116
DID/TIE Signaling	2-117
DID Collect Timer	2-118
Initialize DID-TIE Parameters	2-119
Print DID-TIE Parameters	2-119
Direct Inward System Access (DISA)	2-120
DISA Access Code	2-120
DISA Programming	2-121
DISA Call Forwarding	2-122
DISA CO-to-CO	2-122
Direct Station Selection / Busy Lamp Field	2-124
Direct Transfer Mode	2-124
Directory Dial	2-125
Initialize Directory Dial Table Parameters	2-129
Print Directory Dial Table Parameters	2-130
Dial-By-Name	2-131
Distinctive Ringing	2-132
CO Line Distinctive Ring Tone	2-132
Enabling/Disabling Distinctive Ring Tone	2-134
Ring Tone - Station (User Selectable)	2-134
Do Not Disturb	2-136
One-Time Do Not Disturb	2-138
Do Not Disturb Button Flash Rate	2-138
Do Not Disturb - DSS/BLF Flash Rate	2-139
Executive Override	2-139
Executive Override - Enable/Disable	2-140
Executive Override Blocking	2-142
Executive Override Warning Tone	2-143
Barge-In Warn Tone	2-144
Executive/Secretary Pairs	2-145
External Day Ring	2-146
External Night Ring	2-147
Fixed Station/Port Number	2-147
Flash Rates (Programmable)	2-148
Flexible Button Assignment	2-149
Flexible Button	2-149

Display Flexible Buttons	2-153
Flexible Numbering	2-156
Station Port Inquiry	2-157
Group Listening	2-158
Headset Mode	2-159
Hold - Exclusive	2-161
Exclusive Hold Flash Rate	2-162
Exclusive Hold Recall Timer	2-162
Hold - Preference	2-163
Hold - System	2-163
System Hold Flash Rate	2-163
System Hold Recall Timer	2-164
Hot Keypad	2-164
Hot Line / Ring Down	2-164
Hunt Groups	2-165
Station / Pilot / Pilot All Ring -- Hunting Assignments	2-166
Initialize Hunt Group Parameters	2-167
Print Hunt Group Parameters	2-167
Idle Speaker Mode	2-168
Incoming Calling Line Identification	2-168
Intercom	2-169
Intercom Calling	2-170
Incoming Intercom Ringing Flash Rate	2-171
Intercom Hold Button Flash Rate	2-172
Intercom Signaling Select	2-172
Intercom Transfer	2-173
Inter-Digit Time-Out	2-173
Keypad Mode	2-174
Last Number Redial	2-177
LCD	2-177
LCD Display - Contrast	2-177
LCD Interactive Display	2-178
LCOB Loop Length	2-185
Leading Digit	2-186
Least Cost Routing	2-186
Light Control	2-186
Message Wait	2-188
Message Waiting Reminder Tone	2-189
Music-On-Hold	2-189
MOH Assignments	2-189
Music-On-Hold - Enable/Disable	2-190
Music-On-Hold (per CO Line)	2-191
Mute Key	2-192
Name In Display	2-193
Name / Number Display At Idle	2-194

Name/Number Translation Table	2-195
Night Service	2-197
Automatic / Manual Operation	2-198
Day of Week Programming	2-198
Automatic Night Mode Operation	2-198
External Night Ringing	2-199
Manual Operation	2-199
Night Class of Service (COS)	2-199
Night Ringing Assignments	2-199
Universal Night Answer (UNA)	2-199
Weekly Night Mode Schedule	2-199
Off-Hook Signaling	2-200
Off-Hook Voice Over	2-200
Outside Calls	2-203
Paging	2-204
Paging Access	2-205
Paging - Meet Me	2-206
Paging Time-Out Timer	2-207
Page Warning Tone	2-207
Paging Zone(s)	2-208
Pause Timer	2-209
Personal Messages	2-210
Pre-assigned Messages	2-210
Custom Messages	2-211
Date and Time Entry Messages	2-212
Scrollable Canned Messages	2-213
Personal Messages Flexible Button	2-214
Preferred Line Answer	2-215
Privacy Release	2-216
Per CO Line Option	2-216
Per Station Option	2-218
Private Line	2-220
Recall	2-220
Answering a Recall	2-220
Transfer Recall Timer	2-220
Repeat Redial	2-221
Relay Programming	2-222
Remote Administration	2-223
Program Mode Entry	2-223
Modem Answer Timer	2-223
Database Upload/Download	2-224
Remote System Monitor And Maintenance	2-224
Maintenance	2-224
Monitor	2-224
Ring Down / Hot Line / Off-Hook Preference	2-225

Save Number Redial (SNR)	2-228
School Zone	2-229
Single Line Telephone	2-232
Compatibility	2-232
SLT DTMF Receiver Timer	2-232
SLT Hook Flash Timer	2-232
SLT Hook Flash Bounce Timer	2-233
Software Version (MBU)	2-234
Speakerphone	2-234
Speakerphone Options	2-234
Speakerphone Operation	2-236
Speed Dial	2-236
Station Speed Dial Numbers	2-236
System Speed Dial Access	2-238
Speed Bins - Chaining	2-240
Initialize System/Station Speed Numbers	2-240
Print System Speed Numbers	2-241
Station Attributes	2-242
Initialize Station Attributes	2-242
Print Station Attributes	2-244
Station Identification	2-245
Station ID Lock	2-247
Station Message Detail Recording	2-248
SMDR Enable/Disable	2-250
Long Distance - All Calls	2-251
Character Print Assignment	2-251
Baud Rate Display	2-251
SMDR Port Assignments	2-252
SMDR Call Qualification Timer	2-252
Station Relocation	2-253
System Parameters	2-254
Initialize System Parameters	2-254
Print System Parameters	2-258
System Reset	2-260
T-1 Alarm Programming	2-261
Enable/Disable (Carrier Loss Alarm)	2-262
Blue Alarm	2-262
Yellow Alarm	2-263
Red Alarm	2-263
Bipolar Variations Alarm	2-264
Frame Slip Alarm	2-264
Data Errors Alarm	2-265
Clear Alarm	2-265
Minor Alarm	2-266
Major Alarm	2-266

Time Period	2-267
Attendant Display - T-1 Alarms	2-267
T-1 Trunking	2-268
T-1 Signaling Type	2-268
T-1 Ringback Option	2-270
T-1 Dial Tone Option	2-270
Wink Timer	2-271
T-1 Collect Timer	2-272
T-1 Incoming Signaling	2-272
T-1 Framing Type	2-273
Text Messaging (Silent Response)	2-273
Toll Restriction	2-275
Entering Toll Table	2-277
Allow Table	2-278
Deny Table	2-280
Special Table	2-281
Display Toll Table Entries	2-283
Initialize Exception Tables	2-284
Print Exception Tables	2-284
Toll Restriction Related Items	2-286
Uniform Call Distribution	2-287
Universal Day/Night Answer	2-287
Universal Day Answer (UDA)	2-288
Universal Night Answer (UNA)	2-289
Voice Mail	2-290
Alternate Voice Mail Group	2-291
Standard Leave Mail Index Entry	2-292
Retrieve Mail Index Entry	2-292
Station Assignments	2-293
No Answer Leave Mail Index Entry	2-293
Busy Leave Mail Index Entry	2-294
VMID Station Numbers	2-294
VM Transfer with ID Digits	2-295
VM Tone Mode Calling Option	2-296
Voice Mail ID Translation	2-296
Message Waiting Indication	2-297
Message Wait / VM Button Flash Rate	2-298
Voice Mailbox Button	2-299
Voice Mail Group Button	2-299
Voice Mail Group Access	2-299
Initialize Voice Mail Group Parameters	2-300
Print Voice Mail Group Parameters	2-301
Voice Mail In-Band Features	2-302
In-Band Signaling Integration	2-302
Voice Mail In-Band Digits	2-303

Voice Mail Transfer / Forward	2-303
Voice Mail Broker	2-304
Voice Mail ID Digit Length	2-304
Voice Mail Modem Access	2-305
Voice Mail One-Touch Recording	2-306
One-Touch Recording Warning Tone	2-307
Voice Mail Outpulsing Table	2-308
Voice Mail In-Band Signaling	2-308
Voice Mail Disconnect Table	2-310
Volume Control	2-311

3 Attendant Features and Operation

Introduction	3-3
Attendant Features - Index	3-4
911 Alert	3-5
Attendant CO Line External (Off-Net) Forward	3-6
Attendant Custom Message	3-7
Attendant Day/Night/Special	3-8
Attendant Directory List Programming	3-9
Attendant Disable Outgoing CO Line	3-12
Attendant Override	3-13
Attendant Setting Time and Date	3-14
Attendant Station Assignment	3-15
Attendant Unavailable	3-16
Attendant Voice Mail Alarm Clear	3-17
DSS/BLF Console with Map	3-17
Busy Lamp Field Indicators	3-17
Direct Station Calling	3-17
Release Key	3-17
Transfer Search	3-17
Mapping Options	3-18
Station ID for DSS/BLF Console With Map	3-21
Display Timer	3-21
ICLID Call Management Tables	3-22
Answered Call Management Table	3-22
Unanswered Call Management Table	3-23
Recall	3-24
Attendant Recall Timer	3-24
Release Button	3-24
Speed Dial - System Storing	3-25

4 Uniform Call Distribution

Uniform Call Distribution	4-3
UCD Calls In Queue Status Display	4-3
Alternate UCD Group Assignments	4-3

Incoming CO Direct Ringing	4-4
Message Interval Timer	4-4
No-Answer Recall Timer	4-5
No-Answer Retry Timer	4-5
Overflow Station Assignment	4-5
Overflow Station Forwarding	4-7
Overflow Timer	4-8
Primary Agent Assignments	4-8
Primary Recorded Announcement	4-9
Recorded Announcements	4-9
Recorded Announcement Tables	4-9
Ring Timer	4-11
Secondary Recorded Announcement	4-12
UCD Available/Unavailable	4-12
UCD Calls In Queue Display	4-13
Wrap-up Timer	4-14
Initialize UCD Group Parameters	4-15
Print UCD Group Parameters	4-16

A ICLID / Caller ID

Introduction	A-3
Functional Performance	A-4
Caller ID Name/Number	A-4
Calling Number/Name Display	A-5
Incoming Number/Name for SMDR Records	A-6
Local Name Translation	A-6
ICLID Programming	A-6
Enable/Disable	A-7
Name in Display	A-7
Baud Rate Display	A-8
Port Assignment	A-8
Ring Delay Timer	A-8
Initialize ICLID-DID Tables	A-10
Print ICLID - DID Tables	A-11
ICLID Call Management Tables	A-13
Answered Call Management Table	A-13
Unanswered Call Management Table	A-14

B Least Cost Routing

Introduction	B-3
LCR Tables	B-3
LCR Flowchart	B-5
Operation (When LCR is Enabled)	B-6
Programming LCR Tables	B-6
3-Digit Area / Office Code Table	B-7

6-Digit Office Code Table	B-8
Exception Code Table	B-9
Route List Table	B-9
Insert/Delete Table	B-11
Daily Start Time Table	B-12
Weekly Schedule Table	B-14
LCR Routing for Toll Information	B-15
LCR Call Progress	B-15
Default LCR Database	B-16
Forced Least Cost Routing (LCR)	B-16
LCR Class of Service (COS)	B-17
Enable/Disable Least Cost Routing	B-19
Call Cost Display	B-19
Initialize LCR Tables	B-20
Print LCR Tables	B-21
LCR Printout	B-22

C Flash-Based Voice Mail

Introduction	C-3
System Capabilities	C-3
Basic Features	C-3
Programming the Voice Mail System	C-4
Card Slot Programming	C-4
Recorded Announcement Tables	C-5
Programming Devices for Flash-based Voice Mail System	C-7
Programming System Functions Via Telephone	C-9
Programming System Functions Via Computer	C-18
Voice Prompts	C-39
User Operations	C-44
How to Use the Voice Mail System	C-44
Getting Started	C-44
Message Options	C-45
Mailbox Greeting Options	C-49
Passwords	C-51
Outcall Notification	C-51
Direct Transfer	C-51

D Customer Database Programming

Introduction	D-3
Program Mode Entry (Key Station)	D-5
Program Mode Entry (Data Terminal or PC)	D-5
Initialization	D-5
Database Programming Worksheets	D-6
Database Upload/Download Routine	D-6
Upload/Download through Remote Administration	D-6

Programming Tables D-11

E Quick Reference Tables

Flash Code Index E-3

Default Numbering Plan E-13

1

Introduction

This manual provides the information necessary to operate and maintain the *STS* System. The described features are based on the current software release. If any of these features do not work on your system, call your sales representative regarding upgrade of your system.

General Description

Allows Flexibility and Software Control

The *STS* Digital Key Telephone System is a fully digital hybrid Key Telephone System, designed to meet the telecommunication needs of small to medium-sized business offices.

The system has been designed to allow a high level of software control over the system's hardware. The software incorporates a vast array of features and capabilities including PC Database Administration and Least Cost Routing.

Incorporates Command Processing & Voice Switching

The *STS* System incorporates state of the art digital technology for command processing and voice switching, using a Pulse Code Modulation/Time Division Multiplexing (PCM/TDM, "A" law or "U" law) distributed switching matrix.

Supports Multiple Devices

The *STS* system supports a combination of Digital Keysets and wireless terminals as well as analog single line devices. With the keysets, commonly used features are activated by direct button selection. Additionally, many functions may be accessed by dialing specific codes or optionally, by assigning these dial codes to Flexible Buttons on the keyset. In addition to key telephones, an array of optional terminals is available.

With the flexibility of the *STS* extensive feature content, and the capability to use an array of instruments, the *STS* can be tailored to meet the short and long term needs of the most demanding customer requirements.

System Features

This page displays a condensed list of the extensive features available in the STS System:

911 Feature	Incoming Calling Line Identification
Account Codes	Initializing - System Parameters
Answering Machine Emulation	Intercom
Attendant Assignment / Features	Inter-Digit Time-Out
Automatic Privacy	Keypad Mode
Background Music	Last Number Redial
Battery Back-Up (Memory)	LCD - Contrast
Baud Rate Assignments	LCD - Display
Call Back	Least Cost Routing (LCR)
Call Coverage	Message Wait
Call Forward	Message Waiting Reminder Tone
Call Forward - Preset	Music-On-Hold
Calling Forward Override	Mute Key
Calling Station Handsfree Mode Override	Name In Display
Calling Station Tone Mode / Override	Name / Number Translation Table
Call Park - Station	Night Service
Call Park - System	Off-Hook Signaling
Call Pickup	Off-Hook Voice Over
Call Transfer	Outside Calls
Camp On	Paging
Centrex/PBX	Pause Timer
Class Of Service (COS)	PBX Dialing Codes
CO Line - Access	Personal Messages
CO Line Attributes	Preferred Line Answer
CO Line DTMF Sending	Printing - System Parameters
CO Line Group	Privacy Release
CO Line - Identification	Private Line
CO Line - Incoming Ringing Assignment	Recall
CO Line Loop and Pool Buttons	Repeat Redial
CO Line - Loop Supervision	Relay Programming
CO Line - Queue	Remote Administration*
CO Line - Ringing Options	Remote System Monitor And Maintenance*
CO Port Parameters	Save Number Redial (SNR)
CO Ring Detect Timer	Single Line Telephone (SLT)
Conference	Software Version (MBU)
Cordless Key Telephone Unit Feature Button	Speakerphone
Database Administration	Speed Dial
Database Printout (Dump)	Station Attributes
Dial By Name	Station Identification
Dial Pulse Sending	Station Message Detail Recording
Direct Inward System Access (DISA)	Station Relocation
Direct Station Selection / Busy Lamp Field	Station Speed Dial Numbers
Direct Transfer Mode	System Parameters
Directory Dial	System Reset
Distinctive Ringing	System Speed Bin Access
Do Not Disturb	Text Messaging (Silent Response)
Executive Override	Toll Restriction
Executive / Secretary Pairs	Uniform Call Distribution (UCD)
External Day Ring	Universal Day/Night Answer
External Night Ring	Voice Mail
Fixed Station/Port Number	Voice Mail In-Band Features
Flash Rates (Programmable)	Voice Mail One-Touch Recording
Flexible Button Assignment	Voice Mail Outpulsing Table
Flexible Numbering	Volume Control
Group Listening	
Headset Mode	
Hold - Exclusive	
Hold - Preference	
Hold - System	
Hot Keypad	
Hot Line / Ring Down	
Hunt Groups	
ICLID / Caller ID*	
Idle Speaker Mode	

* = May require additional hardware or software

Digital Keypad Telephones

Each **STS** System provides all the keys, indicators, and features described.

Handset and Speaker are located at the left side of the front panel. A handset is provided to allow confidential conversation when desired. Lifting the handset from its cradle (going off-hook) disengages the station's built-in speaker. The speaker is located directly below the center portion of the handset. The station may be operated with the handset on-hook. When this occurs, audio is transmitted to the station user through the station's speaker.

Flexible Buttons provide access to idle outside lines, DSS/BLF for internal stations, access speed dial numbers and activate features. These buttons can be programmed by the individual station user. The default flexible feature buttons are described as follows:

- » **CALL BACK** button lets you initiate a call back request to another busy station. As soon as that station becomes idle, the station that left the call back request is automatically signaled. A flexible button must be assigned to use this feature.
- » **PICK-UP** button lets you pick up a tone ringing intercom call, transferred, incoming, or recalling outside call to a specific unattended station, by group or directed call pick-up.
- » **DND (DO NOT DISTURB)** button lets the user place their telephone into Do Not Disturb mode to eliminate incoming outside line ringing, intercom calls, transfers and paging announcements. The station in DND can use the telephone to make normal outgoing calls. On Attendant stations, this button becomes the system Night Mode button. A flexible button must be assigned to use this feature.
- » **LINE QUEUE** button lets you queue to an outside line when all lines in a group are busy. Your station is placed in queue, awaiting a line in the same group to become available.

Outside Calls are announced by a tone signal repeated every 3.2 seconds. The corresponding outside line indicator flashes slowly.

Intercom Calls can be tone ringing or voice announced. If voice announced, the receiving station receives three tone bursts prior to the announcement. If a tone ringing call, the receiving station hears a tone ring every 2.4 seconds.

24-Button Speakerphone

The 24-button Digital Telephone has 24 flexible, dual color LEDs that can be customized for each application.

When the flexible button are used as DSS buttons, station status can be seen in a single glance. When they are used as CO/PBX/Centrex buttons, line status is easily monitored.

This integrated speakerphone offers call announce with hands-free intercom and a hot keypad that allows dialing while the phone is on-hook.

The three interactive soft keys provide additional feature functionality.



Digital Keypad/Button Diagram

The following illustration and its corresponding table describe the physical features of the Vodavi 24-Button Digital Display Telephone. This telephone is necessary when programming the system features and functions available with the **STS** System.

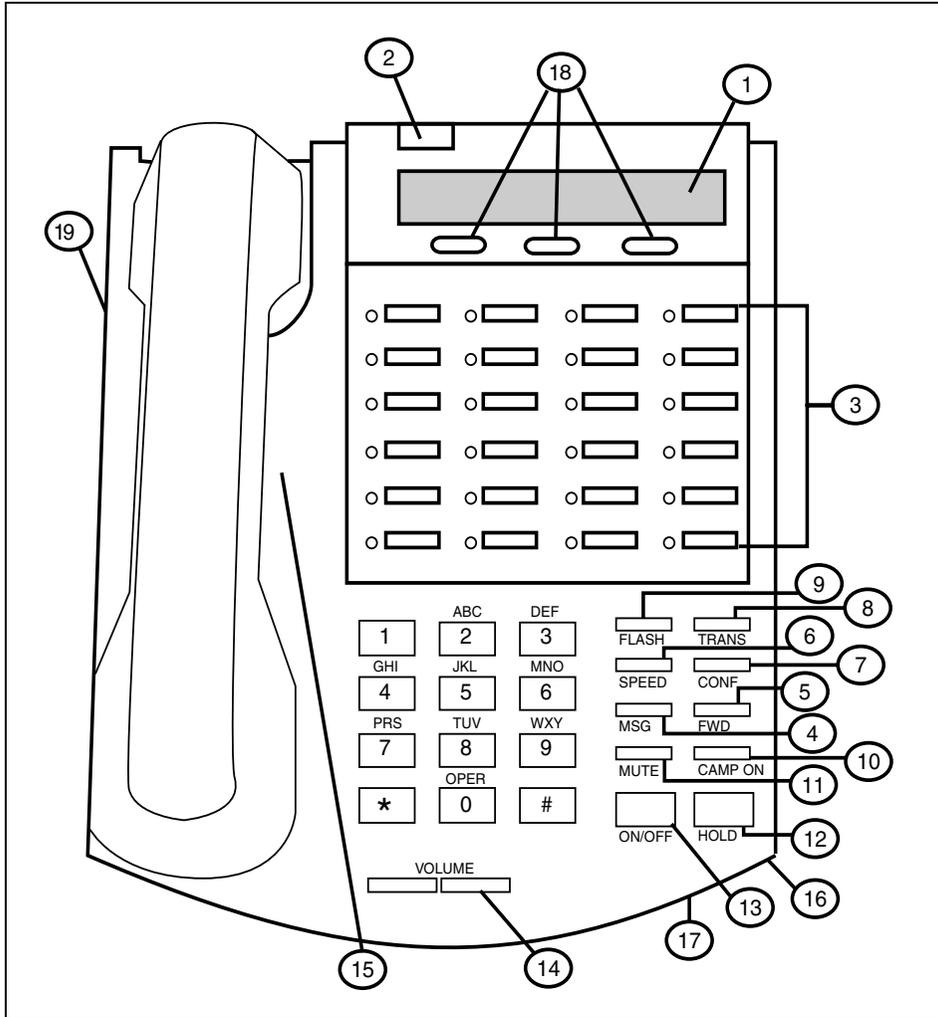


Figure 1-1: Digital Key Telephone

Table 1-1: Digital Key Telephone Buttons

NUMBER	FEATURE BUTTON	FUNCTION
1	Display	Displays information about telephone status, dialing directories, and text message information.
2	Message Indicator	Programmable indication for Ring Line, Voice Mail, Message Wait, or handset operation
3	Flexible Button Keys	Used to access outside lines or access call-handling features.
4	MSG Key	Used for Auto-CallBack to a telephone which has left a text message or to access voice messages.
5	FWD Key	Used to forward your calls to another destination, such as a station or voice mail.
6	SPEED Key	Used to access speed dialing, save number redial and last number redial. This button also is used to access flexible button programming.
7	CONF Key	Used to establish conference calls.
8	TRANS Key	Used to transfer an outside call from one station to another.
9	FLASH Key	Used to end an outside call and to restore dial tone without hanging up receiver.
10	CAMP ON	Used to alert a busy station that an outside line is on hold and waiting for them.
11	MUTE Key	Used to activate/deactivate MUTE function. When activated, the party on the other end cannot hear you.
12	HOLD Key	Used to place outside calls on hold or to retrieve held calls.
13	ON/OFF Key	Used to make a call without lifting the handset.
14	VOLUME Key	Used to adjust level of tones, background music, ringing, receiver volume, and display contrast.
15	Speaker	Outputs tones and voice at your extension.
16	Microphone	Used to talk with other party without using the handset.
17	H-T-P	Used to select mode of operation: Handsfree, Tone, or Privacy.
18	Interactive Soft Keys	Used to work in conjunction with fixed and flexible features.
19	Headset Jack	2.5 mm Headset Jack is located on the left side of the telephone.

2

Features and Operation

Detailed descriptions of the System and Station features are presented in alphabetical order. An abbreviated feature index, that is organized in Flash code numerical sequence, is provided in [Appendix E](#).

About This Manual

Content Summary

Chapters

The following chapters contain the descriptions, programming steps, and operating procedures for the more commonly-used features and functions.

2 - Features & Operation

3 - Attendant Features & Operation

4 - Uniform Call Distribution (UCD)

Appendices

This Appendix contains detailed information on how to use the more complex features available.

Worksheets and Tables have been placed at the end of this book for easy access to specific customer system information and frequently-used flash and feature codes.

A - ICLID / Caller ID

B - Least Cost Routing

C - Customer Database Worksheets

D - Quick Reference Tables

Flash Codes

Default Numbering Plan

Part Numbers

Manual Format & Description

This diagram explains how the Features/Operations are organized in the following chapters and appendices. The manual format follows the basic outline as shown, but omits those elements that do not apply to a particular Feature or Operation.

Feature / Operation

Narrative to explain the feature/operation.

Sub-Feature / Operation

Description

Narrative to explain the sub-feature/operation.

Related Information

Quick Reference		
➡ Flash XX	Button X	The xxxx function MUST also be enabled.

Programming Steps

Consists of those actions required of a system administrator to program single or multiple phones in the system or system features using the 24-button digital telephone.

This section assumes that you have already entered database administrative programming using the string of [*][*][3][2][2][6] (default password).

DEFAULT ... Shows the system default setting.

Operation

Describes how the user operates the digital telephone.



SINGLE LINE TELEPHONE

When the Single Line Telephone operation differs from the digital telephone, those differences are described.

If your telephone has a FLASH key, use it instead of the instruction to depress the hookswitch.

Conditions

- » Describes any special criteria that affects the programming or operation of the feature.

911 Feature

Description

The 911 Feature allows stations in the system to dial 911 without using an access code. 911 calls are placed on 911 marked lines. If all lines are busy, an existing call is dropped and the 911 call is placed.

When this feature is enabled, Trunk Group/LCR Access Code 9 is not available.

Related Information

Quick Reference	
➔ Flash 12	To insert [9] for Centrex 911 calls (refer to "PBX Dialing Codes" on page 2-55).

Programming Steps

To enable/disable the 911 feature:

1. Press the 911 FEATURE flexible button (**FLASH 06, Button #13**). The following message displays:

911 FEATURE DISABLED	0-1
-------------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable the use of this feature.
 - [0] = Disabled
 - [1] = Enabled

DEFAULT ... Disabled

To designate the line(s) for 911 use:

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES SELECT A CO LINE RANGE
--

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If **HOLD** is pressed without entering a CO range, ALL CO lines are selected.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

- Press **Button #15** to designate the line for 911 use.

911 TRUNK DISABLED	0-1
-----------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
 [0] = Disabled
 [1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
 DEFAULT ... Disabled

911 Alert

Description

Any station user or attendant who programs a flexible button for 911 ALERT (feature code 608) will be alerted of internal stations placing 911 calls. The system can store the sixteen most recent 911 calls. Calling information includes the time/date of the call, as well as the station number from which the call was placed.

The initial 911 Alert indications include:

- Audible ringing tone
- Green flashing 911 ALERT flexible button LED
- Automatic LCD display of 911 call information

E911 CALL MM/DD/YY	XX:	STA XXXX HH:MM
-----------------------	-----	-------------------

XX = Index number (01-16)

Operation

Station users and attendants can press the 911 ALERT flexible button as necessary to view additional 911 calls' information in the stored list. After a station user or attendant views the information for all 911 calls in the system list:

- All users' LEDs change to a solid red indication.
- The audible ringing tone at all stations ceases.
- The LCDs at all stations revert to a normal display.

The list remains available for review by pressing the 911 ALERT flexible button as necessary, until after the messages are deleted.

To delete logged 911 Alert messages:

An attendant uses the following steps to delete the messages on a system-wide basis.

1. Press the 911 ALERT flexible button to display the 911 call information for deletion.
2. Press FLASH to delete that message.

Enhanced 911 Integration

Description

The E911 feature integrates the system to the Proctor PBX ANI-LINK product to provide enhanced 911 service. Loop Start lines can be connected to the Proctor unit and programmed to be 911 lines (FLASH 40, Page A, Button #15). When a 911 call is made from a station in the system, the system will send 911XXXX (XXXX=Station # that placed the 911 call) in DTMF format to the Proctor. If the station number is less than 4 digits, a leading 0 will automatically be added. The Proctor unit then accesses a CO trunk and sends the information in the proper format to the 911 Center.

This feature also provides a means to identify a power failure signal from the Proctor Unit. If a power failure signal is detected, the KSU routes 911 calls via trunks other than those marked for 911 use until the signal is removed.



The E911 feature ensures access to 911 by freeing a CO Line, then making a call.

If you are using Centrex lines, a 2-second setting is recommended for Guard Timer programming (Flash 40, Page C, Button #6). This avoids situations where a line is seized by the 911 call before an existing call is dropped, causing the emergency call to be conferenced with the existing call.

Programming Steps

1. Press the ENHANCED 911 button (**FLASH 06, Button #14**). The following message displays:

ENHANCED 911	0-1
DISABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable the use of this feature.

[0] = Disabled

[1] = Enabled

DEFAULT ... Disabled

Conditions

- » The 911 Feature (FLASH 06, Button #13) must be enabled for Proctor Integration to work.
- » Only the lines connected to the Proctor should have the 911 Enable programmed (FLASH 40, Page A, Button #15).
- » It is recommended to have a power failure procedure in place to ensure that 911 calls are always routed. Refer to FLASH 09, Button #7 for programming information.

Enhanced 911 Power Failure Station

Description

The power failure signal is designed to be used with the normally open (NO) power failure leads from the Proctor unit connected to an SLT port or SLA device. When the leads close in power failure, this is detected as an off hook and 911 routing ceases to the Proctor unit. 911 calls are sent via trunks other than those marked for 911 use until the power failure lead opens, which is detected as an on hook. 911 calls are then routed again to the Proctor unit.

Programming Steps

1. Press the E911 POWER FAILURE STATION button (**FLASH 09, Button #7**). The following message displays:

PROCTOR 911 P/F	####
####	

2. Enter a valid SLT station number (100-8999) to be used as the power failure station.
3. Press HOLD to save the entry. A confirmation tone sounds.

Conditions

- » During a power failure, 911 calls are sent via trunks other than those marked for 911.
- » During a power failure, the station's digit information is not sent.
- » The feature requires either an SLT port or an SLA port for the integration to work.

Account Codes

Description

An account code is the last field within Station Message Detail Recording (SMDR), that provides tracking capabilities for specific calls by entering a verified/non-verified, variable length (up to 12 digits) identifier.

The use of forced Account Codes is optional, offered on a system-wide basis.

Related Information

Quick Reference		
➡ Flash 21	Button 1	The SMDR function MUST be enabled (refer to "SMDR Enable/Disable" on page 2-250).

Operation

When connected to an outside line call:

1. Press the preprogrammed ACCOUNT CODE button (feature code 627 - refer to *"Flexible Button Assignment"* on page 2-149).
2. Dial account code up to 12 digits. (The other party does not hear the digits being dialed).
 - If account code is less than 12 digits, an [*] must be entered to return to the call.
 - If account codes are forced, the account code must be entered prior to dialing the outside number.



SMDR must be enabled for the account code to become part of the SMDR record.

Account Codes - Forced

Description

The **STS** allows arranging of the system so that all station users must enter an account code before placing an outside call.

Account codes can also be used as a Traveling Class-of-Service to upgrade a restricted station's class-of-service for unrestricted dialing. Account codes must be entered before the call when forced.

The system can force account codes on all restricted calls.

- When the Forced Account Code option is enabled, and the account code is entered, a station's Class of Service is upgraded to day COS1, night COS1.
- If option is disabled, a station's COS is not upgraded but the account code continues to be part of the SMDR record.

Programming Steps

1. Press ACCOUNT CODES flexible button (**FLASH 05, Button #8**) to determine whether the use of Account Codes is forced or optional.
2. Enter a 0 or 1 that corresponds with the following entries:
 - [0] = Disabled
 - [1] = Enabled

FORCED ACCOUNT CODE 0-1 DISABLED
--

3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Account Codes are optional.

Operation

Prior to placing an outside line call or during an outside line call:

1. Press the preprogrammed ACCOUNT CODE button.
2. Dial account code up to 12-digits.



If the account code contains fewer than 12 digits, dial [] to return to the intercom dial tone.*

SMDR must be enabled for the account code to become part of the SMDR record. Refer to "SMDR Enable/Disable" on page 2-250.

3. Dial [9] or CO Access code. Dial tone sounds.
4. Dial the desired number.



SINGLE LINE TELEPHONE

To enter an Account Code before a call:

1. Lift the handset.
2. Dial [627].
3. Dial the account code.



If the account code contains fewer than 12 digits, dial [] to return to the intercom dial tone.*

4. Dial [9] or CO Access code. Dial tone sounds.
5. Dial the desired number.

To enter an Account Code during a call:

1. Depress the hookswitch momentarily. Your call will be placed on executive hold while you enter your account code.
2. Dial [627].
3. Dial the account code.



If the account code contains fewer than 12 digits, dial [] to automatically return to the call.*

Account Codes - Traveling COS (Verified)

Description

The Verified Account Code/Traveling Class of Service (COS) feature provides the ability to track specific calls by entering a verified, variable length (up to 12 digits) identifier. Each account code can be assigned a day and night Class of Service for determining the dialing privileges allowed by that account code.

This feature provides a means for users to override a restricted station. If the dialed account code matches the Verified Account code table, an intercom dial tone is returned, otherwise an error tone is presented.

Using verified Account Codes is optional, available on a system-wide basis. SMDR must be enabled for the account code to print as part of the SMDR record. The **STS** allows up to 250 12-digit account codes for verification purposes.

ACCT CODE * 1 Q	CLASS OF SERVICE * 2 W	DELETE ACCT CODE * 3 E	ERASE DIGITS * 4 R
* 5 T	* 6 Y	* 7 U	* 8 I
* 9 O	* 10 P	* 11 A	* 12 S
* 13 D	* 14 F	* 15 G	* 16 H
* 17 J	NEXT * 18 K	PREV * 19 L	* 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V

Figure 2-1: Flash 31 Button Mapping

Related Information

Quick Reference		
➔ Flash 21	Button 1	The SMDR function MUST be enabled (refer to “SMDR Enable/Disable” on page 2-250).

Programming Steps

To enable or disable Verified Account Codes:

1. Press the VERIFIED ACCT CODES flexible button (**FLASH 06, Button #3**). The following message displays:

VERIFIED ACCT CODES	0-1
DISABLED	

2. Enter 0 or 1 on the dial pad to enable/disable Verified Account Codes.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.
DEFAULT ... Verified Acct Codes are disabled.

To assign Verified Account Codes:

1. Press **FLASH** and dial **[31]**. The following message displays:

ACCT	COS
XXXXXXXXXXXX	##

ACCT = Up to 12-digit account code

COS = Class of Service for account codes



(Refer to [Figure 2-1 on page 2-10](#) for FLASH 31 button mapping.)

2. Press the ACCT CODE flexible button (**Button #1**). Enter up to 12 digits (0-9, *, #). [*] represents a do not care digit. The system ignores all digits after this digit when entering an account code. The [#] represents a single do not care digit.
3. Press the CLASS OF SERVICE flexible button (**Button #2**). Enter a 2-digit Class of Service Number (1-7) that corresponds to Class of Service 1-7. The first digit represents Day COS and the second digit represents Night COS.
4. Press HOLD to complete the entry. A confirmation tone sounds.



*Existing account code entries display in numerical order from lowest to highest. If an existing account code displays on the LCD when FLASH 31 is initially entered, the programming procedure creates a new account code, but does not delete the account code initially shown. If the intent is to **change** an existing account code from one number to another, perform the assignment procedure and delete the undesired account code entry by following the procedure in the following section.*

DEFAULT ... No Account Codes are assigned.

To delete the currently displayed Verified Account Code:

1. Press the DELETE CODE flexible button (**Button #3**) to delete the entire account code entry.
2. To display the next account code on the LCD, press the NEXT flexible button (**Button #18**).
3. To display the previous account code on the LCD, press the PREVIOUS flexible button (**Button #19**).

To erase previously entered digits:

1. Press the ERASE DIGITS flexible button (**Button #4**)
2. Each press of the button erases one digit. Continue until all desired digits are erased.
3. Re-enter the correct digits, then press HOLD to complete the entry. A confirmation tone sounds.

Operation

To use Verified Account Codes:

1. Press preprogrammed ACCOUNT CODE button before accessing a CO line.
2. Dial the account code up to 12-digits. If the account code matches a verified account code, intercom dial tone is returned. Otherwise an error tone is presented.



If the account code contains fewer than 12 digits, dial [] to return to the intercom dial tone.*

SMDR must be enabled for the account code to become part of the SMDR record.

3. Access the outside CO line or dial the LCR code and dial the desired numbers.

Features and Operation

To enter an Account Code before a call:

1. Lift the handset.
2. Dial [627].
3. Dial the account code.



If the Account Code contains fewer than 12 digits, dial [*] to return to the intercom dial tone.

4. Dial [9] or CO Access code. Dial tone sounds.
5. Dial the desired number.

Conditions

- » Verified Account Codes allow use of an account code as a traveling Class of Service.
- » If LCR is activated in the system and verified account codes are activated, the user must enter the account code before dialing the LCR code.
- » When verified account codes are activated, station MUST enter an account code to dial a number that is restricted through station COS and toll restriction. An account code is not required for calls that are unrestricted through station COS and toll restriction.
- » When verified account codes are not forced, a station user may place a call without entering an account code. In this case, the station user's COS is based on their station COS. In this case, a user can enter a verified account code to upgrade their COS.
- » The Redial feature does not support Verified Account Codes.
- » Keyset users must preprogram an ACCOUNT CODE flexible button.

Initialize Verified Account Code Table

Description

The Verified Account Code Table may be initialized to set all data fields to default values.

Table 2-1: Verified Account Code Table Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 31	VERIFIED ACCOUNT CODES		
	1	Account Code	None
	2	Class of Service	None
	3	Delete Code	N/A
	4	Erase Digits	N/A

Programming Steps

1. Press the INITIALIZE ACCT CODES flexible button (**FLASH 80, Button #14**). The following message displays:

```
INITIALIZE ACCT CODES
PRESS HOLD
```

2. Press the HOLD button. A confirmation tone sounds.

Print Verified Account Codes

Description

The Print Verified Account Codes command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

```
ACCOUNT CODE TABLE      11      ##      26      ##
ENTRY   COS   DGTS      12      ##      27      ##
-----  ---  ----      13      ##      28      ##
00      ##           14      ##      29      ##
01      ##           15      ##      30      ##
02      ##           16      ##      31      ##
03      ##           17      ##      32      ##
04      ##           18      ##      33      ##
05      ##           19      ##      34      ##
06      ##           20      ##      35      ##
07      ##           21      ##      36      ##
08      ##           22      ##      37      ##
09      ##           23      ##      38      ##
10      ##           24      ##      39      ##
                25      ##      40      ##
... and so on through 249
```

Figure 2-2: Verified Account Codes Printout

Programming Steps

1. Press the PRINT ACCT CODES flexible button (**FLASH 85, Button #15**). The following message displays:

```
PRINT ACCT CODES
PRESS HOLD
```

2. To print the VERIFIED ACCT CODES, press the HOLD button. The following message displays:

```
PRINTING ACCT CODES
```

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Answering Machine Emulation

Description

When a call is sent to a voice mailbox, the station associated with that can press a preprogrammed button to listen to the caller leaving the voice mail message. If the mailbox owner decides to speak with the caller, the owner can press the preprogrammed button to be connected to the caller.

Two methods of notification are available, Ring Mode or Speaker Mode. The preprogrammed button type (654+0=Ring Mode, 654+1=Spkr Mode) defines the operation mode.

EXAMPLE -- Station A user places their phone in the answering machine mode by pressing the flexible button programmed on the telephone. The button light is solid red. Whatever button type is assigned on the telephone defines the operation mode of the feature.

When an incoming CO call rings at a station and forwards (except busy type) to the station's voice mailbox:

- In RING MODE, the preprogrammed answering machine flexible button flashes at 480 ipm red while the caller is in the owner's mailbox. The mailbox owner presses the preprogrammed flashing button and the audio is broadcast over the speaker of the keyset. The mute key is enabled on the keyset at this point. The LED light is solid green.
- In SPKR MODE, the voice mail message is broadcast over the speaker. The mute key is enabled on the keyset and the LED light is solid green.

Display Messages

When a call is ringing the station in ring mode, this message displays:

SCREENING RING	
MMM DDYY	HH:MM am

When a station is monitoring the caller in VM, this message displays:

SCREENING	
MMM DD YY	HH:MM am



Answering Machine Emulation only operates on Station No Answer Call Forwarding.

Operation

To set the Operation Mode:

1. Press [SPEED] + [SPEED].
2. Press the desired flexible button for programming.
3. Dial [654] + [0] to select the ring mode or dial [654] + [1] to select the speaker mode.
A confirmation tone sounds.

The Mailbox Owner has the following options when a call is sent to a voice mailbox:

To leave the caller in the voice mail and stop the speaker broadcast, press the ON/OFF button. The mailbox owner can continue to listen to the message being left without taking action at their keyset. When the caller disconnects after leaving the voice mail message, the button returns to solid red and the keyset returns to idle.

To talk to the party leaving the message, press the MUTE key. The station remains in the CONF mode, and the caller hears the voicemail and the station user.

To pick up the call, press the ANSWERING MACHINE EMULATION flexible button. When the call is picked up, the voice mail system disconnects from the call, and the voice mail port returns to the idle (waiting) state. The caller is in a normal talk state with the CO caller.



SINGLE LINE TELEPHONE

Answering Machine Emulation cannot be used with Single Line Telephones.

Conditions

- » The user must have a digital Keyset.
- » Keyset users must preprogram an ANSWERING MACHINE EMULATION flexible button.
- » After the in-band digits are sent to the voice mail, the station's flexible button status is checked. The feature is executed based on this check. The result of the check is as follows:
 - Inactive = no feature operation executed
 - Active = feature executed as per button function (ring mode or speaker mode)
- » An idle station can press the flexible button to go to the inactive mode. The LED extinguishes and no answer machine calls are presented to the station.
- » When button is programmed at the station, it is in the inactive mode (LED extinguishes).
- » If the station user answers the call, the normal CO line LCD window displays. The call timer shows the elapsed time including the time the caller was in VM. The call timer does not start at 0 in this case.

Attendant Assignment/Features

Refer to [Chapter 3, Attendant Features and Operation](#).

Automatic Privacy

Description

Privacy is automatically provided on all calls. If one station is conversing, another station cannot intrude on that line.

The Automatic Privacy feature can be disabled, allowing up to seven other stations to join in on existing CO line conversations. Refer to [“Privacy Release” on page 2-216](#) for details.



Disabling of the privacy feature may be limited by federal, state or local law, so check the relevant laws in your area before disabling privacy.

Background Music

Description

Each digital telephone user may receive music over their speaker when an optional music source is connected to the system. The Background Music feature can be allowed or denied on a system-wide basis by programming. The system can be programmed to let stations activate their Background Music, in addition to Music-On-Hold.

Programming Steps

1. Press the BACKGROUND MUSIC flexible button (**FLASH 05, Button #6**).
2. Enter a valid number (0 or 1) that corresponds with the following:
[0] = Disabled or [1] = Enabled

BACKGROUND MUSIC	0-1
ENABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Background Music channel is enabled.

Operation

1. Dial [**632**] on the dial pad or press the preprogrammed flexible button. Enter [1] for ON or [0] for OFF on the dial pad.

0:OFF	1:CH-1
MMM DD YY	HH:MM am

-or-

Use the Soft Key's BGM option as a toggle to turn background music on or off.
Confirmation tone sounds.

- Press the Volume Bar to change the volume. The following message displays:

SPEAKER BGM [#####]
 MMM DD YY HH:MM am

 SINGLE LINE TELEPHONE

The background music feature is not compatible with single line telephones.

Conditions

- » When you pick up the handset or press the ON/OFF button, music automatically discontinues.
- » When the headset is enabled, BGM discontinues.
- » A music source must be connected to the BGM/MOH connector.

Battery Backup (Memory)

Description

A lithium battery is located on the Main Board Unit (MBU) to protect system memory in case of commercial power outage or the system power being turned off for a time period.

Battery Backup Memory retains all system features including system and station speed dial during a power outage.

Baud Rate Assignments

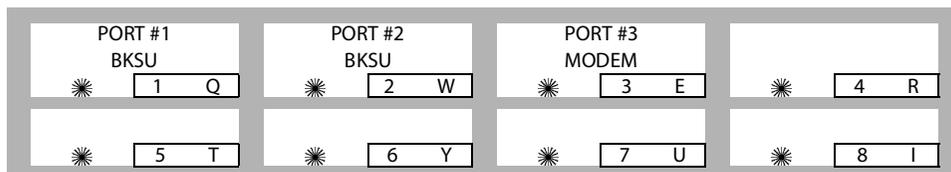
Description

The two RS-232 connectors on the BKSU can support features such as SMDR, ICLID, or remote programming.

PORT #1 -- First RS-232C port on the BKSU

PORT #2 -- Second RS-232C port on the BKSU

PORT #3 -- Optional modem



Programming Steps

Press **FLASH** and dial **[15]**. The first button is lit and ready for programming Port #1. The following message displays:

PORT	BAUD
1	9600

1. Press the desired PORT # flexible button (**Buttons #1, #2, or #3**) to select the port to program.
2. Enter a 1-digit number for the baud rate:

[1] = 150 Baud	[5] = 2400 Baud
[2] = 300 Baud	[6] = 4800 Baud
[3] = 600 Baud	[7] = 9600 Baud
[4] = 1200 Baud	



The optional modem (port 3) has a fixed baud rate of 9600.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT . . . Ports #1, #2, and #3 are set at the 9600 baud rate. The highest connection rate for ports #1 and #2 is 9600 baud, but the system will connect at lower speeds if necessary.

Call Back

The two types of Call Back are Manual Call Back and Automatic Call Back.

Manual Callback

Description

A station can initiate a call back request to another busy station. Once that station becomes idle, the station that left the call back request is signaled.

Operation

If you dial a telephone that is busy and want to activate Call Back:

1. Press the preprogrammed CALL BACK button or use the Soft Key's CALL-BK option.
2. Hang up.
When the busy station hangs up, you are signaled.
3. Answer the call; station you called is then signaled. (If your station is busy when signaled, an automatic MSG is left at your phone).



A Call Back Request is automatically invoked anytime a user listens to the intercom busy tone for a preset period of time.

Only one Call Back request can be left at a station; the second request is converted to a message wait call back request.

 SINGLE LINE TELEPHONE

If you dial a telephone that is busy and want to leave a Call Back indication:

1. Briefly depress and release the hookswitch.
2. Dial [622] and replace the handset.



Only one Call Back request can be left at a station; the second request will convert to a message waiting request.

Call Back Button Flash Rate

Description

The Call Back Button flash rate is the rate at which the Call Back button flashes when a station at which you left a call back request becomes available. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the CALL BACK BTN flexible button (**FLASH 07, Button #16**). The following message displays:

CALL BACK BTN	00-28
RED 120 IPM FLASH	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Call Back Button flash rate is set for a Red 120 ipm Flash (10).

Automatic Call Back Timer

Description

The Automatic Call Back Timer invokes a call back anytime a user listens to a busy tone for a programmable period of time. The Automatic Call Back Timer can be set to 00-99 seconds.

A value of 00 disables the timer. An Automatic Call Back does not occur when the timer is disabled.

Programming Steps

1. Press the AUTO CALL BACK TIMER flexible button (**FLASH 01, Button #17**). The following message displays:

AUTO CALL BACK	00-99
03	

2. Enter a valid number on the dial pad that corresponds to 00-99 seconds in 1-second increments.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... Automatic Call Back Timer is set for 03 seconds (enabled).

Auto Callback - DSS/BLF

Description

The Auto Callback DSS/BLF flash rate is the rate at which a DSS button of a station returning your call back flashes. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

- Press the AUTO CBCK – DSS/BLF flexible button (**FLASH 07, Button #7**). The following message displays:

AUTO CBCK DSS / BLF	00-28
RED 120 IPM FLASH	

- Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... Auto Callback DSS/BLF flash rate is set for a Red 120 ipm Flash (10).

Message Callback - DSS/BLF Flash Rate

Description

The Message Call Back DSS/BLF flash rate is the rate at which a DSS button of a station returning your message flashes. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

- Press the MSG CBCK / DSS/BLF flexible button (**FLASH 07, Button #5**). The following message displays:

MSG CBCK / DSS / BLF	00-28
RED 120 IPM FLUTTER	

- Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... Message Callback DSS/BLF flash rate is set for a Red 120 ipm Flutter (11).

Call Coverage

Description

The Call Coverage feature provides the functionality for stations to answer calls for other stations by utilizing call coverage buttons. Visual and Audible status of ringing stations to an assigned coverage station are provided. Multiple coverage stations can have the same remote ringing station(s) programmed on their stations. Once a coverage station answers the call, other stations attempting to answer the call receive a busy tone and the call coverage button extinguishes on all appearances of that button.

Direct CO calls have ring and LCD priority over call coverage calls. The call coverage station must have a direct CO appearance or Loop button in order to pick up an external call. If the call coverage station is in DND, no audible ringing occurs, however visual and LCD information is presented.

This feature can be programmed by the station user or through admin programming.

DEFAULT ... No call coverage buttons are assigned.

Operation

To assign a Call Coverage Button:

1. Press [SPEED] + [SPEED].
2. Press a desired flexible button.
3. Dial [647] for Non-Ringing or [646] for Ringing, followed by the station number to cover. A confirmation tone sounds.

Once the button is assigned on the station and a call rings in:

1. The coverage station receives a visual indication immediately and an audible indication for the covered station after a programmable period of time. The ring tone is the internal ring tone cadence. The flash rate is the same as the incoming CO line ringing rate.
 - Ringing option = ringing, flashing Call Coverage LED, LCD display as in following illustration.

CALL FOR STA XXXX MMM DD YY HH:MM am
--

- Non-Ringing option = flashing Call Coverage LED only (no ringing or change to LCD).
2. The Coverage station user then presses their flashing COVERAGE flexible button,
-or-
Presses the ON/OFF button (only if the ringing option is selected).

The call is answered and ceases to ring at any other stations that may have the same coverage appearance. The following message will display after the call is answered.

CALL FOR STA XXXX FROM STA YYYY HH:MM am
--



SINGLE LINE TELEPHONE

This feature can cover SLT extensions, however an SLT cannot perform the call coverage function. The SLT extension need not be physically installed, only the SLT card must be installed.

Conditions

- » Direct CO calls have ring and LCD priority over call coverage calls. The call coverage station must have a direct CO appearance or Loop button to pick up an external call. If the call coverage station is in DND, no audible ringing occurs, however visual and LCD information is presented.
- » This feature can be programmed on any key station or DSS Console with an available flexible button. If the DSS with a call coverage button assigned is unplugged or moved, the station associated with that DSS stops ringing until the DSS is plugged in again.
- » Only one button type (646 or 647) per covered station can be assigned on a keyset.

Call Coverage Ring Timer

Description

A Call Coverage Ring Timer enables the system administrator to set the amount of delay time before the call coverage feature provides an audible ring indication at the coverage station. The call coverage ring timer is a system-wide setting.

The Call Coverage Ring Timer setting is variable from 00-99 seconds.

Programming Steps

1. Press the CALL CVRG RING TIMER flexible button (**FLASH 02, Button #3**). The following message displays:

CALL COVERAGE RING 00-99 05

2. Enter a valid number on the dial pad that corresponds to 00-99 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Call Coverage Ring Timer is set for 5 seconds.

Call Forward

Description

The following sections describe the programming and operation of available call forwarding options.

Call Forwarding

Description

Stations can be allowed or denied the ability to forward all incoming CO calls, intercom calls, and transferred outside lines to another station or group.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press the CALL FORWARD flexible button (**Button #10**). The following message displays:

CALL FORWARD	0-1
ENABLED	

5. Enter a 0 or 1 on the dial pad to enable/disable this feature.
 - [0] = Disabled
 - [1] = Enabled
6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ...Call Forwarding is enabled at all stations.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.
- » Call Forward remains engaged until manually released. When released, the station number is returned to the LCD.
- » Calls cannot be forwarded to a station in the DND mode.
- » CO Line queues, a Message Waiting request, and pre-selected messages are canceled when a station is placed in the Forward mode.
- » A Forwarded Call signals to the forwarded station in the Tone mode, regardless of the Intercom Signaling Switch mode selection.
- » A station in the Forward mode can make outgoing calls.
- » A station denied the use of Call Forwarding receives an error tone when pressing the CALL FORWARD button.
- » If a CO Line rings into a station with manual Call Forward, the line sequences to the last station of the chain. If the last station is in DND mode or does not have a Direct appearance for the CO Line or a Loop button, the call reverts back to the first station.
- » If a CO Line rings into a station with both Station and Preset Call Forwarding, Station Call Forwarding takes precedence. Once the Station Forward determines the station to be rung as per above, preset Call Forward may then apply at the new station.
- » An unlimited number of stations can be set up in a Station Call Forward chain. However, a station cannot forward to a station that is already a member of their chain.
- » If the last number of the Station Call Forward chain is in DND mode, the internal caller gets a DND response.
- » If a private line rings into a station with Manual Call Forward the CO Line forwards, providing the forwarded station has a direct CO Line appearance or an available Loop button.

Call Forward - All Calls

Description

The Call Forward All Calls feature allows a station the ability to have all their calls (internal or external) forwarded immediately to a designated station, a UCD group pilot number, Voice Mail group number, Hunt group number, or speed dial bin number for off-net forwarding.

Operation

To activate All Call Forwarding:

1. Lift handset or press ON/OFF button, press the FWD button or dial [640], then dial the All Calls code [6],
-or-
Use the Soft Key's ALL-FWD option when in an idle condition.
2. Press DSS button of desired station,
-or-
Dial the desired destination number where to forward calls, including a station number, UCD group number, Voice Mail, Hunt Group pilot numbers, and speed dial bins for off-net forwarding.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.

To remove All Call Forwarding:

1. Lift handset or press ON/OFF button.
2. Either press the FWD button, dial [640] or [662], or use the Soft Key's CLR-FWD option. A confirmation tone sounds and the FWD LED extinguishes.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.



SINGLE LINE TELEPHONE

The SLT operation uses the same procedures as used in Digital Telephone operation described above, except there is no FWD button or Soft Keys. The user must use the feature codes as described in the keyset section above.

Conditions

- » Conditions are the same as described in the Conditions section of [“Call Forwarding” on page 2-23](#) plus those noted in the following bullets.
- » When in an All Call Forwarding mode, UCD calls cannot be received.
- » Calls to a station in both Station Call Forward and DND mode follow the forward.

Call Forward - Busy

Description

The Call Forward Busy feature allows a station the ability to have their calls forwarded to a designated station, a UCD group pilot number, Voice Mail group number, or Hunt group when their station is busy or in DND.

Operation

To activate Busy Call Forwarding:

1. Lift the handset or press ON/OFF button, press the FWD button or dial [640] on the dial pad, then dial the Call Forward Busy code [8] on the dial pad.

-or-

Use the Soft Key's BSY-FWD option when in an idle condition.

2. Dial destination number where calls are to be forwarded. Confirmation tone sounds.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.

To remove Busy Call Forwarding:

1. Lift handset or press ON/OFF button.
2. Either press the FWD button, dial [640] or [662], or use the Soft Key's CLR-FWD option. A confirmation tone sounds and the FWD LED extinguishes.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.



SINGLE LINE TELEPHONE

The SLT operation uses the same procedures as used in Digital Telephone operation described above, except there is no FWD button or Soft Keys. The user must use the feature codes as described in the keyset section above.

Conditions

- » Conditions are the same as described in the Conditions section of [“Call Forwarding” on page 2-23](#) plus those noted in the following bullets.
- » Calls to a station in both Station Call Forward and DND mode follow the forward.

Call Forward - Busy / No Answer

Description

The Call Forward Busy / No Answer feature allows a station the ability to forward a combination busy / no answer calls to a designated station, a UCD group pilot number, Voice Mail group number, or Hunt group. No answer calls forward when the system-wide no answer timer expires. Initial CO ringing, transferred CO ringing and intercom ringing calls can all be forwarded. Calls that ring to an idle station is call forwarded after expiration of the No Answer Ring Timer.

Operation

To activate Busy / No Answer Call Forwarding:

1. Lift the handset or press ON/OFF button, press the FWD button or dial [640] on the dial pad, then dial the Call Forward Busy/No Answer code [9] on the dial pad.
-or-
Use the Soft Key's B/NA-FWD option when in an idle condition.
2. Dial the desired destination number where calls are to be forwarded. A confirmation tone sounds.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.

To remove Busy / No Answer Call Forwarding:

1. Lift handset or press ON/OFF button.
2. Either press the FWD button, dial [640] or [662], or use the Soft Key's CLR-FWD option. A confirmation tone sounds and the FWD LED extinguishes.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.



SINGLE LINE TELEPHONE

The SLT operation uses the same procedures as used in Digital Telephone operation described above, except there is no FWD button or Soft Keys. The user must use the feature codes as described in the keyset section above.

Conditions

- » Conditions are the same as described in the Conditions section of [“Call Forwarding” on page 2-23](#) plus those noted in the following bullets.
- » ICM calls forwarded to a VM group receive ringback until a member of the VM group becomes available.
- » If a station is denied Station Call Forwarding, then Off-Net Forwarding is not allowed.
- » The No Answer Timer is controlled on an individual basis in Flash 50, Page C, Button #5 for manual forwarding and preset forwarding.

Call Forward - Follow Me

Description

The Follow Me feature lets a user who is away from their station, activate/deactivate call forwarding from another station in the system. This lets the user forward their calls to their current location or into Voice Mail, UCD, Hunt Groups, any other station in the system, or to an off-net location. When this call forward is activated, all calls presented to the forwarded station forward to the destination station immediately.

Operation

To activate Follow Me Call Forwarding:

1. Lift the handset or press ON/OFF button.
2. Dial the Follow Me Forward code [642] on the dial pad.
3. Dial station number of the station from which forwarding is desired.

Features and Operation

4. Dial the appropriate forwarding condition code.
 [6] = All Calls [8] = Busy [*] = Off-Net
 [7] = No Answer [9] = Busy/No Answer
5. Dial the three- or four-digit destination number where calls are to be forwarded (Station, Voice Mail, UCD or Hunt Group, or speed bin (only for off-net)). A confirmation tone sounds.
6. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.

To remove Follow Me Call Forwarding:

1. Lift the handset or press ON/OFF button.
2. Dial the Follow Me Forward code [642] on the dial pad.
3. Dial the station number of the station that forwarding is to be cancelled.
4. Dial [6] (regardless of the forward condition).
5. Redial the same station number. Confirmation tone sounds and FWD LED extinguishes.

To establish Follow Me Call Forwarding (off-site location):

1. Dial into the system on a DISA or TIE trunk. Enter the DISA access code, if applicable.
2. Dial the Follow Me Forward code [642] on the dial pad.
3. Dial the station number of the station from which forwarding is desired.
4. Dial the appropriate forwarding condition code.
 [6] = All Calls [8] = Busy [*] = Off-Net
 [7] = No Answer [9] = Busy/No Answer
5. Dial the three- or four-digit destination number where calls are to be forwarded (System Speed Bin (only for off-net), Station, Voice Mail, UCD or Hunt Groups). A confirmation tone sounds; five seconds later a dial tone is received.

To remove Follow-me Call Forwarding (off-site location):

1. Dial into the system on a DISA or TIE trunk. Enter the DISA access code, if applicable.
2. Dial the Follow-Me Forward code [642] on the dial pad.
3. Dial the station number of the station that forwarding is to be cancelled.
4. Dial [6] (regardless of the forward condition).
5. Redial the same station number. Confirmation tone sounds; 5 secs later = dial tone.

Conditions

- » If a Call Forward mode is currently active at the station where forwarding is desired, the new forward becomes active and cancels the previous forward.
- » Both internal and external calls to the affected station forward to the designated location.
- » Call forwarding must be allowed in programming for the affected station.
- » When remote forward is activated, the forwarding is immediate.
- » A station's Call Forward status is stored in a battery protected area of memory. A station's Call Forward status is returned after a power failure or system reset occurs.

- » When a key telephone is forwarded remotely, the key station's forward button lights. The station user may cancel the forwarding at their station by pressing ON/OFF, then the FWD button. SLT users can cancel their forwarding by going off hook and dialing the forward code.
- » DISA callers entering the code and making a mistake are given error tone for 3 seconds, silence for 2 seconds, then the dial tone is returned.

Call Forward - No Answer

Description

The Call Forward No Answer feature allows a station the ability to have their calls forwarded to a designated station, a UCD group pilot number, Voice Mail group number or Hunt group number when there is no answer at the station. No answer calls forward when the No Answer Timer expires.

Operation

To activate No Answer Call Forwarding:

1. Lift the handset or press ON/OFF button, press the FWD button or dial [640] on the dial pad, then dial the Call Forward No Answer code [7] on the dial pad.
-or-
Use the Soft Key's N/A-FWD option when in an idle condition.
2. Dial the desired destination number where calls are to be forwarded. A confirmation tone sounds.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.

To remove No Answer Call Forwarding:

1. Lift handset or press ON/OFF button.
2. Either press the FWD button, dial [640] or [662], or use the Soft Key's CLR-FWD option. A confirmation tone sounds and the FWD LED extinguishes.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.



SINGLE LINE TELEPHONE

The SLT operation uses the same procedures as used in Digital Telephone operation described above, except there is no FWD button or Soft Keys. The user must use the feature codes as described in the keyset section above.

Conditions

- » Conditions are the same as described in the Conditions section of ["Call Forwarding" on page 2-23](#) plus those noted in the following bullets.
- » A Camp On signal is allowed at the forwarded station if that station is busy.
- » Idle keyset in handsfree mode does not follow no answer forwarding for internal calls.
- » The No Answer Timer is controlled on an individual basis in Flash 50, Page C, Button #5 for manual forwarding and preset forwarding.

Call Forward - External (Off-Net)

Description

Stations are allowed to forward intercom and transferred CO line calls to an off-net location. The Call Forward Off-Net feature allows a station to reroute calls that would normally be lost. Calls can be forwarded to home or another off-net site. Initially-ringing CO calls cannot be forwarded with this feature.

Operation

To activate Off-Net Call Forwarding:

1. Lift handset or press ON/OFF button.
2. Press the FWD button or dial [640] on the dial pad.
3. Dial [*] on the dial pad. Dial the speed bin number (9000-9019 or 9020-9099) that contains the number where calls are to be forwarded. A confirmation tone sounds and the FWD button LED is Red Steady On.
4. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.

To remove Off-Net Call Forwarding:

1. Lift handset or press ON/OFF button.
2. Press the FWD button or dial either [640] or [662]. A confirmation tone sounds and the FWD LED extinguishes.
3. Replace handset; ON/OFF button extinguishes automatically, if used instead of handset.



SINGLE LINE TELEPHONE

The SLT operation uses the same procedures as used in Digital Telephone operation described above, except there is no FWD button. The user must use the feature codes as described in the keyset section above.

Conditions

- » Forwarding is unconditional and occurs immediately when a station calls an Off-Net forwarded station.
- » The call to a station is not answered until the outgoing CO Line is seized and the digits are out-pulsed. The calling Station receives ICM ringback until answered. Upon answer, the Station receives whatever CO progress tones apply (Ringback, Busy, Error, Announcement, etc.).
- » If a station is denied Station Call Forwarding, Off-Net forwarding is not allowed.
- » Toll Restriction is based on the forwarding station's COS and the outgoing CO Line COS.
- » The calling station must have an appearance (Direct, Loop) for the outgoing (Off-Net) line. The call is not forwarded if a Direct Appearance or LOOP key is unavailable.
- » SMDR printout reflects transferred and outgoing calls like a DISA call record.
- » Station users may use a Station or System Speed Dial Bin for Station Off-Net Forward.
- » Call must be an intercom or transferred CO call.
- » The attendant station must have access to the CO Line group used in the speed bin for the off-net forward to work.

Call Forward Button Flash Rate

Description

The Call Forward Button flash rate is the rate at which the Call Forward button flashes when any type of forward mode is used. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the CALL FORWARD BTN flexible button (**FLASH 07, Button #3**). The following message displays:

CALL FORWARD BTN	00-28
RED STEADY ON	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Call Forward Button flash rate is set for a Red Steady On (01).

Call Forward Display

Description

When any type of station call forwarding is invoked, the LCD display normally indicates the call forwarding mode at all times. This feature has modified the LCD forwarding display to make the call forwarding mode display optional. This feature is enabled/disabled in admin programming on a system-wide basis. The call forward status is stored in a battery protected area of memory.

Programming Steps

1. Press the CALL FWD DISPLAY STATUS flexible button (**FLASH 06, Button #4**).

CALL FWD DISPLAY	0-1
ENABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable Call Forward Display.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Call Forward Display is enabled.

Call Forward - Preset

Description

The Call Forward Preset feature allows the system database to be configured so that incoming CO Lines, which are programmed to ring at a particular station, can be forwarded elsewhere in the system predetermined by programming. This feature is active if the station ringing is not answered in a specified time, and is particularly useful in overflow applications in which a Voice Mail or Auto Attendant may be in use.

The following Call Forward - Preset types are detailed in the next several sections:

Preset Call Forward - Voice Mail, UCD, or Hunt Groups -- CO Lines can be Preset Forwarded to ring to one of the group types in the system (Hunt, Voice Mail, or UCD). Each time the Preset Forward Timer expires (a total of 5 attempts), the group is checked for an idle station.

Preset Call Forward - Off-Net -- CO Lines can be preset forwarded to ring Off-Net via speed dial from any station. After the expiration of the preset forward timer, the system selects an idle CO line, dials the off-net location, then connects the two CO lines.

Preset Call Forward - Per CO Line -- The Preset Call Forward feature allows each CO line to be preset call forwarded on a per CO line basis. This allows a CO line to initially ring at multiple stations and forward to a predetermined destination. The destination can be a station or Hunt Group. Each CO line has a Preset Forward Timer. Each CO line also has a VMID field to allow specific VM digits to be sent when a CO line forwards to a VM group. Feature applies to initial CO ringing lines only.

If a forward destination is programmed in the CO line field, the CO call forwards to that destination after the CO Preset Forward timer expires. This forward occurs regardless of how many or how few stations the line is ringing on. Once the CO line is answered and transferred, station call forwarding rules are in effect.

Calls still follow all call or busy forwards, however, CO preset forward forwards the call if the first forward destination has not answered the call. VMID digits per CO line override station VMID. Calls ringing into UCD or VM Groups continue to ring the group. The CO call does not forward when ringing one of these types of groups.

Preset Call Forward - Stations -- Each station user may have Preset Call Forward in the database to direct incoming, transferred, as well as intercom calls to other destinations in the system. The system allows for different destinations based on a Busy or a No Answer condition, as well as internal versus external (CO) call.

Preset Call Forward - Station

Description

The Preset Call Forward feature provides separate Busy and No Answer destinations for internal and external calls with a No Answer Timer associated to each station. External calls ringing that particular station, transferred calls, and internal calls follow this Preset Forward feature.



Valid destination entries are:

- System Speed Bin Numbers
- Flexible Station Numbers
- Flexible Voice Mail Group Numbers
- Flexible Hunt Group Numbers
- Flexible UCD Group Numbers

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

To program internal and external calls with separate Busy and No Answer destinations, perform the following steps.

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If **HOLD** is pressed without entering a station range, **ALL** stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press **HOLD** to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press button #21. The display updates to reflect current programming for Page C.

Flash 50 - Fixed Numbers

XXX - XXX PAGE C ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE C ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

Internal No Answer Destination

- Press **Button #1**. The following message displays:

INTERNAL NO ANSWER FWD #####

- Enter a valid flexible destination number and press HOLD.
- To delete the entry, press the [#] key and then press HOLD.

Internal Busy Destination

- Press **Button #2**. The following message displays:

INTERNAL BUSY FWD #####

- Enter a valid flexible destination number and press HOLD.
- To delete the entry, press the [#] key and then press HOLD.

External No Answer Destination

- Press **Button #3**. The following message displays:

EXTERNAL NO ANSWER FWD #####

- Enter a valid flexible destination number and press HOLD.
- To delete the entry, press the [#] key and then press HOLD.

External Busy Destination

- Press **Button #4**. The following message displays:

EXTERNAL BUSY FWD #####

- Enter a valid flexible number and press HOLD.
- To delete the entry, press the [#] key and then press HOLD.

No Answer Timer

1. Press **Button #5**. The following message displays:

NO ANSWER TIMER	00-99
10	

2. Enter a valid number (00-99) and press HOLD (00=disable).

DEFAULT ... No Answer Timer is set at 10 seconds.

Conditions

- » The No Answer Timer controls both Manual and Preset Forwarding (feature code 640 forwarding and FLASH 50, Page C, Buttons #1-4).
- » Station Forwarding overrides the Preset Forward settings.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Preset Call Forward - CO Line

Description

The Preset Call Forward Destination feature enables a CO line to initially ring at multiple stations and forward to a pre-determined destination. The destination can be a station (DKT-SLT), Voice Mailbox, UCD group, or Hunt group. Each CO line has a Preset Forward Timer. Each CO line also has a VMID field to allow sending of specific VM digits when a CO line forwards to a VM group. Calls ringing into UCD Groups or Voice Mail Groups continue to ring the group. The CO line does not forward when ringing one of these types of groups.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES SELECT A CO LINE RANGE
--

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible Button #19 (Page A) is lit.
4. Press the Page B flexible button (Button #20). The following message displays:

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

Features and Operation

5. Press the PRESET FWD DESTINATION flexible button (**Button #5**). The following message displays:

PRESET FORWARD DEST ####

6. Enter a valid forward destination on the dial pad.
 [9020-9099] = System Speed Bins
 [100-149] = Station Extensions
 [440-447] = Voice Mail Groups 1-8
 [450-457] = Hunt Groups 1-8
 [550-557] = UCD Groups 1-8
7. Press HOLD. A confirmation tone sounds and the LCD display updates.

DEFAULT ... No destinations are assigned.

*Preset Forward Voice Mail ID***Description**

The Preset Forward Voice Mail ID feature allows a programmer to assign which digits are sent to voice mail when a CO line is programmed to Preset Forward.

Programming Steps

1. Press the PRESET FWD VMID flexible button (**FLASH 40, Page B, Button #6**). The following message displays:

PRESET FORWARD VMID 0-9999 ####

2. Enter a valid number on the dial pad that corresponds to 0-9999 for Voice Mail ID digits.
3. Press HOLD to complete the entry. A confirmation tone sounds and the display updates.

To delete numbers currently entered:

1. Press [#] button four times.
2. Press the HOLD button to update (all information is erased).

DEFAULT ... No digits are sent.

Preset Forward Timer (Incoming Call to a Destination)

Description

The Preset Forward Timer determines the time an outside line rings before being forwarded to a predetermined destination as programmed in FLASH 40, Page C, Button #8. If a forward destination is programmed in the CO line field, the CO calls forward to that destination after the CO preset forward timer expires. This forward occurs regardless of how many stations the line is ringing.

This feature applies to initial CO ringing lines only and works with Preset Forward CO Line assignments. The CO Line Preset Forward Timer setting is variable from 00-99 seconds. A [00] entry disables the timer and the feature is disabled.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
 SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press Button #21 to select Page C. The display updates. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE C
 ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the PRESET FWD TIMER flexible button (**Button #8**). The following message displays:

PRESET FWD TIMER 00-99
 10

5. Enter valid number on dial pad which corresponds to 00–99 seconds.
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... CO Line Preset Forward Timer is set at 10 seconds.

Calling Forward Override

Description

The Call Forward Override feature allows a user to reach a station that is call forwarded. This allows the calling station to override the forwarding which allows the user to use Off Hook Voice Over (OHVO), Executive Override, Monitor, Message Wait Indication, Camp On, or Call Back Request at that station rather than forwarding to another destination.

Operation

1. Dial [5#] followed by the desired station extension.
2. Press the appropriate preprogrammed button.

Call Back = [622]

Camp On = [620]

Executive Override = [625]

Message Wait = [623]

OHVO = [628]

Calling Station Handsfree Mode Override

Description

Enables a calling station to override a called station's T intercom setting.

Operation

When placing a call to a station and handsfree is desired:

1. Dial [7#] on the dial pad.
2. Dial the extension number,

-or-

Press DSS button of desired station (call connects to the station in handsfree mode).

Calling Station Tone Mode Override

Description

Enables a calling station to override a called station's H or P intercom settings.

Operation

When placing a call to a station and tone ringing is desired:

1. Dial [6#] on the dial pad.
2. Dial the extension number,

-or-

Press DSS button of desired station (call tone rings station).

Call Park

Call Park - System

Description

An outside line can be placed into one of eight system park locations and can be retrieved by any station that has a direct line appearance or an available Loop button. Parked calls have their own recall timer that recalls the originating station, and if still unanswered, the Attendant(s). An outside line may also be placed into a station park location. The station user then dials a code followed by their station number to retrieve the call.

Operation

To consult, page, or call an internal party while connected to an outside line:

1. Press the preprogrammed CALL PARK flexible button. A confirmation tone sounds.
-or-
Press TRANS button. The caller is put on hold. Dial parking location (430 to 437). A confirmation tone sounds.
2. If busy tone is received, press TRANS once to reconnect with the caller. Press TRANS again and dial another park location or press another CALL PARK flexible button for a different parking location.

Call Park Pickup - System

To retrieve a Parked Call, either:

1. Lift handset or press ON/OFF button.
2. Press [#].
3. Dial the parking location (430 to 437) where the call was parked or press the preprogrammed CALL PARK flexible button for that park location.

-or-

Use the Soft Key's PK-PICK1 option when in an idle condition (to pick up group 1 only).



SINGLE LINE TELEPHONE

To place an outside call on hold and consult with, page, or call an internal party before transferring the outside call:

1. Depress and release the hookswitch. The caller is put on Exclusive Hold.
2. Dial parking location (430 to 437). A confirmation tone sounds.
3. If busy, depress and release hookswitch twice, dial another park location, then hang up.

To retrieve a parked call:

1. Lift the handset.
2. Press the [#] button.
3. Dial parking location (430 to 437) where the call was parked.

Conditions

- » Intercom calls cannot be parked on system park locations (430-437); intercom calls can be parked using the personal park location.
- » A CO call parked in a system call park location recalls to the station that parked the call, when the call park recall timer expires. The CO call rings to this station until the system hold timer expires. The CO call then recalls the Attendant (both the Attendant and initiating stations are ringing), and the Attendant recall timer is initiated. When the Attendant recall timer expires, the CO call is disconnected.

Call Park Recall Timer

Description

The Call Park Recall Timer determines the time before a call placed in a Call Park location recalls the station placing the call in park. If unanswered by that station, the call recalls the attendant.

The Call Park Recall Timer setting is variable from 000–600 seconds. A 000 entry disables the timer and there is no recall.

Programming Steps

1. Press the CALL PARK RECALL TIMER flexible button (**FLASH 01, Button #8**). The following message displays:

CALL PARK TIMER	000-600
180	

2. Enter a valid number on the dial pad that corresponds to 001-600 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Call Park Recall Timer is set at 180 seconds.

Call Park - Personal

Description

Each telephone in the system can place a call into a personal park location and then later retrieve that call from the originating station. Intercom calls and CO line calls can be placed into the stations' personal park location. Calls parked in a personal park location are subject to the system call park recall timer (refer to ["Call Park Recall Timer" on page 2-40](#)). A station retrieving a personal parked CO call must have either a direct CO line appearance or an available loop button to retrieve the parked call.



Only one call can be parked in a Personal Call Park location at one time. When dialing the Personal Park location and the location is already occupied, the initiating station receives the previously parked call and the second call is then parked.

Operation

To park a call, while connected to an outside line:

1. Press the TRANS button. The caller is put on Exclusive Hold.
2. Dial the Personal Park location [438] on the dial pad,
-or-
Press the preprogrammed PERSONAL PARK button.
Dial tone sounds.

To retrieve a parked call:

Dial the Personal Call Park location code [438] on the dial pad,
-or-
Press the preprogrammed PERSONAL PARK button.
A talk path is established between the two parties.



SINGLE LINE TELEPHONE

While connected to first call:

1. Depress the hookswitch momentarily. Intercom dial tone sounds.
2. Dial [438]. Call is placed in personal park.
3. Dial desired number for second call.
4. Depress the hookswitch momentarily. Intercom dial tone sounds.
5. Dial [438]. The first call is returned and the second call is placed into personal park.



The user can alternately connect to the other call by doing a hook flash and dialing [438] as many times as necessary.

Conditions

- » Intercom calls and CO line calls can be placed into the station's personal park location.
- » Calls parked in a personal park location are subject to the system call park recall timer.
- » A CO call parked in a personal call park location recalls to the station that parked the call, when the call park recall timer expires. The CO call rings to this station until the system hold timer expires. The CO call then recalls the Attendant (both the Attendant and initiating stations are ringing), and the Attendant recall timer is initiated. When the Attendant recall timer expires, the CO call is disconnected.

Call Park - Station

Description

Call park (by station number) allows calls to be parked at a station other than you own, thus allowing for expanded park locations.

Operation

To create a CALL PARK (Station) button:

1. Press [SPEED] + [SPEED].
2. Press the desired flexible button.
3. Dial [439] + [#]. A confirmation tone sounds.

While connected to an outside line:

1. Press the TRANS button.
2. Dial [439] + [XXX] (XXX = station number).

-or-

1. Press the TRANS button.
2. Press the *preprogrammed* CALL PARK (Station) button.
3. Dial [XXX] (XXX = station number).

To retrieve a Call Park (Station) call:

Dial [#6] + [XXX] while at any telephone in the system, including the initiator's. [XXX] = the station number used to park the call.

-or-

Dial [438] from the initiator's station.



SINGLE LINE TELEPHONE

The SLT operation uses the same procedures as used in Digital Telephone operation described above, except there is no TRANS button. The user must use hookflash before dialing feature code 439.

Conditions

- » Only one call can be in a park location at a time. Multiple calls to the same station park location is not possible.
- » The #6 code is flexible and can be assigned in Flash 52 programming.
- » The call will be placed in the Station's Personal Park location.

Call Pickup

Description

Stations are assigned to pickup groups. Stations can be in any combination of the eight groups or in no group at all.

A station can pickup a call ringing to any specific unattended station by using the Directed Call Pickup procedure.

A station can pickup a call ringing to an unattended station within the same UCD group by using the Group Call Pickup Procedure.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

5. Press the GROUP PICKUP flexible button (**Button #5**). The following message displays:

PICKUP GROUPS 1	0-8
--------------------	-----

6. Enter a valid number (1-8) to program Pickup Groups.

[0] = No Group	[5] = Group 5
[1] = Group 1	[6] = Group 6
[2] = Group 2	[7] = Group 7
[3] = Group 3	[8] = Group 8
[4] = Group 4	

7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All stations are in Group 1.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Directed Call Pickup

Description

A station user can pick up a call to another specific unattended station. The call must be a tone ringing call.

Operation

To create a Pickup Button:

1. Press [SPEED] + [SPEED].
2. Press the desired flexible button.
3. Dial #0.

To use Directed Call Pickup:

1. Dial the station number of the known ringing telephone. Receive busy tone.
2. Press the preprogrammed PICKUP button to answer the call.

 SINGLE LINE TELEPHONE

To use Directed Call Pickup:

1. Lift the handset.
2. Dial [#1].
3. Dial station number of ringing telephone.

Conditions

- » User must have access to the specific outside line or a LOOP button for a Directed Call Pickup.

Group Call Pickup

Description

A station user can pickup a call to any unattended station within the same pickup group.

Operation

To create a Pickup Button:

1. Press [SPEED] + [SPEED].
2. Press the desired flexible button.
3. Dial #0.

To use Group Call Pickup:

1. Lift handset or press ON/OFF button.
2. Dial [#0] on the dial pad,
-or-
Press preprogrammed PICKUP button to connect to calling party.

 SINGLE LINE TELEPHONE

To use Group Call Pickup:

1. Lift the handset.
2. Dial [#0]. You will be connected to the incoming intercom or outside line call.

Conditions

- » User must have access to the specific outside line or LOOP button to do a Group Call Pickup.

Call Transfer

Description

An outside CO line call can be transferred from one keyset to another within the system. The transfer can be screened (announced) or unscreened to an idle or busy station, UCD Group, or Hunt Group. The line being transferred rings on the keyset and provides Exclusive Hold flashing indication to the receiving party's keyset. Any number of attempts can be made to locate someone by calling different keysets without losing the call.

The Direct Transfer Mode allows transferring of an outside CO line directly to the key station handset, if enabled in programming (refer to ["Direct Transfer Mode" on page 2-124](#)).

A system-wide database parameter can select music on hold or ringback tone to the CO caller when CO calls are transferred in the system.

Operation

To activate a Screened Transfer, (while connected to an outside line):

1. Press DSS button where to transfer call (if programmed on your telephone) or press TRANS button and dial the station number.

The called extension signals according to the intercom position.

2. When that extension answers, announce the transfer.
3. Hang up to complete transfer.



If Direct Transfer Mode is enabled in admin programming, the supervised transfer is transferred directly to the key station handset.

To answer a Screened Transfer (your intercom will signal according to H-T-P position):

1. Answer the intercom and receive the transfer notice.
2. Press the outside line button or loop button flashing on hold.

To Transfer Search:

When attempting to locate a party, press a DSS button to signal the desired station or press the TRANS button and dial the desired station number.

If the party is not located:

1. Press another DSS button or press TRANS and dial another station number to continue the search.
2. When called party answers, hang up to complete the transfer.

To make an Unscreened Transfer:

When called extension begins to signal, hang up to transfer the call (Recall Timer starts).



SINGLE LINE TELEPHONE

To activate a Screened Transfer (while connected to an outside line):

1. Briefly depress and release the hookswitch.
2. Dial desired intercom number.
3. Announce the call.
4. Hang up to complete transfer.

To make an Unscreened Transfer:

1. Briefly depress and release the hookswitch.
2. Dial desired intercom number.
3. Hang up to complete transfer.

To make a PBX/Centrex Transfer:

1. Briefly depress and release the hookswitch. Intercom dial tone sounds.
2. Dial [660]. A Flash command is presented to the PBX or Centrex CO Line (stutter tone sounds).
3. Dial desired telephone number.
4. Replace handset to complete transfer.

Ringback on Transfer

Description

The Ringback on Transfer feature provides on a system-wide basis Music On Hold or ringback tone to the CO caller when CO calls are transferred. Callers hear music if a music source is connected to the system.

Programming Steps

1. Press the RINGBACK ON TRANSFER flexible button (**FLASH 06, Button #11**). The following message displays:

RINGBACK ON XFER	0-1
DISABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable the use of this feature.
[0] = Disabled (Music, if music source is connected to system, otherwise silence)
[1] = Enabled (Ringback Tone)
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Ringback on Transfer is disabled.

Unanswered CO Call Transfer

Description

The Unanswered CO Call Transfer feature provides station users the ability to transfer an incoming CO call that is currently ringing at their station without answering it. Only Incoming and Transferred calls can be forced. Calls may be forwarded to any available station, UCD group, or VM Group.

A destination station must have a direct appearance for that CO Line or Loop button and not in DND, or an error tone is presented to the originator and the call continues to ring their station. If the station is busy, the current call must be placed on hold, the ringing transfer initiated, and then the station can return to their original call. This feature is unavailable to Single Line Telephone users.

Operation

When an incoming call rings an idle station:

1. Press the preprogrammed UNANSWERED CO CALL TRANSFER flexible button,
-or-
Dial the Unanswered CO Call Transfer code [639] on the dial pad.
2. Press a DSS, Group button, or dial the station number or group number. Call is automatically transferred to that destination.

When an incoming or transferred call rings a busy station:

1. Place the current call on hold and replace the handset or press ON/OFF.
2. Press the preprogrammed UNANSWERED CO CALL TRANSFER flexible button,
-or-
Dial the Incoming CO call transfer code [639] on the dial pad.
3. Press a DSS, Group button, or dial the station number or group number. Call is automatically transferred to that destination. The incoming transferred CO call receives Music On Hold during the transfer state.
4. Station user can return to call placed on hold.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » Attendant stations do not send ID digits.
- » This feature only operates when the station is in an idle mode.

Camp On

Description

A station may alert a busy party that an outside line is waiting for them by using the CAMP ON button. To camp on a call, press the TRANS button to transfer the call to the desired busy station, then press the CAMP ON button. The busy party receives a muted ring over the keyset speaker, and a visual flashing CAMP ON LED. By pressing the CAMP ON button, the person called places their existing outside call on hold or drops an existing internal call, and is connected to the person placing the Camp On. They can then pick up the call on the appropriate line.

Operation

To alert a busy station of your call:

1. Press the CAMP ON button or use the Soft Key's CAMP-ON option. The called station will receive one-burst of tone.
2. When the called party answers, consult with them or hang up to transfer call.



If a station is in DND, only the Attendant can Camp On using the Attendant override feature.

Camp On or Override drops any internal callers to which that station is talking.

To answer a call that is waiting:

When you hear one burst of muted ringing, press your flashing CAMP ON button.

Any outside line you are connected to is placed on hold. Converse with the station placing the call,

-or-

If a call is being transferred, press the flashing OUTSIDE LINE button.



SINGLE LINE TELEPHONE

To alert a busy station of your call:

1. Briefly depress and release the hookswitch.
2. Dial [620]. When the called line is alerted, they can choose to pick up your call or remain on original call.

To answer a call that is waiting (while on a CO line call):

1. Receive Camp on warning tone through the handset.
2. Choose desired call (hang up on present call and take new call, or ignore Camp On signal).

Conditions

- » Calls cannot be camped on when a station is in DND or in Conference.
- » If the party that initiated the Camp On hangs up, then Camp On is canceled and the call is blind-transferred.

Camp On Button Flash Rate

Description

The Camp On button flash rate is the rate at which the Camp On button flashes when you receive a Camp On. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the CAMP ON BTN flexible button (**FLASH 07, Button #15**). The following message displays:

CAMP ON BTN	00-28
RED 120 IPM FLASH	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Camp On Button flash rate is set for a Red 120 ipm Flash (10).

Camp On Recall

Description

When a station does not answer a Camp On, that call recalls the person placing the Camp On, and if unanswered by them, recalls the Attendant(s).

Card Slot Programming

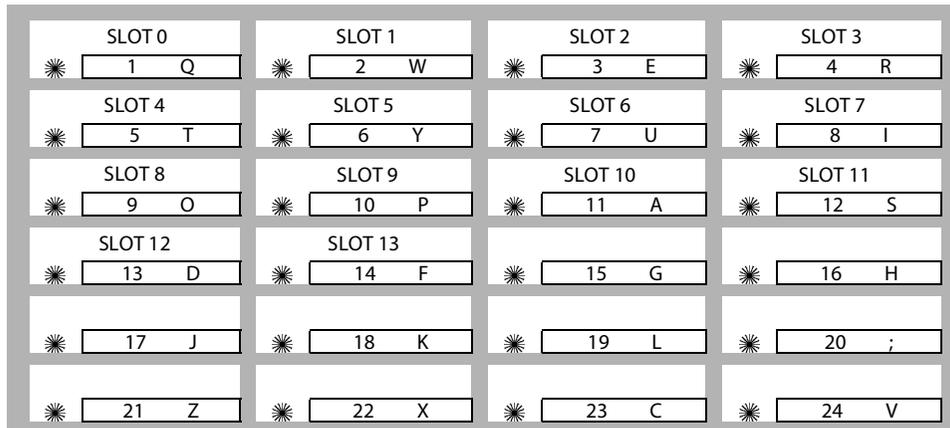
Description

The Card Slot Programming feature provides a means to assign the peripheral cards to alternative peripheral card slots.

Flash 24 also allows for partial signaling over T1IBs. For example, card slots ordinarily accommodate 24 CO line time slots each. This feature allows you to limit the amount of time slots per card to four (4), or multiples of four (4) up to 20. To use this feature, the card ID is programmed followed by the number of CO lines to be used in groups of four (4). A group of four (4) is known as a cluster. If the card number is programmed without a cluster number, all COs on that card are active.



When using partial signaling, the last channel in the cluster and the 24th channel are data channels (e.g., for partial signaling with one cluster, the 4th and 24th channels are data channels. If two clusters are used, then the 8th and 24th channels are data channels.)



Related Information

Quick Reference		
➡ Flash 80	Button #20	System Reset (refer to <i>"System Reset" on page 2-260</i>).

Programming Steps

1. Press **FLASH** and dial **[24]**. The following message displays on the display:

CABINET 0
ENTER BUTTON NUMBER

2. Press the button corresponding to the desired SLOT location. (Buttons #1-14 indicate peripheral card slots 0-13.)

CAB 0 SLOT XX 00-18
DTIB

3. Enter a valid number for the type of card plugged into the current peripheral card slot.

[00] = None	[13] = SL04 (represents SLIB w/ 4 ports)
[02] = DTIB	[15] = LCI4 (represents LCOBC)
[04] = SL02 (represents SLIB w/ 2 ports)	[17] = VM1B (represents flash-based VMIB)
[09] = T1IB	[18] = VM2B (represents pentium-based VMIB)
4. If the T1IB option is selected in step 3, then enter a valid number (1-5) to specify the desired cluster (partial) quantity; otherwise, skip to step 5.

[1] = cluster of 4	[4] = cluster of 16
[2] = cluster of 8	[5] = cluster of 20
[3] = cluster of 12	No Entry = All CO lines
5. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
6. Press the reset button on the Main Board Unit (MBU).

DEFAULT ... Slot 0, 1, and 2 are identified as DTIB, LCI4, and SL02 respectively.

Conditions

- » After programming card slots, a system reset must be performed.
- » If a caller ID card is used in the system, you must use FLASH 40, Page C, Button #2 to set the Ring Delay Timer to a setting of 05 (sec). This allows sufficient time for receipt of ICLID information from the telephone company. Refer to *"Ring Delay Timer" on page A-8*.

Centrex/PBX

The following features provide Centrex compatibility so that the *STS* system's toll restriction feature can correctly interpret Centrex digits.

CO / PBX Programming

Description

Each individual outside line connected to the system may be programmed as a CO or PBX line. Use the PBX mark when identifying Centrex lines.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the CO/PBX flexible button (**Button #2**).

5. Enter a 0 or 1 which corresponds with the following entries:

[0] = PBX

[1] = CO

PBX / CO	0-1
CO	

6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... All lines are assigned as CO lines.

Off-Hook Preference

Description

Telephones, key and SLT, may be programmed to have their personal Centrex line accessed automatically just by lifting the handset or pressing the ON/OFF button (Speaker Button on SLTs). Internal features to the **STS** are still made available to digital telephones by accessing intercom before going off-hook. Refer to ["Ring Down / Hot Line / Off-Hook Preference" on page 2-225](#).

Private Line Appearance

Description

The **STS** allows for private line assignment on an unlimited basis. Each station may have sole access to a particular outside line if desired and may also be assigned to receive incoming ringing on that line. Refer to ["CO Line Group Programming" on page 2-70](#), ["Line Group Access - Station" on page 2-69](#), and ["Flexible Button Assignment" on page 2-149](#).

*Programming *, #, and Hook-Flashes into Speed Dial*

Description

Many Centrex codes utilize a hook-flash followed by, in many cases, the digit [*] and or [#]. The **STS** allows programming of these codes as a part of system or station speed dial sequences. Refer to ["Speed Dial" on page 2-236](#).

Centrex/PBX Flash

Description

Provides telephone users with the ability to terminate an outside call or transfer a call behind a PBX or Centrex and restore dial tone without hanging up the handset. A FLASH button is located on each digital telephone.

Operation

When connected to an outside line:

Press FLASH to disconnect outside line and reseed outside line dial tone.



SINGLE LINE TELEPHONE

Depress the hookswitch briefly or if equipped with a flash key, depress it. Then dial [660].

Centrex/PBX Flash Timer

Description

Flash is a programmable opening on a line for signaling. When using an outside line, flash lets a user obtain a new dial tone without losing the line. This is particularly useful behind a PBX or Centrex. Each CO line can be programmed for a flash time.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
 SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press Button #21 to select Page C. The display updates. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE C
 ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the FLASH TIMER flexible button (**Button #1**).
5. Enter a valid number on the dial pad (01–20) which corresponds to 100 ms to 2 seconds.

FLASH TIMER 01-20
 10

6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Flash Timer is set for 10 (1.0 seconds) and is variable from 01-20 (100 ms to 2 seconds).

Centrex/PBX Transfer

Description

When Centrex or PBX lines are connected to the **STS**, users may, by using the Flash button, transfer callers to other Centrex or PBX extensions. The Flash command may also be included within a Speed Bin and programmed onto a flexible button for one button transfer. Consult your Centrex user guide for further instructions after flashing the line. Refer to [“Centrex/PBX Flash Timer” on page 2-54](#).

Operation

While connected to an outside line (PBX/Centrex):

1. Press the FLASH button. Receive transfer dial tone.
2. Dial a PBX/Centrex station number.
3. Hang up to complete the transfer.



SINGLE LINE TELEPHONE

While connected to an outside line (PBX/Centrex):

1. Press the FLASH button or briefly depress the hookswitch. Receive transfer dial tone.
2. Dial [660].
3. Dial a PBX/Centrex station number.
4. Hang up to complete the transfer.

PBX Dialing Codes

Description

Five 1- or 2-digit PBX access codes can be programmed into memory. When dialed, these codes signal the system so toll restriction is applied at the next dialed digit. When a single digit code [9] is entered, it must be followed by [#] as the second digit. Refer to [“911 Feature” on page 2-4](#).



If 911 is enabled for a PBX trunk using Centrex, entry one in Flash 12 (of [9] + [#]) will insert the Centrex 9 (not LCR).

Quick Reference

➔ Flash 40	Page A	Button #2	PBX/CO (refer to “CO / PBX Programming” on page 2-52).
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Programming Steps

1. Press **FLASH** and dial [12]. The following message displays:

PBX DIAL CODES
##, ##, ##, ##, ##

2. Enter valid numbers (one right after the other) on the dial pad, up to ten digits. If a single digit code is required, enter the code followed by [#].

Features and Operation

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
4. To delete a code, enter [#] [#] and press HOLD.

DEFAULT ... No PBX dialing codes are assigned.

Conditions

- » Lines must be programmed as PBX lines before these codes apply.

Class Of Service

Description

Each station and each CO line is assigned a Class of Service (COS) which governs stations' dialing privileges. Day COS and Night COS assignments to stations provide the system administrator additional control over station dialing, preventing misuse of phones after hours.

Seven uniquely defined COSs are available for assignment to stations and five uniquely defined COSs are available for assignment to CO lines. Station COS works in conjunction with CO line COS to provide the most flexible means for offering custom toll restriction.

The following table depicts how the station and CO line COSs interact. After setting the station COS, any change to the CO line COS will result in a change in dialing privilege. For example, a station COS of 2 with a CO line COS of 5 gives the user an unrestricted calling privilege.

Table 2-2: Class of Service (COS)

		CO Line Class of Service				
		1	2	3	4	5
S T A T I O N C O S	1	Unrestricted	Unrestricted	Unrestricted	Canned Restricted*	Unrestricted
	2	Table A	Table A	Unrestricted	Canned Restricted*	Unrestricted
	3	Table B	Unrestricted	Table B	Canned Restricted*	Unrestricted
	4	Table A and B	Table A	Table B	Canned Restricted*	Unrestricted
	5	Canned Restricted*	Canned Restricted*	Canned Restricted*	Canned Restricted*	Unrestricted
	6	Intercom Only	Intercom Only	Intercom Only	Intercom Only	Intercom Only
	7	Canned Restricted*	Canned Restricted*	Canned Restricted*	Canned Restricted*	Unrestricted

* Canned Restriction: No [0], [1], [#], [*] as first dialed digit, and 7-digit dialing limitation; plus 1-800, 1-888, 1-866, 1-877, 1-911, 1-611 are allowed, and 411, 976, and 555 numbers are denied. COS 7 allows 10-digit dialing maximum.

Related Information

Quick Reference	
➡ Flash 70	Toll Restriction (refer to <i>"Toll Restriction"</i> on page 2-275).

*Class of Service - CO Line***Description**

Through assignments of a CO Line Class of Service, the assigned CO line interacts with a station Class of Service.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
 SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
 ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the LINE COS flexible button (**FLASH 40, Page A, Button #9**).
5. Enter a valid number on the dial pad (1-5) corresponding to one of five possible Classes of Service to which a CO line may be assigned:
 - [1] = COS1; No restrictions
 - [2] = COS2; Table A governs, Station COS 2 and 4 are monitored
 - [3] = COS3; Table B governs, Station COS 3 and 4 are monitored
 - [4] = COS4; Restricts [0], [1], [*], [#] dialed as first-digit and places a 7-digit dialing limitation. Allowed are: 1-800, 1-888, 1-866, 1-877, 1-911, and 1-611. Denied are: 411, 976, and 555.
 - [5] = COS5; Overrides Station COS 1, 2, 3, 4, 5, and 7, and allows unrestricted dialing.

CLASS OF SERVICE 1-5
 1

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... Class of Service setting is 1.

Station Day Class of Service

Description

Each station must be assigned a certain COS for Day Mode operation and for Night Mode operation. Class of Service (COS) determines the station's dialing privileges.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

- Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

- Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

5. Press the DAY COS flexible button (**Button #2**).

DAY COS 1	1-7
--------------	-----

6. Enter a valid number on the dial pad (1-7) corresponding to one of seven possible Classes of Service to which a station may be assigned.

The seven classes of service are:

[1] = COS 1; No restrictions

[2] = COS 2; Table A governs

[3] = COS 3; Table B governs

[4] = COS 4; Table A and B govern

[5] = COS 5; Restricts [0], [1], [*], [#] dialed as first-digit with a 7-digit maximum

[6] = COS 6; Intercom Only (no CO line access - results in a 911 block unless 911 Feature is active)

[7] = COS 7; Restricts [0], [1], [*], [#] dialed as first-digit with a 10-digit maximum

7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All stations are assigned a COS 1 for Day Mode.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

*Station Night Class of Service***Description**

Each station must be assigned a COS for Night Mode operation. The Night COS goes into affect when the system is manually or automatically placed into Night Mode. This prevents misuse of phones after hours. Class of Service (COS) determines the station's dialing privileges.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

5. Press the NIGHT COS flexible button (**Button #3**).

NIGHT COS	1-7
1	

- Enter a valid number on the dial pad (1-7) corresponding to one of seven possible Classes of Service to which a station may be assigned.

The seven Classes of Service are:

[1] = COS 1; No restrictions.

[2] = COS 2; Table A governs

[3] = COS 3; Table B governs

[4] = COS 4; Table A and B govern

[5] = COS 5; Restricts [0], [1], [*], [#] dialed as first-digit and places a 7-digit maximum.

[6] = COS 6; Intercom Only (no CO line access - results in a 911 block (unless 911 Feature is active)

[7] = COS 7; Restricts [0], [1], [*], [#] dialed as first-digit with a 10-digit maximum.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All stations are assigned a COS 1 for Night Mode.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

CO Flexible Port Assignment

Description

The Flexible Port Assignment feature provides a means to assign CO line numbers to any CO line port in the system. This provides complete flexibility in determining CO line numbers within the system as long as they stay within the system numbering plan. A CO line can be assigned any number between 001 and the maximum number of CO lines in your system.

The buttons on the digital telephone are defined as shown when entering the Flexible Port Assignment Feature programming area:

PORTS 1-4 * 1 Q	PORTS 5-8 * 2 W	PORTS 9-12 * 3 E	PORTS 13-16 * 4 R
PORTS 17-20 * 5 T	PORTS 21-24 * 6 Y	PORTS 25-28 * 7 U	* 8 I

All CO line numbers entered are stored in a temporary database area which is uploaded to the main database when the system is reset.

Table 2-3: Flexible Port Assignments

Button #	CO Line #	Port #
1	001-004	1-4
2	005-008	5-8
3	009-012	9-12
4	013-016	13-16
5	017-020	17-20
6	021-024	21-24
7	025-028	25-28

Programming Steps

If the CO Line numbers need to be relocated to different ports, press **FLASH** and dial **[42]**. The following message displays:

```
CO 001 002 003 004
```

Buttons 1 through 7 indicate Ports 1 through 28 in increments of 4 ports per button. When the relocation program is initially entered, Button #1 is lit to indicate that the user is programming the CO Line numbers.

To change the CO Line number assigned to any port:

1. Dial the position number on the display (01 through 04).
2. Then dial the CO Line number desired and press HOLD.

EXAMPLE 1 -- If [01003] is dialed and the HOLD button is pressed, the CO line number of the first entry on the display changes to [003]. Since [003] was shown as the third entry on the display, that entry is blank (###).

```
CO 003 002 ### 004 005
```

EXAMPLE 2 -- If Button #3 (CO Ports 9-12) is pressed, the following display appears:

```
CO 009 010 011 012
```

EXAMPLE 3 -- If [03012] is dialed, the CO line number of the third entry on the display changes to [012]. Since [012] was shown as the fourth entry on the display, that entry is blank (###).

```
CO 009 010 012 ###
```



When all the CO Line numbers desired have been programmed, a system reset is required to update the data. This is done so that the programming of CO Lines can be done while the system is in use.

CO Line - Access

Description

Through programming, telephones are allowed or denied access to particular outside lines or line groups. Refer to ["Line Group Access - Station" on page 2-69](#), ["Flexible Button" on page 2-149](#), and ["CO Line Group Programming" on page 2-70](#).

Operation

To access an outside line:

1. Press idle CO line button, POOL button,
-or-
Dial CO line group access code or LCR code: 9, 801-823 or 88+LLL (LLL = CO Line number).
2. Dial desired number for outside call.
3. Lift handset to converse or use speakerphone.



SINGLE LINE TELEPHONE

To access an outside line:

1. Lift the handset.
2. Dial access code: 9, 801-823, or 88+LLL (LLL = CO line number).
3. Dial telephone number.

Conditions

- » Access to trunk group must be programmed by installer/administrator.
- » The CO line must be idle.

CO Line Attributes

Initialize CO Line Attributes

Description

CO Line parameters may be initialized to set all data fields to their original, default values. The following data fields are returned to their default value upon initializing the CO Line Attributes.

Table 2-4: CO Line Attribute Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 40 PAGE A	1	DTMF/Dial Pulse Programming	DTMF
	2	CO/PBX Programming	CO
	3	Universal Night Answer (UNA)	Enabled
	4	DISA CO-to-CO (Per CO Line)	Enabled
	5	Privacy	Enabled
	6	Loop Supervision Programming	4=400 ms
	7	DISA Programming	None
	8	CO Line Group Programming	Group 01
	9	Class of Service (COS) Programming	COS 1
	10	CO Line Ringing Assignments	None
	11	CO Line Identification Display	Line XXX
	12	CO Direction	Incoming/Outgoing
	13	Display Ring Assignments	100A
	14	DID/TIE Signal	Wink
	15	911 Trunk	Disabled
FLASH 40 PAGE B	1	T-1 Signal Type	Loop
	2	T-1 Ringback	Enabled
	3	T-1 Dial Tone	Disabled
	4	Transmit Volume	5=0 db
	5	Preset Call Forward Destination	None
	6	Preset Forward Voice Mail ID	None
	7	Universal Day Answer (UDA)	Disabled
	8	Music-On-Hold (per CO Line)	Channel 1
	9	Ring Tone (per CO Line)	Tone # 00

Table 2-4: CO Line Attribute Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 40	1	Flash Timer Programming	10=1.0 sec
PAGE C	2	Ring Delay Timer	00=Disabled
	3	Wink Timer	140 ms
	4	Release Timer	020=200 ms
	5	Reseize Timer	200=200 ms
	6	Guard Timer	05=0.5 sec
	7	Seize Timer	010=0.1 sec
	8	Preset Forward Timer	10 sec
	9	DID Collect Timer	015=150 ms
	10	T-1 Collect Timer	015=150 ms

Programming Steps

1. Press the CO LINE ATTRIBUTES flexible button (**FLASH 80, Button #2**). The following message displays:

<p>INITIALIZE CO LINES PRESS HOLD</p>

2. Press the HOLD button. A confirmation tone sounds.

Print CO Line Attributes

Description

The Print CO Line Attributes command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

When printing the CO Line attributes the following data prints:

- All CO Line parameters within the specified range
- CO Line ringing assignments within the specified range
- Dial Pulse Ratio and Speed settings

Features and Operation

```

CO LINE ATTRIBUTES
-----
CO 001                                CO 002
-----                                -----
DIAL PULSE/DTMF - DTMF                DIAL PULSE/DTMF - DTMF
PBX/CO - CO                            PBX/CO - CO
UNIVERSAL NIGHT ANS - ENABLED          UNIVERSAL NIGHT ANS - ENABLED
DISA TRK TO TRK - ENABLED              DISA TRK TO TRK - ENABLED
PRIVACY - ENABLED                      PRIVACY - ENABLED
LOOP SUPERVISION - 4                   LOOP SUPERVISION - 4
DISA TYPE - NONE                       DISA TYPE - NONE
LINE GROUP - 1                         LINE GROUP - 1
CLASS OF SERVICE - 1                   CLASS OF SERVICE - 1
LINE IDENTIFICATION - LINE 001         LINE IDENTIFICATION - LINE 002
CO DIRECTION - INCOMING-OUTGOING       CO DIRECTION - INCOMING-OUTGOING

RING ASSIGNMENTS                       RING ASSIGNMENTS
S100A                                  S100A

T-1 SIGNAL TYPE - LOOP START           T-1 SIGNAL TYPE - LOOP START
T-1 RINGBACK - ENABLED                 T-1 RINGBACK - ENABLED
T-1 DIALTONE - DISABLED                T-1 DIALTONE - DISABLED
TRANSMIT VOLUME - 0DB                  TRANSMIT VOLUME - 0DB
PRESET FORWARD DEST - #####            PRESET FORWARD DEST - #####
PRESET FWD VMID - NONE                  PRESET FWD VMID - NONE
UNIVERSAL DAY ANSWER - DISABLED        UNIVERSAL DAY ANSWER - DISABLED
MOH CHANNEL - 1                        MOH CHANNEL - 1
RING TONE - 0                          RING TONE - 0

DID/TIE SIGNALING - WINK                DID/TIE SIGNALING - WINK

911 TRUNK - DISABLED                   911 TRUNK - DISABLED
BRIB EKTS - DISABLED                   BRIB EKTS - DISABLED
FLASH TIMER - 10                       FLASH TIMER - 10
RING DELAY TIMER - 0                   RING DELAY TIMER - 0
WINK TIMER - 140                       WINK TIMER - 140
RELEASE TIMER - 20                     RELEASE TIMER - 20
RESEIZE TIMER - 200                    RESEIZE TIMER - 200
GUARD TIMER - 5                        GUARD TIMER - 5
SEIZE TIMER - 10                       SEIZE TIMER - 10
PRESET FWD TIMER - 10                  PRESET FWD TIMER - 10

... and so on through all CO lines

```

Figure 2-3: CO Line Attributes Printout

Programming Steps

1. Press the CO LINE ATTRIBUTES flexible button (**FLASH 85, Button #2**).

PRINT CO LINES
 PRESS HOLD

2. To print data for:
 - ALL CO Lines, press the HOLD button.
 - A specified CO Line Range, enter 6 digits (3 digits for the first line and 3 digits for the last line in the range):
 - One CO Line, enter that line twice: [001001]
3. Then press the HOLD button. The following message displays and the CO Line data prints:

PRINTING CO LINES

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

CO Line DTMF Sending

Each CO interface circuit for outside lines can be individually programmed to send DTMF (tone) or dial pulse signals.

DTMF / Dial Pulse Programming

Description

Each individual outside line can be programmed to be DTMF (tone) or dial pulse.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
 SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

Features and Operation

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

- Press the DTMF/DIAL PULSE flexible button (**FLASH 40, Page A, Button #1**).
- Enter a 0 or 1 that corresponds with the following entries:
 [0] = Dial Pulse
 [1] = DTMF

PULSE / DTMF DTMF	0-1
----------------------	-----

- Press HOLD to save the entry. A confirmation tone sounds.
 DEFAULT ... All lines are set for DTMF.

*DTMF On/Off Time Operation***Description**

The DTMF On/Off Time feature lets the installer select the DTMF On/Off Time on a system-wide basis. This lets the installer customize the system for certain applications that require more than the standard DTMF Time of 100ms on and 100ms off.

Programming Steps

- Press the DTMF TIME OPERATION flexible button (**FLASH 02, Button #6**). The following message displays:

DTMF ON/OFF TIME 1	1-9
-----------------------	-----

- Enter a valid number (1-9) on the dial pad for the DTMF On and Off Times (100-900 ms).
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... DTMF Time Operation is set for 100 ms On and 100 ms Off.

CO Line Group

Description

Outside lines can be placed in one of twenty-four groups if the customer's business requires such grouping. Stations are then individually assigned access to these groups and given the ability to dial on particular lines.

Line Group Access - Station

Description

A station can access any combination of outside line groups, or a station may not be allowed access to outside lines. CO line groups are used primarily by single line telephones or for flexible buttons assigned as pooled group buttons on a Key Telephone.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

5. Press the CO LINE GROUP ACCESS flexible button (**Button #8**). The following message displays:

LINE GROUP ACCESS 01-23 1

6. To add a Line Group, enter a valid number (00, or 01–23) to designate the outside line groups that the station can access, press 1, and then press HOLD to save the entry. A confirmation tone sounds and the display updates.



*00+1+HOLD = No Access (911 calls are blocked unless 911 Feature is active).
 01+1+HOLD = Access to Group 1 by dialing Code 9 or 801 (Code 800 if 911 Feature is active).
 Users access Line Groups 2-23 by dialing 802-823, respectively.*

7. To delete a Line Group, enter a valid number (00, or 01–23), press 0, and then press HOLD. A confirmation tone sounds and the display updates.

DEFAULT ... Stations are allowed access to Group 1.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

CO Line Group Programming**Description**

Twenty four line groups are available for CO line assignment. Groups should be assigned according to type (local, FX, WATS, etc.). All unassigned CO lines should be programmed into a different group so they are not accessed by Line Queuing, Pooled Group access (Pool Buttons), Speed Dial, or LCR features.

Any Line Group can be used for programming a line(s) as private; for private lines, assign Line Group access to only one station in Flash 50/51, Page B, Button #8. Ordinarily, use Line Group 0 as a private line. Also, all unused CO Lines should be placed in Line Group 0.

CO Lines assigned to a Line Group 0 can only be accessed by stations with a direct CO appearance (button) on their phone.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES SELECT A CO LINE RANGE
--

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the CO LINE GROUP flexible button (**Button #8**).
5. Enter a valid number on the dial pad (0-23) which corresponds to Groups 0-23.

LINE GROUP	0-23
1	

6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... All lines are placed in Line Group 1.

CO Line Group Queuing

Description

The CO Line Group Queuing feature allows trunk group queuing to be turned on (enabled) or turned off (disabled) per group. This feature is used only in conjunction with LCR.

GROUP 0 * 1 Q	GROUP 1 * 2 W	GROUP 2 * 3 E	GROUP 3 * 4 R
GROUP 4 * 5 T	GROUP 5 * 6 Y	GROUP 6 * 7 U	GROUP 7 * 8 I
GROUP 8 * 9 O	GROUP 9 * 10 P	GROUP 10 * 11 A	GROUP 11 * 12 S
GROUP 12 * 13 D	GROUP 13 * 14 F	GROUP 14 * 15 G	GROUP 15 * 16 H
GROUP 16 * 17 J	GROUP 17 * 18 K	GROUP 18 * 19 L	GROUP 19 * 20 ;
GROUP 20 * 21 Z	GROUP 21 * 22 X	GROUP 22 * 23 C	GROUP 23 * 24 V

Programming Steps

1. Press **FLASH** and dial **[39]**. The following message displays:

CO LINE GROUP QUEUING
 ENTER BUTTON NUMBER

2. Press button 1-24 to select the desired CO Group to be programmed. The following message displays:

GROUP 1 0-1
 ENABLED

3. Dial a 0 or 1 to enable/disable this feature.
 [0] = Disabled
 [1] = Enabled
4. Press HOLD to save the entry. A confirmation tone sounds.

CO Line - Identification

Description

The CO Line Identification feature allows entering a name into the database for each individual line (trunk) connected to the system. The name may be entered in any combination up to 12-characters in length (this represents 24 digits entered). When the CO line identification field is programmed, display telephones receive the identification field in place of the default field (LINE XXX).

SMDR always print the line number in place of the programmed name. A programmable data field is available for each line in the system.

CO Line Identification Display

Description

The CO Line Identification Display feature allows the entry of a name for each line (trunk) connected to the system. Once entered into the database, LCD phones, including the Attendant stations, receive the programmed line name in place of the default LINE XXX message. This applies to all line call processing conditions where the current LINE XXX message displays. SMDR continues to print out the line number in place of the programmed name. If the line name was not programmed, the current LINE XXX display is the default. A programmable data field is available for each line in the system. Line names may be assigned using the range programming.

A message similar to the following display is used for all CO Line displays when a name is programmed for a CO Line.

```

LINE RINGING
nnnnnnnnnnnn      HH:MM am

```



Entries can be made using a keyboard by following the same outlined procedures using [Figure D-1: Data Terminal Program Codes Cross Reference](#).

Programming Steps

Each CO line can be programmed to have a name associated to it in database programming.

1. Press **FLASH** and dial **[40]**. The following message displays:

```

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

```

Features and Operation

- Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

- Press the CO LINE IDENTIFICATION flexible button (**Button #11**). The following message displays:

LINE IDENTIFICATION
LINE 001

- Enter the name by using keys on the dial pad as follows. Valid alphanumeric characters are: [A-Z], [0-9], [*], [#], [-], [spaces] and other ASCII characters as listed in [Figure 2-4](#). Any combination up to 12 characters may be entered (this represents 24 digits entered).

Dial Pad Keys			Other Codes			
1	A-21 B-22 C-23	D-31 E-32 F-33	1 = 1#	8 = 8#	" = 01	* = *#
G-41 H-42 I-43	J-51 K-52 L-53	M-61 N-62 O-63	2 = 2#	9 = 9#	, = 02	(= #1
P-71 R-72 S-73 Q-74	T-81 U-82 V-83	W-91 X-92 Y-93 Z-94	3 = 3#	0 = 0#	? = 03) = #2
*	OPER 0	#	4 = 4#	Space = 11	/ = 04	+ = #3
			5 = 5#	: = 12	! = *1	= = #4
			6 = 6#	- = 13	\$ = *2	# = ##
			7 = 7#	' = 14	& = *4	. = 24

Figure 2-4: Dial Pad Keys

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.



If an error is made while entering digits, press HOLD to save the erroneous entry. Key in digits over the old name; if excess characters remain, use the digits [11] to transpose spaces over the undesired characters.

CO Line - Incoming Ringing Assignment

Description

Each CO line may be programmed (in database admin) so that incoming ringing on the specified CO line(s) may be assigned initial ringing to one of the following destinations:

- One or more stations (Keyset or SLT)
- A UCD, Voice Mail, or Hunt Group
- Off-Net (via Speed Dial)

The ring-in follows Day Ring assignments unless Night Service mode or Special Ring mode is active, in which case all incoming CO calls follow Night Ring or Special Ring assignments.

When ringing is assigned to a keyset, a direct line appearance or an idle LOOP button must be available to receive the call. Station call forwarding of the initial ringing CO call is possible and can be directed to other keysets with an available LOOP button or direct appearance.

- If the initial ringing CO call cannot ring at the destination assigned, the call rings at the first Attendant station.
- If all ringing assignments are deleted, calls continue to ring at Station 100.

CO Line Ringing Assignments

Description

Each CO Line may be assigned to ring any station in the system; UCD, Voice Mail or Hunt Group, or Off-Net (via speed dial). CO Line ringing is programmed on a per CO Line destination basis. Each destination may be designated to ring during the day, during the night, during both day and night, or on a Special Ring basis. Stations that are assigned for initial ring-in **must have** a LOOP button(s) to answer calls if a direct CO appearance is unavailable.

An incoming CO line may be programmed to any number of stations but it cannot be programmed to ring a mixture of stations and groups in the same time period. Incoming calls directed Off-Net are connected to an outgoing system speed bin. CO lines assigned to ring multiple stations do not follow any station's forwarding.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

Features and Operation

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

- Press the RING ASSIGNMENT flexible button (**Button #10**). The display shows the following information:

RING ASSIGNMENTS
ENTER DDDR



The actual LCD displays a 3-digit destination field (DDD), but both a 3- or 4-digit entry is possible.

- Enter a valid Destination (DDD) or (DDDD) and Ring type (R) followed by the HOLD button. A confirmation tone sounds and the display updates.

Table 2-5: CO Line Ringing Assignments

Valid 3- and 4-Digit Destinations (DDD) and (DDDD)	Valid Ring Types (R)
System Speed Bins [9020-9099], for Off-Net Ringing	[0] = No Ring; unassigned; or to delete a destination
Flexible Extension Numbers*	[1] = Day Ring [D]
Flexible Numbers for Voice Mail Groups 1-8*	[2] = Night Ring [N]
Flexible Numbers for Hunt Groups 1-8*	[3] = Day/Night Ring [DN]
Flexible Numbers for Direct Ringing to Modem*	[4] = Special Only [S]
Flexible Numbers for UCD Groups 1-8*	[5] = Day/Special [DS]
	[6] = Night/Special [NS]
	[7] = All Modes [Day/Night/Special [A]

* Internal flexible numbers range = 100-8999

To add multiple stations:

Enter: DDDDR HOLD DDDDR HOLD DDDDR HOLD...etc.
(Example: 10073 HOLD, 10083 HOLD, 10093 HOLD)

To delete a single station:

Enter: DDDD0 HOLD
(Example: 10080 HOLD)

To delete multiple stations:

Enter: DDDD0 HOLD DDDD0 HOLD...etc.

(Example: 10080 HOLD, 10090 HOLD)

DEFAULT ... All CO lines ring at the Attendant, Station 100 during Day and Night Modes.

Incoming CO Line Ringing - Setting Flash Rate

Description

The Incoming CO Line Ringing flash rate is the rate at which an Incoming CO line or Loop Button flashes. This flash rate can be programmed to 29 different options identified in the flash rate table, which enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the INC CO RING flexible button (**FLASH 07, Button #1**). The following message displays:

INC CO RING	00-28
RED 480 IPM FLUTTER	

2. Enter a valid number (00-28) on the dial pad that correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Incoming CO Ringing flash rate is set for RED 480 ipm Flutter (08).

Display Ring Assignments

Description

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

Features and Operation

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

- Press **Button #13** to display ring assignments. Assignments are displayed in sets of six, up to the number programmed. The following format displays the assignments.

XDDDDRR XDDDDRR XDDDDRR
XDDDDRR XDDDDRR XDDDDRR

XDDDD = Destination type ID letter followed by number to be dialed:

[F] plus Fixed Number, e.g., F102

[H] plus Hunt Group Number, e.g., H6700

[M] plus Modem Extension Number, e.g., M6099 (default = M499N)

[S] plus Station Number, e.g., S6002

[U] plus UCD Group/Agent Number, e.g., U6034

[V] plus Voice Mail Group Number, e.g., V6899

[B] plus Speed Bin Number, e.g., B9090

RR:

[0] = No Ring

[D] = Day Ring

[N] = Night Ring

[DN] = Day/Night Ring

[S] = Special Only

[DS] = Day/Special

[NS] = Night/Special

[A] = All Modes (Day/Night/Special)

- Press **Button #13** additional times to cycle to the next group of six ring assignments. Ring assignments are displayed in numerical order, from the lowest to the highest number.

Release Timer

Description

The Release Timer option allows the user to adjust the release timer on a per CO Line basis. The release timer is used on ground start type trunks.

This timer is a lead filter timer. The CO must remove ground from the tip lead for longer than this timer in order for the system to recognize it.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

```
CO LINE ATTRIBUTES
SELECT A CO LINE RANGE
```

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press Button #21 to select Page C. The display updates. The following message displays to indicate current programming of that line or group of lines:

```
XXX - XXX PAGE C
ENTER BUTTON NUMBER
```

XXX-XXX = CO Line Range

4. Press the RELEASE TIMER Button (**Button #4**) in the flexible button field. The following message displays:

```
RELEASE TIMER      000-255
020
```

5. Enter a valid number on the dial pad which corresponds to 000-255 ms.
6. Press HOLD button to save entry. A confirmation tone sounds and the display updates.

DEFAULT ... Release Timer is set for 200 ms.

Reseize Timer

Description

The Reseize Timer option lets the user adjust the Reseize Timer on a per CO Line basis. The Reseize Timer can be used on any trunk type. This timer sets the time period that a trunk is held disconnected after receiving a disconnect before being reseized when a device is queued for a member of the trunk group.

Programming Steps

1. Press the RESEIZE TIMER Button (**FLASH 40, Page C, Button #5**) in the flexible button field. The following message displays:

RESEIZE TIMER	000-255
200	

2. Enter a valid number on the dial pad that corresponds to 000–255 (0 ms to 2.55 seconds).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Reseize Timer is set for two seconds.

Guard Timer

Description

The outgoing Guard Timer is used to set the length of time a CO is held busy to outgoing seizure after a valid release is detected. If a user attempts to access a CO line before the Guard Timer expires, their LED illuminates to indicate that the line is seized, however the CO line is not actually seized until the timer expires. The user gets a busy tone, and may receive a delayed CO dial tone if the timer is set to a large value.

Programming Steps

1. Press the GUARD TIMER button (**FLASH 40, Page C, Button #6**) in the flexible button field. The following message displays:

GUARD TIMER	1-60
05	

2. Enter a valid number on the dial pad which corresponds to 1–60 (100 ms to 6 seconds).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ...Guard Timer is set for 0.5 seconds.

Seize Timer

Description

The Seize Timer option allows the user to adjust the Seize Timer on a per CO Line basis. The Seize Timer is used on ground start type trunks. This Seize Timer is a lead filter timer. The CO must provide ground at the tip lead for longer than this timer in order for the system to recognize it.

Programming Steps

1. Press the SEIZE TIMER Button (**FLASH 40, Page C, Button #7**) in the flexible button field. The following message displays:

SEIZE TIMER	000-255
010	

2. Enter a valid number on the dial pad which corresponds to 000–255 (100 ms to 2.55 seconds).
3. Press the HOLD button to save the entry. A confirmation tone heard and the display updates.

DEFAULT ... Seize Timer is set for 0.1 seconds.

Transmit Volume

Description

Up to ten volume levels are available for each CO Line in the system.



Do NOT adjust this option without consulting Technical Support first. The default settings were set to apply to most applications. Have the dB readings on all CO lines available when calling Technical Support.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible Button #19 (Page A) is lit.

4. Press the Page B flexible button (Button #20). The following message displays:

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

5. Press the TRANSMIT VOLUME flexible button (**Button #4**). The following message displays:

TRANSMIT VOLUME 0-9 0 DB
--

6. Enter a valid number (0-9) for the desired volume level.

[0] -15 dB	[5] 0 dB
[1] -12 dB	[6] +3 dB
[2] -9 dB	[7] +6 dB
[3] -6 dB	[8] +7.5 dB
[4] -3 dB	[9] +9.0 dB

7. When the desired level is selected, press HOLD to complete the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All CO lines are programmed for level 5 (0 dB).

CO Line Loop and Pool Buttons

Description

A station not having a direct appearance for a CO line receives incoming CO calls and transferred CO calls under the LOOP button. Only one call at a time can be connected to a keyset on the LOOP button.

- If more than one LOOP button is on a key set, the LOOP buttons may be conferenced together.
- If all programmed LOOP buttons on a keyset are busy or have a CO call on hold, the party attempting to transfer a CO line to that station receives a busy tone and cannot transfer the call to that station.
- If a transfer is attempted, the CO line recalls the initiator immediately.

CO lines are also presented to a Loop when dialing out using LCR or when using speed dial to dial out and the line chosen does not appear on the key station.

The Pool Group feature is used primarily to access CO lines that do not appear on a station, so that outgoing calls may be made. Pooled group keys are associated to CO line groups and may be programmed for use on any of the flexible buttons. CO lines are accessed in descending order of priority starting with the highest numbered available (not busy) CO line in a CO line group. Stations may have as many POOL buttons as there are CO line groups. Multiple POOL buttons for the same group are also allowed.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press the CO LOOP POOL flexible button (**Button #17**). The following message displays:

CO LOOP POOL FLEX 0-1
DISABLED

5. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disable
[1] = Enable
6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... CO Loop Pool is disabled.

Operation

To make a Loop button:

1. Press the SPEED button twice.
2. Press the desired flexible button.
3. Dial [89].
4. Press HOLD.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

In-Use Hold (I-Hold) Flash Rate

Description

The In Use-Hold (I-Hold) flash rate is the rate at which a CO Line button or Loop button flashes when a call is placed on In-Use Hold (I-Hold). This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the IN-USE HOLD flexible button (**FLASH 07, Button #14**). The following message displays:

IN-USE HOLD	00-28
GREEN 60 IPM FLASH	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... In-Use Hold (I-Hold) flash rate is set for a Green 60 ipm Flash (17).

CO Line - Loop Supervision

Description

The **STS** can be programmed to monitor CO lines while on-hold or connected to RAN devices or Voice Mail systems, or in Trunk-to-Trunk connections for disconnect signal provided by the Telco. After a disconnect signal is detected, the **STS** releases the CO lines and automatically place them back in service.

Loop Supervision Programming

Description

Loop Supervision is used primarily with DISA, Voice Mail / Auto Attendant and with unsupervised conference applications. It lets the system detect when loop current is broken and an outside line is no longer being used. To determine timer value for loop supervision, consult your local central office for type and duration of loop supervision signal.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
 SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
 ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the LOOP SUPV flexible button (**Button #6**).
5. Enter a valid number (1-9) on the dial pad which corresponds to 100-900 ms. (0 = disabled).

LOOP SUPERVISION 0-9
 4

6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Loop Supervision is set for 400 ms for all CO Lines.

SLT Loop Supervision Programming

Description

Loop Supervision is used primarily with DISA, Voice Mail / Auto Attendant and with unsupervised conference applications. It lets the system detect when loop current is broken and an outside line is no longer being used. Loop supervision can be disabled on SLT lines so that voice mail ports will drop calls when the outside party hangs up.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-419*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press button #21. The display updates to reflect current programming for Page C.

Flash 50 - Fixed Numbers

XXX - XXX PAGE C ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE C ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

5. Press the SLT SUPERVISION button (**Button #7**). The following message displays:

SLT SUPERVISION ENABLED	0-1
----------------------------	-----

6. Dial a valid number [0] to disable or [1] to enable SLT Loop Supervision.
 7. Press HOLD to save the entry.

DEFAULT ... The SLT Loop Supervision setting is [1] (enabled).

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

CO Line - Queue

Description

When all outside lines in a group are busy, stations can be placed in queue awaiting a line in the same group to become available. If a station doesn't answer the queue signal within 15 seconds, that station is dropped from the queue. A station can queue only one line at a time.

*Line Queuing***Description**

Stations can be allowed or denied the ability to manually queue for a busy group of CO lines. Even when disabled, stations have automatic LCR queuing privileges.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

4. Press the QUEUING flexible button (**Button #7**). The following message displays:

LINE QUEUING 0-1
ENABLED

5. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... CO Line Queuing is enabled at all stations.

Operation

If you wish to be placed on a list waiting for an outside line to become available:

1. Press desired busy OUTSIDE LINE button,
-or-
Press the POOL button. (Busy tone sounds.)
2. Press the preprogrammed CO LINE QUEUE button (621).
3. Replace handset or press ON/OFF button.

To answer a queue:

If you hear ringing and an outside line of the line group or a LOOP button you queued onto is rapidly flashing:

1. Lift handset or press ON/OFF button.
2. Press flashing OUTSIDE LINE button or LOOP button to answer.



SINGLE LINE TELEPHONE

1. Dial outside line access code. Receive busy tone.
2. Briefly depress and release the hookswitch.
3. Dial [621]. Confirmation tone sounds.

Conditions

- » A LOOP button or direct appearance of the queued line is required.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

CO Line Queue Button Flash Rate

Description

The Line Queue Button flash rate is the rate at which the Line Queue button flashes after queueing onto a busy line. This button flashes when the busy line becomes available. This flash rate can be programmed to 29 different options identified in the flash rate table which enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the LINE QUEUE BTN flexible button (**FLASH 07, Button #17**).

LINE QUEUE BTN	00-28
RED 480 IPM FLUTTER	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Line Queue Button flash rate is set for a Red 480 ipm Flutter (08).

CO Line - Ringing Options

Description

When a CO call rings at a busy station, the call rings at the station using a muted ring signal. This option allows a user to receive a reminder ring at their busy station, instead of muted ringing. A reminder ring timer is also available to provide the reminder ring every time the timer expires, as long as the incoming CO line remains connected.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the RINGING OPTIONS flexible button (**Button #14**). The following message displays:

CO RING OPTIONS	0-1
MUTED RING	

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Reminder Ring
[1] = Muted Ring
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Muted Ringing is allowed at all stations.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Transfer CO Ringing

Description

The Transfer CO Ringing flash rate is the rate at which a CO Line button or Loop button flashes when a call is transferred to you. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

- Press the TRANSFER CO RING flexible button (**FLASH 07, Button #9**). The following message displays:

TRANSFER CO RING	00-28
RED 120 IPM FLASH	

- Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
- Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Transfer CO Ringing flash rate is set for a Red 120 ipm Flash (10).

Recall CO Ringing

Description

The Recall CO Ringing flash rate is the rate at which a CO Line button or Loop button flashes when a call recalls to your station. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the RECALL CO RING flexible button (**FLASH 07, Button #10**). The following message displays:

RECALL CO RING	00-28
RED 480 IPM FLUTTER	

2. Enter a valid number on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Recall CO Ringing flash rate is set for a Red 480 ipm Flutter (08).

Queued CO Ringing Flash Rate

Description

The Queued CO Ringing flash rate is the rate at which a CO Line button or Loop button flashes when a queued line becomes available. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the QUEUED CO RING flexible button (**FLASH 07, Button #11**). The following message displays:

QUEUED CO RING	00-28
GREEN 480 IPM FLUTTER	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Queued CO Ringing flash rate is set for a Green 480 ipm Flutter (22).

Reminder Ring Timer

Description

When a CO line rings at a busy station, the call rings at the station using muted ringing. The CO Line Ringing Option feature enables a user to receive a reminder ring instead of muted ring. This timer provides a reminder ring every time the timer expires, as long as the incoming CO line remains connected.

If the user continues their present conversation and the CO party does not hang up, the Reminder Ring timer expires and the user receives another ring burst. When the key set user ends the existing call, ringing for the CO call reverts to normal ringing.

The Reminder Ring Timer setting is variable from 00-99 seconds in 1-second increments.

Programming Steps

1. Press the REMINDER RING flexible button (**FLASH 01, Button #18**). The following message displays:

REMINDER RING	00-99
00	

2. Enter a valid number on the dial pad that corresponds to 00-99 seconds in 1-second increments. A value of 00 disables the timer, therefore the user only receives one ring burst at the beginning of the call.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Reminder Ring Timer is set to 00 second.

CO Direction

Description

CO Lines can be programmed on a per CO Line basis for the type of CO Line desired:

Incoming

- Incoming restricts the CO Line for incoming calls only.
- Users can place call on hold, park the call, and other stations can pick up the call.

Outgoing

- Outgoing restricts the CO Line to outgoing calls only.
- Users can place call on hold, park the call, and other stations can pick up the call.

Incoming and Outgoing

- Incoming and outgoing type allow calls to be received or dialed out.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES SELECT A CO LINE RANGE
--

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the CO DIRECTION flexible button. (**Button #12**). The following message displays:

CO DIRECTION INCOMING - OUTGOING	0-3
-------------------------------------	-----

5. Enter a valid number (0-3) on the dial pad which corresponds to the desired CO type:
 - [0] = Out-of-Service (OOS)
 - [1] = Incoming Only
 - [2] = Outgoing Only
 - [3] = Both Incoming and Outgoing
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All CO Lines default to both incoming and outgoing type.

CO Port Parameters and Feature Codes

Initialize CO Port Assignments / Flexible Numbering Assignments

Description

CO Port Parameters and Flexible Numbering Assignments can be initialized to default values. Refer to *"FLASH 52" on page D-16*, within *Table D-1*, for default values of Flexible Numbering Assignments.

Programming Steps

1. Press the CO PORTS/COD flexible button (**FLASH 80, Button #4**).
2. The following message displays:

INITIALIZE CO PORTS/COD
 PRESS HOLD

3. Press the HOLD button. A confirmation tone sounds.

Print CO Port Parameters and Feature Codes

Description

The Print CO Port Parameters and Feature Codes command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

```

CO PORT NUMBERS
 001  002  003  004  005  006  007  008
 009  010  011  012  013  014  015  016
 017  018  019  020  021  022  023  024
 025  026  027  028

STATION PORT NUMBERS
FIXED  FLEX  NAME
 100   100  STATION 100
 101   101  STATION 101
  ::   ::   ::
 149   149  STATION 149
 430   430  CALL PARK GROUP 1
  ::   ::   ::
      (...actual printout includes all feature codes)
  
```

Figure 2-5: CO Port Attributes and Feature Codes Printout

Programming Steps

1. Press the CO PORTS/CODES flexible button (**FLASH 85, Button #4**). The following message displays:

```
PRINT CO PORTS/CODES
PRESS HOLD
```

2. To print the CO Port Parameters and Feature Codes, press the HOLD button. The following message displays:

```
PRINTING CO PORT
```

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

CO Ring Detect Timer

Description

The CO Ring Detect Timer controls the time necessary to detect an outside line ringing into the system. The duration of the ringing signal from the CO or the PBX is matched with ringing detection circuitry in the *STS*. The ring detect can range from 200 ms to 900 ms programmed in 100 ms increments. This timer helps prevent false ringing.

Programming Steps

1. Press the CO RING DETECT TIMER flexible button (**FLASH 01, Button #11**). The following message displays:

```
CO RING DETECT      2-9
3
```

2. Enter a valid number on the dial pad that corresponds to 2-9 (200 ms to 900 ms).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... CO Ring Detect Timer is set at 3 (300 ms).

Conference

Description

The two types of conferencing are the multi-party conference and the unsupervised conference.

Multi-party conference - can include up to eight parties. A maximum of five external parties can be conferenced.

Unsupervised Conference - the conference initiator can exit a conference with two outside parties and leave them in an unsupervised conference. The initiator can re-enter the conference at any time. The **STS** can automatically terminate the call when both parties hang up, when Loop Supervision is provided by the Telco and enabled in the database. A programmable conference timer disconnects the unsupervised conference if the initiator does not re-enter.

Conference Enable/Disable

Description

The Conference Enable/Disable feature allows administering of the system conference feature on a per station basis for the ability of a station to initiate a conference.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the CONFERENCE flexible button (**Button #3**). The following message displays:

CONFERENCE ENABLED	0-1
-----------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Conference is enabled.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Conference / DISA Timer**Description**

The Conference/DISA Timer determines the time an unsupervised conference can continue after the initiator of the conference has exited.

The Conference/DISA Timer setting is variable from 01-99 minutes. A 00 entry disables the timer and no automatic disconnect occurs.



The Conference Timer also allows the system administrator to control the time a DISA caller is allowed after establishing a Trunk-to-Trunk call. At the expiration of the Conference Timer, a tone is presented to both DISA parties, then one minute later the system automatically releases both trunks.

The Conference Timer does not affect or control a DISA-to-Station call.

Programming Steps

1. Press the CONFERENCE/DISA TIMER flexible button (**FLASH 01, Button #9**). The following message displays:

CONFERENCE TIMER	00-99
10	

2. Enter a valid number on the dial pad that corresponds to 01-99 minutes.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Conference/DISA Timer is set at 10 minutes.

Conference Combinations

Description

Only stations that have conference enabled can institute a conference.

- Add-On Conference -- Up to eight internal parties can engage in a conference, or seven internal parties with one external party.
- Multi-Line Conference -- One internal station can engage in a conference with up to five outside parties.

Capacities

The total number of conferences that can be conducted simultaneously system-wide depends upon several factors. The following table shows the system capacity for conferences using specific amounts of parties per conference. Multiple conference capacity configurations are possible. For example, you could have one 8-party conference and five 3-party conferences simultaneously.

Parties per Conference	Maximum Conferences
3 or 4	10
5	5
6	3
7 or 8	2



A maximum of eight parties can be included in a conference.

Operation

To establish a Conference:

1. Lift handset.
2. Select intercom station or dial desired outside party.
3. When called party answers, press the CONF button.
4. Add next conference party by selecting another outside line or intercom station or by using the Soft Key's ADD MEM option.

Features and Operation

5. If the next conference party is an outside line and a busy or wrong number is encountered, press one of the conference parties on hold. This drops the busy or wrong number party. Press the conference button again and repeat step 4.
6. When last party answers, press the CONF button twice. (All parties are connected.)

To exit a Conference (controller only) perform ONE of the following:

1 -- Press the ON/OFF button to ON, press MUTE, then replace the handset (to monitor a conference).

To exit a multi-line conference in progress:

2 -- Press the HOLD button to place outside parties on hold. The Hold Timer starts. If one of the two parties is internal, that party is dropped.

3 -- Either press CONF and hang up, press the ON/OFF button, or use the Soft Key's EXIT option to leave the other conference parties still connected in an unsupervised conference. The CONF button flashes and the timer starts. There is a warning tone before the other parties are dropped.

To re-enter a Conference:

When the controller re-enters the conference, the disconnect timer is reset.

- Lift handset to re-enter a monitored conference.
- To re-enter a conference placed on hold, repeat steps for establishing a conference.
- To re-enter an unsupervised conference, lift handset and press flashing CONF button or use the Soft Key's RE-ENTER option. The CONF button lights steady and a confirmation tone sounds.

To terminate a Conference, a conference initiator who is active in the conference must:

Replace handset or push ON/OFF button to OFF.

To terminate an Unsupervised Conference:

Press the flashing CONF button or use the Soft Key's END option while on-hook, all parties are dropped.

To terminate a party from a Conference (while in conference):

1. Press line button of party to drop.
2. Replace handset or press ON/OFF button.
3. Lift handset or press ON/OFF button.
4. Press flashing CONF button.



SINGLE LINE TELEPHONE

To set up a Conference with one external and one other internal station:

1. Make outside call.
2. Briefly depress and release the hookswitch to put the call on hold.
3. Dial number of internal station you wish to add.
4. When that station answers, briefly depress and release hookswitch again. All three parties will be connected.

To set up a Conference with Personal Park:

1. While connected to an outside line, depress the hookswitch momentarily. The intercom dial tone sounds.
2. Dial [438]. The first call is placed in personal park.
3. Dial desired number for second call.
4. Depress the hookswitch momentarily. The Intercom dial tone sounds.
5. Dial [664]. All three parties are conferenced.
6. Hang up to terminate the conference.

Cordless Key Telephone Unit Feature Button

Description

If a Cordless Key Telephone Unit (CKTU) is associated with the station, the FLEX Button on the CKTU may be assigned to function as any one of the 24 Flexible Buttons on the telephone. This programming area defines which Flexible Button on the telephone is applied to the CKTU FLEX Button. Not all features are available to be assigned to the CKTU FLEX button.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

Features and Operation

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

5. Press the CORDLESS KEY flexible button (**Button #17**) to assign the FLEX Buttons. The following message displays:

CORDLESS KEY BTN 00-30 XX

XX = Assigned FLEX Button (01-24 = Button 1-24)

00 = None

DEFAULT ... No button (00) is assigned to the FLEX.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Database Administration

Administration Access

Description

The Administration Access feature allows a station to access Database Administration. Each station can be enabled/disabled for system programming.



Station 100 always has programming access regardless of this setting.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the ADMIN ACCESS flexible button (**Button #18**). The following message displays:

ADMIN ACCESS DISABLED	0-1
--------------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disable
[1] = Enable
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... This feature is disabled.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

*Administration Password***Description**

The password used to enter customer database programming can be customized by the programmer. This lets the system administrator block unauthorized personnel from entering database admin.



Care should be taken when changing the programming password so authorized personnel are not locked out, which could prevent or delay them from making necessary programming changes.

Programming Steps

- Press the ADMIN PASSWORD flexible button (**FLASH 20, Button #2**). The following message displays:

ADMIN PASSWORD 3226

- Enter a valid number on the dial pad that corresponds with 0000-9999.
- Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Admin Password is set for 3226.

Operation

On the dial pad, press [*][*] plus dial the valid Admin Password. A confirmation tone sounds.

Database Printout (Dump)

Description

Through a system programming command, either portions of or a complete database dump can be printed using one of the RS-232C connectors located on the BKSU.

The Print System Database command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

Printing the entire database takes a while to print. The database is printed in the following order:

1. All System Parameters
2. All CO Line Programming
3. All CO Ports
4. All Station Attributes
5. All Station Ports
6. Exception Tables (Allow/Deny/Special)
7. System Speed Dial Numbers
8. ICLID Ringing Assignment Table
9. Directory Dialing Table
10. Hunt Group Parameters (Bins *9020-9099*)
11. LCR Tables
12. ICLID Parameters and Table(s)
13. UCD Group Parameters
14. Voice Mail Group Parameters
15. DID Translation Table
16. DID-TIE Timers
17. Verified Account Codes Table

Programming Steps

1. Press the ENTIRE SYSTEM flexible button (**FLASH 85, Button #8**). The following message displays:

PRINT DATABASE
PRESS HOLD

2. To print the entire database, press the HOLD button. The display updates to indicate what portion of the database is printing.
3. When the system finishes sending the database to the printer, a confirmation tone sounds.

Dial Pulse Sending

Description

Each CO interface circuit for outside lines can be programmed to send dial pulse or DTMF signals. Dialing speed and break/make ratios are programmable.

Dial Pulse Parameters

Description

The Dial Pulse option lets the installer adjust the dial pulse ratio and speed when using dial pulse (rotary) type signaling. By default, all lines are DTMF (tone) signaling. If pulse dialing is required, the individual outside line must be programmed for Dial Pulse (DP). When Dial Pulse is selected, this system-wide parameter must be set to determine the break/make ratio and the dial speed of the dial pulse signal.



This program code is only used when an outside (CO) line is programmed for Dial Pulse.

Programming Steps

1. Press the DIAL PULSE flexible button (**FLASH 41, Button #1**). The following message displays:

DIAL PULSE
60 / 40 10 PPS

2. Enter a valid number (0–3) which corresponds with the following entries:
 - [0] = 60/40 (RATIO), 10 pps (SPEED)
 - [1] = 66/33 (RATIO), 10 pps (SPEED)
 - [2] = 60/40 (RATIO), 20 pps (SPEED)
 - [3] = 66/33 (RATIO), 20 pps (SPEED)
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... 60/40 10 pps

Pulse Dial Inter-Digit Timer

Description

This governs the inter-digit time of the Pulse Dial Digits, rotary dial mode. The Pulse Dial Ring Timer setting is variable from 300-600 ms.

Programming Steps

1. Press the PULSE DIAL I/D TIMER flexible button (**FLASH 02, Button #5**). The following message displays:

INT DIGIT PULSE	300-600
300	

2. Enter a valid number on the dial pad that corresponds to 300-600 ms.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Pulse Dial Ring Timer is set for 300 ms.

Pulse-to-Tone Switchover

Description

When commanded, the system changes the signaling on an outside line from dial pulse to DTMF (tone), allowing the use of common carriers behind a dial pulse outside line. This can be done manually when dialing, or can be stored within a speed dial number.

Operation

To perform the change-over:

Dial [*] on the dial pad. The remaining digit(s) is sent using DTMF.

(The Pulse-To-Tone Switchover command may also be included in a speed dial bin.)

Direct Inward Dialing

Description

This feature allows the number and name field of the LCD display on a direct inward dialing (DID) call to be presented to the ICLID port. Calls are identified in the SMDR field as Answered (I) or Unanswered (U) followed by the DID number. At least one DTMF receiver must be installed on the system.

DID calls are treated as an incoming call and follow the same rules established for CO lines. DID information transferred from the network is captured and translated to direct a specific DID number to a specific station, Hunt group of stations, or Voice Mail group. The DID call appears at the destination station under an assigned LOOP or CO button.

When receiving a DID call, the destination station hears the CO line ringing and the assigned CO or LOOP button flashes at the incoming CO line flash rate. The destination station then presses the flashing CO or LOOP button, is connected to the incoming DID call, and CO line ringing stops and the LED for the CO or LOOP button lights steady.

Features and Operation

If the outside caller disconnects from a two-party conversation, the Central Office opens the loop and returns the line to idle state. The *STS* Digital System detects the disconnect signal, release the line, and provides a busy tone to the keyset/SLT (unless the SLT is a VM port), and disconnects from the DID line. If the extension called hangs up the phone, the central office detects disconnects, and returns the line to the idle state.

When entering DID Table programming, buttons on a digital phone are defined as shown:

ROUTE NUMBER * 1 Q	PHONE NUMBER * 2 W	NAME * 3 E	CLEAR ENTRY * 4 R
BACK SPACE * 5 T	* 6 Y	* 7 U	* 8 I
* 9 O	* 10 P	* 11 A	* 12 S
* 13 D	* 14 F	* 15 G	* 16 H
* 17 J	UP * 18 K	DOWN * 19 L	* 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V

By default, all entries in the DID Table (000-999) have phone numbers assigned. Refer to [Table 2-6: DID Translation / Route Default Table Entries](#) for additional information.

The DID feature provides one-way direct inward dialing access to specific stations on specific DID lines from the public telephone network, without going through an Attendant answering position. DID capabilities refer to incoming calls only.

The DID feature requires the DID Interface Board (DIDB) which provides four one-way DID circuits on the *STS*. The system can accept from two to seven digits from the Central Office (CO).

By default, all entries in the DID Table (000-999) have phone numbers assigned. The following table shows the default configuration for the DID Table entries and the ICLID Ringing assignments.

Table 2-6: DID Translation / Route Default Table Entries

DID Translation Table (Flash 44)		Route Table (Flash 43)	
DID Table Entry	Default Route(s)	Route Table Entry	Default Destination
000-049	100-149	100-149	100A-149A
050-098	1	1	None
099	199	199	499A
100-149	100-149	100-149	100A-149A
150-198	1	1	None
199	199	199	499A
200-249	100-149	100-149	100A-149A
250-298	1	1	None
299	199	199	499A
300-349	100-149	100-149	100A-149A
350-398	1	1	None
399	199	199	499A
400-449	100-149	100-149	100A-149A
450-498	1	1	None
499	199	199	499A
500-549	100-149	100-149	100A-149A
550-598	1	1	None
599	199	199	499A
600-649	100-149	100-149	100A-149A
650-698	1	1	None
699	199	199	499A
700-749	100-149	100-149	100A-149A
750-798	1	1	None
799	199	199	499A
800-849	100-149	100-149	100A-149A
850-898	1	1	None
899	199	199	499A
900-949	100-149	100-149	100A-149A
950-998	1	1	None
999	199	199	499A

Route 000 in the DID Ringing Assignment Table is used as the intercept route. Calls to numbers not contained in the DID table follow Route 000. If Route 000 is defaulted to None, the call follows Route 001.

Route 001 is used as the Busy DID Route. DO NOT program any entries in this Route if you intend to provide a busy tone to callers dialing a busy DID/DNIS number.

Programming Steps

Press **FLASH** and dial [**44**]. The following message displays:

DID RRR XXXXXXXX n.....n

[RRR] = Route Number (000-251)

[###] = DID Number (Directory # from Central Office)

[n...n] = Name Assigned to DID Number

The top left button (ROUTE) in the flexible button field is lit for programming the Route number. The LEDs for the UP Button (**Button #18**), the DOWN Button (**Button #19**) is also lit.

To change to a different DID Route Number:

1. Press either the UP Button (**Button #18**),
-or-
Press the DOWN Button (**Button #19**).
2. Enter a valid Route Number (000-251) to be associated with the DID Number.
This Route Number is the same Route Number in the ICLID Ringing Assignments Table (**FLASH 43**) and determines the destination of the DID number associated with this Route Number. The display shows the route number as it is entered.
3. Press the HOLD button to save the entry. A confirmation tone sounds.

DID Phone Number

Programming Steps

1. Press the PHONE NUMBER flexible button (**Button #2**) to program the DID Number.
2. Enter the DID Number to be associated with a valid Route Number (000–251). Up to 7 digits can be entered.
By default, only the last three digits are used for routing which is determined in Flash 45.
3. Use the BACK SPACE flexible button (**Button #5**) to erase the current number or to correct for errors.
4. Press HOLD to save the entry. A confirmation tone sounds.

If the DID number is already in the DID Translation Table, the Route Number associated with the DID number displays.



By default, the DID Table is filled with numbers. If error tone is received when the HOLD button is pressed, the DID Table is full and an entry needs to be deleted to make room for this new phone number.

Name Assigned to DID Number

Programming Steps

1. Press the NAME flexible button (**Button #3**) to enter the desired name for the DID trunk. Maximum length is 8 characters.
2. Press the HOLD button to update the database. A confirmation tone sounds.
3. Use the BACK SPACE flexible button (**Button #5**) to erase the current letter to correct for errors.

DID Name and Number Codes

The display shows the DID name or number as it is entered.

Other Codes			
1 = 1#	8 = 8#	" = 01	* = *#
2 = 2#	9 = 9#	, = 02	(= #1
3 = 3#	0 = 0#	? = 03) = #2
4 = 4#	Space = 11	/ = 04	+ = #3
5 = 5#	: = 12	! = *1	== #4
6 = 6#	- = 13	\$ = *2	# = ##
7 = 7#	' = 14	& = *4	. = 24

Figure 2-6: DID Name/Number Codes

Erasing a DID Table Entry

Programming Steps

To clear entries from DID Table:

1. Press the CLEAR ENTRY Button (**Button #4**) to clear an entire Phone Number, Name and Route from the DID Table.
2. Press the HOLD button to save the entry. A confirmation tone sounds.

To change to a different DID Route:

Press the UP button (**Button #18**) to advance to the DID Route Number,

-or-

Press the DOWN button (**Button #19**) to return to a previous DID Route Number.

DID/ICLID Ringing Assignments

Description

DID/ICLID Ringing Assignments let you change the ring assignment based on the incoming number received. This feature permits you to select from 252 ringing routes for each entry in the name to number translation table. For example, this feature could be used to reroute selected customers to a specific UCD group and bypass the general Attendant.

RINGING ASSIGNMENTS * 1 Q	* 2 W	* 3 E	* 4 R
* 5 T	* 6 Y	* 7 U	* 8 I
* 9 O	* 10 P	* 11 A	* 12 S
* 13 D	* 14 F	* 15 G	* 16 H
DISPLAY RINGING ASSIGNMENTS * 17 J	NEXT ROUTE NUMBER * 18 K	PREVIOUS ROUTE NUMBER * 19 L	SELECT ROUTE NUMBER * 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V

Programming Steps

1. Press **FLASH** and dial **[43]**. The following message displays:

```
ROUTE 000 DDDDR
```

000 = Route Number (000–251)

DDDD = 3- or 4-Digit Ringing Destination Number

R = Ringing Type

2. Press the RING ASSIGNMENT flexible button (**Button #1**). LED #1 is lit indicating Route 000 is ready for programming.

3. Enter a valid Destination (DDD) or (DDDD) and Ring type (R) followed by HOLD. A confirmation tone sounds and the display updates.

Table 2-7: DID/ICLID Ringing Assignments

Valid 3- and 4-Digit Destinations (DDD) and (DDDD)	Valid Ring Types (R)
System Speed Bins [9020-9099], for Off-Net Ringing	[0] = No Ring; unassigned; or to delete a station
Flexible Extension Numbers*	[1] = Day Ring [D]
Flexible Numbers for Voice Mail Groups 1-8*	[2] = Night Ring [N]
Flexible Numbers for Hunt Groups 1-8*	[3] = Day/Night Ring [DN]
Flexible Numbers for Direct Ringing to Modem*	[4] = Special Only [S]
Flexible Numbers for UCD Groups 1-8*	[5] = Day/Special [DS]
Local Number/Name Translation Table Number [600-799]	[6] = Night/Special [NS]
	[7] = All Modes [Day/Night/Special [A]

* Internal flexible numbers range = 100-8999

View DID/ICLID Ringing Assignments

Description

Keysets designated to ring on an incoming CO line but not designated to ring on the DID/ICLID ring, may receive a ring cycle before the call is moved. The same ringing restrictions applied to CO line ringing are applied to DID/ICLID ringing.

Programming Steps

1. Press **Button #17** to display ring assignments. Assignments are displayed in sets of five, up to the number programmed. Press **Button #17** additional times to cycle to the next group of five ring assignments.

ROUTE 000 XDDDDRR XDDDDRR XDDDDRR XDDDDRR XDDDDRR
--

XDDDD = Destination type ID letter followed by number to be dialed:

[F] plus Fixed Number, e.g., F102

[H] plus Hunt Group Number, e.g., H6700

[M] plus Modem Extension Number, e.g., M6099 (default = M499N)

[S] plus Station Number, e.g., S6002

[U] plus UCD Group/Agent Number, e.g., U6034

[V] plus Voice Mail Group Number, e.g., V6899

[B] plus Speed Bin Number, e.g., B9090

RR:

[0] = No Ring

[D] = Day Ring

[N] = Night Ring

[DN] = Day/Night Ring

[S] = Special Only

[DS] = Day/Special

[NS] = Night/Special

[A] = All Modes (Day/Night/Special)

Multiple station assignments are accomplished by assigning another destination with ring status, DDDDR, and pressing HOLD. This can be done for up to the maximum number of stations on the system.

To advance to the next route:

Press the NEXT flexible button (**Button #18**) to advance to the next route number.

To return to a previous route:

Press the PREVIOUS flexible button (**Button #19**) to return to the previous route number.

To select a different route:

1. Press the SELECT ROUTE NUMBER flexible button (**Button #20**) to select the desired route number.
2. Enter a valid route number ([000–251] for *STS* systems).

3. Press HOLD to change to the different route entered. A confirmation tone sounds.

DEFAULT ... No destinations or ringing assignments exist.

DID Digits

Description

The DID Digits option allows the installer to adjust the amount of DID Digits received from the CO. This amount is used by all DID trunks in the system.

The DID Translation table can be programmed to determine the number of digits used for the routing of a DID call.



At least one DTMF receiver MUST be installed in the system

Programming Steps

To change the number of DID Digits:

1. Press the DID DIGITS flexible button (**FLASH 41, Button #3**). The following message is shown on the display phone:

DID DIGITS	3-7
3	

2. Enter a valid number (3–7) on the dial pad which corresponds to the number of digits used for the routing of the DID Number.
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Number of DID digits is set to 3.

DID Incoming Signaling

Description

The DID Incoming Signal option allows the installer to determine the type of incoming signaling used by all T-1 trunks in the system.

Programming Steps

DTMF is the DID Signaling type used for DID Trunks. Do not change the default setting of DTMF unless instructed to do so by technical support.

1. Press the DID INCOMING SIGNALING flexible button (**FLASH 41, Button #5**) for programming the type of DID signaling desired.

The following message is shown on the display phone:

DID INC SIGNALING	0-1
DTMF	

2. Enter a 0 or 1 on the dial pad.
[0] = Not applicable (reserved for future use)
[1] = DTMF
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... DID Incoming Signaling type is set for DTMF.

DID/TIE Signaling

Description

The DID/TIE Signaling feature can be programmed for one-way direct access inward dialing access to specific stations on specific DID lines without going through an Attendant answering position.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
 SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press **HOLD** to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
 ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press **Button #14**. The following message displays:

DID/TIE SIGNALING 0-2
 WINK

5. Dial a valid number (0-2) on the dial pad.

[0] = Immediate Start

[1] = Wink Start

[2] = Delay Start

6. Press **HOLD** to save the entry.

DEFAULT ... DID/TIE Signaling is set to Wink Start.

DID Collect Timer

Description

The DID Collect Timer is only used when the DID Incoming Signaling is set for dial pulse. This is a time-out timer that looks at the incoming digits one digit at a time. If a second digit isn't detected within the 150 ms, the telephone system attempts to process that digit. If a second digit is detected, the system waits 150 ms to see if a third digit is received. Otherwise, the telephone system attempts to process the two digits already received. This process continues until no additional digits are received and the time-out timer expires. The DID Collect Timer setting is variable from 100ms to 2.0 seconds.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

```
CO LINE ATTRIBUTES
SELECT A CO LINE RANGE
```

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press Button #21 to select Page C. The display updates. The following message displays to indicate current programming of that line or group of lines:

```
XXX - XXX PAGE C
ENTER BUTTON NUMBER
```

XXX-XXX = CO Line Range

4. Press the DID COLLECT TIMER Button (**Button #9**) in the flexible button field. The following message displays:

```
DID COLLECT TIMER    010-200
015
```

5. Enter a valid number on the dial pad that corresponds to 010–200 (100 ms to 2.0 seconds).
6. Press HOLD button to save entry. A confirmation tone sounds and the display updates.

DEFAULT ... DID Collect Timer is set for 150 milliseconds.

Initialize DID-TIE Parameters

Description

The DID-TIE Parameters and Timers may be initialized, setting all data fields to their original default values.

Table 2-8: DID-TIE Parameter Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 41	MISCELLANEOUS CO PARAMETERS		
	1	Dial Pulse Parameters	60/40 10 pps
	3	DID Digits	3
	5	DID Incoming Signal	DTMF
	6	T-1 Incoming Signal	DTMF
	7	T-1 Framing Type	D4SF-AMI

Programming Steps

1. Press the DID-TIE PARAMETERS flexible button (**FLASH 80, Button #13**). The following message displays:

INITIALIZE DID-TIE TMRS
PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print DID-TIE Parameters

Description

The Print DID-TIE command dumps the entire database as a permanent record which can serve as a hard copy of the database. The system baud rate must match that of the printer or receiving device.

When printing the DID-TIE Timers, the following data is printed:

- DID Parameters and Timers
- TIE Line Parameters and Timers

```
DID SIGNALING - WINK
DID DIGITS - 3

TIE SIGNALING - WINK
DID INC SIGNALING - DTMF
TIE INC SIGNALING - DTMF
T1 INC SIGNALING - DTMF
```

Figure 2-7: DID-TIE Parameters Printout

Programming Steps

1. Press the DID-TIE PARAMETERS flexible button (**FLASH 85, Button #14**). The following message displays:

```
PRINT DID/TIE TMRS
PRESS HOLD
```

2. To print the DID-TIE Parameters, press the HOLD button. The following message displays:

```
PRINTING DID/TIE TMRS
```

When the system has finished sending the requested information to the printer, confirmation tone sounds.

Direct Inward System Access (DISA)

The *STS* allows programming of an unlimited number of outside line calls to provide direct access to the system. DISA callers may access LCR, All Internal/External Paging, All Call Paging, Call Park Pick-Up, and Meet-Me Paging. A DTMF receiver must be available for DISA operation. The duration of a trunk-to-trunk DISA call can be set by system administrator.

Incoming DISA callers may access all line groups such as FX or WATS lines or other outgoing services while away from the office.

DISA callers may dial any station directly without going through the Attendant.



Vodavi has taken precautions to prevent fraud by requiring a security code for this feature. However, it is may still be vulnerable to fraud.

*DISA Access Code***Description**

The DISA Access Code feature permits assigning a 3-digit access code to the system. Anyone calling on a DISA line must use this code to gain access to system features. To disable the DISA access code, enter (#) three times. Use of this feature with or without access code can be abused by callers.

Programming Steps

1. Press the DISA ACCESS CODE flexible button (**FLASH 20, Button #1**). The following message displays:

```
DISA ACCESS CODE
100
```

2. Enter a valid number (000–999) on the dial pad for the DISA access code.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... 100 is the assigned access code.

DISA Programming

Description

Each CO can be assigned as a DISA line using 1 of the 5 DISA types available.

- DISA can be programmed using Range programming.
- DISA callers are subject to the Class of Service placed on the line accessed for out dialing.
- A system administrator can control call duration after establishing a Trunk-to-Trunk call.
- After expiration of the Conference Timer, a tone is presented to both DISA parties, then one minute later the system automatically releases both trunks.
- The Conference Timer does not affect or control a DISA-to-Station call.

Programming Steps

- Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

- Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

- Press the DISA flexible button (**Button #7**).

DISA TYPE 0-5
NONE

Features and Operation

5. Enter a valid number (0-5) on the dial pad to indicate type of DISA desired.
 - [0] = No DISA
 - [1] = 24-Hour DISA
 - [2] = Night DISA
 - [3] = 24-Hour DISA with forwarding
 - [4] = Night DISA with forwarding
 - [5] = Telecenter 24-Hour DISA with forwarding (requires optional software)
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... No outside lines are assigned as DISA lines.

DISA Call Forwarding

Four options are available for a DISA line: 1) 24-hour, 2) night, 3) 24-hour with forwarding, 4) or night with forwarding. The CO line ringing at a station follows preset forward or no-answer call forward using the preset forward timer the same as an initially ringing CO line does. It follows direct forward and busy forward the same as an initially ringing CO line. If the preset forward timer is set to 00 (disabled) the first forward of the DISA ringing call at a station takes 15 seconds.

*DISA CO-to-CO***Description**

The DISA CO-to-CO (or Conference) option on the CO line governs a DISA caller's ability to access other outside lines. CO lines must have DISA CO-to-CO enabled to allow a DISA caller to establish an outgoing CO-to-CO connection. This allows for specific CO line access restriction on DISA calls. A station with Conference enabled can initiate a conference on CO lines regardless of the CO line conference marking.

The CO line conference flag affects a DISA caller's ability to access outgoing CO lines as shown in the following table:

Table 2-9: CO Line Conference Flag

Incoming DISA CO	DISA Caller Attempts to Access	
	CO-to-CO Enabled	CO-to-CO Disabled
CO-to-CO Enabled	Call Allowed	Call Denied
CO-to-CO Disabled	Call Denied	Call Denied

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the DISA CO-TO-CO flexible button (**Button #4**).
5. Enter a 0 or 1 on the dial pad to enable/disable this feature.

[0] = Disabled

[1] = Enabled

DISA CO-TO-CO ENABLED	0-1
--------------------------	-----

6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... DISA CO-to-CO is enabled for all CO lines.

Operation

1. Call the phone number the system administrator specified as the DISA line. The system answers and returns internal dial tone.
2. Enter the DISA access code specified by the system administrator, if applicable. Dial tone returns.

To place an outgoing call:

1. Dial a group access code: 9, 801–823. CO Dial tone returns.
2. Dial the desired telephone number.



*The conference timer monitors a DISA **trunk-to-trunk** call and release the lines one (1) minute after the time expires.*

To reach an internal station:

Dial the desired station number. (Ringback tone sounds.)



If the station dialed is unattended, busy or in DND, intercom dial tone returns, (after the Preset Call Forward Timer expires).



WARNING: Toll fraud can occur if DISA is not properly implemented.

Direct Station Selection / Busy Lamp Field

A user with Direct Station Selection (DSS) buttons assigned at their Key Station can call an intercom station or transfer a CO call by pressing the appropriate DSS button.

When a button on a Digital Telephone is assigned as a DSS, it also serves as a Busy Lamp Field (BLF) to display the status of that telephone. Refer to [“Flexible Button Assignment” on page 2-149](#) for additional information.

Direct Transfer Mode

Description

An outside CO line can be transferred from one keyset to another. By using the TRANS button, a screened (announced) transfer can be transferred directly to the handset on any key station. Any number of attempts can be made to locate someone by calling different keysets without losing the call. If a line is transferred to a busy station, it receives muted ringing.

When enabled, supervised transfers (screened transfers) to stations in the handset mode connect calls directly to the handset. The station user must have a direct appearance of that CO line or a Loop button. This feature is programmed on a system-wide basis in admin programming.

Programming Steps

1. Press the DIRECT TRANSFER flexible button (**FLASH 06, Button #7**). The following message displays:

DIRECT XFER ENABLED	0-1
------------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Direct Transfer Mode is enabled.

Directory Dial

Description

Directory Dial enables display telephone station users to obtain a directory of station users and have the system dial the extension currently displayed. The **STS** provides locations for up to 200 names (000-199). Directory dial also lets users program a name with a speed dial bin for use in later locating a speed dial number. When prompted, the system displays the name associated with a speed dial number so when the desired name is shown, the user may then have the system dial the number.

Directory Dial allows users to associate a name with an entry in the local number/name translation table. When prompted, the system displays the name associated with the table so when the desired name is shown, the user may then have the system dial the number.

Directory Dial also includes the following functions:

- ❑ The Directory Dial list may be programmed and maintained at the first assigned Attendant station. However, this admin routine lets the system programmer maintain the list locally (at Attendant) or remotely via modem access.
- ❑ May be used to transfer a call from one station to another.

BIN /ICM	NAME	CLEAR	BACKSPACE
* 1 Q	* 2 W	* 3 E	* 4 R
* 5 T	* 6 Y	* 7 U	* 8 I
* 9 O	* 10 P	* 11 A	* 12 S
* 13 D	* 14 F	* 15 G	* 16 H
* 17 J	NEXT ENTRY * 18 K	PREV ENTRY * 19 L	NEW ENTRY * 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V

Related Information

Quick Reference	
➡ Flash 55	Name/Number Translation Table (refer to “Name/Number Translation Table” on page 2-195).

- If an error is made while entering the name, press the BACK SPACE flexible button (**Button #4**). This button backspaces one character at a time.

			Other Codes			
1	A-21 B-22 C-23	D-31 E-32 F-33	1 = 1#	8 = 8#	" = 01	* = *#
G-41 H-42 I-43	J-51 K-52 L-53	M-61 N-62 O-63	2 = 2#	9 = 9#	, = 02	(= #1
P-71 R-72 S-73 Q-74	T-81 U-82 V-83	W-91 X-92 Y-93 Z-94	3 = 3#	0 = 0#	? = 03) = #2
*	OPER	#	4 = 4#	Space = 11	/ = 04	+ = #3
			5 = 5#	: = 12	! = *1	= = #4
			6 = 6#	- = 13	\$ = *2	# = ##
			7 = 7#	' = 14	& = *4	. = 24

Figure 2-8: Directory List Keypad Map

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
Name – A name up to 24 characters may be entered into each directory dial list entry. The names display alphabetically when accessed by a station user. It is possible to have multiple entries that are associated to the same station number or system speed dial bin. This lets the same name be entered into the list several times.

For example, by last name and by first name, pointed to a station number and a speed dial bin (home, or mobile phone number), or several different names associated to the same speed dial bin.

To clear an entry:

- Press the CLEAR flexible button (**Button #3**).
- Press HOLD to save the entry. A confirmation tone sounds and the display updates. The entry is erased (both the BIN/ICM assignment and the programmed name).
Clear – Entries in the table may be erased and cleared which allows placement of another entry into the list. When a system speed dial bin is deleted or changed, the name associated to the bin must also be erased. When a multiple table listing is associated to one system speed dial bin it may be necessary to clear more than one entry.

Operation

To view the Directory List:

- Dial the Directory List dial code [680] on the dial pad,
-or-
Press flexible button programmed as a directory dialing button.
-or-
Use the Soft Key's DIR-DIAL option when in an idle condition.
- Press a button on the keypad, once, twice or three times, that represents the letter of the alphabet to begin viewing the list of names (e.g., when 2 is first pressed, it produces names starting with A. When 2 is pressed a second time, names that start with B display.

Pressing 2 a third time displays names that start with C). The alphabet is represented on the keypad as shown below.

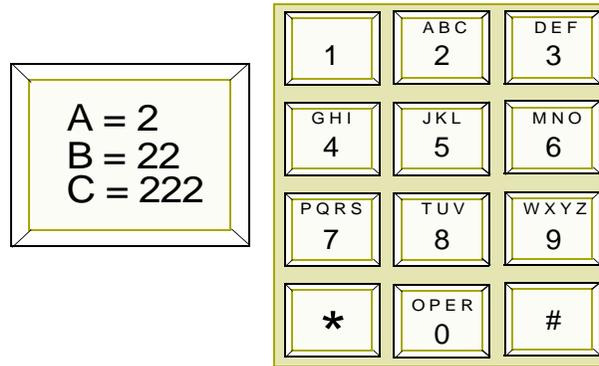


Figure 2-9: Directory Dialing Keypad Map

Names beginning with the letter chosen display on the LCD display.



If there are no names in the Directory List beginning with the desired letter, a name with the next higher letter displays on the LCD display.

The letters "Q" and "Z" are not marked on many telephone keypads; however, the illustration above shows the correct keys used to access these letters.

3. Dial [*] to scroll up (next entry) through the list,
-or-
Dial [#] to scroll down (previous entry) through the list,
-or-
Press another key to view the list for a different letter of the alphabet.
4. When the desired name displays on the LCD, press the SPEED button to automatically dial the destination station or outside phone number (via speed dial).

To transfer a call using Directory Dialing while on a call:

1. Press the TRANS button.
2. Dial the Directory Dial Code [680] on the dial pad,
-or-
Press the flexible button programmed for directory dialing.
3. Press the digit associated with the person's name and when it displays, press SPEED to automatically dial the destination station.
4. Hang up to complete the transfer.



Calls may be transferred to internal stations only. An attempt to transfer a call off-net (via a speed dial bin) results in the call recalling upon going on-hook.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » If the desired party is an intercom station, that station is signaled according to their intercom selector/H-T-P switch (SLT stations tone ring).
- » If the desired party is associated to a speed dial bin, the system selects a CO line and dials the number programmed into the speed dial bin. Call progress tones are then heard.
- » If station is in Directory Dial mode and a CO or intercom call rings in, the station must exit Directory Dial mode to answer the call.

Initialize Directory Dial Table Parameters

Description

The Directory Dial Table Parameters may be initialized setting all data fields to their original default values.

Table 2-10: Directory Dial Table Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 23	DIRECTORY DIAL TABLE		
	1	Bin/ICM/RDN Numbering	None
	2	Name Changes	
	3	Clear an entry	
	4	Backspace to correct error	

Programming Steps

1. Press the DIRECTORY DIAL TABLE flexible button (**FLASH 80, Button #9**). The following message displays:

INITIALIZE DIR - DIAL
PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print Directory Dial Table Parameters

Description

The Print Directory Dial Table command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

This is an example of the Directory Dial Table database printout.

LST	BIN	NAME	049	149
---	---		050	150
000	100		051	151
001	101		052	152
002	102		053	153
003	103		054	154
004	104		055	155
005	105		056	156
006	106		057	157
007	107		058	158
008	108		059	159
009	109		060	160
010	110		061	161
011	111		062	162
012	112		063	163
013	113		064	164
014	114		065	165
015	115		066	166
016	116		067	167
017	117		068	168
018	118		069	169
019	119		070	170
020	120		071	171
021	121		072	172
022	122		073	173
023	123		074	174
024	124		075	175
025	125		076	176
026	126		077	177
027	127		078	178
028	128		079	179
029	129		080	180
030	130		081	181
031	131		082	182
032	132		083	183
033	133		084	184
034	134		085	185
035	135		086	186
036	136		087	187
037	137		088	188
038	138		089	189
041	141		090	190
042	142		093	193
043	143		094	194
044	144		095	195
045	145		096	196
046	146		097	197
047	147		098	198
048	148		099	199

Figure 2-10: Directory Dialing Table Printout

Programming Steps

1. Press the DIRECTORY DIAL TABLE flexible button (**FLASH 85, Button #10**). The following message displays:

PRINT DIR - DIAL
PRESS HOLD

2. To print the Directory Dialing Table parameters, press the HOLD button. The following message displays:

PRINTING DIR - DIAL

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Dial-By-Name

Description

The system allows station users to dial extension numbers, or speed bins, by entering the name of a person that has been programmed for that station. The system database allows entry of a name (alphanumeric) up to 24 characters in length for each station. The programmed name can be used for dial-by-name station users and in directory dialing. This feature should not be confused with the *Name In Display* feature.

Operation

1. Dial the Dial-By-Name code [6*] on the dial pad,
-or-
Press the preprogrammed DIAL-BY-NAME flexible button.
2. Dial person's last name on the keypad as shown:

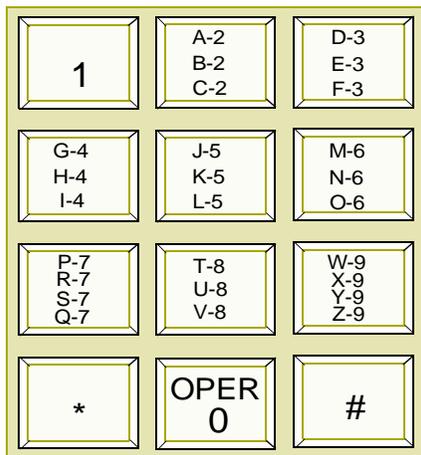


Figure 2-11: Dial-By-Name Keypad Map

EXAMPLE -- To search for the name BROWN, press [2][7][6][9][6].

- When the system finds a unique numeric match to the name being dialed, the call is placed to the station matching the name.
- The intercom call signals the station according to the H-T-P button.
- If fewer than 8 digits are dialed, the numeric match is dialed after a 10-second interdigit time-out occurs, or if [#] is pressed.

Conditions

- » The system dials the station that matches the dialed name when a unique match is found. If multiple names are located (found) after eight digits, the first one is dialed.
- » Names are entered as part of the system attributes database. Numbers may be entered as part of a name. To avoid conflicts, all names must have a unique numerical sequence.

Distinctive Ringing

CO Line Distinctive Ring Tone

Description

The ring tone signal used to notify stations of an incoming call can be changed in administrative programming to provide distinctive ringing on a per CO line basis. A distinctive ring tone can be programmed for each CO line that is used to ring each station. The system provides 36 different ring tones that can be selected for each CO line in the system.



Distinctive CO Ring Tone overrides station distinctive ring tone.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press **HOLD** to save the entry. A confirmation tone sounds and the display updates. Flexible Button #19 (Page A) is lit.

- Press the Page B flexible button (Button #20). The following message displays:

XXX - XXX PAGE B
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

- Press the RING TONE flexible button (**Button #9**). The following message displays:

RING TONE 00-36
00

- Enter a valid number on the dial pad to change this feature.

Table 2-11: Ringing Tones

Tone#	Freq	Tone#	Freq	Tone#	Freq	Tone #	Freq
00	697/770	10	770/1209	20	852/0	30	1336/1477
01	697/852	11	770/1336	21	941/1209	31	1336/1633
02	697/941	12	770/1477	22	941/1336	32	1336/0
03	697/1209	13	770/1633	23	941/1477	33	1477/1633
04	697/1336	14	770/0	24	941/1633	34	1477/0
05	697/1477	15	852/941	25	941/0	35	1633/0
06	697/1633	16	852/1209	26	1209/1336	36	No Ring
07	697/0	17	852/1336	27	1209/1477		
08	770/852	18	852/1477	28	1209/1633		
09	770/941	19	852/1633	29	1209/0		

Tone Duration = 50 ms/50 ms

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Ring Tone is set for 00 (697/770).

Enabling/Disabling Distinctive Ring Tone

Description

The distinctive ring tone feature must be enabled and disabled in admin programming.

Programming Steps

1. Press the CO RING TONE flexible button (**FLASH 06, Button #2**). The following message displays:

CO RING TONES	0-1
ENABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable the tone ring signal.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... CO Ring Tones is enabled.

Ring Tone - Station (User Selectable)

Description

The ring tone signal that notifies stations of an incoming call can be changed by each station user to provide distinctive ringing among a group of stations. Each station user may select a distinctive ringing tone used to ring their station. The system provides 36 different ring patterns from which station users may select.

Operation

To select a distinctive ring tone for a station:

1. Dial the Ring Tone program code [695] on the dial pad. The following message displays:

ENTER RING TONES	00-36
XX PRESS SPEED TO SAVE	

2. Enter a valid tone number. The telephone speaker sounds a steady tone that correlates to the 2-digit entry. The 2-digit tone number displays in the lower left corner of the LCD display.
3. When the desired tone is selected (default ringing code is set to 00), press the SPEED button to save it as the tone to present when the station is tone rung. A confirmation tone sounds.

The ringing choices are as follows:

Table 2-12: Ringing Tones

Tone#	Freq	Tone#	Freq	Tone#	Freq	Tone #	Freq
00	697/770	10	770/1209	20	852/0	30	1336/1477
01	697/852	11	770/1336	21	941/1209	31	1336/1633
02	697/941	12	770/1477	22	941/1336	32	1336/0
03	697/1209	13	770/1633	23	941/1477	33	1477/1633
04	697/1336	14	770/0	24	941/1633	34	1477/0
05	697/1477	15	852/941	25	941/0	35	1633/0
06	697/1633	16	852/1209	26	1209/1336	36	No Ring
07	697/0	17	852/1336	27	1209/1477		
08	770/852	18	852/1477	28	1209/1633		
09	770/941	19	852/1633	29	1209/0		

Tone Duration = 50 ms/50 ms

Conditions

- » Station users may listen to all tones by dialing the 2-digit codes one after another. The tone that is sounding when the SPEED button is pressed is saved as that station’s tone ringing selection.
- » A station’s tone ringing selection is maintained in a battery protected area of memory. Therefore, if a system experiences a power failure or a soft or hard restart, the tone ringing selection is restored.
- » The tone selected provides TONE ringing normal or muted to the station whenever the station is commanded to tone ring (i.e., this excludes Camp On tone programming confirmation tones or other specific tones not considered TONE ringing).
- » The selected tone is used to notify the station in the following cases:
 - Incoming CO Call
 - Incoming Intercom Call
 - Transferred CO Line
 - Recalling CO Line
 - Call Back Notification
 - Message Wait Call Back
 - All Types of Forwarded Calls
 - Executive/Secretary calls
 - Line Queue Call Back
 - LCR Queue Call Back
- » Distinctive ringing (per CO Line) supersedes station ring tone.

Do Not Disturb

Description

Placing a keyset in Do Not Disturb (DND) eliminates incoming outside line ringing, intercom calls, transfers and paging announcements. A ringing station may go into DND to silence ringing. The Attendant can override a station in DND. Stations in DND can continue to make normal outgoing calls.

Stations can be individually allowed or denied the ability to place their telephone in Do Not Disturb. By default, Do Not Disturb is enabled at all stations. Attendants cannot utilize DND.

One-time do not disturb allows a station user to turn off muted ringing that occurs while off hook (handset or ON/OFF) on another call. Useful when having an important conversation and do not wish to be disturbed by ringing. The station, while off hook, (ON/OFF or handset) depresses the DND button which eliminates muted ringing. When the station goes on-hook the DND button is extinguished and DND is cancelled.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the DO NOT DISTURB flexible button (**Button #2**). The following message displays:

DO NOT DISTURB ENABLED	0-1
---------------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Do Not Disturb is enabled at all stations.

Operation

To activate Do Not Disturb:

Press the preprogrammed DND button (DND button lights steady). The DND button can be pressed while the phone is ringing to stop the ringing.

-or-

Use the Soft Key's DND option when in an idle condition.

To remove Do Not Disturb:

Press the preprogrammed DND button, use the Soft Key's DND option, or dial either [631] or [662]. The button LED extinguishes and DND cancels.



SINGLE LINE TELEPHONE

To activate Do Not Disturb:

- Lift the handset.
- Dial [631].
- Replace the handset.

To remove Do Not Disturb:

- Lift the handset.
- Dial [631] or [662].
- Replace the handset.

Conditions

- » Calling stations receive a DND audible tone.
- » Attendants do not have DND capability.
- » DND capability is programmable on a per-station basis.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

One-Time Do Not Disturb

Description

Prevents calls from ringing at your station while you are on a call. The One-Time DND condition automatically cancels when you end your call.

Stations can be individually allowed or denied the ability to place their telephone in Do Not Disturb. Attendants cannot utilize DND.

Operation

To activate One-time Do Not Disturb:

Press the preprogrammed DND button while you are off-hook and connected to a CO line or intercom call. The DND button LED lights and off-hook tones at your station cancel.

To cancel One-time Do Not Disturb:

Replace handset. The DND button LED extinguishes and DND cancels.

Do Not Disturb Button Flash Rate

Description

The Do Not Disturb Button flash rate is the rate at which your Do Not Disturb button flashes when you place your station in a Do Not Disturb mode. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the DND BTN flexible button (**FLASH 07, Button #18**). The following message displays:

DND BTN	00-28
RED STEADY ON	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Do Not Disturb Button flash rate is set for Red Steady On (01).

Do Not Disturb - DSS/BLF Flash Rate

Description

The Do Not Disturb DSS/BLF flash rate is the rate at which a DSS button of a station flashes when you are in a Do Not Disturb mode. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the DND – DSS/BLF flexible button (**FLASH 07, Button #6**). The following message displays:

DND DSS / BLF	00-28
RED 60 IPM DBL WINK OFF	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Do Not Disturb DSS/BLF flash rate is set for a Red 60 ipm Double Wink Off (04).

Executive Override

Description

The Executive Override feature lets certain stations be designated as Executive stations with the ability to override and barge-in on other key sets engaged in a CO line or intercom conversation. If Supervisor Monitor with barge-in function is allowed, this feature **MUST** be disabled. An optional warning tone is programmed on a system-wide basis to enable or disable the tone. This tone is presented to all parties prior to actual cut through of the third party.



The Executive Override Blocking feature (FLASH 50, Page A, Button #13) allows or disallows an Executive to override an extension. This prevents an extension with override capability from overriding designated stations.

Supervisor Barge-In can be programmed in [FLASH 50, Page A, Button #12].

Executive Override - Enable/Disable

Description

This system programmable option enables or disables a warning tone when the station marked as an executive is cut-thru to the conversation. This is useful for UCD agent supervisors or training personnel who require a service observing option.

A separate condition has been added to this feature which allows or disallows an Executive to override an extension. This prevents an extension with override capability from overriding an Executive's station.



Use of this feature when the Executive Override warning tone is disabled may be interpreted as a violation of federal, state or local laws, and an invasion of privacy. Check applicable laws in your area before intruding on calls using this feature.



A change in volume may occur on the CO line or intercom call after the barge-in occurs.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the EXECUTIVE OVERRIDE flexible button (**Button #4**). The following message displays:

EXEC OVERRIDE DISABLED	0-1
---------------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.



Use of this feature when the Executive Override Warning Tone is disabled may be interpreted as a violation of federal, state, or local laws, and an invasion of privacy. Check applicable laws in your area before intruding on calls using this feature.



A change in volume may occur on the CO line or intercom call after the barge-in occurs.

DEFAULT ... Executive Override is disabled for all stations.

Operation

To use Executive Override, when calling a busy station:

- Press the preprogrammed EXECUTIVE OVERRIDE button (The programming code is 625). Executive station is bridged onto the CO line conversation in progress at the called station. An optional warning tone is presented to all parties prior to cut-through.
- Replace handset at Executive station to terminate the override.

Conditions

- » An error tone occurs when the called party:
 - Is in a conference.
 - Is already on an OHVO call.
 - Has a Camp On at their station.
- » If Executive joins a call and one of the members does a hook-flash or presses their transfer button, the Executive is dropped.
- » If Executive does a hook-flash or presses Transfer button, it is ignored.

Features and Operation

- » When the Executive joins an intercom call or CO call and the Executive is not in a mute state, and any member of the party hangs up, the call is converted to a two-party conversation.
- » When the Executive joins an intercom call or CO call and the Executive is in the mute state, and either of the two parties in the intercom call hang up, the call is dropped. If the Executive hangs up, the call remains a two-party conversation.
- » Certain forwarding types affect override operation; except to override forwarding, dial [5#] + extension number.
- » Intercom button disallows Executive Override.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

*Executive Override Blocking***Description**

The Executive Override Blocking feature allows or disallows override of an extension. This prevents a user with override capability from overriding a station.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the EXECUTIVE OVERRIDE BLOCK flexible button (**Button #13**). The following message displays:

EXEC OVERRIDE BLOCK 0-1 DISABLED
--

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Executive Override Blocking is disabled at all stations.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Executive Override Warning Tone

Description

The Executive Override Warning enables Executive stations to override and barge-in on other key sets engaged in conversation on a CO line. Prior to actual cut through of the third party, a warning tone is presented to all parties notifying them of the barge-in. This warning tone, however, is a programmable option on a system-wide basis, that either enables or disables the tone. When tone is disabled, no audible signal is presented to parties to signal barge-in.



Use of this feature when the Executive Override Warning Tone is disabled may be interpreted as a violation of federal, state, or local laws, and an invasion of privacy. Check applicable laws in your area before intruding on calls using this feature.



A change in volume may occur on the CO line or intercom call after the barge-in occurs.

Programming Steps

1. Press the EXEC OVER WARN TONE flexible button (**FLASH 05, Button #4**).
2. Enter a valid number (0 or 1) that corresponds with the following entries:
[0] = Disabled
[1] = Enabled

EXECUTIVE WARNING	0-1
ENABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.
DEFAULT ... Executive Override Warning Tone is enabled.

Barge-In Warn Tone

Description

When the Barge-in Warn Tone feature is enabled, it produces a tone to notify a station that another station is about to use Executive Override or the Barge-in feature to cut into the existing conversation.

Programming Steps

1. Press the BARGE IN WARN TONE flexible button (**FLASH 06, Button #1**). The following message displays:

BARGE IN WARN TONE	0-1
ENABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable the conference tone.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.



Display stations continue to receive the CONFERENCE display regardless of the warning tone setting.

Privacy is ensured on all communications in the system. If desired, the user may elect to disable the Barge In feature, thus allowing up to seven other stations to join existing CO Line conversations.



Disabling of the Barge In feature may be limited by federal, state, or local law, so check the relevant laws in your area before disabling privacy.

Table 2-13: CO Line Barge In Flag

Station Attempting to Access CO Line	CO Line in Use by Another Station	
	Privacy Enabled	Privacy Disabled
Privacy Enabled	Private (no cut-through)	Private (no cut-through)
Privacy Disabled	Private (no cut-through)	Privacy Release (cut-through allowed)

DEFAULT ... Barge-in Warn Tone is enabled.

Executive/Secretary Pairs

Description

There are four Executive/Secretary pairs available. When an Executive station is busy or in DND, intercom calls and transfers are automatically routed to the designated Secretary.

The assigned secretary may Camp On to the Executive Station when the station is busy or in Do-Not-Disturb. There can be only one pairing of stations, with no duplicates. You cannot pair Executive 100 to Secretary 101, then pair Secretary 101 to Executive 100. The same Secretary station can be specified for more than one Executive station (101-105 and 102-105). Entering [#] six times removes the assignments. Individual pairs may be changed by pressing the associated flexible button.

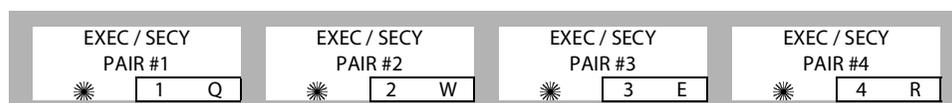
Programming Steps

1. Press **FLASH** and dial **[13]**. The following message displays:

```
EXEC SECY PAIRINGS
####, #### PAIR 1
```

The first button is lit indicating the first pair may be programmed.

2. Enter a valid Executive flexible station number, followed by a "1" to add or a "0" to delete.
3. Press HOLD to save the data. A confirmation tone sounds and the display updates.
4. Enter a valid Secretary station number, followed by a "1" to add or a "0" to delete.
5. Press HOLD to save the data. A confirmation tone sounds and the display updates.
 - To program a second pair, press the second flexible button in the flexible button field and enter station numbers as in steps 2-5.



- To program a third pair, press the third button in the flexible button field and enter station numbers as in steps 2-5.

- To program a fourth pair, press the fourth button in the flexible button field and enter station numbers as in steps 2-5.

DEFAULT ... No Executive/Secretary pairs are assigned.

Conditions

- » If you are designated the Executive station and your phone is busy or in DND, all calls are routed to the Secretary station.
- » If you are the designated Secretary station, you can signal the Executive that is busy or in DND by using the Camp On feature.

External Day Ring

Description

The system can be programmed so CO lines marked for UDA provides ringing out of the external page ports when the system is in the Day Mode.

Programming Steps

1. Press the EXT DAY RING flexible button (**FLASH 06, Button #5**). The following message displays:

EXTERNAL DAY RING 0-1
DISABLED

2. Enter a 0 or 1 on the dial pad to enable/disable External Day Ring.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... External Day Ring is disabled.

External Night Ring

Description

When outside lines are marked UNA, ringing activates a tone over external paging when an incoming call occurs on those lines during night service.

Programming Steps

1. Press the EXT NIGHT RING flexible button (**FLASH 05, Button #3**).
2. Enter a valid number (0 or 1) that corresponds with the following entries:
[0] = Disabled
[1] = Enabled

EXTERNAL NIGHT RING	0-1
DISABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.
DEFAULT ... External Night Ring is disabled.

Fixed Station/Port Number

Description

When a station dials the feature code 611 on a display telephone, it will display the Fixed Station/Port Number for that telephone. For example, when using flexible numbering some programming steps require the "FIXED" code. This code allows you to dial 611 and quickly determine the fixed port for that station.

STATION PORT: XXX



SINGLE LINE TELEPHONE

Not applicable

Flash Rates (Programmable)

Description

Fixed and flexible button flash rates can be programmed. Nineteen features/functions can be programmed to use on of 14 different red or 14 different green flash rate options. These are set up in FLASH 07 of admin programming. Refer to section that covers the feature/function for the detailed programming steps.

All other flash rates in the system are fixed (defaulted).

When in FLASH 07, the buttons on the digital telephone are mapped as shown in the following illustration.

INC CO RING * 1 Q	INC ICW RING * 2 W	CALL FORWARD BTN * 3 E	MSG WAIT/VM BTN * 4 R
MSG CBCK DSS/BLF * 5 T	DND DSS/BLF * 6 Y	AUTO CBCK DSS/BLF * 7 U	UCD UNAVL DSS/BLF * 8 I
TRANSFER CO RING * 9 O	RECALL CO RING * 10 P	QUEUED CO RING * 11 A	EXCLUSIVE HOLD * 12 S
SYSTEM HOLD * 13 D	IN USE HOLD * 14 F	CAMP ON BTN * 15 G	CALLBACK BTN * 16 H
LINE QUEUE BTN * 17 J	DND BTN * 18 K	ICM HOLD BTN * 19 L	* 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V

Table 2-14: Flash Rates

Red LED Flash Rates		Green LED Flash Rates	
00	Off	15	Steady On
01	Steady On	16	30 ipm Flash
02	30 ipm Flash	17	60 ipm Flash
03	60 ipm Flash	18	60 ipm Dbl Wink Off
04	60 ipm Dbl Wink Off	19	240 ipm Flash
05	240 ipm Flash	20	240 ipm Flutter
06	240 ipm Flutter	21	480 ipm Flash
07	480 ipm Flash	22	480 ipm Flutter
08	480 ipm Flutter	23	15 ipm Flash
09	15 ipm Flash	24	120 ipm Flash
10	120 ipm Flash	25	120 ipm Flutter
11	120 ipm Flutter	26	30 ipm Dbl Flash
12	30 ipm Dbl Flash	27	480 ipm Dbl Wink
13	480 ipm Dbl Wink	28	480 ipm Dbl Flash
14	480 ipm Dbl Flash		

Flexible Button Assignment

Description

If you have buttons on your telephone, you may program them to suit your own needs. This feature also allows programming of flexible buttons from a remote location (off-site). Range programming can also assign these buttons to multiple stations.

The possible functions you may assign to these buttons include:

- **Outside Line** -- Automatically accesses assigned line. (User programmable)
- **DSS/BLF** -- Automatically signal assigned station and provides BLF for off-hook and DND. (User programmable)
- **Feature** -- Any feature with a dialing code (Personalized Messages, Paging, Account Code, Call Park, Music, etc.) can be assigned to a flexible button. (User programmable)
- **Group Access** (UCD, Hunt, Voice Mail group pilot numbers) -- User programmable.
- **Speed Dial** -- Automatically dials Speed number. (System, Station, Saved Number Redial, Last Number Redial) (User programmable)
- **Pooled Group Access** -- Some or all outside lines can be grouped; pressing this button accesses the highest numbered unused CO line in that group.(User programmable)
- **Loop** -- Used to answer a transferred call on a line for which a user does not have a button assigned. (User programmable)
- **Unassign** (Locked-Out) -- Specific buttons may be designated as unused or locked out. When a button is programmed as unused, the button may not be programmed by the station user using flexible button programming procedures.
- **Flexible Station Assignments** -- Allows assignment of stations and complete flexibility within the system numbering plan. A station can be assigned a number between 100-8999.

Flexible Button

Description

The Digital Telephone has 24 flexible buttons that can be programmed. One of the following six operations can be selected in programming for each button.

To assign a Flexible Button (user programmable):

Enter [BB], [0], [HOLD]

When a button is assigned as a flexible button [0], the user can program any features or functions on the buttons to which they have access.

*Features and Operation**To assign a CO Line Button:*

Enter [BB], [1], [LLL], [HOLD]

LLL = CO Line Number

Buttons assigned as specific CO lines provide direct access and appearance of the CO line at a station. The station receives call status indications such as LED flash rates for incoming ringing when the line is placed on HOLD, etc. CO Line ringing is programmed in CO Line Attribute programming.

01	1	001	HOLD
02	1	002	
03	1	003	
Button Number	CO Code	CO Line	

To assign a Loop Button:

Enter [BB], [2], [HOLD]

Used for a station without direct CO line appearance to answer the line ringing in or transferred to the station. It is recommended that all stations be given a loop button so they can receive a transferred call on a line for which they have no button access.

05	2	HOLD
Button Number	Loop Code	

To assign a Pool Group Button:

Enter [BB], [3], [GG], [HOLD]

GG = Line Group Number (00-23)

Some or all outside CO lines may be grouped together and accessed via a POOL button for the purpose of placing an outgoing CO call. Pressing this button accesses the highest numbered unused CO line in that CO line group.

21	3	02	HOLD
Button Number	Pool Code	Line Group	

To assign a Feature Button (admin programmable):

Enter [BB], [4], [XXX], [HOLD]

This feature enables flexible buttons to be programmed from a remote location (refer to ["Default Numbering Plan" on page E-13](#)). Range programming can be used to assign these buttons to multiple stations. When a button is assigned as a feature button [4], the programmer can program any features on the buttons.

To unassign (lock out) a button:

Enter [BB], [#], [HOLD]

If SLT stations must be programmed for off-hook preference, program the desired CO line, or CO line group the SLT must access when going off-hook.

To assign a CO Line for an SLT (with off-hook preference)

Enter [01], [1], [LLL], [HOLD]

LLL = CO Line Number

To assign a CO Line Group for an SLT (with off-hook preference):

Enter: [01], [3], [GG], [HOLD]

GG = Line Group Number (00-23)

Digital Keysets

Specific buttons may be assigned as unused or locked out. When a button is programmed as unused, the button may not be programmed by the station user using flexible button programming procedures.

24-BUTTON DEFAULT

STA 100 * 1 Q	STA 101 * 2 W	STA 102 * 3 E	STA 103 * 4 R
STA 104 * 5 T	STA 105 * 6 Y	STA 106 * 7 U	STA 107 * 8 I
STA 108 * 9 O	STA 109 * 10 P	STA 110 * 11 A	STA 111 * 12 S
CO 1 * 13 D	CO 2 * 14 F	CO 3 * 15 G	CO 4 * 16 H
CO 5 * 17 J	CO 6 * 18 K	LOOP * 19 L	POOL * 20 :
CALL BACK * 21 Z	PICKUP * 22 X	DND * 23 C	LINE QUEUE * 24 V

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial [50] or dial [51]. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (100-149) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

Features and Operation

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE A
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE A
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE B
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE B
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press the BUTTON ASSIGN flexible button (**Button #11**). The following message displays:

```
FLEX BUTTON PROG
ENTER BUTTON DATA
```

- Enter a valid button number [01-24] to program, followed by the desired button function:
 - [0] = Flexible/user changeable
 - [1] = CO line
 - [2] = Loop button/all-purpose CO appearance
 - [3] = Pool for specific groups
 - [4] = Direct feature programmable (for DSS/BLF, use [4] + the flexible station number)
 - [#] = Locks button

Operation

To program a user-programmable Flexible Button:

- Press the SPEED button twice.
- Press the assigned button to program (it must be programmed in the database as a multi-function button).
- Dial the desired feature code. Refer to ["Default Numbering Plan" on page E-13](#).

To erase a user programmable Flexible Button:

- Press the SPEED button twice.
- Press the button to erase.
- Press the FLASH button. Confirmation tone sounds.
- Replace handset or press ON/OFF button.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Display Flexible Buttons

Description

Each time the DISPLAY BUTTONS flexible button is subsequently pressed, the next four buttons display starting with the lowest button number.

- When a button is assigned as flexible button [0], the user can program any features or functions on the buttons to which they have access.
- When the buttons are programmed with user programmed functions, the display shows the function assigned to the button.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

Features and Operation

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the DISPLAY BUTTONS flexible button (**Button #14**) to display programming assignments. The following message displays:

BUTTONS	BBS0100	BBS0101
BBS0102	BBS0103	BBS0104

BB = Button Number

LCD above is an example. Refer to the following table for additional legend information.

Operation

To check flexible button programming at the keyset:

- Lift handset.
- Press SPEED, then dial [7] + [#].
- Dial [2] to select the KEYBTN option.
- Press the desired flexible button(s) to display programming for the button(s) on the LCD.
- When finished, replace the handset.

Flex Button	Designation	Flex Button	Designation
ACALM	Attendant Clear Alarm	MRVM	Voice Mail Mailbox (Remote)
ACCT	Account Code Enter	MSG	Message Wait Key
AMEM	Agent Member Display	MUSIC	Background Music
ANS	Answering Mach. Emulation Mode	MUTE	Mute Key
AOVR	Attendant Override	MVM[B]	Voice Mail Mailbox 1-8
APAGE	All Call Page	M[ZZ]	Personalized Message w/ Msg Nbr
AUNA	Attendant DND	NTS	Night Service
AUTOR	Auto Redial	ODND	UCD Overflow Station Avail/Unavail
AVL	UCD Avail/Unavail	OFW	Offnet Forward
B[9BBB]	Speed Dial Button with Bin Number	OHP	Off-Hook Preference
C[XXXX]	Call Coverage (w/o ringing)	OHVO	Off-Hook Voice Over
CAMP	Camp-On	PARK[CCCC]	Call Park with Park Location
CBAK	Call Back	PKUP	Pickup
CID	Caller ID Name/Number Toggle	PL[GG]	Pool with CO Line Group Number
CIQ	UCD Calls in Queue	PPARK	Personal Park
CLCRQ	Cancel LCR Queue	REL	Release Key
CONF	Conference Key	RPARK	Station Call Park
CSM	Custom Message	SLGIN	Supervisor Login
D[XXXX]	Call Coverage (with ringing)	SLOUT	Supervisor Logout
DIALN	Dial By Name	SNR	Save Number Redial
DISCO	Disable CO Line Outbound	SPD	Speed Directory Dial
DND	Do Not Disturb	SPEED	Speed Key
DRG	Distinctive Ringing	STRC	Stop Internal Trace
E911	E911 List	STS	Supervisor Status Display
EAC	External All Call	S[XXXX]	Station DSS / BLF
EOR	Executive Override	U[UUUU]	UCD Group with Pilot Number
EP[N]	External Page with Zone	UNA	Universal Answer
FFW	Incoming Transfer CO Line	VMREC	VM Record (One Touch Record)
FLASH	Flash Key	VOL	Gain Key
FWD	Call Forward Key	V[VVVV]	VM Group with Pilot Number
GPU	Group Pickup	XFER	Transfer Key
H[HHHH]	Hunt Group with Pilot Number		
HFREE	Headset Mode		
HOLD	Hold Key		
HPT	Handsfree/Private/Tone toggle btn/switch		
IAC	Internal All Call Page		
IANS	ICLID Answered Call		
ICM	Intercom		
IP[N]	Internal Page with Zone		
IUANS	Display ICLID Unanswered Calls		
LCR	LCR Access		
LINEQ	CO Line Queue Key		
L[LLL]	CO Line Button (CO Line [LLL])		
LOOP	Loop		
LNR	Last Number Redial		
MMP	Meet Me Page		
MON	Monitor Key		

----- LEGEND -----

[B] Mailbox Number

[9BBB] Speed Dial Bin Number

[CCCC] Call Park Location

[GG] Pool or CO Line Group Number

[HHHH] Hunt Group Flexible Number

[LLL] CO Line Number

[N] Page Zone Number

[UUUU] UCD Group Pilot Number

[VVVV] Voice Mail Group Flexible Number

[XXXX] Flexible Station Number

[ZZ] Personalized Message Number

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Flexible Numbering

Description

The Flexible Numbering feature allows the system numbering plan to be modified from its default value (refer to [“Default Numbering Plan” on page E-13](#)) to accommodate specific customer requirements. Station, Pilot, and Feature Access Code numbers may be changed with this feature. The length of these numbers may also be modified to meet specific customer applications.

The buttons on the key telephone are defined as shown when entering the Flexible Numbering Assignment feature programming area:

CHANGE FLEXIBLE CODE * 1 Q	ERASE FLEXIBLE CODE * 2 W	* 3 E	* 4 R
* 5 T	* 6 Y	* 7 U	* 8 I
* 9 O	* 10 P	* 11 A	* 12 S
* 13 D	* 14 F	* 15 G	* 16 H
* 17 J	* 18 K	* 19 L	* 20 ;
NEW FLEXIBLE CODE ENTRY * 21 Z	NEXT CODE ENTRY * 22 X	PREVIOUS CODE ENTRY * 23 C	NEW FIXED CODE ENTRY * 24 V

Programming Steps

Press **FLASH** and dial **[52]**. The following message displays:

FIX: 100	FLEX: 100
NAME: STATION 100	

To select a Fixed or Flexible Code:

1. Press Button 24 (Fixed) or Button 21 (Flexible).
2. Enter the desired code to change.
3. Press HOLD. The fixed and flexible number, as well as a description of the code, displays on the LCD.



You can scroll through the codes by using the **PREVIOUS** button (23) or the **NEXT** button (22).

To change a Flexible Code:

1. Select the desired code.
2. Press Button 1. The red LED illuminates.
3. Delete the flexible number by pressing button 2 and then pressing HOLD. The flexible number field will be blank.
4. Enter the new code (2-4 digits).
5. Press HOLD.



*Station/Pilot numbers can only contain 0-9.
Feature codes can contain 0-9, *, #.*

To erase a Flexible Code:

1. Select the desired code.
2. Press Button 1 (must be lit).
3. Press Button 2.
4. Press HOLD.

Conditions

- » Feature access codes cannot conflict with station numbering.
- » CO line numbers are fixed and cannot be changed.
- » If no VM ID digits are programmed in the station field, the flexible number assigned to the station will be sent to the VM unit.
- » Flash 06, Button #15 is the programming area to automatically assign the VMID digits to be the same as the flexible station numbering.
- » The SMDR will output 4-digit numbers in the station field. If less than 4 digits is selected in the numbering plan, leading spaces will be added in place of the numbers. The 3-4 digit SMDR programming area will be removed from programming.
- » The programming will print out as part of the CO-STA port programming area. The flexible numbering can be initialized in the CO-STA initialization area.

Station Port Inquiry

Description

When using flexible numbering, some programming steps require the fixed code. This feature allows you to dial a feature code to reveal the fixed port for your station.

Operation

Dial feature code [611]. The fixed Station/Port Number for your station displays.

STATION PORT: XXX

Group Listening

Description

All digital key stations have a built-in speakerphone. Station users may use the speaker to monitor a call while using the handset to converse with the outside party. This enables other people in the room to listen to both parties in the conversation.



This feature is not available when the station is in headset mode.

Programming Steps

1. Press the GROUP LISTENING flexible button (**FLASH 05, Button #9**).
2. Enter a 0 or 1 that corresponds with the following entries:
 - [0] = Disabled
 - [1] = Enabled

GROUP LISTENING	0-1
DISABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Group Listening is disabled.

Operation

To activate Group Listening while conversing on the handset:

Press the ON/OFF button. Both parties can then be heard on the digital station's speaker. The speakerphone microphone is muted while the handset is off-hook.

To deactivate Group Listening while off-hook:

Press the ON/OFF button.

Conditions

- » While using the speakerphone, lifting the handset turns off the speakerphone. To activate group listening, press the ON/OFF button (to ON) while the handset is off-hook.
- » While in group listening mode, pressing the MUTE button causes the transmit from the handset to be muted (the speakerphone microphone is already muted). However, the distant end is still heard over the handset receiver and the station speaker.
- » If full speakerphone operation is desired while in group listening mode, simply set the handset on-hook.
- » Group listening is unavailable when the station is in headset mode.
- » When placing the handset on-hook to full speakerphone operation, it is normal to hear a squeal caused by audio feedback. To eliminate this noise, press MUTE prior to initiating speakerphone operation.
- » Must be enabled in System Features Programming.

Headset Mode

Description

Each digital telephone can be individually programmed for headset operation. When programmed, an industry-standard, electret-mic-compatible, modular headset with its adapter box may be connected to a digital telephone for headset use. This allows handset or headset operation by switching the selector switch on the adapter box. Speakerphone operation and call announce on intercom are disabled while a station has enabled headset mode.

Once programmed in station programming (Flash 50/51, Page B, Buttons #4 and #18), the user may then select between headset mode or normal handset/speakerphone mode by simply dialing a code, pressing a user programmable flexible button, or using the Soft Key's Headset option.

Related Information

Quick Reference			
➔ Flash 50	Page B	Button #4	The Speakerphone function MUST be disabled for use of the headset (refer to option 2 in " Speakerphone Options " on page 2-234).

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

Features and Operation

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the DISPLAY BUTTONS flexible button (**Button #18**) to display programming assignments. The following message displays:

HEADSET MODE 2.5 MM JACK	0-1
-----------------------------	-----

- Dial a valid option number (0 or 1) to identify the location where you plug the headset into the **STS** keyset.

0 = plugged into the jack normally used for the handset

1 = plugged into the 2.5 mm jack located on the left side of the keyset

- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Option 1, the 2.5 mm jack, is the default setting.

Operation

The user connects the modular headset to either the handset jack on the telephone (leaving the handset in place) or the the 2.5 mm jack located on the left side of the keyset. The ON/OFF button on the Digital Telephone is used to initiate and end calls while using the headset.

To activate Headset Mode:

Dial [634] on the dial pad,

-or-

Press preprogrammed HEADSET MODE button.

-or-

Use the Soft Key's HEADSET option when in an idle condition.



While Headset mode is active, the ON/OFF button activates the headset and disables speakerphone and intercom call announce operation at your station.

To install the headset, see the Installation Manual.

To deactivate Headset Mode:

Dial [634] on the dial pad,

-or-

Use the Soft Key's HEADSET option.

-or-

Press the preprogrammed HEADSET MODE button.

LED extinguishes.



Station must be programmed for headset operation in database programming before the flexible button can be programmed.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » The Headset Mode flexible feature code 634 can be programmed onto a flexible button. The button acts as a toggle (i.e., the first depression turns Headset Mode on, the second depression turns Headset Mode off.
- » Transmission and reception quality when using the headset is dependent upon the headset used.
- » Intercom calls to a station in Headset Mode will always be presented to the station in the Tone Mode.
- » If the 2.5 mm jack is used for the headset connection, a user may alternate between the handset and the headset during a conversation by either lifting the handset or by pressing [ON/OFF] and then replacing the handset to return to headset operation.
- » Page announcements will be presented to the keyset speaker when the station is idle.

Hold - Exclusive

Description

When a line is placed on Exclusive Hold, no other station in the system can retrieve the call.

Operation

Exclusive Hold may be programmed and activated on the first or second depression of the HOLD button. CO Lines, while in a transfer hold, are always placed in an Exclusive Hold condition.



SINGLE LINE TELEPHONE

While connected to an outside line, to place a call on Exclusive Hold:

Briefly depress and release the hookswitch. Handset must stay off-hook.

To retrieve the call:

Briefly depress and release the hookswitch again.

Exclusive Hold Flash Rate

Description

The Exclusive Hold flash rate is the rate at which a CO Line button or Loop button flashes when a call is placed on Exclusive Hold. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the EXCLUSIVE HOLD flexible button (**FLASH 07, Button #12**). The following message displays:

EXCLUSIVE HOLD	00-28
GREEN 120 IPM FLASH	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Exclusive Hold flash rate is set for a Green 120 ipm Flash (24).

Exclusive Hold Recall Timer

Description

The System Hold Recall Timer determines the time before a call placed on Exclusive Hold recalls the station placing the Hold. If unanswered by that station, the call recalls the attendant.

The Exclusive Hold Recall Timer setting is variable from 000-300 seconds. An entry of 000 disables the timer and there is no recall.

Programming Steps

1. Press the EXCLUSIVE HOLD RECALL TIMER flexible button (**FLASH 01, Button #2**). The following message displays:

EXC HOLD RECALL	000-300
180	

2. Enter a valid number on the dial pad that corresponds to 000-300 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Exclusive Hold Recall Timer is set for 180 seconds.

Hold - Preference

Description

The Hold Preference feature allows either System or Exclusive hold as the primary hold on the first depression of the HOLD button, depending upon programming. A second depression invokes the second hold preference.

Programming Steps

1. Press the HOLD PEF flexible button (**FLASH 05, Button #2**).
2. Enter a valid number (0 or 1) that corresponds with the following entries:
[0] = Exclusive Hold
[1] = System Hold

HOLD PREFERENCE	0-1
SYSTEM	

3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Hold Preference is System Hold.

Hold - System

When a line is placed on System Hold, any station in the system with an appearance of that line can retrieve the call.

System Hold Flash Rate

Description

The System Hold flash rate is the rate at which a CO Line button or Loop button flashes when a call is placed on System Hold. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the SYSTEM HOLD flexible button (**FLASH 07, Button #13**). The following displays:

SYSTEM HOLD	00-28
RED 60 IPM DBL WINK	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... System Hold flash rate is set for a Red 60 ipm Double Wink (04).

System Hold Recall Timer

Description

The System Hold Recall Timer determines the time before a call placed on System Hold recalls the station placing the hold. If unanswered by that station, the call recalls the attendant.

The System Hold Recall Timer setting is variable from 000-300 seconds. An entry of 000 disables the timer and there is no recall.

Programming Steps

1. Press the SYSTEM HOLD RECALL TIMER flexible button (**FLASH 01, Button #1**). The following message displays:

SYSTEM HOLD RECALL 000-300
060

2. Enter a valid number on the dial pad that corresponds to 000-300 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... System Hold Recall Timer is set for 60 seconds.

Hot Keypad

Description

The Hot Keypad feature enables a station user to activate the telephone by dialing digits or pressing telephone buttons without going off hook.

Hot Line / Ring Down

Description

Stations may be programmed to immediately call or ring down a particular station or outside number upon going off hook. This is done by programming the stations Off-Hook preference to activate a DSS or Speed dial feature key (refer to ["Ring Down / Hot Line / Off-Hook Preference" on page 2-225](#)). This feature can be overridden if the station user selects a CO line first when going off-hook.

Hunt Groups

Description

The system can be programmed for up to 12 Hunt Groups. Each Hunt Group can contain up to 8 stations each. Each Hunt Group can be independently arranged to use a pilot hunting or station hunting technique. If a station is in DND or is forwarded in any manner, it is considered busy.

HUNT GRP 1 XXXX * [1] Q	HUNT GRP 2 XXXX * [2] W	HUNT GRP 3 XXXX * [3] E	HUNT GRP 4 XXXX * [4] R
HUNT GRP 5 XXXX * [5] T	HUNT GRP 6 XXXX * [6] Y	HUNT GRP 7 XXXX * [7] U	HUNT GRP 8 XXXX * [8] I
RAN HUNT GRP 458 * [9] O	RAN HUNT GRP 459 * [10] P	RAN HUNT GRP 460 * [11] A	RAN HUNT GRP 461 * [12] S
STATION / PILOT * [13] D	* [14] F	* [15] G	* [16] H

Programming Steps

1. Press **FLASH** and dial **[30]**. The following message displays:

```
HXXXX   ####, ####, ####
####, ####, ####, ####, ####,
```

- The top left button in the flexible button field is lit for programming Hunt Group 1 (XXXX = flexible hunt group number).
2. To change Hunt Groups or enter a different Hunt Group, press the appropriate flexible button 1-8. Hunt Groups 458-461 are only used for RAN applications in UCD (refer to [Chapter 4, Uniform Call Distribution](#)).
 3. Enter a valid 3- or 4-digit flexible station number, or flexible station numbers up to eight stations per group, followed by a "1" to add or a "0" to delete. Hunt groups are joined or chained together by entering another Hunt Group Pilot Number as the last entry of the group.
 4. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

Station / Pilot / Pilot All Ring -- Hunting Assignments

Description

Pilot Hunting -- Incoming CO, transferred CO, and intercom calls can be directed to a pilot number of a hunt group. The system searches sequentially (in the order the extensions were entered in the database programming) for an idle station in the group and rings that station. Calls directly to stations (by calling the extension number) within the hunt group do not hunt but receive call progress tones from the extension.

Pilot All Ring Hunting -- rings all idle stations in a particular Hunt group at one time.



"All Ring" hunt groups cannot be chained together.

Station (Circular) Hunting -- Transferred CO, and intercom calls that are presented to a busy, or DND station, that are members of a Station Hunt Group, search sequentially (in the order the extensions were entered in database programming) for an idle station in the group and rings that station. Direct ringing CO Line calls to the station number ring at the station. If station hunting is desired on a direct ringing call, program the station hunting pilot number in the CO Line ring assignment list. This lets the member of the hunt group to receive private/hunt group calls.

Programming Steps

1. Press **FLASH** and dial **[30]**.
2. Press the flexible button (1-8) representing the group to be assigned a new hunting assignment.
3. Press the STATION/PILOT flexible button (**FLASH 30, Button #13**) to indicate Pilot, Pilot All Ring Hunting, or Station Hunting.

HXXXX	0-2
PILOT RING ONE	

4. Dial a valid number (0-2):
 - [0] = Pilot (Default; shown on LCD as PILOT RING ONE)
 - [1] = Pilot All Ring Hunting (shown on LCD as PILOT RING ALL)
 - [2] = Station Hunting (shown on LCD as CIRCULAR HUNT)



Fixed Hunt Group numbers 458-461 are ONLY for RAN applications.

Initialize Hunt Group Parameters

Description

Hunt Group Parameters may be initialized setting all data fields to their original, default value.

Table 2-15: Hunt Group Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 30	HUNT GROUPS		
	1-12	Hunt Group Programming	None
	13	Station/Pilot Hunting Assignment	Pilot

Programming Steps

1. Press the HUNT GROUPS flexible button (**FLASH 80, Button #10**). The following message displays:

INITIALIZE HUNT GROUP
PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print Hunt Group Parameters

Description

The Print Hunt Group command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

```

HUNT GROUPS                                RAN HUNT GROUPS
-----
HG 0..450  PILOT RING ONE                  HG 8..458  PILOT RING ONE
HG 1..451  PILOT RING ONE                  HG 9..459  PILOT RING ONE
HG 2..452  PILOT RING ONE                  HG10..460  PILOT RING ONE
HG 3..453  PILOT RING ONE                  HG11..461  PILOT RING ONE
HG 4..454  PILOT RING ONE
HG 5..455  PILOT RING ONE
HG 6..456  PILOT RING ONE
HG 7..457  PILOT RING ONE
    
```

Figure 2-12: Hunt Group Parameters Printout

Programming Steps

1. Press the HUNT GROUPS flexible button (**FLASH 85, Button #11**). The following message displays:

PRINT HUNT GROUP PRESS HOLD

2. To print data for Hunt Group Parameters, press the HOLD button. The following message displays:

PRINTING HUNT GROUP

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Idle Speaker Mode

Description

The Idle Speaker Mode feature allows you to select whether the first digit dialed is audible over the digital telephone speaker. This feature is allowed or denied on a system-wide basis in programming.



When this feature is enabled, there can be some idle speaker noise.

Programming Steps

1. Press the IDLE SPEAKER MODE flexible button (**FLASH 05, Button #10**).
2. Enter a 0 or 1 that corresponds with the following entries:
 [0] = First digit dialed is audible (Disabled)
 [1] = First digit dialed is Muted (Enabled)

IDLE SPEAKER MODE 0-1 DISABLED
--

3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Idle Speaker Mode is disabled.

Incoming Calling Line Identification

For information about Incoming Calling Line Identification (ICLID), refer to [Appendix A, "ICLID / Caller ID."](#)

Intercom

Description

The Intercom Button feature provides station users the function of ringing a busy station via the intercom without using the Camp On or Executive Override features. This also allows stations to place intercom calls on hold. If calls are ringing on intercom buttons and a Handsfree call is received, the Handsfree call is allowed and the calls ringing continue with muted ringing. Multiple intercom path buttons can be assigned to a single station, however up to five internal parties can be placed on hold per station. Music-On-Hold is provided to intercom callers on hold.

This feature can be programmed on any key station or DSS Console with an available flexible button. If there is an available intercom button, a station calling that station cannot OHVO, Camp On, or Override that station. Depending on the key station programming, intercom ringing is muted or reminder ringing.

If all intercom buttons are in use, then the station may utilize the Camp On or Executive Override features. By default, no intercom buttons are assigned to any key stations.

Operation

To program a Flexible Button as an Intercom Button:

1. Press the SPEED button twice.
2. Press the desired flexible button to program.
3. Dial [645] on the dial pad. A confirmation tone sounds. If an error was made during entry, error tone sounds.

When an intercom call rings a busy station (with intercom button):

1. The calling station receives ringback tone instead of busy tone. The called station hears muted or reminder ring and their intercom button LED starts flashing at the incoming CO line rate. This indicates an incoming intercom call.
2. The called station can place the current CO call on hold by pressing the HOLD button, -or-
Place the current intercom call on hold by pressing the HOLD button. The intercom call is placed on hold on the available intercom button.
3. The called station then presses the flashing intercom button to answer the incoming intercom call. Once the call is answered, the following message displays on the called station LCD:

CALL FROM STA XXX MMM DD YY HH:MM am
--

Sta XXX can be a programmed station name.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » If calls are ringing on intercom buttons and a Handsfree call is received, the Handsfree call is allowed and the calls ringing continue with muted ringing.
- » Multiple intercom path buttons can be assigned to a single station, however up to five internal parties can be placed on hold per station. Music-On-Hold is provided to the intercom caller on hold.
- » Once an intercom button is set up on the keyset, callers dialing that station always receive ringback tone as long as an available intercom button is idle. If all intercom buttons are in use, the station may use the Camp On or Executive Override features to reach the station. Internal callers are dropped after the Camp On is answered.
- » This feature can be programmed on any key station or DSS Console with an available flexible button. If there is an available intercom button, the following actions cannot be performed: Executive Override, OHVO, Camp On or Override.
- » A call ringing to a station on an intercom button rings muted or reminder ringing, depending on the stations tone ringing cadence.
- » Up to five internal parties can be placed on hold. No recall timers apply to Intercom buttons. Internal callers can be placed and removed from hold when they appear on an Intercom button.
- » To utilize the capability of intercom buttons, busy forward cannot be active at the station.
- » A call ringing to a station on an intercom button and the DND button is pressed, returns DND tone to the caller and the call is dropped.

Intercom Calling

Description

The system's architecture allows non-blocking of intercom calls. A station is reached on intercom by dialing the associated station number.

Operation

To place an Intercom Call:

1. Press the DSS button of the party to be called (if programmed at your phone),
-or-
Dial the extension number.



Dialing a number in the numbering plan activates the telephone automatically.

(You hear ringing if the called station is in the T answering mode; or three bursts of tone if called station is in the H or P position.)

2. Lift handset or use the speakerphone after the tone bursts stop.
3. Hang up to end the call.

To answer an Intercom Call:

In the T mode, you hear repeated bursts of intercom tone ringing and the HOLD button slow flashes.

Lift the handset or press the ON/OFF button to answer,

-or-

Position the H-T-P switch to the H mode to reply.

In the P mode, you hear three bursts of tone and one-way announcement. The calling party cannot hear conversations in progress.

Lift the handset or press the ON/OFF button to answer,

-or-

Position the H-T-P switch to the H mode to reply.

In the H mode, you hear three bursts of tone and an announcement.

Reply handsfree or lift the handset for privacy.



SINGLE LINE TELEPHONE

To place an intercom call:

1. Lift the handset.
2. Dial the intercom number.
You will hear ringing if the called station is in the "T" answering mode or two bursts of tone if the called station is in the "H" or "P" modes.
3. Hang up to end the call.

To answer an intercom call:

Lift the handset,

-or-

If your SLT is equipped with a speakerphone, press the Speaker button to converse in a handsfree mode.

Incoming Intercom Ringing Flash Rate

Description

The Incoming Intercom Ringing flash rate is the rate an Incoming DSS button flashes if you have a DSS appearance for the calling station. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the INC ICM RING flexible button (**FLASH 07, Button #2**). The following message displays:

INC ICM RING	00-28
RED 120 IPM FLUTTER	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Incoming Intercom Ringing flash rate is set for Red 120 ipm Flutter (11).

Intercom Hold Button Flash Rate

Description

The Intercom Hold Button flash rate is the rate at which your Hold button flashes when you receive an intercom call and your station's intercom mode selector switch is in the *T* position. This flash rate can be programmed to 29 different options identified in the Flash Rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the ICM HOLD BTN flexible button (**FLASH 07, Button #19**).

ICM HOLD BTN	00-28
RED 15 IPM FLASH	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Intercom Hold Button flash rate is set for a Red 15 ipm Flash (09).

Intercom Signaling Select

Description

Users can control the method by which they receive intercom calls and signals. A convenient HPT button is located on each digital telephone for easy selection. The choices are:

- Handsfree (H) -- The station user, upon hearing a tone burst and voice announcement over the speaker, can reply handsfree.
- Privacy (P) -- The station user receives a burst of tone and a voice announcement over their speaker. The microphone is deactivated for privacy. The called party must lift the handset or press the MUTE button to answer the call.
- Tone Ringing (T) -- A standard tone ring notifies the party of an incoming intercom call. The called party answers by lifting the handset or moving the switch to the handsfree (H) position or pressing the ON/OFF button.

Intercom Transfer

To use Intercom Transfer without DSS Buttons:

1. Receive or make an intercom call.
2. Press the TRANS button. Intercom dial tone sounds.
3. Dial the station.
4. When the second station answers, you are in a supervised transfer mode (first station is staged for transfer).
5. Hang up (stations 1 and 2 are connected).

To use Intercom Transfer with DSS Buttons:

1. Receive or make an intercom call using a DSS button.
2. Press the TRANS button. Intercom dial tone sounds.
3. Press the DSS button where to transfer the call.
4. Hang up (stations 1 and 2 are connected).

Inter-Digit Time-Out

The Inter-Digit Time-Out feature allows programming of the inter-digit time-out on a system-wide basis. This feature applies to intercom calls. DISA inter-digit time-out remains unaffected by this timer. The Inter-Digit Time-out setting is variable from 1-99 seconds.

Programming Steps

1. Press the INTER-DIGIT TIMEOUT flexible button (**FLASH 01, Button #20**). The following message displays:

INTERDIGIT T / O	01-99
05	

2. Enter a valid number on the dial pad that corresponds to 01-99 seconds in 1-second increments.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Inter-Digit Time-out is set for 5 seconds.

Keyset Mode

Description

The Keyset Mode feature (digital KTU only) allows the station user to determine the mode in which the Digital Telephone with CTI Box and Wanderer (optional) operates. The six modes are: Inactive mode, PC Phone mode, ATD Command mode, ATH Command mode, CKTU mode, and SPI mode. Through the use of a dial code, the station user can also determine the baud rate for each mode selected. This setting is stored in back-up memory in the event of a power outage or system reset.

The following Modes are described:

- Inactive -- No CTI information is sent/received by the telephone.
- PC Phone -- CTI information used with Vodavi Discovery Desktop and Discovery PC Phone software must be set to 4800 baud rate.
- ATD -- This is the modem dialing command. The telephone recognizes the ATD and accepts digits after the command. This allows the PC connection to the telephone to use the AT Ringing command. (Available baud rates are: 1200, 2400, and 4800.)
- ATH or ATHX (X = 0 or 1) -- This is the modem on hook/off hook command. ATH or ATH0 forces the telephone to the on hook state from its current state. ATH1 forces the telephone to the off hook state from its current state.



If the handset is off hook (lifted), these commands are discarded and no action is taken by the telephone.

- CKTU -- Cordless Key Telephone Unit. This mode is used when the optional *Wanderer* is connected to the station. (Refer to the *Wanderer User Guide* for additional information.)
- SPI -- Service Provider Interface. This mode is used in conjunction with TAPI applications such as Discovery Link.
- TAPI -- For future use.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

Operation

At an idle station:

1. Dial the Keypad Mode code [648] on the dial pad,

-or-

Press the preprogrammed KEYPAD MODE button, the following displays:

INACTIVE	2400
MODE=* SAVE=HOLD	BAUD=#

2. Press [*] to scroll through the keypad modes.
3. Press [#] to scroll through the baud rates.
4. Press the HOLD button to save the desired entries.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » Telephone must be in AT command mode to process AT commands.
- » CTI information is still sent out the RS-232 port in AT command mode.
- » The ATD command is always accepted by the telephone while it is in the AT command mode. ATHX is accepted only if enabled.
- » ATZ is always enabled if station is in the ATD or ATH command mode.
- » ATD accepts W to indicate a pause command (ATDT9W9982200).
- » ATH or ATH0 causes an on hook event. ATH1 must be specified to go off hook.
- » AT or ATZX (X = 0 or 1) is the modem reset/initialize command. When these commands are sent to the keypad, it returns OK in ASCII format.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Last Number Redial

Description

The Last Number Redial (LNR) feature permits the automatic redialing of the last telephone number dialed on an outside line. Up to 24-digits can be stored. Outside line selection of the same line used is automatic.

Operation

To use Last Number Redial, either:

Press [SPEED], then press [#].

-or-

Use the Soft Key's LNR option when in an idle condition.

The last number dialed over an outside line is automatically redialed.

- The system automatically selects the original line used to place the call and redials the number.
- If that line is busy, the system automatically selects another line from the same group and redials the number.
- If no lines are available in the same group, the station receives busy tone and can queue for a line.
- If the station user preselects a line before activating LNR, the preselection overrides the line that was used originally.



SINGLE LINE TELEPHONE

Not applicable

LCD

LCD Display - Contrast

Description

Four contrast adjustments are available to adjust the LCD for different lighting levels.

Operation

At idle phone, press volume bar up or down for desired effect.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » BGM must be inactive.
- » Handset must be in cradle.
- » ON/OFF button must be set to OFF.

LCD Interactive Display

Description

The *STS* Digital Telephone provides you with a visual indication of call status and other information. Calls to and from other extensions, number dialed, line used, and Camp On are some of the items displayed. [Table 2-16 on page 2-179](#) shows Non-Soft Key LCD displays based on the function performed.

The three Soft Keys provide an ability to access commonly used features without having to preprogram those functions on a flexible button or use fixed buttons. Soft Key use is in conjunction with the LCD interactive displays.

Non-Soft Key LCD Displays

Each display is arranged into **upper** and **lower** fields.

- The **upper** field shows the current activity of the telephone.
- The **lower** field is divided into two sections:
 - The *left* section of the **lower** field shows either the date, speed bin number, connected intercom station, or outside line number.
 - The *right* section of the **lower** field shows the current time or elapsed time on an outside call.

Soft Key LCD Displays

Soft Key functions and corresponding LCD displays vary, dependent upon the telephone operating mode, e.g., idle mode, during a conference, line ringing, active CO line call, intercom call to a busy station, or active intercom call.

When you use Soft Keys while in an idle mode, the following principles apply:

1. Press the right Soft Key to display the first two options.
2. Continue to press the right Soft Key to scroll through two additional options at a time until the desired option appears.
3. Press the left or center Soft Key located immediately below the desired option. Certain options require no further steps for activation, e.g., DND or Clear Forward options.
4. Dial appropriate digits as necessary to activate selected features, e.g., specific speed bin number for speed dialing or specific personal message number.

When you use Soft Keys while in a non-idle mode:

1. Press the right Soft Key. If options exist for the current mode of operation, the option(s) will appear on the LCD.
2. If more than two options exist, use the right Soft Key to scroll through additional options.
3. Press the left or center Soft Key located immediately below the desired option. Certain options require no further steps for activation.
4. Dial appropriate digits as necessary to activate selected features.

Table 2-16: Liquid Crystal Displays (LCD)

Function	CALLING Station Display	CALLED Station Display
Idle Station	<div style="border: 1px solid black; padding: 2px;">STATION XXX MMM DD YY HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">STA XXXNAME MMM DD YY HH:MM am</div>	<div style="border: 1px solid black; padding: 2px;">STATION XXXNAME MMM DD YY HH:MM am</div>
Manually Dialing Outgoing Calls	<div style="border: 1px solid black; padding: 2px;">18005551212 LINE XXX HH:MM:SS</div>	
Recalling Line from Hold	<div style="border: 1px solid black; padding: 2px;">LINE XXX RECALLING MMM DD YY HH:MM am</div>	
Recalling Line from Another Station	<div style="border: 1px solid black; padding: 2px;">RECALL FROM STA XXX LINE XXX HH:MM:SS</div>	<div style="border: 1px solid black; padding: 2px;">RECALL FROM ..(name).. LINE XXX HH:MM:SS</div>
Connected to an Incoming CO line		<div style="border: 1px solid black; padding: 2px;">***XXX*** LINE XXX 00:00:10</div>
Intercom Call	<div style="border: 1px solid black; padding: 2px;">CALL TO STA XXX MMM DD YY HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">CALL TO ..(name).. MMM DD YY HH:MM am</div>	<div style="border: 1px solid black; padding: 2px;">CALL FROM STA XXX MMM DD YY HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">CALL FROM ..(name).. MMM DD YY HH:MM am</div>
Camp On	<div style="border: 1px solid black; padding: 2px;">CALL TO STA XXX MMM DD YY HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">CALL TO ..(name).. MMM DD YY HH:MM am</div>	<div style="border: 1px solid black; padding: 2px;">CAMP ON BY STA XXX MMM DD YY HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">CAMP ON BY ..(name).. MMM DD YY HH:MM am</div>
Conference	<div style="border: 1px solid black; padding: 2px;">CONFERENCE MMM DD YY HH:MM am</div>	<div style="border: 1px solid black; padding: 2px;">CONFERENCE MMM DD YY HH:MM am</div>
Internal Page	<div style="border: 1px solid black; padding: 2px;">INTERNAL PAGE ZONE X HH:MM am</div>	<div style="border: 1px solid black; padding: 2px;">PAGE FROM STA XXX MMM DD YY HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">PAGE FROM ..(name).. MMM DD YY HH:MM am</div>

Table 2-16: Liquid Crystal Displays (LCD)

Function	CALLING Station Display	CALLED Station Display
External Zone Page and External All Call Page	EXTERNAL PAGE ZONE X HH:MM am	
	EXTERNAL PAGE MMM DD YY HH:MM am	
All Call Page	ALL CALL PAGE MMM DD YY HH:MM am	PAGE FROM STA XXX MMM DD YY HH:MM am
Meet Me Page	ALL CALL PAGE MMM DD YY HH:MM am	PAGE FROM XXX MMM DD YY HH:MM am
	CALL FROM XXX MMM DD YY HH:MM am	CALL TO XXX MMM DD YY HH:MM am
Station Call Forward (originating station and name in display)	FORWARDED TO STA XXX MMM DD YY HH:MM am	
	FORWARDED TO ..(name).. MMM DD YY HH:MM am	
Station No-Answer Call Forward (originating station)	NO ANS FWD TO STA XXX MMM DD YY HH:MM am	
	NO ANS FWD TO ..(name).. MMM DD YY HH:MM am	
Station Busy/ No-Answer Call Forward (originating station)	BSY/NA FWD TO STA XXX MMM DD YY HH:MM am	
	BSY/NA FWD TO ..(name).. MMM DD YY HH:MM am	

Table 2-16: Liquid Crystal Displays (LCD)

Function	CALLING Station Display	CALLED Station Display
Station Busy Call Forward (originating station)	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> BUSY FWD TO STA XXX MMM DD YY HH:MM am </div> <div style="border: 1px solid black; padding: 2px;"> BUSY FWD TO ..(name).. MMM DD YY HH:MM am </div>	
Forwarded Call (name in display)	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> FORWARDED TO STA XXX VIA STA XXX HH:MM am </div> <div style="border: 1px solid black; padding: 2px;"> FORWARDED TO ..(name).. VIA STA XXX HH:MM am </div>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> CALL FROM STA XXX VIA STA XXX HH:MM am </div> <div style="border: 1px solid black; padding: 2px;"> CALL FROM ..(name).. VIA STA XXX HH:MM am </div>
Forwarded Intercom Call	<div style="border: 1px solid black; padding: 2px;"> FORWARDED TO STA XXX VIA STA XXX HH:MM am </div>	<div style="border: 1px solid black; padding: 2px;"> CALL FROM STA XXX VIA STA XXX HH:MM am </div>
Station Forwarded to Voice Mail Group (station idle)	<div style="border: 1px solid black; padding: 2px;"> FORWARDED TO VOICE MAIL MMM DD YY HH:MM am </div>	
Station Forwarded to UCD Group (station idle)	<div style="border: 1px solid black; padding: 2px;"> FORWARDED TO UCD 55X MMM DD YY HH:MM am </div>	
Preset Forward		<div style="border: 1px solid black; padding: 2px;"> FORWARD RING LINE XXX HH:MM am </div>
Station Call to Station Forwarded to a Voice Mail Group*	<div style="border: 1px solid black; padding: 2px;"> FORWARDED TO VOICE MAIL VIA STA XXX HH:MM am </div>	<div style="border: 1px solid black; padding: 2px;"> FORWARDED TO VOICE MAIL MMM DD YY HH:MM am </div>
Call Pick-Up	<div style="border: 1px solid black; padding: 2px;"> CALL TO STA XXX PICKED UP BY STA XXX HH:MM am </div>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> CALL TO STA XXX FROM STA XXX HH:MM am </div> <div style="border: 1px solid black; padding: 2px;"> TRANSFER FROM STA XXX LINE XXX HH:MM am </div>
Exclusive Hold	<div style="border: 1px solid black; padding: 2px;"> LINE HOLDING LINE XXX HH:MM am </div>	
Do Not Disturb	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> DO NOT DISTURB STA XXX MMM DD YY HH:MM am </div> <div style="border: 1px solid black; padding: 2px;"> DO NOT DISTURB ..(name).. MMM DD YY HH:MM am </div>	<div style="border: 1px solid black; padding: 2px;"> STA IN DO NOT DISTURB MMM DD YY HH:MM am </div>

Table 2-16: Liquid Crystal Displays (LCD)

Function	CALLING Station Display	CALLED Station Display
Call Back	CALL BACK FROM STA XXX MMM DD YY HH:MM am	CALL FROM STA XXX MMM DD YY HH:MM am
	CALL BACK FROM ..(name).. MMM DD YY HH:MM am	CALL FROM ..(name).. MMM DD YY HH:MM am
Outside Line Transfer	TRANSFER FROM STA XXX LINE XXX HH:MM am	
	TRANSFER FROM ..(name).. LINE XXX HH:MM am	
Message Waiting		MSG: XXX XXX XXX XXX MMM DD YY HH:MM am
Reply to a Message Waiting	CALL TO STA XXX MMM DD YY HH:MM am	CALL BACK FROM STA XXX MMM DD YY HH:MM am
	CALL TO ..(name).. MMM DD YY HH:MM am	
Programmed Flash Command (F)	F*1	
Programmed Pause Command (P)	950777P1234567 SPEED XXXX HH:MM am	
Programmed Pulse-To-Tone Switchover (S)	950777S1234567 SPEED XXXX HH:MM am	
CO Line Queuing	PLACED IN QUEUE FOR LINE XXX HH:MM am	
	QUEUE CALL BACK LINE XXX HH:MM am	
Hunt Groups	CALL TO STA XXX VIA HUNT HH:MM am	
	CALL TO ..(name).. VIA HUNT HH:MM am	

Table 2-16: Liquid Crystal Displays (LCD)

Function	CALLING Station Display	CALLED Station Display
UCD Groups	<div style="border: 1px solid black; padding: 2px;">CALL TO STA XXX VIA UCD HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">CALL TO ..(name).. VIA UCD HH:MM am</div>	
Ringing CO Lines		<div style="border: 1px solid black; padding: 2px;">LINE RINGING LINE XXX HH:MM am</div>
Display Security	<div style="border: 1px solid black; padding: 2px;">DISPLAY SECURITY LINE XXX HH:MM:SS</div>	
Station Forwarding Off-Net	<div style="border: 1px solid black; padding: 2px;">FORWARDED TO SPEED XXXX MMM DD YY HH:MM am</div>	
Call to Station Forwarded Off-Net (before and after a call is answered)	<div style="border: 1px solid black; padding: 2px;">FORWARDED OFF NET LINE XXX CALLED 102</div> <div style="border: 1px solid black; padding: 2px;">2331234 LINE XXX HH:MM:SS</div>	<div style="border: 1px solid black; padding: 2px;">FORWARDED TO SPEED XXXX MMM DD YY HH:MM am</div>
Calls in Queue - UCD (using dial code)	<div style="border: 1px solid black; padding: 2px;">UCD 55X 02 CALLS IN QUEUE MMM DD YY HH:MM am</div>	
Unavailable Mode (Agent Station) - UCD	<div style="border: 1px solid black; padding: 2px;">UNAVAILABLE UCD * XXX * MMM DD YY HH:MM am</div>	
Station Call to Voice Mail Group Pilot Number	<div style="border: 1px solid black; padding: 2px;">CALL TO VOICE MAIL MMM DD YY HH:MM am</div>	
Dial By Name	<div style="border: 1px solid black; padding: 2px;">DIAL NAME: MMM DD YY HH:MM pm</div>	
Off-Hook Voice Over (OHVO)	<div style="border: 1px solid black; padding: 2px;">ANNOUNCE TO STA XXX MMM DD YY HH:MM am</div>	<div style="border: 1px solid black; padding: 2px;">ANNOUNCE FROM STA XXX MMM DD YY HH:MM am</div>
Executive Override	<div style="border: 1px solid black; padding: 2px;">MONITORING STA XXX MMM DD YY HH:MM am</div>	

Table 2-16: Liquid Crystal Displays (LCD)

Function	CALLING Station Display	CALLED Station Display
Voice Mail* Transfer with ID Digits	<div style="border: 1px solid black; padding: 2px;">CALL TO VOICE MAIL VIA XXX MMM DD YY</div> <div style="border: 1px solid black; padding: 2px;">ENTER VM ID: MMM DD YY HH:MM pm</div>	
Repeat Redial	<div style="border: 1px solid black; padding: 2px;">ENTER RPT REDIAL TIMER XXX 066-999</div> <div style="border: 1px solid black; padding: 2px;">RPT REDIAL CALLBACK: MMM DD YY HH:MM pm</div>	
Call Coverage Station (after call is answered at coverage station in a non-network system or within same Node) (after call is answered at coverage station in a network with a call passed across a switch)		<div style="border: 1px solid black; padding: 2px;">CALL FOR STA XXXX MMM DD YY HH:MM am</div> <div style="border: 1px solid black; padding: 2px;">CALL FOR STA XXXX FROM STA YYYY HH:MM:SS</div> <div style="border: 1px solid black; padding: 2px;">XXXXXXXXXX CALLING YYYYYY HH:MM:SS</div>
Name/Number Display at Idle	<div style="border: 1px solid black; padding: 2px;">STA YYYYYYYYYYYY MMM DD YY HH:MM pm</div>	
Scrollable Canned Messages	<div style="border: 1px solid black; padding: 2px;">XXXXXXXXXXXXXXXXXX NEXT=# PREV=* SAVE=HOLD</div>	
Answering Machine Emulation (when a call rings the station in ring mode)	<div style="border: 1px solid black; padding: 2px;">VM SCREENING RING MMM DD YY HH:MM pm</div>	
Answering Machine Emulation (when station monitors caller in VM)	<div style="border: 1px solid black; padding: 2px;">VM SCREENING MMM DD YY HH:MM pm</div>	

LCOB Loop Length

Description

This feature is used to effectively reduce side tone when using LCOBC or LCOBE. When your system is located a short distance from the telephone company (Telco), use the Short option. When your system is located a long distance from the Telco, use the Long option.

Programming Steps

1. Press **FLASH** and dial **[41]**. The following message displays:

CO FEATURES ENTER BUTTON NUMBER

2. Press Button #8. The following message displays:

LCOB LOOP LENGTH	0-1
LONG	

3. Enter a valid number on the dial pad.
[0] = Short
[1] = Long
4. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... The Long option (1) is the default.

Leading Digit

Description

System administrators can tailor the system numbering plan to change all 3-digit numbers into 4-digit numbers that begin with a desired digit 0-8.

Programming Steps

1. Press FLASH and dial [09]. The following message displays:

SYSTEM PARAMETERS ENTER BUTTON NUMBER
--

2. Press Button #9. The following message displays:

LEADING DIGIT	0-8
0	

3. Dial a valid number (0-8) to identify the desired leading digit.
4. Press HOLD to save the entry.



Only 3-digit codes will be changed to include a leading digit, e.g., 2-digit codes such as group call pickup (#0) are not affected.

Least Cost Routing

For information about Least Cost Routing (LCR), refer to [Appendix B, "Least Cost Routing."](#)

Light Control

Description

The Light Control feature allows the light above the LCD on *STS* digital telephones to be used as message wait, voice mail, headset off-hook, and ring indications. This feature can be programmed on a per station basis.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (100-351) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

5. Press the LIGHT CONTROL flexible button (**Button #15**).

LIGHT CONTROL 0-4
NONE

6. Enter a valid number (0-4) to change the mode of an ICLID phone.
 [0] = None [1] = Button Incoming Ringing @ 480 ipm
 [2] = Voice Mail @ 240 ipm [3] = Message Wait @ 60 ipm [4] = Headset @ Steady
7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Light Control is set for None.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Message Wait

Description

Stations that are busy, unattended, or in DND can be left a message indication by other stations in the system. Up to five messages can be left at one keyset. Upon return to the station, the user can press the flashing MSG WAIT button to ring each party in sequential order.

Operation

To leave a message waiting indication:

If you dial a station that is busy, unattended, or in DND, you can leave a message waiting indication.

1. Lift handset or press ON/OFF button.
2. Dial the desired intercom station.
3. Press the MSG button or use the Soft Key's MSG option. A confirmation tone sounds. Called party's MSG button illuminates.
4. Replace the handset or press the ON/OFF button to end the call.



Up to five messages can be left at any Station.

To answer a message waiting indication:

If your MSG button is lit, you have a message waiting for you. The first message left is the first one called.

1. Press MSG or use the Soft Key's MSG option. Station that left message is signaled with tone ringing.
2. If called station does not answer, press MSG once to leave message.



SINGLE LINE TELEPHONE

To leave a message waiting indication:

1. Lift the handset.
2. Dial the desired intercom station. Receive no answer or DND tone sounds.
3. Briefly depress and release the hookswitch.
4. Dial [623].
5. Hang up.

To answer a message waiting indication (your message waiting lamp is flashing or there is an interrupted dial tone when you lift the handset):

1. Lift the handset.
2. Dial [663]. Station that left message will ring.

Message Waiting Reminder Tone

Description

The Message Wait Reminder Timer determines the time between repeated reminder tones to a key telephone with a message waiting. Digital station users may be reminded of a message waiting on their telephone with an audible signal presented at a timed interval. The Message Wait Reminder Tone setting is variable from 000-104 minutes.

Programming Steps

1. Press the MESSAGE WAIT REMINDER TONE flexible button (**FLASH 01, Button #13**).

M / W TONE TIMER	000-104
000	

2. Enter a valid number on the dial pad that corresponds to 000-104 minutes.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Message Wait Reminder Tone is set at 000 (disabled).

Music-On-Hold

A music source, when connected to the system, provides music to all lines on Hold, parked calls, transferred calls and calls waiting to be answered by Uniform Call Distribution (UCD).

This feature can be allowed or denied on a system-wide basis in database programming. This feature can also allow or deny Music-On-Hold heard on each CO line and is programmable on a per CO line basis. This feature also allows the system to assign CO line circuits as additional music inputs. This increases the capacity of music channels beyond the one available on this system. A total of seven channels are available for use on the system.

MOH Assignments

Description

The MOH Assignments feature enables the system to assign CO line circuits as an additional 6 music-on-hold inputs. This increases the capacity of music channels beyond the one available on the first installed card in the BKSU for use by a MOH source.

A maximum of seven channels are available for use on the system. By default, no channels are assigned.

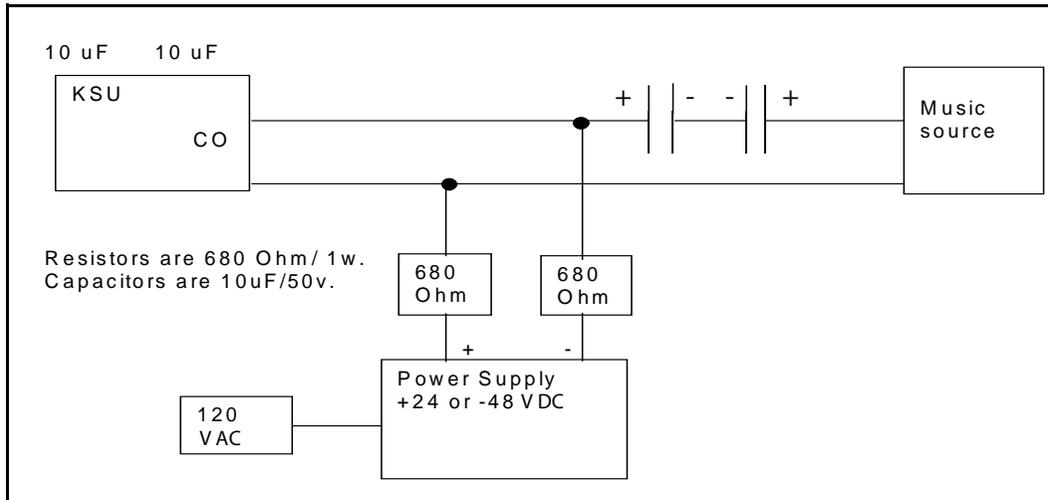


Figure 2-13: Wiring - Music Source to a CO Line

Programming Steps

1. Press the MUSIC CH # flexible button (**FLASH 09, Button #1 through #6**). The following message displays:

```
MUSIC CHANNEL X   001-XXX
YYY
```

X = 3-8

XXX = Maximum CO Lines in your system

YYY = CO Line number specified for use for this channel

2. Enter a valid number (001-XXX) that corresponds to the CO line number desired.
3. Press HOLD to save the entry. A confirmation tone sounds.

Music-On-Hold - Enable/Disable

Description

When connected to the system, a music source provides music to all lines on Hold, parked calls, transferred calls and calls waiting to be answered by Uniform Call Distribution (UCD).

This feature is allowed or denied on a system-wide basis in programming.

Programming Steps

1. Press MUSIC-ON-HOLD flexible button (**FLASH 05, Button #12**). Feature toggles on/off each time button is pressed; and the display updates.

[0] = Disabled

[1] = Enabled

MUSIC ON HOLD ENABLED	0-1
--------------------------	-----

2. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Music-On-Hold is enabled.

Music-On-Hold (per CO Line)

Description

The Music-On-HOLD feature allows a user to select the Music-On-Hold channel for each CO line. This feature lets the system assign CO line circuits as additional music inputs. This increases the capacity of music channels beyond the one available on the first installed card in the BKSU. Up to seven channels are available for use on the system. The CO line can be assigned to NOT PLAY music for callers on hold.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES SELECT A CO LINE RANGE
--

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible Button #19 (Page A) is lit.
4. Press the Page B flexible button (Button #20). The following message displays:

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

Features and Operation

5. Press the MUSIC-ON-HOLD flexible button (**FLASH 40, Page B, Button #8**). The following message displays:

MOH CHANNEL	0-8
1	

6. Enter a valid number on the dial pad to change this feature.
 [0] = No Music-On-Hold
 [1] = Channel 1
 : : : : :
 [8] = Channel 8
7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

Table 2-17: MOH Programming Codes

Program Code	Flexible Button	Feature	Default (after initialization)
FLASH 09	1	Music Channel #3*	##
	2	Music Channel #4*	##
	3	Music Channel #5*	##
	4	Music Channel #6*	##
	5	Music Channel #7*	##
	6	Music Channel #8*	##
* Music Channels 3-8 can only be used for Music-On-Hold functions			

DEFAULT ... Channel 1 is used for Music-On-Hold.

Mute Key

Description

Pressing the MUTE button while in the speakerphone mode or using the handset disables the microphone but does not affect the speech coming over the speaker or handset. Pressing the illuminated MUTE button again reactivates the microphone.

Operation

To disable the microphone:

1. Press MUTE while off-hook on speakerphone or handset to activate.
2. Press MUTE again to deactivate. Mute automatically deactivates upon call termination.

Conditions

- » Changing from handset to speakerphone (or the reverse) cancels the Mute function.

Name In Display

Description

The Name in Display feature allows every extension (digital/SLT) the capability to program the users name for that station, so that people using display telephones see the name instead of the station number on their display. The name is programmed at each station by the user and may be up to seven letters in length.

Operation

To create your name:

1. Dial [690] on the dial pad.
2. Enter the name (up to 7 characters may be entered) by using keys on the dial pad.

Other Codes			
1 = 1#	8 = 8#	" = 01	* = *#
2 = 2#	9 = 9#	, = 02	(= #1
3 = 3#	0 = 0#	? = 03) = #2
4 = 4#	Space = 11	/ = 04	+ = #3
5 = 5#	: = 12	! = *1	= = #4
6 = 6#	- = 13	\$ = *2	# = ##
7 = 7#	' = 14	& = *4	. = 24

1	A-21 B-22 C-23	D-31 E-32 F-33
G-41 H-42 I-43	J-51 K-52 L-53	M-61 N-62 O-63
P-71 R-72 S-73 Q-74	T-81 U-82 V-83	W-91 X-92 Y-93 Z-94
*	OPER 0	#

Figure 2-14: Name In Display Keypad Map

3. Press the SPEED button to complete the programming process.

To erase your name:

1. Dial [690] on the dial pad.
2. Press the SPEED button to complete the erasing process.



SINGLE LINE TELEPHONE

To create your name:

1. Dial [690] on the dial pad.
2. Enter the name (up to 7 characters may be entered) by using keys on the dial pad.
3. Briefly depress the hookswitch and release to complete the programming process.

To erase your name:

1. Dial [690] on the dial pad.
2. Briefly depress the hookswitch and release to complete the erasing process.

Name / Number Display At Idle

Description

The Name/Number Display feature allows the programmed seven-digit name and station number to display together. This option is programmable on a per station basis, however the feature must be enabled/disabled in admin programming. If a station has this feature enabled but has not programmed a name, the name portion of the LCD is blank. The priority of the idle display is UCD, Hunt, Station/Name, or Station alone.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

4. Press the NAME/NUMBER DISPLAY flexible button (**Button #15**). The following message displays:

NAME AT IDLE LCD 0-1
NAME

5. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Extension Number
[1] = Name
6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Name displays on the LCD.

Conditions

- » Not applicable to Single Line Telephones.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Name/Number Translation Table

Description

An administrable table in the KSU provides a local translation from a received calling number to a name. This can be administered by the customer from the attendant console. This table is also shared by the ICLID features. In cases of conflict between the name delivered from the CO and that in the local translation table, the local translation table rules. 200 entries are provided in this table for the system.

An option was added to the Local Number/Name translation table to route an ICLID or Caller Entered ID Digits, based on a partial compare with the number entered in the translation table.

ROUTE NUMBER * 1 Q	PHONE NUMBER * 2 W	NAME * 3 E	CLEAR ENTRY * 4 R
BACKSPACE * 5 T	* 6 Y	* 7 U	* 8 I
* 9 O	* 10 P	* 11 A	* 12 S
* 13 D	* 14 F	* 15 G	* 16 H
* 17 J	NEXT TABLE * 18 K	PREV TABLE * 19 L	TABLE NUMBER * 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V



If a match is found between a number in the translation table and an incoming call record, the translated name is displayed and/or stored in the unanswered call table.

Programming Steps

1. Press **FLASH** and dial **[55]**. The following message displays:

S - XXX ### ,

XXX = Table Number 600-799

= Route Number 000-251

The Route Number LED (Button #1) is lit.

2. Enter a Route Number (000-251) from what was entered in ICLID Ringing Assignments, **FLASH [43]**.

To program a phone number into the translation table:

1. Press the PHONE NUMBER flexible button (**Button #2**) to enter the desired phone number into the translation table. Maximum length of a phone number is 14 characters, including spaces and dashes. For example, to enter 1-480-443-6000, press:
 $[1]+[#]+[1]+[3]+[4]+[#]+[8]+[#]+[0]+[#]+[1]+[3]+[4]+[#]+[4]+[#]+[3]+[#]+[1]+[3]+[6]+[#]+[0]+[#]+[0]+[#]+[0]+[#]$ (Refer to [Figure 2-4 on page 2-74](#) for a description of keystroke combinations necessary for digit and other character entries.)

Your entry must be 14 character entries in length. If the desired phone number is less than 14 characters, use leading spaces as necessary. For example, to enter 443-6000, press:

$[1]+[1]+[1]+[1]+[1]+[1]+[1]+[1]+[1]+[1]+[1]+[1]+[4]+[#]+[4]+[#]+[3]+[#]+[1]+[3]+[6]+[#]+[0]+[#]+[0]+[#]+[0]+[#]$

2. Press HOLD to update the database. The BACK SPACE flexible button (**Button #5**) erases current number for error correction.

To program a name into the translation table:

1. Press the NAME flexible button (**Button #3**) to enter the desired name into the translation table. Maximum length is 24 characters (refer to [Figure 2-4 on page 2-74](#) for dial pad keys).
2. Press HOLD to update the database. The BACK SPACE flexible button (**Button #5**) erases the current letter for error correction.

To erase a current phone number/name entry:

- Press the CLEAR ENTRY flexible button (**Button #4**) to clear an entire phone number and name from the current index.
- Press the NEXT TABLE flexible button (**Button #18**) to advance to the next index and continue entering information into the translation table.
- Press the PREV TABLE flexible button (**Button #19**) to return to a previous index that is already programmed.

To locate an existing index for editing:

1. Press the TABLE NUMBER flexible button (**Button #20**). The following message displays:

ENTER TABLE NUMBER

2. Enter a valid number that corresponds to the table numbers 600-799.
3. Press HOLD to complete the entry.

Night Service

Description

The **STS** can be programmed so it is automatically placed into and out of night mode. A programmable weekly time schedule lets the system administrator preset the time the system goes into night mode, and the time night mode is removed on a daily basis, including weekend operation.

The Night Service feature provides a means to put the system in night mode from any keyset or remove the system from night mode from any keyset, as long as the system was put in night mode by the NIGHT SERVICE flexible button [604]. If the system was placed in night mode by the Attendant using the DND button [631] or if the system was placed in night mode by the automatic schedule, the NIGHT SERVICE flexible button cannot remove the system from night mode.

Digital Voice Mail (DVM) -- The DVM Day/Night Operation can be set up to follow the same path as the Day/Night/Special Mode for the telephone system.

AUTO / MANUAL * [1] Q	MONDAY * [2] W	TUESDAY * [3] E	WEDNESDAY * [4] R
THURSDAY * [5] T	FRIDAY * [6] Y	SATURDAY * [7] U	SUNDAY * [8] I

Operation

To enter Night Service Mode, from an idle station:

Press the preprogrammed NIGHT SERVICE flexible button [604]. The system is now in the Night Service Mode.

To remove Night Service Mode:

Press the preprogrammed NIGHT SERVICE flexible button [604] again. The system is now removed from the Night Service Mode.

Automatic / Manual Operation

Description

If the system is operated in the automatic night mode the attendant(s) can override the automatic mode by pressing the night key on the attendant(s) phone. The schedule does not go into effect until the attendant(s) press the night key again. When the system is placed into night mode, CO line ringing follows the night ringing assignments and stations are governed by their respective night COS.

The default times for automatic night mode are:

- Monday to Friday 08:00 17:00 (Daytime operation 8:00 am to 5:00 pm)
- Saturday and Sunday ##:## ##:## (24-hour night-mode operation)
 - An entry of 00:00 23:59 indicates 24 hours of day mode.
 - An entry of ##:## ##:## directs the system to ignore these days.

Programming Steps

1. Press **FLASH** and dial **[22]**. The following message displays:

DAY	END	START	AUTO
MON	0800	1700	NO

2. Press the AUTO/MANUAL flexible button (**FLASH 22, Button #1**). This feature toggles on and off each time the button is pressed. The display updates with each toggle.
 - LED On = Automatic Night Mode
 - LED Off = Manual operation
3. If no other changes must be made, press HOLD to save the entry. A confirmation tone sounds.



Once enabled, this feature addresses the entire week.

Day of Week Programming

Programming Steps

The MONDAY flexible button (Button #2) LED is lit. To change days of the week:

1. Press the appropriate DAY OF WEEK flexible button (**FLASH 22, Buttons 2-8**).
2. Enter a valid number to indicate the hour and minutes to end night mode.
3. Press HOLD to save the entry. (Example: 07301830 [HOLD]) A confirmation tone sounds and the display updates.

Automatic Night Mode Operation

The **STS** can be programmed in database administration to place the system into Automatic Night Mode. The Attendant(s) can override the Automatic Night Mode schedule simply by pressing the NIGHT (DND) button [631].

External Night Ringing

The system can be programmed so that CO lines marked for UNA rings on the external page speakers. Refer to ["Universal Day/Night Answer" on page 2-287](#).

Manual Operation

The Attendant(s) can control the use of Night Mode manually by pressing the NIGHT (DND) button [631]. An LED indicates when the system is in Night Mode operation (flashing = Special Mode, off = Day Mode).

Night Class of Service (COS)

The system allows each station to be assigned a different COS for night operation. The night COS goes into effect when the system is put into night mode manually or via the automatic schedule. Prevents the misuse of phones after hours.

Night Ringing Assignments

Each CO line may be individually programmed for Night Ringing to other stations, to Hunt/UCD/Voice Mail groups, or off-net via Speed Dial. When the system is placed into night mode, manually or automatically, ringing follows the Night Ringing Assignments for each CO line.

Universal Night Answer (UNA)

Incoming CO lines can be programmed for Universal Night Answer (UNA). Stations that do not have access to a line during the day can answer that line while the system is in the Night Mode by dialing a UNA code. Refer to ["Universal Night Answer \(UNA\)" on page 2-199](#).

Weekly Night Mode Schedule

A programmable weekly night mode schedule provides for 24 hour, 7 day a week automatic night mode operation. The system can be put into and out of night mode automatically on a daily basis.

Digital Voice Mail (DVM) -- The DVM Day/Night Operation can be set up to follow the same path as the Day/Night/Special Mode for the telephone system.

Conditions

- » A station using the night key [604] can put the system into night mode.
- » The automatic schedule will override the station night key [604].
- » The attendant DND setting [631] overrides both the automatic schedule and the station night key [604].

Off-Hook Signaling

Description

If a station has been programmed to receive direct outside line ringing and is busy on another call, the call rings at the station using either a muted ring signal or reminder ring depending on how the option is programmed (refer to [“CO Line - Ringing Options” on page 2-90](#)). A Reminder Ring Timer provides the reminder ring every time the timer expires, as long as the incoming CO line remains connected.

The system defaults this option to muted ringing. CO calls may also be camped-on to a busy station and receive muted ringing.

Off-Hook Voice Over

Description

Off-Hook Voice Over (OHVO) enables station users, off-hook on a CO or intercom call, to receive a voice announcement through the handset receiver without completely interrupting the existing call. Your voice is only heard through the handset of the called party's telephone. The Voice Over is muted so it does not override or drown out the existing conversation. The called party can connect to the two parties and carry on two independent conversations using the handset. The called party can also respond using the text messaging feature which sends messages to the calling party's display.

Another method provides for the receiving station to respond to an OHVO announcement using the MUTE feature button. This button is pressed to carry on a two-way conversation with the OHVO initiator while still listening to the original call.



The calling station is placed in a one-time DND mode upon initiating the Voice Over. One-time DND cannot be toggled during the OHVO call. The station receiving the OHVO call must be off-hook and in the H mode.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

- Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE A
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE A
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press the OHVO flexible button (**Button #9**). The following message displays:

```
OFF HOOK VOICE OVER    0-1
DISABLED
```

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
 - [0] = Disabled
 - [1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Off-Hook Voice Over is disabled for all stations.

Operation

To place an Off-hook Voice Over call:

When an OHVO station calls a busy OHVO station and a busy tone is received, the calling OHVO station must press a preprogrammed OHVO button [628] or use the Soft Key's OHVO option to initiate an OHVO announcement, and the following occurs:

- The HOLD button LED flashes at the called OHVO station.
- The OHVO receiving station receives a one-beep warning tone. The station receiving the OHVO call must be off-hook and in H or P mode, then the calling OHVO party may begin the voice announcement to the called OHVO party. The called OHVO station's existing conversation is uninterrupted and the voice over announcement does not drown out the existing conversation. If the receiving station is call forwarded, use 5# to override forwarding.

- The calling OHVO station is not connected or able to hear the called station's conversation (the connection only allows the calling station to transmit to the called station).



The calling station is placed in a one-time DND mode upon initiating the Voice Over. One-Time DND cannot be toggled during the OHVO call. The station receiving the OHVO call must be off-hook and in H mode.

To respond to an Off-hook Voice Over:

After receiving an OHVO announcement, **three options** are available to respond to the caller:

Option 1 -- This method lets the receiving station respond to an OHVO announcement utilizing the MUTE feature button. This button is pressed to carry on a two-way conversation with the OHVO initiator while still listening to the original call.

Option 2 -- The OHVO receiving station may respond to the calling station by using the Silent Text Messaging (this feature is only available to digital key telephones, and the calling station must be a digital display telephone).

The OHVO receiving station may press a preprogrammed Message button to respond to the voice over announcement without being released from the current call (e.g., by pressing a flexible button preprogrammed for the message IN MEETING, the calling station receives this message on the LCD display). Refer to ["Personal Messages" on page 2-210](#) and to ["Text Messaging \(Silent Response\)" on page 2-273](#).

Option 3 -- The OHVO receiving station may respond to the calling OHVO station by using the Camp On feature. The OHVO receiving station presses the flashing HOLD button to consult with the calling station. The existing call (CO line) goes on Exclusive Hold automatically. This method then follows Camp On procedures and operation.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » The station must be in H or P mode to enable this feature.
- » The station receiving the OHVO call **MUST** be off-hook and in H or P mode.
- » The receiving station must have OHVO enabled.
- » When the receiving station responds via Camp On, all conditions and options available to Camp On apply. (Refer to ["Camp On" on page 2-49](#) for more information).
- » OHVO may be used to notify the receiving station of a transferred call (CO Line or Intercom) by announcing the call, then releasing to complete the transfer. When this occurs, the receiving station need not respond to the OHVO.
- » When a call is transferred via OHVO, the receiving station receives muted ringing after the transfer is complete.
- » Any messages including Canned, Custom, or Silent Response text messaging may be used to respond to an OHVO call. The message appears on the calling station and receiving station LCD displays.
- » If the calling station is a non-LCD telephone, the receiving station receives an error tone when responding via text messaging.

- » The called station may press a flexible button programmed as a Text Message button, [633+#]. Press this flexible button and dial the 2-digit message number (31-51) to respond to the calling station. DTMF digits are not heard by either party.
- » When silent messaging is used to respond to an OHVO call, the existing call on the receiving station is not disconnected while the messages are being sent to the calling station.
- » The calling station of an OHVO call must remain off-hook to receive silent messages. The calling station's voice transmit remains connected to the receiving station and may respond verbally to the text messages. The OHVO call ends when calling station goes on-hook.
- » If the receiving station is on-hook in speakerphone mode and a calling station initiates OHVO, the receiving station receives a Camp On warning tone and normal Camp On procedures are followed.
- » The receiving station may send a message, and then press MUTE to talk to the calling station. Each time a message is sent, the splash tone sounds and both displays are updated.
- » LEDs follow Camp On LED lamp sequences.
- » OHVO does not function if receiving station is in Group Listening Mode.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Outside Calls

Operation

To answer an outside call:

1. Lift handset or press ON/OFF button.
2. Press slow flashing OUTSIDE LINE button or LOOP button. (If your phone is programmed with Preferred Line Answer, you may answer an outside line by lifting the handset or pressing the ON/OFF button.)

To make an outside call:

1. Press OUTSIDE LINE or POOL button. ON/OFF button LED lights and dial tone sounds.
2. Dial the desired party.
3. When called party answers, lift handset to converse or use speakerphone.
(A station user can also dial an individual trunk group access code to access an outside line.)

-or-

1. Dial CO line group code or LCR access code (9, 801-823, 88+LLL) (LLL= CO Line Number).
2. Dial desired telephone number.
3. When called party answers, lift handset or use speakerphone to converse.

To place an outside call on hold:

If your system is programmed for Exclusive Hold Preference:

Press HOLD button once for Exclusive Hold, twice for System Hold.

If your system is programmed for System Hold Preference:

Press HOLD button once for System Hold, twice for Exclusive Hold.

Paging

Description

Stations can individually be allowed or denied the ability to make pages. This applies to all internal and external zone paging. A station denied access to paging may still answer a Meet-Me Page announcement. (Station COS 6 does not deny a station the ability to make a page.)

External paging requires a three-digit dialing code and an externally provided amplifier and paging system. The page zone has a relay contact associated to it.

There are eight internal paging zones available. A station can be in any or all zones or in no zone at all. Stations not assigned to a page group can still make page announcements, if allowed in station programming. Stations can be assigned to a page group in order to receive pages but not allowed to make page announcements.

Operation

If you were given the ability to make page announcements:

1. Lift handset or press ON/OFF button, then press the preprogrammed PAGE button or dial the paging code.

[700] = All Call - Internal and External

[701- 708] = Internal Zone 1-8

[709] = Internal All Calls

[761] = External Zone

-or-

Use the Soft Key's ALLPG IN or ALLPG OUT options (versus codes 709 or 761) when in an idle condition.

2. Stations receiving a Page Announcement can press the Volume Bar to change the paging volume. The following message displays:

SPEAKER PAGE	[#####]
MMM DD YY	HH:MM am



SINGLE LINE TELEPHONE

If you were given the ability to make page announcements:

1. Lift the handset or press the Speaker button.
2. Dial the paging code.
 - [700] = All Call - Internal and External
 - [701- 708] = Internal Zone 1-8
 - [709] = Internal All Calls
 - [761] = External Zone
3. Speak in normal tone of voice to deliver message.
4. Replace handset to terminate the page announcement.

Paging Access

Description

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If **HOLD** is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

Features and Operation

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the PAGE ACCESS flexible button (**Button #1**). The following message displays:

PAGE ACCESS ENABLED	0-1
------------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Paging is enabled at all stations.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

*Paging - Meet Me***Description**

Users may answer a page call from any phone in the system by dialing [770]. The party who initiated the page must remain off-hook.

Operation

To request another party meet you on a page:

- Dial the desired internal or external paging code.
- Request that party meet you on the page.
- Do not hang up, wait for the requested party to answer. As soon as the paged party answers and is connected to you, the page circuit releases.

To answer a meet me page:

- Go to the nearest telephone.
 - dial [770] on the dial pad,
-or-
Press the preprogrammed MEET ME button.
- You are connected to the paging party.

Paging Time-Out Timer

Description

The Paging Time-Out Timer determines the maximum length of a page announcement (internal, external or all call). The system automatically disconnects the page at the end of this time unless the person making the page has already hung up.

The Paging Time-out Timer setting is variable from 01–60 seconds. A 00 entry disables the timer and pages are not limited in length. *This affects the use of the Meet Me Page feature.*

Programming Steps

1. Press the PAGING TIMEOUT TIMER flexible button (**FLASH 01, Button #10**). The following message displays:

PAGING TIMEOUT	00-60
15	

2. Enter a valid number on the dial pad that corresponds to 01-60 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Paging Time-out Timer is set at 15 seconds.

Page Warning Tone

Description

The Page Warning Tone determines whether a page warning tone sounds over the Key Telephone speakers or external paging speakers, prior to a page announcement.

Programming Steps

1. Press the PAGE WARN TONE flexible button (**FLASH 05, Button #5**).
2. Enter a valid number (0 or 1) that corresponds with the following:
[0] = Disabled
[1] = Enabled

PAGE WARNING TONE	0-1
ENABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Page Warning Tone is enabled.

Paging Zone(s)

Description

Stations are assigned to Page Zones. At least one station must be assigned to a Zone for that Zone to be active. Stations can be in any combination of the eight zones or in none of the zones.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the PAGE ZONE flexible button (**Button #6**). The following message displays:

PAGE ZONE 1	0-8
----------------	-----

- Enter a valid number (1-8) to program Paging Zone(s).

- | | |
|---------------|--------------|
| [0] = No Zone | [5] = Zone 5 |
| [1] = Zone 1 | [6] = Zone 6 |
| [2] = Zone 2 | [7] = Zone 7 |
| [3] = Zone 3 | [8] = Zone 8 |
| [4] = Zone 4 | |

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All stations are in Zone 1.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Pause Timer

Description

When dialing a speed number, a timed pause between digit sending can be placed in the number. The length of this pause can be programmed in the system database.

The Pause Timer determines the length of the pause when programmed for use with speed dialing and LCR Insert Tables. The Pause Timer setting is variable from 1–9 seconds. There is no 0 entry. Using this feature may affect Centrex transfers.

Programing Steps

- Press the PAUSE TIMER flexible button (**FLASH 01, Button #7**). The following message displays:

PAUSE TIMER 2	1-9
------------------	-----

Features and Operation

2. Enter a valid number on the dial pad that corresponds to 1-9 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Pause Timer is set at 2 seconds.

Personal Messages

Description

There are various types of personal messages that a station user can use to display on the LCD of the digital key telephone calling that station. Message types include pre-assigned messages, customized messages, date and time messages, and scrollable canned messages.

Pre-assigned Messages

Description

Each station can select a pre-assigned message to display on the LCD of any key telephone calling that station. There are ten messages available.

Operation

To select a pre-assigned message:

1. Dial [633] on the dial pad,
-or-
Press a preprogrammed PERSONAL MESSAGES button.
2. Dial the 2-digit code for the message that displays. A confirmation tone sounds and the DND button LED flashes.

00 = (clears messages)	06 = On Trip
01 = On Vacation	07 = In Meeting
02 = Return AM	08 = At Home
03 = Return PM	09 = On Break
04 = Return Tomorrow	10 = At Lunch
05 = Return Next Week	

To cancel a pre-assigned message:

1. Either dial the Personal Messages code [633] + [00], dial [662], or press the DND button.
2. Replace handset. DND button LED extinguishes.

Conditions

- » This feature is unavailable at Attendant stations.
- » Stations cannot be call forwarded or in DND and have this feature active.

Custom Messages

Description

Each station can select from ten possible custom messages to display on the LCD of a key telephone calling that station. These messages are programmed from the first attendant station for system-wide use.

Each station can also program three unique custom messages.

Operation

To select a custom message:

1. Dial [633] on the dial pad,
-or-
Press a preprogrammed PERSONAL MESSAGES button.
2. Dial a valid message number (21-30) for the desired custom message. The first Attendant should provide a list of messages to each station user.

To program a unique custom message:

1. Dial [633] on the dial pad.
2. Dial a valid message number (18-20) for the desired custom message.
3. Enter a custom message, up to eight characters.
4. Press HOLD to save.

To use a unique custom message:

1. Dial [633] on the dial pad.
-or-
Press a preprogrammed PERSONAL MESSAGES button.
2. Dial a valid message number (18-20) for the desired custom message.

To cancel a custom message:

1. Either dial the Personal Messages code [633] + [00], dial [662], or press the DND button.
2. Replace handset. DND button LED extinguishes.



SINGLE LINE TELEPHONE

SLT users can use custom messages (21-30) as described above. Unique custom messages (18-20) are not applicable. SLT users cancel the use of a custom message by using feature code 662.

Conditions

- » This feature is not available to attendant stations.

Date and Time Entry Messages

Description

Station users can activate certain messages that let users enter a specific time or return date. These messages appear on the calling station's display to alert them of the desired party's return time or date.

Operation

To activate a message with a custom return time or date:

1. Dial the Message Access code [633] on the dial pad.
2. Then dial the desired message number [11- 17].

Users may activate the following messages and be prompted to enter a return time or date:

- [11] = Vacation Until: *MM/DD*
- [12] = Return: *HH:MM xm* or *MM/DD*
- [13] = On Trip Until: *MM/DD*
- [14] = Meeting Until: *HH:MM xm*
- [15] = At Home Until: *HH:MM xm*
- [16] = On Break Until: *HH:MM xm*
- [17] = At Lunch Until: *HH:MM xm*

3. Enter the date/time using buttons on the dial pad as shown in the following table.

			Other Codes			
1	A-21 B-22 C-23	D-31 E-32 F-33	1 = 1#	8 = 8#	" = 01	* = *#
G-41 H-42 I-43	J-51 K-52 L-53	M-61 N-62 O-63	2 = 2#	9 = 9#	, = 02	(= #1
P-71 R-72 S-73 Q-74	T-81 U-82 V-83	W-91 X-92 Y-93 Z-94	3 = 3#	0 = 0#	? = 03) = #2
*	OPER	0	4 = 4#	Space = 11	/ = 04	+ = #3
			5 = 5#	: = 12	! = *1	= = #4
			6 = 6#	- = 13	\$ = *2	# = ##
			7 = 7#	' = 14	& = *4	. = 24

Figure 2-15: Other Keypad Codes (Date and Time)

4. Press HOLD to enter message. A confirmation tone is received and the DND button LED flashes.

To cancel the message:

1. Either dial the Personal Messages code [633] + [00], dial [662], or press the DND button.
2. Replace handset. DND button LED extinguishes.



SINGLE LINE TELEPHONE

Not applicable

Scrollable Canned Messages

Description

The Scrollable Canned Message feature allows the user to use a single digit [#] or [*] to scroll through the canned messages and select one. When the desired message is displayed, pressing the hold button places that message on the station LCD. This feature operates when the phone is in the idle mode only. This feature cannot be activated if the station is in the Call Forward or DND mode(s). This feature is not available to Attendant stations.

Operation

To select a Scrollable Canned Message:

1. Dial [633]+[#] on the dial pad,
-or-
Use the Soft Key's PERS-MSG option,
-or-
Press the PERSONAL MESSAGES button. Clear Messages is always first. The following message displays:

CLEAR MESSAGES
NEXT=# PREV=* SAVE=HOLD

2. Press [#] to scroll through the messages or press [*] to scroll backward through the list.
3. Scroll forward through the messages in the following order. The scroll is a rolodex-type scroll.

1 - (Clear Messages)	7 - On Vacation
2 - At Home	8 - Return AM
3 - At Lunch	9 - Return PM
4 - In Meeting	10 - Return Next Week
5 - On Break	11 - Return Tomorrow
6 - On Trip	
4. When the desired message is shown on the LCD display, pressing the HOLD button activates that message on your station. Confirmation tone sounds and the DND button LED flashes.

To cancel the message:

1. Either dial the Personal Messages code [633] + [00], dial [662], or press the DND button.
2. Replace handset. DND button LED extinguishes.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » The telephone receiving the message must be a display telephone.
- » When a message displays by a key telephone, the DND button LED flashes at 15 ipm.
- » When DND is invoked on the telephone the message cancels.
- » Message Access (with a desired message) may be assigned to a flexible button.
- » Messages may be entered while off-hook on a call if an intercom call is camped onto the station. This causes the station calling to see the message.
- » Messages are retained in battery protected area of memory in the event of power failure or system reset.

*Personal Messages Flexible Button***Description**

You can program the code [633] onto a flexible button to speed access to select and use messages.

Operation

To program the Personal Messages Flexible Button:

1. Press the SPEED button twice.
2. Press the desired flexible button. LED flashes.
3. Dial [633]+[#] on the dial pad. A confirmation tone sounds.

To use the flexible button, press that flexible button, then either:

Dial the 2-digit message number (00-10 or 18-30) to activate the message. Confirmation tone sounds and DND button LED flashes.

-or-

Press [#] to scroll forward or [*] to scroll backward through the list. When desired message is shown on the LCD, press HOLD to activate that message on your station.

Confirmation tone sounds and DND button LED flashes



SINGLE LINE TELEPHONE

Not applicable

Preferred Line Answer

Description

A station with Preferred Line Answer can answer any assigned outside, transferred, or recalling line, or queue callbacks by lifting the handset or pressing the ON/OFF button. The station **MUST** be physically ringing, to function properly.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

4. Press the PREF LINE ANSWER flexible button (**Button #8**). The following message displays:

PREF LINE ANSWER 0-1
ENABLED

Features and Operation

5. Enter a 0 or 1 on the dial pad to enable/disable this feature.

[0] = Disabled

[1] = Enabled

6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Preferred Line Answer is enabled on all stations.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Privacy Release

Description

Privacy is insured on all communications in the system. If desired, the customer may elect to disable the Automatic Privacy feature, thus allowing up to seven other stations to join in on an existing CO Line conversations.



Disabling of the privacy feature may be limited by federal, state or local law, so check the relevant laws in your area before disabling privacy.

Per CO Line Option

Description

The Per CO Line feature allows programming of each CO line individually for privacy. This feature is useful for maintaining security on such lines as data lines, private lines, or special circuits requiring privacy. If privacy is disabled on a CO line then, while in use, another station may enter the conversation simply by pressing the CO line button. A programmable warning tone is presented to all parties prior to actual cut-thru. The station attempting to enter the conversation must also have privacy disabled.

Table 2-18: CO Line Privacy Flag

Station Attempting to Access CO Line	CO Line in Use by Another Station	
	Privacy Enabled	Privacy Disabled
Privacy Enabled	Private (no cut-through)	Private (no cut-through)
Privacy Disabled	Private (no cut-through)	Privacy Release (cut-through allowed)

Per Station Option

Description

The system provides privacy on all communications in the system which prevents other stations from accidentally entering an existing conversation. However, the system provides the ability for a station to join an existing outside CO line conversation (on a per station basis). Each station can be granted the privilege to join an existing CO line conversation by simply pressing the CO line button of a CO line in use.

Privacy on an SLT can be useful in situations where a modem is using the SLT port for data transmission. Disabling this feature lets data transfer proceed without being interrupted with a Camp On tone. Both the station and the CO Line must have Privacy disabled before the system allows cut-through.

- If Privacy is disabled and a station joins an existing call, a programmable warning tone is presented to both parties prior to actual cut-through.
 - If Privacy is disabled, up to seven other stations may join in on an existing conversation.
- Privacy is enabled for all stations in default.

Table 2-19: Station Privacy Flag

Station Attempting to Access CO Line	CO Line in Use by Another Station	
	Privacy Enabled	Privacy Disabled
Privacy Enabled	Private (no cut-through)	Private (no cut-through)
Privacy Disabled	Private (no cut-through)	Privacy Released (cut-through allowed)

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

Private Line

Description

Private line programming allows certain lines to ring at a specific station only. When placed on Hold, these lines are active at the programmed station only. A private line can be transferred to other stations, provided the station receiving the call has a loop button or direct appearance of that CO line. Refer to [“CO Line Group Programming” on page 2-70](#), [“Line Group Access - Station” on page 2-69](#), and [“Flexible Button Assignment” on page 2-149](#).

Recall

Answering a Recall

Description

When an outside line remains on hold for an extended period of time, a recalling ring reminder is sent back to the originating station first and if not answered, recalls the attendant station.

Operation

(If Preferred Line Answer is enabled, skip step 1.)

1. Press outside line, Loop or Pool button flashing at very fast rate.
2. Lift handset or press ON/OFF button to converse.

Transfer Recall Timer

Description

The Transfer Recall Timer determines the time a transferred call rings at the station receiving the transfer before it recalls the station making the transfer. If unanswered by that station, the call recalls the attendant. The Transfer Recall Timer setting is variable from 000-300 seconds. A 000 entry disables the timer and there is no recall.

Programming Steps

1. Press the TRANSFER RECALL flexible button (**FLASH 01, Button #4**). The following message displays:
2. Enter a valid number on the dial pad that corresponds to 000-300 seconds.

TRANSFER RECALL	000-300
045	

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Transfer Recall Timer is set for 45 seconds.

Repeat Redial

Description

The Repeat Redial feature allows a digital key station to press a flexible button and redial a busy or no-answer number after a specific interval. The user is signaled via a queue call back indication.

The RPT REDIAL flexible button flashes at the call back rate of 120 ipm for 15 seconds. If the station:

- Doesn't answer within the 15 seconds, the call back is canceled. The system retains the last call the user made.
- Is busy on an internal/external call when the Redial queue call back occurs, the call back does not occur until the user goes on-hook.

The user must enter a Redial Timer value when invoking this feature. This value is from 006-999 seconds. A 2-minute interval is entered as 120.

Programming Steps

1. Press the RPT REDIAL flexible button (**FLASH 02, Button #1**). The following message displays:

RPT REDIAL	006-999
060	

2. Enter a valid number that corresponds to 006-999 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Repeat Redial Timer is set for 1 minute (60) and is variable from 006-999 seconds.

Operation

A keyset station user places a CO call and receives a Busy or No Answer:

1. Press the preprogrammed RPT REDIAL flexible button [643]. The LCD prompts the user for a timer value.

ENTER RPT REDIAL TIMER:	
XXX	000-999

2. Enter a valid number (000-999 seconds) for the Repeat Redial Timer. Entry of 000 will cancel the Repeat Redial feature. Default value is 060 (one minute). A confirmation tone sounds and the station user goes on-hook. The flexible button LED lights steady.

When the timer expires, the station is signaled via a CO line queue indication on the RPT REDIAL flexible button. During the Queue Call Back, the LCD display indicates this is a Redial Call Back. Once line queue is answered, the LCD indicates an outgoing CO line display.

*Features and Operation**To activate a redial:*

Press the preprogrammed REDIAL flexible button,

-or-

Press the ON/OFF button,

-or-

Lift the handset, line is seized and number is dialed. If the user receives a busy/no answer, they may repeat the step to activate another redial.

To cancel the operation:

Press the preprogrammed REDIAL flexible button. A confirmation tone sounds and the Auto Redial function is cancelled.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » Once the user presses the preprogrammed flexible button, the timer applies when the user enters a digit. After a digit is entered, the inter-digit timer applies between the digits.

Relay Programming

Description

There is one relay on the BKSU that can be programmed to perform certain functions. These functions are loud bell, external page control, RAN start, and CO Line control.

RELAY 1 * 1 Q	* 2 W	* 3 E	* 4 R
* 5 T	* 6 Y	* 7 U	* 8 I

Programming Steps

1. Press **FLASH** and dial **[14]**. Button #1 is lit to indicate Relay #1 is selected. The following message displays:

RELAY 1 TYPE
YYYYYYYYYYYY

YYYYYYYYYYYY = Ext Page Zone, LBC Sta XXX, Ran Start X, CO Control XX

2. Enter one of the following sequences on the keypad:
 - [1] + [1] = External Page Zone
 - [2] + [1 through 8] = RAN Start (RAN Announcement Tables 1-8)
 - [3] + STA # = Loud Bell
 - [4] + CO # = CO Line Control
 - [0] = Disables Relay
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

Remote Administration

Description

The Remote Administration feature allows authorized personnel to access the administration programming via a terminal device (portable telephone device or personal computer with communications software package).

The feature permits the review and entry of the customer database in the same manner as via the digital telephone. The terminal device can be connected directly to the RS-232C connector on the Main Board Unit (MBU) on the *STS*, or can be accessed by a telephone modem linking the RS-232C connector (via a CO line) to a remote location. When entering the system remotely via a terminal device, access to the 9600 baud modem is available.



The recommended connection rate is 4800 baud when using a modem.

Program Mode Entry

Refer to [“Program Mode Entry \(Data Terminal or PC\)” on page D-5](#).

Modem Answer Timer

Description

The Modem Answer Timer determines how long the On Board modem provides a carrier tone to a distant modem. If a connection is not made at the end of this timer, the On Board modem hangs up.

The Modem Answer Timer setting is variable from 25-999 seconds.

Programming Steps

1. Press the MODEM ANSWER TIMER flexible button (**FLASH 02, Button #4**). The following message displays:

MODEM ANSWER T/O	025-999
25	

2. Enter a valid number on the dial pad that corresponds to 025-999 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... Modem Answer Timer is set for 25 seconds.

Database Upload/Download

Description

Database Upload/Download provides a maintenance facility which is added to the Remote Administration routine. This routine permits downloading of the database to a PC, when a software change is made or when the system must be initialized and reprogrammed.

The routine facilitates the programming of a database on an in-house system which can be downloaded to a PC, and then uploaded to a system in the field. After the system maintenance is completed, the file saved in the PC can then be uploaded to the system.

Refer to "[Database Upload/Download Routine](#)" on page D-6 for detailed instructions.

Remote System Monitor And Maintenance

Maintenance

Description

The Remote Maintenance feature allows the Interconnects' technical staff to review the system configuration data and individual card slot configuration data. This can be done on-site using a data terminal or remotely using a modem to access a remote data terminal. When entering the system remotely via a terminal device, access to the 9600 baud modem is available.

Monitor

Description

The Remote Monitor feature provides remote access to the installed system for diagnostic purposes. These capabilities benefit Service personnel enabling them to support the end user remotely. Different levels of access, via password, allows authorized personnel to trace, monitor, and up-load critical information directly from the *STS*. This provides a more accurate means of acquiring system information that leads to a quick resolution of problems that may occur. This is all done without interfering with ongoing call processing or normal system operation, and in many cases may be performed without a site visit.

Capabilities reserved for this high-level troubleshooting also include:

- Monitor Mode
- Enable and Disable Event Trace
- Dump Trace Buffer (Up-Load)

Ring Down / Hot Line / Off-Hook Preference

Description

The Off-Hook Preference feature lets a key station user automatically have a flex button selected when going off-hook or when pressing the ON/OFF button. An SLT user may have a particular CO line or a CO line group selected automatically when going off-hook. This may be established in programming so that key station users can select and/or change their off-hook preference through the use of a dial code [691]+BB (01-24). Dialing [691]+00 disables Off-Hook Preference. This user programmable preference may be allowed or denied in programming.

Auto Feature Access -- In addition to Auto Line Access, digital telephones have the ability to have their off-hook preference select a DSS or feature button upon going off-hook or pressing the ON/OFF button.

Auto Line Access -- Each station, key or SLT, may have their phone programmed to access a particular CO Line (such as a private line or a line from a group of CO lines) upon going off-hook. This is useful in Centrex or PBX applications when station users have dedicated lines. Outside line dial tone is received just by going off-hook, without the need to dial an access code.

Hot Line/Ring Down -- Each station, key or SLT, may be programmed to immediately call or ring down a particular station or outside number upon going off hook. This is done by programming the station's Off-Hook Preference to activate a DSS or Speed Dial feature key. This feature can be overridden if the station user selects a CO line first when going off-hook.

Intercom Access -- When Off-hook Preference is enabled, at a key station, that station may still obtain intercom dial tone for accessing internal stations or other system features. This is done either by pressing a DSS button or dialing their own intercom station number prior to going off-hook.

User Programmable Preference -- Based on a station programmable option, digital telephones may be given the ability to enable, disable, or change their Off-hook Preference by dialing a code. This option can be denied in station programming on a per key station basis.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

 Features and Operation

- Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE A
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE A
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE B
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE B
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press the OFF-HOOK PREF flexible button (**Button #10**). The following message displays:

```
OFF HOOK PREFERENCE BTN  XXY
00  ENABLED
```

- Enter a valid button number (01–24) or (00) to indicate no specific button is preferred. (SLTs use [01] to enable or [00] to disable.)
- Enter a 0 or 1 to disable/enable the Off-Hook Preference as follows:
 - [0]= Disables programmable preference so users may not change the off-hook preference as set in programming. Also use for SLT stations.
 - [1]= Enables programmable preference to key station users so that they may change the off-hook preference through a user dial code.
- Press HOLD. A confirmation tone sounds and the display updates.

DEFAULT ... The **STS** telephone can change its preference, but no button is assigned (00).

Operation

If your phone has been programmed for Off-Hook Preference, you can access an outside line, or a feature by going off-hook or pressing the ON/OFF button. It simulates the depression of a specific button and can be programmed by a station user or a database administration programmer using code [691] + the button number.

While Off-Hook Preference is enabled, you may access internal intercom dial tone as follows:

1. Press the preprogrammed ICM button,
-or-
Dial your intercom number. (Do not lift handset or press ON/OFF button before dialing intercom number.) LED lights steady and intercom dial tone sounds.
2. Dial an internal station or feature access code.

Off-Hook Preference Programming (Via a Station)

If your phone is programmed for Off-Hook Preference and you were given the ability to enable or change the prime flexible button:

1. Dial [691] on the dial pad.
2. Dial the desired button number. Refer to the following chart.

* [01] *	* [02] *	* [03] *	* [04] *
* [05] *	* [06] *	* [07] *	* [08] *
* [09] *	* [10] *	* [11] *	* [12] *
* [13] *	* [14] *	* [15] *	* [16] *
* [17] *	* [18] *	* [19] *	* [20] *
* [21] *	* [22] *	* [23] *	* [24] *

To disable Off-Hook Preference:

1. Dial [691] on the dial pad.
2. Dial [00] on the dial pad.



SINGLE LINE TELEPHONES

When establishing an Off-hook Preference for SLT stations, it is necessary to program the SLTs CO line or line group, to access when going off-hook. To program this, refer to ["To assign a CO Line Group for an SLT \(with off-hook preference\):" on page 2-151](#).

Conditions

- » Single line telephones can bypass Off-hook Preference by doing a hookflash and then dialing their extension number.
- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Save Number Redial (SNR)

Description

Any number dialed on an outside line can be saved permanently and used at any time. This number is saved until a new number is stored.

Operation

To save the last number dialed, either:

1. After placing an outside call, keep handset off-hook.
2. Press the SPEED button twice.

-or-

Use the Soft Key's STORE NO option.

To dial a number that was saved (using the steps above), either:

Press the SPEED button, then dial the [*] button.

-or-

Use the Soft Key's SNR option when in an idle condition.

- System automatically selects the original line used to place the call and redials the number.
- If that line is busy, the system automatically selects another line from the same group and redials the number.
- If no lines are available in the same group, the station receives busy tone and can queue for a line.
- If the station user preselects a line before activating SNR, the preselection overrides the line originally used.



SINGLE LINE TELEPHONE

Not applicable

School Zone

Description

The School Zone feature allows a person at a station(s) specified as an Administrator to control incoming calls for all stations specified as a Classroom. The Administrator controls the type of call forwarding and the call forwarding destination. Call forwarding types include All Call Forward, No Answer Call Forward, Busy Call Forward, and Busy / No Answer Call Forward. Valid call forwarding destinations include station numbers, hunt groups, UCD groups, and Voice Mail groups.

Stations to be included as part of the School Zone feature must be assigned in Admin programming as either an Administrator station or as a Classroom station. After these assignments have been established, the Administrator can easily control call forwarding for the specified Classroom stations by using feature code 630.

School Zone call forwarding can also be controlled through the use of FLASH 09 in administrative programming.

Programming Steps

SCHOOL ZONE STATION ASSIGNMENTS

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (100-351) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

Features and Operation

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

5. Press the SCHOOL ZONE flexible button (**Button #7**). The following message displays:

SCHOOL ZONE DISABLED	0-2
-------------------------	-----

6. Dial a valid number (0-2) to assign a station as an Administrator, Classroom, or as neither.

0 = Disabled (neither Administrator or Classroom)

1 = Administrator

2 = Classroom

7. Press [HOLD]. A confirmation tone sounds.

DEFAULT ... All stations are disabled (not assigned as an Administrator or a Classroom).

CONTROL SCHOOL ZONE CALL FORWARDING

1. Press **FLASH** and dial **[09]**.

2. Press the SCHOOL MODE flexible button (**Button #10**). The following message displays:

SCHOOL MODE DISABLED	0, 6, 7, 8, 9
-------------------------	---------------

3. Dial a valid call forwarding condition code (0 or 6-9).

0 = Disabled

8 = Busy Call Forward

6 = All Call Forward

9 = Busy / No Answer Call Fwd

7 = No Answer Call Forward

4. Press [HOLD]. A confirmation tone sounds.

5. Press the SCHOOL FORWARD DEST flexible button (**Button #11**). The following message displays:

SCHOOL FORWARD DEST #####

6. Enter a valid destination number. Valid entries include station numbers, hunt groups, UCD groups, and Voice Mail groups.

7. Press [HOLD]. A confirmation tone sounds.

DEFAULT ... The School Mode is Disabled (0) and the School Forward Destination is not assigned (#####).

Operation

To control School Zone call forwarding (at an Administrator station):

1. Dial [630] + a call forward condition code (0 or 6-9) + a valid destination number

Call Forward Condition Codes:

0 = Disabled
 6 = All Call Forward
 7 = No Answer Call Forward
 8 = Busy Call Forward
 9 = Busy / No Answer Call Fwd

Valid Destinations:

Station Numbers
 Hunt Groups
 UCD Groups
 Voice Mail Groups

2. Press [HOLD]. A confirmation tone sounds.

To view the call forwarding status of Classroom telephones:

1. The Administrator uses a station assigned as an Administrator station and dials feature code [630] + [#]. Confirmation tone sounds and LCD shows one of the following:

CLASSROOM STATUS
DISABLE

CLASSROOM STATUS
BSY FWD TO XXXX

CLASSROOM STATUS
NA FWD TO XXXX

CLASSROOM STATUS
B/NA FWD TO XXXX

CLASSROOM STATUS
FWD TO XXXX

2. Press [ON/OFF] to return to an idle status.

Conditions

- » A station can be assigned as an Administrator or as a Classroom, but not as both.
- » A call from an Administrator station to a Classroom station overrides any School Zone call forward settings and the call rings at the Classroom station.
- » School Zone call forwarding overrides station user call forwarding and DND.
- » If an E-911 button is programmed, both audible and visual alert indications will be provided, regardless of School Zone call forward settings.
- » The School Zone call forwarding feature does not apply to a Classroom station that is in a hunt group or an UCD group.
- » Feature code 630 and 630# are fixed feature codes that cannot be changed in flexible number programming (FLASH 52).

Single Line Telephone

Compatibility

Description

The **STS** supports industry standard 2500-type (DTMF) single line telephone (SLT) instruments. When the Circuit Single Line Interface Board (CSIB) is installed in the **STS**, a maximum of 24 single telephones can be supported.

SLT DTMF Receiver Timer

Description

Single line telephones require the use of a DTMF receiver when going off-hook and dialing. When SMDR or toll restriction (via COS assignments) is enabled, a DTMF receiver monitors and screens the SLT digits for the duration of this timer. By adjusting this timer, the system administrator may free system DTMF receivers sooner if system SLT traffic is heavy, or provide a longer monitoring period if toll restriction becomes a problem.

Note that when LCR is enabled, the DTMF receivers are released when the expected number of digits are dialed as entered in the LCR database.

The SLT DTMF Receiver Timer setting is variable from 005-100 seconds.

Programming Steps

1. Press the SLT DTMF RECEIVER TIMER flexible button (**FLASH 01, Button #12**). The following message displays:

SLT RCVR TIMER	005-100
020	

2. Enter a valid number that corresponds to 005–100 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... SLT DTMF Receiver Timer is set at 20 seconds.

SLT Hook Flash Timer

Description

The SLT Hook Flash Timer determines how long an SLT user presses the hook switch for it to be considered a valid on hook (disconnect) request. An on-hook shorter in duration (but longer than the Hook Switch Bounce Timer) is considered a Hook Flash (transfer) request. Refer to [Figure 2-16 on page 2-233](#).

The SLT Hook Flash Timer setting is variable from 0.5-2.0 seconds.



Some SLTs have a fixed or programmable Flash Timer (Flash or Tap button). This Hook Switch Timer must be set longer than the SLT Flash Timer to allow Hook Flash transfer.

Programming Steps

1. Press the SLT HOOK FLASH TIMER flexible button (**FLASH 01, Button #14**). The following message displays:

HOOK SWITCH TIME	05-20
10	

2. Enter a valid number on the dial pad that corresponds to 0.5-2.0 seconds in 1/10 second increments.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... SLT Hook Flash Timer is set at 10 (one second).

SLT Hook Flash Bounce Timer

Description

The SLT Hook Flash Bounce Timer determines the time needed to determine a valid on-hook or off-hook condition for single line telephones. On-Hook or Off-Hook signals that are shorter in duration than this timer are ignored by the system. Refer to [Figure 2-16](#).

The SLT Hook Flash Bounce Timer setting is variable from 0-1 seconds in 10 ms increments. This is a 3-digit entry where 010 equals 0.1 seconds.

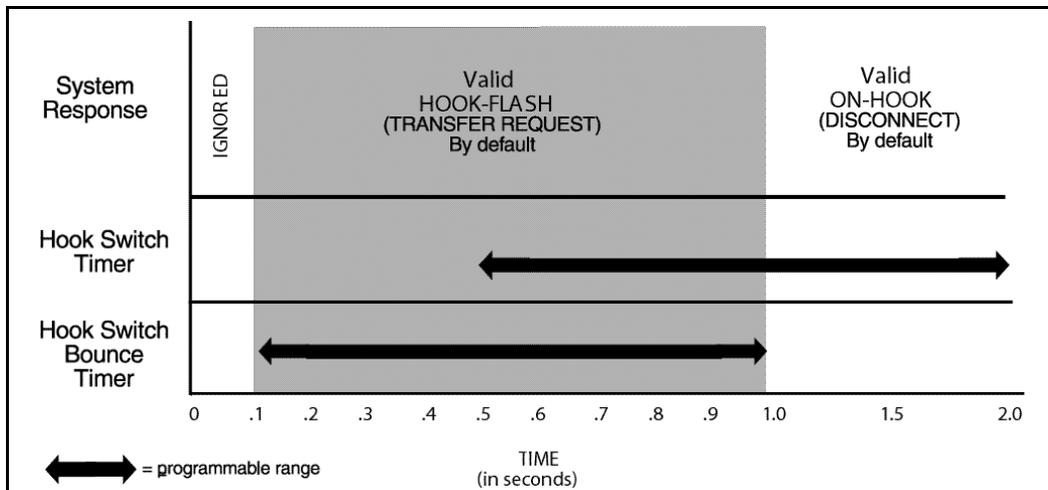


Figure 2-16: Hook Switch Activity

Programming Steps

1. Press the SLT HOOK FLASH BOUNCE TIMER flexible button (**FLASH 01, Button #15**). The following message displays:

HOOK SWT BOUNCE	000-100
030	

2. Enter a valid number on the dial pad that corresponds to 0-1 seconds in 10 ms increments.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... SLT Hook Flash Bounce Timer is set to 0.30 seconds.

Software Version (MBU)

Description

The current system software version of the Main Board Unit (MBU) can be viewed. The display shows the version number and level of software.

Operation

To view the Software Version Display:

Dial the S/W Display code [605] on the dial pad. The top line of the LCD shows the engineering version of the software. The bottom line of the LCD shows the features that are enabled for your software, e.g., BASIC.

Conditions

- » The station must be an LCD type to view the information.

Speakerphone

STS Digital Telephones are equipped with a speakerphone.

Speakerphone Options

Description

The speakerphone can be programmed to work in one of three ways:

- Normal speakerphone operation.
- Disabled for outgoing and incoming CO calls, but handsfree on intercom allowed.
- Headset operation allowed.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

- Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

- Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE A
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE A
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE B
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE B
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press the SPEAKERPHONE flexible button (**Button #4**). The following message displays:

```
SPEAKERPHONE           0-4
FULL SPEAKERPHONE
```

- Enter a valid number (0-4) on the dial pad to identify the speakerphone operation.
 - [0] = Works as normal speakerphone. Full speakerphone capabilities on CO lines and Intercom.
 - [1] = Speakerphone enabled for intercom calls only. Speakerphone capabilities disabled for outgoing CO line calls (monitoring and on-hook dialing are still permitted).
 - [2] = Permits toggling of speakerphone and headset operation via the [634] Headset code.
 - [3] = Forces the telephone to always ring in the tone intercom mode.
 - [4] = Forces the telephone to the hand-free intercom mode always.
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... All stations are assigned an ID of 0 (Full Speakerphone).

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Speakerphone Operation

Description

The Speakerphone feature allows you to conduct a conversation without lifting the handset. Speakerphone volume can be adjusted as desired.

Operation

1. Press ON/OFF button to ON. Intercom dial tone sounds.
2. Press the Volume Bar to change the tone volume. The following message displays:

SPEAKER TONE	[#####]
MMM DD YY	HH:MM am

3. Press the party's DSS button, or press an available outside line button and dial the number. Speakerphone is activated.
4. Press ON/OFF button to OFF to end the call.



Where lift handset is specified, you may also press the ON/OFF button, if the telephone is programmed as a two-way speakerphone.



SINGLE LINE TELEPHONE

Not applicable

Speed Dial

Station Speed Dial Numbers

Description

A keyset user can associate up to 20 frequently dialed numbers as Station Speed Numbers (9000-9019). Telephone numbers can be up to 24 digits including pauses, flash commands, pulse-to-tone switchover, and no-display characters. A pause is automatically inserted after a flash. There are 1000 speed locations (Station/System) available in *STS* systems.

Operation

To use speed dial:

1. If an outside line was not specified in programming, one can be selected now or the system assigns the line.
2. Press the SPEED button and dial speed bin location,
-or-
Press the preprogrammed speed bin button,
-or-
Use the Soft Key's SPD option and dial a speed bin location when in an idle condition.

To store speed dial numbers:

1. Press the SPEED button once.
2. Press an OUTSIDE LINE button or POOL button.
-or-
Select an outside line automatically by pressing the SPEED button again.
3. Dial the speed bin location.
4. Dial the desired telephone number and include these special codes:
 - TRANS -- Initiates a Pulse-To-Tone switchover.
 - HOLD -- Inserts a Pause.
 - FLASH -- Inserts a Flash into the speed number.
 - TRANS -- When used as the first entry in the speed bin, this inserts a no-display character causing numbers stored in the bin not to appear on the digital telephone's display when bin is accessed.



Many Centrex codes utilize a hook-flash followed by, in many cases, the digit [*] and or [#]. The **STS** allows programming of these codes as a part of system or station speed dial sequences.

5. Press the SPEED button.
6. Replace the handset or press ON/OFF to end the speed bin programming.

To program multiple speed numbers:

1. Press the SPEED button twice to conclude programming a number.
2. Enter the next speed number bin to program.

If the station has no line appearance for the line programmed into the speed bin, that line comes up under the LOOP button or POOL button when accessed.

To erase an existing speed bin:

1. Press the SPEED button twice.
2. Dial the speed bin location.
3. Press the SPEED button again. A confirmation tone sounds.



SINGLE LINE TELEPHONE

To use speed dial:

1. Lift handset.
2. Dial [668] on the dial pad.
3. Dial desired station or system speed bin number (*9000-9099*).
4. Replace the handset to end the call.

To store speed dial numbers:

1. Lift handset.
2. Dial [661] on the dial pad.
3. Dial desired station speed number (*9000-9019*).
4. Dial telephone number to store.
5. Briefly press and release the hookswitch. A confirmation tone sounds.



Line Group 1 is programmed along with SLT speed numbers, and thus Line Group 1 is used when activating station speed dial from an SLT.

System Speed Dial Access

Description

Stations can be individually allowed or denied the ability to use system speed dial numbers (*9020-9099*). (System speed numbers 9060-9099 are not monitored by toll restriction.) Stations cannot be prevented from using station speed dial.

The first programmed attendant must enter the System Speed numbers. If an attendant was not specified, system speed numbers are entered at Station 100.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial [**50**] or dial [**51**]. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

- Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the SPEED flexible button (**Button #6**). The following message displays:

SYSTEM SPEED ENABLED	0-1
-------------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... System Speed Dialing is enabled at all stations.

Operation

The first programmed attendant uses the same procedures to store system speed dial numbers, program multiple speed dial numbers, and to erase existing speed bins as described in the operation of station speed dial numbers.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Speed Bins - Chaining

Description

Speed dial bins can be chained together. This is helpful for accessing Long Distance carriers or banking services when account codes are required.

Operation

To chain speed bins together, simply press one speed bin and then another as required.

Initialize System/Station Speed Numbers

Description

System and Station Speed bins may be initialized to reset all bins to their original default value (empty). All bins **9000-9099** are reset to their default value (empty) upon initializing.

Programming Steps

1. Press the SPEED NO flexible button (**FLASH 80, Button #6**). The following message displays:

INITIALIZE SYS SPEED NO
PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print System Speed Numbers

Description

The System Speed Numbers command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

```
SYSTEM SPEED NUMBERS
20                      37
21                      38
22                      39
23                      40
24                      41
25                      42
26                      43
27                      44
28                      45
29                      46
30                      47
31                      48
32                      49
33                      50
34                      51
35                      52
36                      ... and so on through Speed Number 99
```

Figure 2-17: System Speed Numbers Printout

Programming Steps

1. Press the SYSTEM SPEED flexible button (**FLASH 85, Button #6**). The following message displays:

```
PRINT SYS SPEED NO
PRESS HOLD
```

2. To print the System Speed bins, press the HOLD button. The following message displays:

```
PRINTING SYS SPEED NO
```

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Station Attributes

Initialize Station Attributes

Description

The Station Parameters may be initialized setting all data fields to their original, default values. The following data fields are returned to their default value upon initializing the Station Attributes.

Table 2-20: Station Attribute Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 50/51 PAGE A	1	Paging Access	Enabled
	2	Do Not Disturb	Enabled
	3	Conference Enable/Disable (Per Station)	Enabled
	4	Executive Override	Disabled
	5	Privacy (Per Station)	Enabled
	6	System Speed Dial Access	Enabled
	7	Line Queuing	Enabled
	8	Preferred Line Answer	Enabled
	9	Off-Hook Voice Over (OHVO)	Disabled
	10	Call Forwarding	Enabled
	11	Forced Least Cost Routing	Disabled
	13	Executive Override Blocking	Disabled
	14	CO Line Ringing Options	Muted Ring
	15	Name/Number Display at Idle	Name (Enabled)
	17	CO, Loop, Pool	Disabled
18	Admin Access	Disabled	

Table 2-20: Station Attribute Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 50/51 PAGE B	1	Station Identification	0 (STS 24-Btn Keypad) 6 (SLT w/o MW)
	2	Station Day Class of Service (COS)	COS 1
	3	Station Night Class of Service (COS)	COS 1
	4	Speakerphone/Headset Programming	0=Full Speakerphone
	5	Pick-Up Group(s) Programming	Group 1
	6	Paging Zone(s) Programming	Zone 1
	7	School Zone	Disabled
	8	Line Group Access - Station	Group 1
	9	LCR Class of Service (COS)	0 (Unrestricted Access)
	10	Off-Hook Preference Programming	00=No specific button preferred; Enabled
	11	Flexible Button Programming	(blank)
	12	Keypad Mode	Inactive Mode
	13	Voice Mail ID Translation	XXXX=Station #
	14	Display Flexible Buttons	None
	15	Light Control	0=None
	17	Cordless Key Telephone Unit (CKTU) Button	00=No button assigned
	18	Headset Mode	1=2.5 mm jack
	FLASH 50/51 PAGE C	1	Internal No Answer Forward
2		Internal Busy Forward	None
3		External No Answer Forward	None
4		External Busy Forward	None
5		No Answer Timer	10 sec
7		SLT Loop Supervision	Enabled

Programming Steps

1. Press the STATION ATTRIBUTES flexible button (**FLASH 80, Button #3**). The following message displays:

INITIALIZE STATIONS
PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print Station Attributes

Description

The Print Station Attributes command can be used to print specific flexible station parameters or to print the entire database in fixed number order.

The Print Station Attributes command can dump the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

When printing the Station attributes the following data prints:

>>> All Current Station Parameters

STATION ATTRIBUTES STA 100		STA 101	
PAGE ACCESS	ENABLED	PAGE ACCESS	ENABLED
DO NOT DISTURB	ENABLED	DO NOT DISTURB	ENABLED
CONFERENCE	ENABLED	CONFERENCE	ENABLED
EXEC OVERRIDE	DISABLED	EXEC OVERRIDE	DISABLED
PRIVACY	ENABLED	PRIVACY	ENABLED
SYSTEM SPEED	ENABLED	SYSTEM SPEED	ENABLED
LINE QUEUING	ENABLED	LINE QUEUING	ENABLED
PREF LINE ANSWER	DISABLED	PREF LINE ANSWER	DISABLED
OFF HOOK VOICE OVER	DISABLED	OFF HOOK VOICE OVER	DISABLED
CALL FORWARD	ENABLED	CALL FORWARD	ENABLED
FORCE LCR	DISABLED	FORCE LCR	DISABLED
EXEC OVERRIDE BLOCK	DISABLED	EXEC OVERRIDE BLOCK	DISABLED
CO RING OPTIONS	MUTED RING	CO RING OPTIONS	MUTED RING
NAME AT IDLE LCD	EXT NUMBER	NAME AT IDLE LCD	EXT NUMBER
STATION ID	KEYSET - STS 24BTN	STATION ID	KEYSET - STS 24BTN
CO LOOP POOL FLEX	DISABLED	CO LOOP POOL FLEX	DISABLED
DAY COS	1	DAY COS	1
NIGHT COS	1	NIGHT COS	1
SPEAKERPHONE	FULL SPEAKERPHONE	SPEAKERPHONE	FULL SPEAKERPHONE
PICKUP GROUPS	1	PICKUP GROUPS	1
PAGE ZONE	1	PAGE ZONE	1
INTERNAL NO ANSWER	####	INTERNAL NO ANSWER	####
INTERNAL BUSY	####	INTERNAL BUSY	####
EXTERNAL NO ANSWER	####	EXTERNAL NO ANSWER	####
EXTERNAL BUSY	####	EXTERNAL BUSY	####
NO ANSWER TIMER	10	NO ANSWER TIMER	10
LINE GROUP ACCESS	1	LINE GROUP ACCESS	1
LCR CLASS OF SERVICE	0	LCR CLASS OF SERVICE	0
OFFHOOK PREFERENCE BTN	00 ENABLED	OFFHOOK PREFERENCE BTN	00 ENABLED
KEYSET MODE	INACTIVE MODE 2400	KEYSET MODE	INACTIVE MODE 2400
VOICE MAIL ID	100	VOICE MAIL ID	101
CORDLESS KEY BTN 00		DISPLAY LCD MSG	NONE
BUTTONS:		CORDLESS KEY BTN 00	
01S0100 02S0101 03S0102		BUTTONS:	
04S0103 05S0104 06S0105		01S0100 02S0101 03S0102	
07S0106 08S0107 09S0108		04S0103 05C0201 06C0202	
10S0109 11S0110 12S0111		07LOOP 08PL03 09CBAK	
13L001 14L002 15L003		10PKUP 11DND 12LINEQ	
16L004 17L005 18L006		13L001 14SPD 15UNA	
19LOOP 20PL01 21CBAK		16ICM 17VMREC 18HFREE	
22PKUP 23DND 24LINEQ		19LNR 20SLGIN 21SLOUT	
25FLASH 26XFER 27SPEED		22PKUP 23RPARK 24MUSIC	
28CONF 29MSG 30FWD			
31MUTE 32CAMP 33MON			
34HOLD 35VOL 36VOL			
			... and so on through all stations

Figure 2-18: Station Attributes Printout

Programming Steps

1. Press the STATION ATTRIBUTES flexible button (**FLASH 85, Button #3**). The following message displays:

PRINT STATIONS
 PRESS HOLD

2. To print data for:
 - All stations, press HOLD.
 - One station, enter the flexible station number, then press HOLD.

Then the following message displays and the requested information prints:

PRINTING STATIONS

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Station Identification

Description

Each system port must be programmed to identify the type of station that operate on that port. Each station type must be identified.



When identifying a station as a DSS/BLF console, you must also enter the station number of the key telephone to which the DSS/BLF console is associated. To associate a DSS console with Station 100, the entry would be 1100 [HOLD].

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
 SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

Features and Operation

- Enter the range of **fixed** station numbers (**100-149**) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE A
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE A
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

```
XXX - XXX PAGE B
ENTER BUTTON NUMBER
```

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

```
SXXX PAGE B
ENTER BUTTON NUMBER
```

XXX = 3- or 4-digit flexible number

- Press the STATION ID flexible button (**Button #1**).

```
STATION ID           0-8
KEYSET - STS 24BTN
```

- Enter a valid number on the dial pad to identify type of telephone:

[0] = STS 24-Btn Phone
 [1-3] = DSS Console w/ map 1-3
 [6] = SLT w/o Msg Wait
 [7] = SLT w/Msg Wait (90 VDC)
 [015] = SLA



When redesignating a station from an SLA (identified by code 015) to an STS 24-Btn Phone (normally identified by [0]), you must enter [000].



When designating a station as a DSS Console with map 1, map 2, or map 3, you must follow the entry with the station number for which the DSS is to be associated. Refer to [“Station ID for DSS/BLF Console With Map” on page 3-21](#).

7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All Key Telephone Boards (DTIB) default to ID 0 (STS 24-Button Digital Telephone), all Single Line Boards (SLIB) default to ID 6.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Station ID Lock

Description

The Station ID Lock feature provides a means for the installer/programmer to lock the station ID of all stations in the system. After locked, attempts to plug unlike devices (e.g., a DSS into a 24-button port) results in the device not working. This feature is designed to prevent loss of station programming that results when a different station type is plugged into a port already designated as another station type.

To change the Station ID with the Station ID Lock feature enabled:

1. Enter programming mode and disable the Station ID Lock feature.
2. Plug the new device type into the jack. The set is automatically identified.
3. Enter programming and perform Station ID programming (FLASH 50, Page B, Button #1). Set is automatically identified.
4. Enter programming mode and enable the Station ID Lock feature.

Programming Steps

1. Press the STATION ID LOCK flexible button (**FLASH 06, Button #8**). The following message displays:

STATION LOCK	0-1
DISABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable the use of this feature.
 - [0] = Disabled
 - [1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Station ID Lock feature is disabled.

Station Message Detail Recording

Description

The *STS* station message detail recording (SMDR) provides details on both incoming and outgoing calls. This feature is programmable to allow recording of all calls or just outgoing long distance calls. The system tracks calls by outside line, number dialed, time-of-day, date, station that placed the call and duration of call. Account codes may also be entered and recorded.

The SMDR Qualification Timer determines the length of time that is needed to determine a valid SMDR call for reporting purposes. By default, this timer is set to 30 seconds and is variable from 00 to 60 seconds in 1-second increments.

This feature is enabled or disabled in system programming. By default, SMDR is not enabled and is set to record long distance calls only. A printout format of 80 characters maximum or 30 characters maximum may be selected in system programming. The standard format is 80 characters on a single line. A 30 character format generates 3 lines per message. If the SMDR feature is enabled, the system starts collecting information about the call as soon as it starts and terminates when the call ends. If the call was longer than 30 seconds, the following information is printed:

<pre> 80 character format - Outbound Call to a Dialed Number: 1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890 AAAA BBB HH:MM:SS HH:MM MM/DD/YY HCCCCCCCCCCCCCCCCCCCCC GGGGGGGGGGGG (CR) (LF) STA CO TOTAL START DATE DIALED 1100 001 00:00:38 13:57 01/15/01 O2956006 </pre>
<pre> 80 character format - Outbound Call to an Extension: 1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890 AAAA BBB HH:MM:SS HH:MM MM/DD/YY HCCCCCCCCCCCCCCCCCCCCC GGGGGGGGGGGG (CR) (LF) STA CO TOTAL START DATE DIALED 1100 031 00:00:08 13:58 01/15/01 O2108 ** **CALL TO HOWARD </pre>
<pre> 80 character format - Outbound Call to an Extension: 1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890 AAAA BBB HH:MM:SS HH:MM MM/DD/YY HCCCCCCCCCCCCCCCCCCCCC GGGGGGGGGGGG (CR) (LF) STA CO TOTAL START DATE DIALED 1102 031 00:00:11 13:59 01/15/01 O2101 ** **CALL TO STA2101 </pre>
<pre> 80 character format - Inbound Call from an Extension: 1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890 AAAA BBB HH:MM:SS HH:MM MM/DD/YY HCCCCCCCCCCCCCCCCCCCCC GGGGGGGGGGGG (CR) (LF) STA CO TOTAL START DATE DIALED 1100 031 00:00:03 13:59 01/15/01 I2108 ** **HOWARD CALLING - continued on next page - </pre>
<pre> 80 character format - Inbound Call to a Station From CO Line 1 with No Caller ID: 1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890 AAAA BBB HH:MM:SS HH:MM MM/DD/YY HCCCCCCCCCCCCCCCCCCCCC GGGGGGGGGGGG (CR) (LF) STA CO TOTAL START DATE DIALED 1100 001 00:00:04 13:59 01/15/01 I </pre>
<pre> LEGEND: - AAAA = Station originator or Trunk on DISA and Off-Net (CO Line) calls. - BBB = Outside line number - HH:MM:SS = Duration of call in Hours, Minutes and Seconds - HH:MM = Time of day (start time) in Hours and Minutes - MM/DD/YY = Date of Call - H = Indicates call type: "I" = Incoming* "O" = Outgoing "T" = Transferred* "U" = Unanswered calls for ICLID SMDR call records - CC...CC = Number dialed - GG...GG = Last Account code entered (optional) - (CR) = Carriage return - (LF) = Line Feed </pre>

Figure 2-19: SMDR Printout

Features and Operation

The **STS** system can provide SMDR output to the optional RS-232C connectors on the BKSU. When SMDR is desired, the following system-wide parameters determine how SMDR information is reported.

ENABLE / DISABLE * 1 Q	CALL TYPE * 2 W	PRINT FORMAT * 3 E	* 4 R
PORT * 5 T	* 6 Y	* 7 U	* 8 I

Programming Steps

1. Press **FLASH** and dial **[21]**. The following message displays:

SDR	TPE	PNT	BAUD	PORT
NO	LD	80	9600	1

2. To program SMDR features, use the flexible button(s) as defined in the following procedures.
3. The ENABLE/DISABLE, TYPE, and PRINT features toggle on and off each time the button is pressed. The display updates with each toggle.
4. After all entries are made, press HOLD to save the entry. A confirmation tone sounds.

SMDR Enable/Disable

Description

A call accounting device can be installed allowing the system to track calls by outside line number, number dialed, time of day, date, station that placed or received the call, and duration of the call.

Programming Steps

1. Press the ENABLE/DISABLE flexible button (**FLASH 21, Button #1**). This feature toggles on and off each time the button is pressed. The display updates with each toggle.
LED ON = SMDR is enabled
LED OFF = SMDR is disabled
2. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... SMDR is disabled.

Long Distance - All Calls

Description

The system can be set to record all outgoing calls or only outgoing long distance calls. Long Distance calls are defined as beginning with a 1 or 0, or containing eight or more digits. Incoming calls are only recorded if TYPE is set for all calls.

Programming Steps

1. Press the CALL TYPE flexible button (**FLASH 21, Button #2**) to determine the type of calls to record. This feature toggles on and off each time the button is pressed. The display updates with each toggle.
LED ON = Long Distance is enabled
LED OFF = All Calls is enabled
2. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... System records long distance (LD) calls only.

Character Print Assignment

Description

The system can be programmed to print individual SMDR records in either a 1-line 80-character format or a 3-line 30-character format.

Programming Steps

1. Press PRINT FORMAT flexible button (**FLASH 21, Button #3**) to determine the print format of SMDR records. This feature toggles on and off each time the button is pressed. The display updates with each toggle.
LED On = 80-Character is enabled
LED Off = 30-Character is enabled
2. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... The 1-line 80-character format is selected.

Baud Rate Display

Description

The *STS* system provides SMDR output to the standard RS-232C connector on the optional BKSU. The baud rate is displayed as 150, 300, 600, 1200, 2400, 4800, 9600, or 19.2K baud.

Programming Steps

The SMDR Baud Rate is programmed using **Flash 15**, Baud Rate Assignments. The LCD displays the current baud rate based on which port is assigned to the SMDR Port number.

SMDR Port Assignments

Description

PORT #1-- RS-232C port on the BKSU

PORT #2 -- RS-232C port on the BKSU

PORT #3 -- modem

Programming Steps

1. Press the PORT flexible button (**FLASH 21, Button #5**) to determine which port to use for SMDR information.
2. Enter a valid number for the SMDR Port number:
 - [1] = Port #1
 - [2] = Port #2

The LCD displays the current baud rate based on which Port number is assigned to the SMDR Port number.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Port #1.

SMDR Call Qualification Timer

Description

The SMDR Call Qualification Timer determines the time needed to determine a valid SMDR call for reporting purposes. The SMDR Call Qualification Timer setting is variable from 00-60 seconds in 1-second increments.

Programming Steps

1. Press the SMDR CALL QUAL TIMER flexible button (**FLASH 01, Button #16**). The following message displays:

SMDR CALL QUAL	00-60
30	

2. Enter a valid number on the dial pad that corresponds to 00-60 seconds in 1-second increments.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... SMDR Call Qualification Timer is set to 30 seconds.

Station Relocation

Description

The Station Relocation Feature lets a user unplug their station and plug it into another location. Dialing a code followed by the old station number brings all the station attributes including extension number, button mapping, speed dial, and class of service to the new location.

Operation

1. A station can be relocated by unplugging it, then plugging it into a new location.
2. Dial [636] on the dial pad. Then, dial the extension number of the station being relocated. Once this is done, all station attributes are copied to the current station.



If a station is assigned to a specific port and that station user unplugs their station and plugs it in at another location, the database administration programming is updated to reflect the new port change. Station lock will prevent this feature from working correctly.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » The station number that is dialed as the relocated station must be unplugged.
- » The relocated station is given the station attributes of the station doing the relocating. The two stations trade station numbers and station attributes.
- » If a keyset is plugged into the relocated position it has all station attributes of the relocating station. This feature is only applicable to keysets.
- » Digital stations must be relocated to another digital port. Digital stations cannot be relocated to an SLT port.
- » Station Lock disables this feature.

System Parameters

Initialize System Parameters

Description

System Parameters may be initialized to set all data fields to their original default values. The following data fields are returned to their default values upon initializing the System Parameters.

Table 2-21: System Parameter Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 01	SYSTEM TIMERS		
	1	System Hold Recall Timer	60 sec
	2	Exclusive Hold Recall Timer	180 sec
	3	Attendant Recall Timer	1 min
	4	Transfer Recall Timer	45 sec
	7	Pause Timer	2 sec
	8	Call Park Recall Timer	180 sec
	9	Conference/DISA Timer	10 min
	10	Paging Time-out Timer	15 sec
	11	CO Ring Detect Timer	3=300 ms
	12	SLT DTMF Receiver Timer	020 sec
	13	Message Wait Reminder Tone Timer	000=Disabled
	14	SLT Hook Switch Timer	10=1 sec
	15	SLT Hook Switch Bounce Timer	030=300 ms
	16	SMDR Call Qualification Timer	30 sec
	17	Automatic Call Back Timer	03 sec
	18	Reminder Ring Timer	00 sec
20	Inter-Digit Timeout	5 sec	
FLASH 02	ADDITIONAL SYSTEM TIMERS		
	1	Repeat Redial Timer	60 sec
	2	Attendant Display Timer	01 sec
	3	Call Coverage Ring Timer	05 sec
	4	Modem Answer T / O	025 sec
	5	Pulse Dial Inter-Digit Timer	300 ms
	6	Programmable DTMF Time Operation	1=100ms

Table 2-21: System Parameter Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 05	SYSTEM FEATURES 1		
	1	Attendant Override	Disabled
	2	Hold Preference	System
	3	External Night Ring	Disabled
	4	Executive Override Warning Tone	Enabled
	5	Page Warning Tone	Enabled
	6	Background Music	Enabled
	7	Least Cost Routing (LCR)	Disabled
	8	Account Codes - Forced	Disabled
	9	Group Listening	Disabled
	10	Idle Speaker Mode	Disabled
	11	Call Cost Display Feature	Disabled
12	Music-On-Hold	Enabled	
FLASH 06	SYSTEM FEATURES 2		
	1	Barge-In Warn Tone	Enabled
	2	CO Ring Tones	Enabled
	3	Verified Account Codes	Disabled
	4	Call Forward Display	Enabled
	5	External Day Ring	Disabled
	6	Overflow Station Forward	Disabled
	7	Direct Transfer Mode	Enabled
	8	Station ID Lock	Disabled
	9	LCR Call Progress	Enabled
	10	One-Touch Recording Warning Tone	Enabled
	11	Ringback on Transfer	Disabled
	13	911 Feature	Disabled
14	Enhanced 911	Disabled	
15	VMID Same As Station Numbers	STA Numbers = VMID	

Table 2-21: System Parameter Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 07	FLASH RATES		
	1	Incoming CO Line Ringing	Red 480 ipm flutter
	2	Incoming Intercom Ringing	Red 120 ipm flutter
	3	Call Forward Button	Red Steady On
	4	Message Wait/VM Button	Red Steady On
	5	Message CallBack – DSS/BLF	Red 120 ipm flutter
	6	Do Not Disturb – DSS/BLF	Red 60 ipm Dbl Wink Off
	7	Auto CallBack – DSS/BLF	Red 120 ipm flash
	8	UCD Available/Unavailable – DSS/BLF	Red 60 ipm Dbl Wink
	9	Transfer CO Ringing	Red 120 ipm flash
	10	Recall CO Ringing	Red 480 ipm flutter
	11	Queued CO Ringing	Green 480 ipm flutter
	12	Exclusive Hold	Green 120 ipm flash
	13	System Hold	Red 60 ipm Dbl Wink Off
	14	In Use Hold (I-Hold)	Green 60 ipm flash
	15	Camp-On Button	Red 120 ipm flash
	16	Call Back Button	Red 120 ipm flash
	17	Line Queue Button	Red 480 ipm flutter
	18	Do Not Disturb Button	Red Steady On
19	Intercom Hold Button	Red 15 ipm flash	
FLASH 09	1-6	MOH Assignments (Channels 3-8)	None
	7	E911 Power Failure Station	None
	9	Leading Digit	0
	10	School Mode	Disabled
	11	School Forward Destination	None
FLASH 10	--	Attendant Station Assignment	STA 100
FLASH 11	1	System Time And Date	MMM/DD/YY, 12-hour display
FLASH 12	--	PBX Dialing Codes	None
FLASH 13	1-4	Executive/Secretary Pairs	None
FLASH 14	1	Relay Programming	None
FLASH 15	BAUD RATE ASSIGNMENTS		
	1	Port #1 (RS-232 on BKSU)	9600 Baud
	2	Port #2 (RS-232 on BKSU)	9600 Baud
	3	Port #3 (modem - baud auto-negotiated)	None
FLASH 20	1	DISA Access Code	100
	2	Database Admin Password	3226

Table 2-21: System Parameter Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 21	1	SMDR Enable/Disable	No
	2	Long Distance/Local Assignment	Long Distance
	3	Character Print Assignment	80
	5	SMDR Port Assignments	Port #1
FLASH 22	1	Automatic/Manual Operation	Auto = No
	2-8	Day of Week Programming	M-F 08:00 17:00 Sat-Sun ##:## #:##
FLASH 24	1-14	Card Slot (0-13) Programming	Slot 0, 1, 2=DTIB, LCI4, &SL02
FLASH 39	1-24	CO Line Group Queuing	Enabled
FLASH 47	T-1 ALARM PROGRAMMING		
	1	Carrier Alarm Loss	Enabled
	2	Blue Alarm	Enabled
	3	Yellow Alarm	Enabled
	4	Red Alarm	Enabled
	5	Bipolar Alarm	Enabled
	6	Frame Slip Alarm	Enabled
	7	Data Errors Alarm	Enabled
	11	Enable/Disable (Carrier Loss Alarm)	Enabled
	12	Clear Alarm	Enabled
	13	Minor Alarm	15 min
	14	Major Alarm	30 min
	15	Time Period	5 min
	16	Attendant Display	Enabled

Programming Steps

1. Press the SYSTEM PARAMETERS flexible button (**FLASH 80, Button #1**). The following message displays:

INITIALIZE SYS PARAM PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print System Parameters

Description

The currently stored customer database can be printed or uploaded into a file. This command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device. When printing the System Parameters the following data prints:

- ❑ All System Timers
- ❑ All System Wide Options (External Night Ringing, Hold Preference)
- ❑ Attendant Station(s) Programming
- ❑ Other System Assignments (Page/Relay Assign, Exec/Sec, SMDR)
- ❑ Weekly Night Mode Schedule

----- SYSTEM PARAMETERS -----		-----SYSTEM FEATURES -----	
		CO RING TONES	ENABLED
		VERIFIED ACCT CODES	DISABLED
SYS HOLD RECALL	60	CALL FWD DISPLAY	ENABLED
EXC HOLD RECALL	180	EXTERNAL DAY RING	DISABLED
ATND RECALL TIMER	1	OVERFLOW STA FWD	DISABLED
TRANSFER RECALL	45	DIRECT XFER	ENABLED
PRESET FWD TIMER	10	STATION LOCK	DISABLED
CALL FWD NO ANS	15	LCR CALL PROGRESS	ENABLED
PAUSE TIMER	2	RECORDING WARN TONE	ENABLED
CALL PARK TIMER	180	MAINTENANCE	DISABLED
CONFERENCE TIMER	10	RINGBACK ON XFER	DISABLED
PAGING TIMEOUT	15	DID/TIE SIGNALING	DISABLED
CO RING DETECT	3	911 FEATURE	DISABLED
SLT RCVR TIMER	20		
M/W TONE TIMER	0	-----SYSTEM	LED
HOOK SWITCH TIME	10		FLASH RATES -----
HOOK SWT BOUNCE	10	INC CO RING	RED 480 IPM FLUTTER
SMDR CALL QUAL	30	INC ICM RING	RED 120 IPM FLUTTER
AUTO CALL BACK	3	CALL FORWARD BTN	RED STEADY ON
REMINDER RING	0	MSG WAIT VM BTN	RED STEADY ON
RELEASE GUARD	3	MSG CBCK DSS/BLF	RED 120 IPM FLUTTER
INTERDIGIT T/O	5	DND DSS/BLF	RED 60 IPM DBL WINK OFF
RPT REDIAL	60	AUTO CBCK DSS/BLF	RED 120 IPM FLASH
ATTENDANT DISPLAY	1	UCD UNAVL DSS/BLF	RED 60 IPM DBL WINK OFF
CALL COVERAGE RING	5	TRANSFER CO RING	RED 120 IPM FLASH
MODEM ANSWER T/O	25	RECALL CO RING	RED 480 IPM FLUTTER
INT DIGIT PULSE	300	EXCLUSIVE HOLD	GREEN 120 IPM FLASH
DTMF ON/OFF TIME	1	QUEUED CO RING	GREEN 480 IPM FLUTTER
-- SYSTEM FEATURES -----		SYSTEM HOLD	RED 60 IPM DBL WINK OFF
		IN USE HOLD	GREEN 60 IPM FLASH
ATTENDANT OVERRIDE	DISABLED	CAMP ON BTN	RED 120 IPM FLASH
HOLD PREFERENCE	SYSTEM	CALL BACK BTN	RED 120 IPM FLASH
EXTERNAL NIGHT RING	DISABLED	LINE QUEUE BTN	RED 480 IPM FLUTTER
EXECUTIVE WARNING	ENABLED	DND BTN	RED STEADY ON
PAGE WARNING TONE	ENABLED	ICM HOLD BTN	RED 15 IPM FLASH
BACKGROUND MUSIC	ENABLED	LEADING DIGIT 1	LEADING DIGIT
LEAST COST ROUTING	DISABLED	LEADING DIGIT 2	NONE
FORCED ACCOUNT CODE	DISABLED	LEADING DIGIT 3	NONE
GROUP LISTENING	DISABLED	LEADING DIGIT 4	NONE
IDLE SPEAKER MODE	DISABLED	LEADING DIGIT 5	NONE
CALL COST DISPLAY	DISABLED	LEADING DIGIT 6	NONE
MUSIC ON HOLD	ENABLED	LEADING DIGIT 7	NONE
CALL QUALIFIER TONE	DISABLED	LEADING DIGIT OPTION	DISABLED
BARGE IN WARN TONE	ENABLED	CENTREX DIGITS	4
		VM ID DIGITS	3

Figure 2-20: System Parameters Printout

```

MUSIC CHANNEL[3..8]          CABINET  SLOT  TYPE
CO - ## #### ## ## ##      - - - - -  - - -  - - -
                                0      0      LCOB
ATTENDANT STATIONS           0      1      DTIB
100  ## ## ## ## ## ## ##  0      2      LCOB
                                0      3      DTIB
DATE & TIME FORMAT           0      4      LCOB
MM/DD/YY, 12 HOURS          0      5      DTIB
                                0      6      LCOB
PBX DIALING CODES           0      7      DTIB
##      ##      ##      ##      ##

EXECUTIVE/SECRETARY PAIRINGS
1 =   ###   ###
2 =   ###   ###
3 =   ###   ###
4 =   ###   ###

ON BOARD RELAY ASSIGNMENTS
NONE  NONE

I/O BAUD RATE
-----
Port  1 =  9600
Port  2 =  9600
Port  3 =  9600

AUTO NIGHT MODE      N

WEEKLY NIGHT MODE SCHEDULE
-----
                END   START
DAY            TIME   TIME
M              0      0800  1700
T              1      0800  1700
W              2      0800  1700
T              3      0800  1700
F              4      0800  1700
S              5      #####  #####
S              6      #####  #####

DIAL PULSE - 60/40 10 PPS

```

Figure 12-20: System Parameters Printout

Programming Steps

1. Press the SYSTEM PARAMETERS flexible button (**FLASH 85, Button #1**). The following message displays:

PRINT SYS PARAM
PRESS HOLD

2. To print the System Parameters database, press the HOLD button. The following message displays:

PRINT SYS PARAM

When the system finishes sending the information to the printer, a confirmation tone sounds.

System Reset

Description

The System Reset feature provides a hard system reset from the keyset instead of the KSU. This is useful in cases where miscellaneous data errors have occurred and the system needs to be reset without initializing the entire database.

Programming Steps

If the System must be reset but not initialized:

1. Press the RESET flexible button (**FLASH 80, Button #20**). The following message displays:

RESET SYSTEM
PRESS HOLD

2. To reset the system without initializing the database, press the HOLD button. No confirmation tone sounds and the system resets.

T-1 Alarm Programming

Description

The T-1 Trunk card and the system software provide tools to help detect and isolate problems which may occur with the T-1 circuit. There are six LEDs mounted on the outside edge of the T-1 Trunk card which either light or flash to indicate a variety of conditions on the T-1 circuit. The Central Office Maintenance Center can send a command to place the CSU into Line Loop Back mode. If there is no CSU, the T-1 Trunk card responds to the Line Loop Back command. The buttons on the digital telephone are defined as shown below when entering the T-1 Alarm programming area:

CARRIER LOSS * 1 Q	BLUE ALARM * 2 W	YELLOW ALARM * 3 E	RED ALARM * 4 R
BIPOLAR VARIATIONS * 5 T	FRAME SLIP * 6 Y	DATA ERRORS * 7 U	* 8 I
* 9 O	* 10 P	ENABLE/DISABLE * 11 A	CLEAR ALARM * 12 S
MINOR ALARM * 13 D	MAJOR ALARM * 14 F	TIME PERIOD * 15 G	ATTENDANT DISPLAY * 16 H

Programming Steps

If the system is in the programming mode, continue using the program codes. If starting to program here, enter the programming mode.

1. Press **FLASH** and dial **[47]**. The following message displays:

T1 ALARM
ENTER BUTTON NUMBER

2. Press a button (1-7) that represents the desired alarm setting.
 - These settings govern all T-1 Trunk cards installed in the system.
 - The LED lights steady when the button is pressed.
 - Once the desired alarm is selected, the following conditions can be programmed:
 - Button #12 = Clears the alarm
 - Button #13 = Minor threshold setting
 - Button #14 = Major threshold setting
 - Button #15 = Time period for Minor/Major alarms
 - Button #16 = Sends LCD message of Major alarms to first Attendant Station

Enable/Disable (Carrier Loss Alarm)

Description

A Receive Carrier Loss (RCL) condition is declared when no bits have been received by the T-1 Trunk card for 150ms. It causes an Out of Frame (OOF) condition, and 2.5 seconds later a RED Carrier Failure Alarm (CFA) state. During the time the RCL and RED alarm are declared, incoming and outgoing signal bits are frozen. Outgoing calls cannot be made.

Programming Steps

1. Press the CARRIER LOSS flexible button (**FLASH 47, Button #1**). Button #1 and Button #11 LEDs are lit steady. The following message displays:

CARRIER LOSS ENABLED	0-1
-------------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Carrier Loss Alarm is enabled on all T-1 trunks.

Blue Alarm

Description

The Blue Alarm signal is an unframed all ones signal. It is transmitted by a remote device (usually a CSU) and when received, indicates a transmission failure upstream of that device toward the local end. The AIS alarm signal is also known as the *keep alive* signal in that it prevents the T-1 circuit repeaters from malfunctioning when transmit from the remote end is lost.

Programming Steps

1. Press the BLUE ALARM flexible button (**FLASH 47, Button #2**). Button #2 and Button #11 LEDs are lit steady. The following message displays:

BLUE ALARM ENABLED	0-1
-----------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

4. Continue programming the Blue Alarm parameters using the steps provided earlier in this section for Clearing the alarm, Minor alarm, Major alarm, Time Period, and Attendant display.

DEFAULT ... Blue Alarm is enabled for all T-1 Trunks.

Yellow Alarm

Description

The Yellow Alarm is recorded when the T-1 Trunk card detects a yellow Carrier Failure Alarm (CFA) signal from the distant end for a minimum 335 ms. The Yellow Alarm is transmitted by the remote system because of a RED alarm condition there.

Programming Steps

1. Press the YELLOW flexible button (**FLASH 47, Button #3**). Button #3 and Button #11 LEDs are lit steady. The following message displays:

YELLOW ALARM ENABLED	0-1
-------------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD button to save entry. A confirmation tone sounds and the display updates.
4. Continue programming the Yellow Alarm parameters using steps provided in this section for Clearing the alarm, Minor alarm, Major alarm, Time Period, and Attendant display.

DEFAULT ... Yellow Alarm is enabled for all T-1 Trunks.

Red Alarm

Description

The Red Alarm is declared by the T-1 Trunk card when a loss of signal is detected, or an Alarm Indication Signal is received. A Red Alarm can be caused by a loss of carrier signal, a receive out of frame sync condition, or an alarm indication signal.

Programming Steps

1. Press the RED ALARM flexible button (**FLASH 47, Button #4**). Button #4 and Button #11 LEDs are lit steady. The following message displays:

RED ALARM ENABLED	0-1
----------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD button to save entry. A confirmation tone sounds and the display updates.

- Continue programming Red Alarm parameters using the steps provided in this section for Clearing the alarm, Minor alarm, Major alarm, Time Period, and Attendant display.

DEFAULT ... Red Alarm is enabled for all T-1 trunks.

Bipolar Variations Alarm

Description

Excessive Bipolar Violations (BPV) are declared when a T-1 Trunk card detects a BPV rate in excess of 1×10^6 errors in 1000 seconds.



This condition can exist if the Telco is providing B8ZS frame coding and the system is programmed for AMI.

Programming Steps

- Press the BIPOLAR VARIATIONS flexible button (**FLASH 47, Button #5**). Button #5 and Button #11 LEDs are lit steady. The following message displays:

BIPOLAR VARIATIONS	0-1
ENABLED	

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds and the display updates.
- Continue to program Bipolar Variations Alarm parameters using the steps in this section for Clearing the alarm, Minor alarm, Major alarm, Time Period, and Attendant display.

DEFAULT ... Bipolar Variations are enabled at all T-1 trunks.

Frame Slip Alarm

Description

When a Frame Slip or change in frame alignment is detected, the T-1 Trunk card freezes all incoming signaling states and realigns the receive buffer. If all alarm conditions are clear, signaling states are released and normal operation resumes.

Programming Steps

- Press FRAME SLIP flexible button (**FLASH 47, Button #6**). Button #6 and Button #11 LEDs are lit steady. The following message displays:

SLIP	0-1
ENABLED	

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled

3. Press HOLD button to save entry. A confirmation tone sounds and the display updates.
4. Continue to program the Frame Slip Alarm parameters using steps provided in this section for Clearing the alarm, Minor alarm, Major alarm, Time Period, and Attendant display.

DEFAULT ... Frame Slip is enabled on T-1 trunks.

Data Errors Alarm

Description

Data errors are illegal bit formations. If the Data Errors Alarm is enabled, an error message is sent to the attendant when the data error limit is reached.

Programming Steps

1. Press the DATA ERRORS flexible button (**FLASH 47, Button #7**). Button #7 and Button #11 LEDs are lit steady. The following message displays:

DATA ERRORS	0-1
ENABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD button to save entry. A confirmation tone sounds and the display updates.
4. Continue to program Data Error Alarm parameters using steps provided in this section for Clearing the alarm, Minor alarm, Major alarm, Time Period, and Attendant display.

DEFAULT ... Data Errors Alarm is enabled for all T-1 Trunks.

Clear Alarm

Description

The Clear Alarm option allows the alarm condition reported to the Attendant Display to be cleared.

Programming Steps

1. Press the CLEAR ALARM flexible button (**FLASH 47, Button #12**). Button #12 LED is lit steady. The following message displays:

DATA ERRORS
CLEAR ALARM PRESS HOLD

2. Press the HOLD button to clear the alarm. A confirmation tone sounds.

Minor Alarm

Description

If the error counter for an Alarm Code reaches the number programmed as a Minor Alarm within the time (in minutes) entered in the Time Period, the system reports a Minor Alarm condition. The Minor Alarm threshold setting is variable from 00 to 99 minutes.

Programming Steps

1. Press the MINOR ALARM flexible button (**FLASH 47, Button #13**). Button #13 LED is lit steady. The following message displays:

DATA ERRORS	00-99
MINOR ALARM 15	

2. Enter a valid number (00-99) on the dial pad which represents the threshold limit.
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Minor Alarm threshold is set for 15 minutes.

Major Alarm

Description

If the error counter for an Alarm Code reaches the number programmed as a Major Alarm within the time (in minutes) entered in the Time Period, the system reports a Major Alarm condition. The Major Alarm threshold setting is variable from 00 to 99 minutes.

Programming Steps

1. Press the MAJOR ALARM flexible button (**FLASH 47, Button #14**). Button #14 LED is lit steady. The following message displays:

DATA ERRORS	00-99
MAJOR ALARM 30	

2. Enter a valid number (00-99) on the dial pad which corresponds to the time period limit.
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Major Alarm threshold is set for 30 minutes and is variable from 00 to 99 minutes.

Time Period

Description

The Time Period option represents the length of time set for Minor and Major alarm conditions to occur.

Programming Steps

1. Press the TIME PERIOD flexible button (**FLASH 47, Button #15**). Button #15 LED is lit steady. The following message displays:

DATA ERRORS	00-99
TIME PERIOD 05	

2. Enter a valid number (00-99) on the dial pad which represents the time period limit.
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Time Period is set for five minutes.

Attendant Display - T-1 Alarms

Description

The Attendant Display option determines whether the first Attendant station should be notified of any T-1 alarm conditions when they occur.

Programming Steps

1. Press the ATENDANT DISPLAY flexible button (**FLASH 47, Button #16**). Button #16 LED is lit steady. The following message displays:

DATA ERRORS	0-1
ATT DISPLAY ENABLED	

2. Enter a valid number (0 or 1) on the dial pad.
[0] = No alarm
[1] = Alarm enabled
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... All alarm conditions are enabled to be sent to the first Attendant station LCD display.

Operation

The attendant can dial feature code [606] to clear any T-1 alarm from the display. It will not clear the condition, just clear the display.

T-1 Trunking

Description

The T-1 trunk card can be used to connect 24 lines (24 channels per T-1 circuit) from a CO to the system. These lines can be any mix of inbound WATS, outbound WATS, standard DDD lines, DID lines, or TIE lines. The system also supports Fractional T-1 Service.

T-1 Signaling Type

Description

The T-1 trunk card provides the *STS* Systems with the ability to connect to T-1 trunk circuits. The T-1 trunk card supports either the standard D4 framing format with Alternate Mark Inversion (AMI) or Extended Superframe (ESF-B8ZS) format coding. The system can support TIE, loop start, ground start, and DID signaling per channel. The T-1 trunk card fits into one card slot.

The T-1 signaling protocols provided are: Loop Start, Ground Start, TIE. The *STS* Digital Systems use the TIE signaling simulation from the Central Office to add the additional protocol of Direct Inward Dial (DID).

T-1 trunking provides services called Automatic Number Identification (ANI) and Dialed Number Identification Service (DNIS). The T-1 feature supports both of these services. The *STS* Digital Systems support ANI, DNIS, or an ANI and DNIS combination on a per channel (line) basis.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible Button #19 (Page A) is lit.
4. Press the PAGE B flexible button (Button #20). The following message displays:

XXX - XXX PAGE B
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

5. Press the T-1 SIGNALING flexible button (**FLASH 40, Page B, Button #1**). The following message displays:

T-1 SIGNAL TYPE	0-7
LOOP START	

6. Enter a valid number (0-7) on the dial pad that corresponds to one of the following types:

Table 2-22: T-1 Signaling Options

Signaling Option	Description
[0] = None	None is used for fractional T-1 spans. All unused channels in a fractional T-1 span should be marked as None.
[1] = Data (future)	
[2] = Loop Start	Disconnect supervision is not supported for Loop Start emulation of T-1 circuits.
[3] = Ground Start	Software supports disconnect supervision for ground start emulation of T-1 circuits.
[4] = DID	The DID signaling (wink, delay, and immediate) is controlled in Flash 40. DID digits from the carrier are routed via the DID table. To program the DID table, refer to Flash 44 programming on page 2-107 and to Flash 43 programming on page 2-107 .
[5] = TIE	This is used for point-to-point T-1 applications.
[6] = TIE/DNIS	The DNIS signaling (wink, delay, and immediate) is controlled in Flash 40. DNIS digits from the carrier are routed via the DID table. To program the DID table, refer to Flash 44 programming on page 2-107 and to Flash 43 programming on page 2-107 .
[7] = TIE/ANI	The ANI number is treated and routed as an ICLID number. It follows the Flash 43 programming (page 2-107) for routing information and Flash 55 programming (page 2-195) for Name/Number Translation.

7. Press the HOLD button. A confirmation tone sounds and the display updates.

DEFAULT ... T-1 Signal Type option is Loop Start.

T-1 Ringback Option

Description

The T-1 Ringback option supports T-1 channels which require ringback tone to be transmitted to the caller while a call is ringing. Some carriers require the system to generate the ringback tone, this feature allows the system to provide this option. Ringback tone is not used with the DISA, TIE Line, or DID signal options.

Programming Steps

1. Press the RINGBACK OPTION flexible button (**FLASH 40, Page B, Button #2**). The following message displays:

T-1 RINGBACK ENABLE	0-1
------------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press the HOLD button. A confirmation tone sounds and the display updates.

DEFAULT ... T-1 Ringback option is enabled.

T-1 Dial Tone Option

Description

An option has been added to support T-1 channels which do not supply dial tone. Some carriers require the system to generate dial tone to its users, while other carriers do not.

Programming Steps

1. Press the T-1 DIAL TONE flexible button (**FLASH 40, Page B, Button #3**). The following message displays:

T-1 DIAL TONE DISABLED	0-1
---------------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Dial Tone option is disabled.

Wink Timer

Description

When Wink signaling is programmed, this timer determines how long the **STS** system keeps the T-1 TIE Line circuit reversed before any DTMF digits are sent from the Central Office. This option allows the installer a method to adjust the Wink Signal on a per CO Line basis. The Wink Signal can be used on DID and TIE-type trunks.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press Button #21 to select Page C. The display updates. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE C
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the WINK TIMER Button (**FLASH 40, Page C, Button #3**) in the flexible button field. The following message displays:

WINK TIMER	100-290
140	

5. Enter a valid number which corresponds to 100-290 ms.
6. Press HOLD button to save entry. A confirmation tone sounds and the display updates.

DEFAULT ... Wink Timer is set for 140 ms.

T-1 Collect Timer

Description

The T-1 Collect Timer is only used when the T-1 Incoming Signaling is set for dial pulse. This is a time-out timer that looks at the incoming digits one digit at a time.

If a second digit isn't detected within the 150 ms, the telephone system attempts to process that digit. If a second digit is detected, the system waits 150 ms to see if a third digit is received. Otherwise, the telephone system attempts to process the two digits already received. This process continues until no additional digits are received and the time-out timer expires.

The T-1 Collect Timer setting is variable from 100 ms to 2.0 seconds.

Programming Steps

1. Press the T-1 COLLECT TIMER flexible button (**FLASH 40, Page C, Button #10**). The following message is shown on the display phone:

T1 COLLECT TIMER	010-200
015	

2. Enter a valid number on the dial pad which corresponds to 010–200 (100 ms to 2.0 seconds).
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... T-1 Collect Timer is set for 150 ms.

T-1 Incoming Signaling

Description

The T-1 Incoming Signaling option allows the installer to determine the type of incoming signaling to be used by all T-1 trunks in the system.

Programming Steps

There are two types of T-1 Signaling available for T-1 Trunks. To change the type of signaling:

1. Press the T-1 INCOMING SIGNALING flexible button (**FLASH 41, Button #6**) for programming the type of T-1 signaling desired. The following message is shown on the display phone:

T1 INC SIGNAL	0-1
DTMF	

2. Enter a 0 or 1 on the dial pad.
 - [0] = Dial Pulse
 - [1] = DTMF
3. Press the HOLD button to save the entry. Confirmation tone sounds and display updates.

DEFAULT ... T-1 Signaling type is set for DTMF.

T-1 Framing Type

Description

The T-1 board will work with D4SF-AMI or ESF-B8ZS framing. The T-1 service should be ordered from the serving company.

Programming Steps

There are two types of T-1 Framing Types available. To change the framing type:

1. Press the T-1 FRAMING TYPE flexible button (**FLASH 41, Button #7**) for programming the type of T-1 Framing desired. The following message is shown on the display phone:

T1 FRAMING TYPE	0-1
D4SF-AMI	

2. Enter a 0 or 1 on the dial pad.
[0] = D4SF-AMI
[1] = ESF-B8ZS
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... T-1 Framing type is set for D4SF-AMI.

Text Messaging (Silent Response)

Description

The Text Messaging feature allows a station user to use text messages to respond to a caller that has either camped-on or has used the off-hook voice over (OHVO) feature to alert a busy station of a waiting call or message. The camped-on station may respond to the caller via the canned, custom, and silent response text (LCD) messages. The text messages appear on the calling party LCD display. The calling (originating) station and receiving station MUST be digital telephones. The receiving station MUST also be programmed to allow OHVO calls.

Operation

While receiving a Camp On, or OHVO call:

The called party may press a preprogrammed Text Message button with a specific message [633+XX]. Example: [633] + [38] means a telephone calling the station receives the message WHO IS IT ?

Additional messages (with their codes listed below) can also be sent as a text response:

[31] = I Will Take Call	[42] = Is It Important ?	[45] = Park Call
[32] = Take Message	[43] = Is It Urgent ?	[46] = Out Of Office
[33] = Transfer To Secretary	[44] = Send Call To Voice Mail	[47] = Put Call Through
[34] = Put Call On Hold	[38] = Who Is It?	[48] = I Am Busy
[35] = Call Back	[39] = Is It Long Distance?	[49] = O.K.
[36] = One Moment Please	[40] = Is It Personal?	[50] = No
[37] = I Will Call Back	[41] = Is It An Emergency?	[51] = Yes



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » If the station receiving the text message response is on an OHVO call, no tone is received.
- » All canned and custom messages may be used to respond to a calling party.
- » Text response messages automatically clear when the calling station (station receiving the messages) goes on-hook.
- » A station can receive only one message at a time.
- » Text messages may be chained (i.e., multiple messages sent to one caller).
- » Text message responses appear on the calling station and the receiving station (station activating text responses) LCD displays.
- » If the calling station is a non-LCD telephone, the receiving station receives error tone when responding via text messaging.
- » The receiving station may press a flexible button programmed as a Text Message button, [633+#]. Press this flexible button and dial the 2-digit message number (31-51) to respond to the calling station. DTMF digits are not heard by either party.
- » When silent messaging is used to respond to a call, the existing call of the called station is not disconnected while the messages are sent to the calling station.
- » The calling station must remain off-hook to receive silent messages.
- » If the receiving station responds with a text message, the text message displays on the LCD.
- » Each message may be programmed onto a flexible button, including a flexible button on a DSS/BLF console.



The calling station must be a display telephone and the receiving station must be a keyset.

Toll Restriction

Description

The *STS* system offers a flexible means of applying toll restriction to stations or individuals. Dialing privileges (or toll restriction) is determined through assignment of station and CO line Class Of Service (COS).

Several types of restriction can be derived simply by programming COS assignments and CO line access to stations. This may, in some cases, be all that is necessary. However, when a more complex or specific type of restriction is desired the system offers two Allow and two Deny tables along with four special tables.

These tables can be programmed in a variety of ways to handle applications that are straightforward or applications that require a more complex arrangement. The Allow and Deny tables are assigned to stations based on their station Class of Service (COS) assignment. The Station COS interacts with CO Line COS assignments to provide several different types of dialing privileges.

Table 2-23: Class of Service

		CO LINE CLASS OF SERVICE				
		1	2	3	4	5
S T A T I O N	1	Unrestricted	Unrestricted	Unrestricted	Canned Restricted*	Unrestricted
	2	Table A	Table A	Unrestricted	Canned Restricted*	Unrestricted
	3	Table B	Unrestricted	Table B	Canned Restricted*	Unrestricted
	4	Table A&B	Table A	Table B	Canned Restricted*	Unrestricted
C O S	5	Canned Restricted*	Canned Restricted*	Canned Restricted*	Canned Restricted*	Unrestricted
	6	Intercom Only	Intercom Only	Intercom Only	Intercom Only	Intercom Only
	7	Canned Restricted*	Canned Restricted*	Canned Restricted*	Canned Restricted*	Unrestricted

* Canned Restriction: No [0], [1], [#], [*] as first dialed digit, and 7-digit dialing limitation; plus 1-800, 1-866, 1-877, 1-888, 1-911, 1-611 are allowed, and 411, 976, and 555 numbers are denied. COS 7 allows all COS 5 and 10-digit local dialing.

The Allow and Deny tables enable entries of either general or specific allow and deny codes such as allowing all [1-800] type calls, and/or denying all [1]+ or [0]+ calls.

The Allow and Deny tables allow a maximum of 8 digits to be entered as allow or deny digits. This enables entry of certain area codes or office codes that can specifically be allowed or denied.

For example, the code [1-555-1212] may be entered in the Deny Table to deny local toll information calls. Each Allow Table contains 20 bins for entry of allow codes. Each Deny Table contains 10 bins for entry of deny codes.

Rules for Setting Up Allow/Deny Tables

Rule 1--- If both tables (Allow and Deny) have no entries, no restriction is applied.

Rule 2--- If entries are made in the Allow Table and only there, then only those numbers are allowed. All other dialing is denied.

Rule 3--- If entries are made in the Deny Table and only there, then only those numbers are denied. All other dialing is allowed.

Rule 4--- If there are entries in both Allow and Deny tables, the Allow Table is searched first, and if a match is found, it is allowed. If a match is not found, the Deny Table is searched; if a match is found, the call is denied. If the number does not match an entry in either table, it is allowed.

Table 2-24: Allow / Deny Table

Rules	Allow Table	Deny Table	Conditions and Results	
			Allow	Deny
Rule 1	No Entries	No Entries	All calls are allowed.	
Rule 2	Entries	No Entries	If a match is found, the call is allowed.	
			If a match is not found, the call is denied.	
Rule 3	No Entries	Entries		If a match is found, the call is denied.
				If a match is not found, the call is allowed.
Rule 4	Entries	Entries	If a match is found, the call is allowed.	If a match is found, the call is denied.
			If a match is not found, the deny table is searched.	If a match is not found, the call is allowed.

A special Do Not Care character (D) may be entered to allow or deny any digit dialed in that digit sequence.

Special Reference Tables

The **STS** system also offers four special tables that can be referenced from within the two Allow Tables.

- Three of the special tables can be assigned to specific area codes that require further toll restriction definition.
- The fourth Special Table is reserved for use as a home area code table (numbers within the same area code as the site where the system is installed). This provides expanded ability to apply toll restriction on numbers that are dialed within an area code.
- Each Special Table allows up to 800 entries (200–999). This offers the ability to allow every office code on an individual basis.

Related Information

Quick Reference			
➡ Flash 40	Page A	Button #9	Class of Service (refer to <i>"Class of Service - CO Line"</i> on page 2-57).
➡ Flash 50	Page B	Button #2	Day (Special) Class of Service (refer to <i>"Station Day Class of Service"</i> on page 2-58).
➡ Flash 50	Page B	Button #3	Night Class of Service (refer to <i>"Station Night Class of Service"</i> on page 2-59).

Entering Toll Table

Description

All toll tables have been conveniently placed under one program code to allow entry of all toll restriction data.

The buttons on the digital terminal are defined as shown below when entering the Toll Restriction programming area (FLASH 70):

ALLOW TABLE A * 1 Q	DENY TABLE A * 2 W	ALLOW TABLE B * 3 E	DENY TABLE B * 4 R
SPECIAL TABLE 1 * 5 T	SPECIAL TABLE 2 * 6 Y	SPECIAL TABLE 3 * 7 U	SPECIAL TABLE 4 * 8 I
AREA CODE TABLE 1 * 9 O	AREA CODE TABLE 2 * 10 P	AREA CODE TABLE 3 * 11 A	DISPLAY TABLES * 12 S

When the system searches the Allow and Deny tables, the entries are checked starting with Bin 01 and proceeding sequentially through the table to the last bin. In addition the Allow Table is always searched before looking at the Deny Table. Therefore, the entry order is important. Entries that are specific (e.g., [1716]) are placed ahead of entries that are more general (usually include Do Not Care digits; e.g., [1 D 1]).

Once a match is found in the Allow Table that references a Special Table, the number dialed are checked for an allowed code in the Special Table. If a match is not found in the Special Table, the system continues to check for a match in the next Allow or Deny Table to check. The system does not return to the table that sent the call to the Special Table.

Programming Steps

If the system is in the programming mode, continue using the program codes. If starting to program here, enter the programming mode.

1. Press **FLASH** and dial **[70]**. The following message displays:

EX TABLES
ENTER BUTTON NUMBER

2. To program Allow/Deny tables, press the appropriate Table button and enter information as outlined in the following procedures.
3. To program Special Tables 1-3, it is necessary to associate an area code to the table. This is done by pressing the appropriate AREA CODE TABLE button and assign the area code.



Special Table 4 is reserved for the home area code and does not require an area code entry.

4. To display entries in any of the tables, press the DISPLAY TABLES button (**FLASH 70, Button #12**). Entries in the Allow/Deny tables display two at a time. Entries in the Special tables display six at a time in ascending order.

Allow Table

Description

Each Allow Table contains 20 bin numbers. Each bin number may be up to 8 digits, including Do Not Care digits and Search Special Table commands. Entries into the Allow Table represent exceptions to numbers or codes that are to be allowed only if they would otherwise be restricted by an entry in the Deny Table.

EXAMPLE

If [1 555 1212] is allowed but [1+] numbers are denied, by an entry into the Deny Table, [1 555 1212] is entered into the Allow Table as an allowed number.

- Allow Table A is referenced and searched first (before Deny Table A) when Station COS is 2 and CO Line COS is either 1 or 2.
- Allow Table B is referenced and looked at first (before Deny Table B) when Station COS is 3 and CO Line COS is either 1 or 3.
- When Station COS is 4 and CO Line COS is 1 both allow tables are looked at first (Allow Table A first, then Allow Table B) then both deny tables (Deny Table A first, then Deny Table B).

Do Not Care digits specify that the system should consider any digit dialed in that position as a match. Do Not Care digits should not be entered as the last digit in an entry, as this would be an unnecessary or meaningless command.

Search Special Table commands must be entered in a specific manner and should always be the last entries in the Allow Table. It is recommended that the last four bins (17–20) in the Allow Table be reserved for referencing the four special tables with the reference to the home area code (Special Table 4) always being located in bin number 20. Search Special table commands can only be entered into the allow tables.



Remember to enable 911 for all Classes of Service

Rules for entries that reference Special Tables:

For entries referencing the first three special tables a specific area code must be identified (one for each table needed). Then make note as to how the numbers are dialed when dialing numbers to this area code (i.e., with a leading digit [1] or no leading digit [1]).

The entry into the Allow Table would be entered as follows:

- Leading Digit [1]: Enter [BB] [1] [XXX] [DDD] [S]

-or-

- Non-Leading [1]: Enter [BB] [XXX] [DDD] [S]

BB = Bin Number (Bins 17-19)

XXX = Area Code (must match AREA-X entry)

DDD = Do Not Care digit (three entries, DND button)

[S] = Search Special Table Command (TRANS button)

For an entry that references the Home Area Code table (Special Table 4) the entry may also be entered to expect or not expect a leading digit [1]. In fact, in some cases it may be desirable to enter both of the following entries:

- Leading Digit [1] -- Enter [BB] [1] [DDD] {S}

and/or,

- Non-Leading [1] -- Enter [BB] [DDD] {S}

BB = Bin number (Bin 20)

DDD = Do Not Care digit (three entries, MUTE button)

{S} = Search Special Table Command (TRANS button)



If both leading digit [1] and non-leading digit [1] entries are made to reference the same table, it is necessary to place the leading digit [1] entry ahead of the non-leading digit [1] entry in the Allow Table.

Programming Steps

1. Press the ALLOW TABLE A or ALLOW TABLE B flexible button (**FLASH 70, Button #1 or #3**). The following message is shown on the display telephone:

ALLOW TABLE A 01E 02E

The first two bin locations display.

Features and Operation

2. Enter a valid bin number (01–20) of the bin to be programmed.

It is recommended that:

- Bin 17 be reserved for an entry that references SPECIAL TABLE 1
- Bin 18 be reserved for an entry that references SPECIAL TABLE 2
- Bin 19 be reserved for an entry that references SPECIAL TABLE 3
- Bin 20 be reserved for an entry that references the Home Area Code Table, SPECIAL TABLE 4.

3. Enter the Allow Code.

[0–9], [*], [#] = Corresponding allow digits (numbers)

MUTE = Do Not Care digit (D)

TRANS = Search Special Table (S)

4. Press the HOLD button to save the entry. A confirmation tone sounds and the display now updates.
5. When all entries for one table are complete, press the flexible button for the next table.

To erase a bin number:

1. Enter a valid bin number.
2. Press the HOLD button.

*Deny Table***Description**

Each Deny Table contains ten bin numbers. Each bin number may be up to eight-digits including {Do Not Care} digits. Entries in the Deny Table represent numbers or codes that are to be denied or restricted. Common entries would be [1] for restricting all [1+] type of calls. Exceptions to this restriction would be entered into the Allow Table.

- Deny Table A is referenced and searched only after the Allow Table A is checked when Station COS is 2 and CO Line COS is either 1 or 2.
- Deny Table B is referenced and searched only after the Allow Table B is checked when Station COS is 3 and CO Line COS is either 1 or 3.
- When Station COS is 4 and CO Line COS is 1, both allow tables are looked at first (Allow Table A first, then Allow Table B) then both deny tables (Deny Table A first, then Deny Table B).
 - Do Not Care digits specify that the system should consider any digit dialed in that position as a match. Do Not Care digits should not be entered as the last digit in an entry.
 - Search Special Table commands cannot be entered into the Deny tables.

Programming Steps

1. Press the DENY TABLE A or DENY TABLE B flexible button (**FLASH 70, Button #2 or #4**). The following message displays:

DENY TABLE A	
01E	02E

2. When the first two bin locations are displayed, enter the 2-digit bin number (01–10) of the bin to be programmed.
3. Enter the deny code:
[0–9], [], [#] = Corresponding deny digits numbers*
MUTE = Do Not Care digit
4. Press the HOLD button to save the entry. A confirmation tone sounds and the display now updates.
5. When all entries for one table are complete, press the flexible button for the next table.

To erase a bin number:

1. Enter a valid bin number.
2. Press the HOLD button.

Special Table

Description

The Special Tables provide greater flexibility in designing a toll plan for a particular site.

- Each Special Table allows entry of up to 800 office codes (200–999).
- Three of these tables must be assigned an area code by which they are referenced. The fourth table is reserved for the home area code and requires no area code entry.
- The Special Tables are referenced through entries in the allow tables. Four area codes, including the home area code, can be referenced to these special tables for further definition. When a Special Table is referenced, entries must be made in the Special Table specifying what office codes are allowed.
- Codes can be added to the Allow list or removed from the list. When a Special Table is checked for a match to a 3-digit code and not found, the system continues to search the next Allow/Deny Table to be checked. The system does not return to the Allow Table which routed the call to the Special Table.

ALLOW TABLE A * 1 Q	DENY TABLE A * 2 W	ALLOW TABLE B * 3 E	DENY TABLE B * 4 R
SPECIAL TABLE 1 * 5 T	SPECIAL TABLE 2 * 6 Y	SPECIAL TABLE 3 * 7 U	SPECIAL TABLE 4 * 8 I
AREA CODE TABLE 1 * 9 O	AREA CODE TABLE 2 * 10 P	AREA CODE TABLE 3 * 11 A	DISPLAY TABLES * 12 S
* 13 D	* 14 F	* 15 G	* 16 H
* 17 J	* 18 K	* 19 L	* 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V

Programming Steps

To program a special table:

(The area code must first be assigned to the table, except for the home area code.)

1. Press the appropriate AREA CODE TABLE (#1 to #3) flexible button (**FLASH 70, Buttons #9 to #11**). The following message displays:

SPECIAL TABLE 1	AC
-----------------	----

2. Enter a valid area code.
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

To enter office codes in a special table:

1. Press the SPECIAL TABLE (#1 to #4) flexible button (**FLASH 70, Buttons #5 to #8**) that corresponds to the area code programmed above. The following message displays:

SPECIAL TABLE 1	AC XXX
-----------------	--------

XXX = Area Code

2. Enter the office codes that are to be allowed or removed as follows:
 - XXX [1] = Allow Code
 - XXX [0] = Remove Code from the list
(XXX = An office code from 200 to 999)
3. Press HOLD after every code entered. A confirmation tone sounds and the display updates. Multiple codes may be entered in a row. The display updates showing the first six codes in ascending order.

DEFAULT ... No codes are on the Allow list.

Display Toll Table Entries

Description

To view all entries in the toll tables using the display on the Executive telephone, press, the DISPLAY TABLES flexible button (**FLASH 70, Button #12**) multiple times to scroll through the entries.



It is recommended to view all entries in the Allow and Deny Table before leaving programming. Entries can be entered near the bottom of the list for searching the special tables or entries made in error. Viewing the entire Allow Table ensures proper entry and operation.

Programming Steps

Press the DISPLAY TABLES flexible button (**FLASH 70, Button #12**) while entering information into a table.

To view entries in an allow or deny table:

Two entries at a time are displayed on the bottom line of the display.

1. Press the DISPLAY TABLES button again, the next higher bins displays.
2. When the last entries are displayed, press the DISPLAY TABLES button again to show the first two entries.

```
ALLOW TABLE A
01 XXXXXXXXE 02 XXXXXXXX
```

X = Allow or Deny Code

E = End of Entry

To view entries in a special table:

Six 3-digit codes allowed display in ascending order starting with the lowest entry.

Press the DISPLAY TABLES button again, the next 6 entries display. This continues until all codes are displayed.

```
SPECIAL TABLE 1 AC XXX
YYY YYY YYY YYY YYY YYY
```

XXX = Area Code

YYY = Allowed Office Code

Initialize Exception Tables

Description

The Exception Tables parameters, including the Allow/Deny Tables and the Special Tables, may be initialized setting all tables to their original, default values. The following Tables are cleared returning to their default value upon initializing the Exception Tables parameters:

Table 2-25: Exception Table Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 70	TOLL RESTRICTION		
	1	Allow Table A Programming	None
	2	Deny Table A Programming	None
	3	Allow Table B Programming	None
	4	Deny Table B Programming	None
	5	Special Table 1 Programming	All Codes Denied
	6	Special Table 2 Programming	All Codes Denied
	7	Special Table 3 Programming	All Codes Denied
	8	Special Table 4 Programming	Home
	9	Area Code for Special Table 1	None
	10	Area Code for Special Table 2	None
	11	Area Code for Special Table 3	None
12	Displaying Toll Table Entries	None	

Programming Steps

1. Press the EXCEPTION TABLES flexible button (**FLASH 80, Button #5**). The following message displays:

INITIALIZE EX TABLES
 PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print Exception Tables

Description

The Print Exception Tables command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

When printing information from the Exception Tables, the following data prints:

- Allow Table A and Deny Table A
- Allow Table B and Deny Table B
- Special Tables 1, 2, 3, and 4

ALLOW TABLE A		SPECIAL TABLE 1 AREA CODE
-----		-----
01	11	ALLOWED OFFICE CODES
02	12	
03	13	
04	14	
05	15	SPECIAL TABLE 2 AREA CODE
06	16	-----
07	17	ALLOWED OFFICE CODES
08	18	
09	19	
10	20	
DENY TABLE A		SPECIAL TABLE 3 AREA CODE
-----		-----
01	06	ALLOWED OFFICE CODES
02	07	
03	08	
04	09	SPECIAL TABLE 4 HOME AREA CODE
05	10	-----
		ALLOWED OFFICE CODES
ALLOW TABLE B		

01	11	
02	12	
03	13	
04	14	
05	15	
06	16	
07	17	
08	18	
09	19	
10	20	
DENY TABLE B		

01	06	
02	07	
03	08	
04	09	
05	10	

Figure 2-21: Exception Tables Printout

Programming Steps

1. Press the EXCEPT TABLES flexible button (**FLASH 85, Button #5**). The following message displays:

PRINT EX TABLES PRESS HOLD

2. To print the Except Tables, press the HOLD button. The following message displays:

PRINTING EX TABLES

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Toll Restriction Related Items

CO/PBX Lines

When CO lines are marked as PBX lines the system first checks the PBX code table for a valid match. If the first digits dialed do not match the entries in the PBX code table the call is considered an attempt to call another PBX extension and no toll restriction is applied. If the first digits dialed are found in the PBX code table (FLASH 12), toll restriction starts with the next dialed digit.

Forced Account Codes

The system can be programmed to force the use of account codes on all restricted calls. When forced account codes are enabled, an account code must be entered to place a call that is otherwise restricted through toll restriction. By entering an account code, the station class of service becomes unrestricted. When account codes are forced on a system-wide basis, selected users may be instructed on how to enter account codes from any station and be allowed to dial unrestricted from a station that may otherwise be restricted. Use of account codes in this manner, as a traveling class of service, is however, not controlled by the system. Any station user with knowledge of how to enter account codes to override a station's toll restriction can do so.

SLT DTMF Receivers

When Single Line Telephones are connected to the **STS** system and toll restriction is enabled, the DTMF receivers located in the system monitors the call for a programmed time period. While the DTMF receiver is monitoring the digits being dialed by a single line telephone, it is considered busy and not available for monitoring another SLT attempting to dial. When all DTMF receivers are busy, an SLT attempting to go off-hook does not receive dial tone until a receiver is available.

The **STS** system uses one DTMF receiver to monitor SLT dialing. If a system has heavy SLT usage, then toll restriction may inhibit dialing by SLT stations.

Two options are available to help alleviate this problem:

- Shorten the SLT receiver timer (FLASH 01, Button 12). This frees up DTMF receivers faster, but may not provide the desired toll restriction for SLT stations.
- Enable LCR and force LCR on SLT stations.

When the LCR database is set up, the 3-digit table allows entry of the number of digits to expect. When an SLT user dials the appropriate number of digits, LCR releases the DTMF receiver and then it is available for another SLT call.

LCR Versus Toll Restriction

LCR is not an alternative to toll restriction nor is toll restriction an alternative to LCR. They work best when programmed together. Toll restriction specifies station dialing privileges and LCR provides call routing to appropriate lines.

LCR can enhance toll restriction by providing Store and Forward operation to analyze digits being dialed before a trunk is seized. This prevents users from by-passing toll restriction by taking advantage of the time required for a central office line to provide dial tone. LCR is recommended when toll restriction is enabled.

Uniform Call Distribution

Eight Uniform Call Distribution (UCD) groups can be programmed, each containing up to eight three-digit station numbers. Each group is assigned a pilot number. When this number is dialed, the first available agent in that group is rung. Calls are routed to the station that has been on-hook for the longest period of time. Refer to [Chapter 4, Uniform Call Distribution](#) for additional information.

Universal Day/Night Answer

Description

Incoming CO lines can be programmed for Universal Day Answer (UDA) or Universal Night Answer (UNA). UDA/UNA assigned CO lines can also signal over the external page port(s). If External Day programming is enabled and the system is in the day mode, the assigned external page port(s) present a ringing signal. UDA/UNA is established on a per CO line basis in admin programming.

When the system is in Day or Night mode and you hear an outside line ringing at another station, and wish to answer it:

Dial [#5] on the dial pad or use the Soft Key's UDA/UNA option. The connected outside line can be transferred or disconnected.



Each telephone utilizing Universal Day/Night Answer must have a loop button appearance if the ringing outside line does not display at their phone.

UDA/UNA only works on direct ringing calls. It does not work for intercom or transferred calls.

Universal Day Answer (UDA)

Description

UDA-assigned CO lines can signal over external page port(s). External Day ringing is programmed on a system-wide basis in administrative programming. Stations that do not have access to a line during the day can answer that line while the System is in the day mode by dialing a UDA code [#5]. To use this feature, a LOOP button or an appearance of the trunk must be present on the station.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible Button #19 (Page A) is lit.
4. Press the Page B flexible button (Button #20). The following message displays:

XXX - XXX PAGE B
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

5. Press the UNIVERSAL DAY ANSWER flexible button (**Button #7**). The following message displays:

UNIVERSAL DAY ANSWER 0-1
DISABLED

6. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Universal Day Answer feature is disabled.

Conditions

- » During the Day mode, all common CO lines ring when programmed for UDA ringing.
- » CO lines not programmed for UDA ringing do not participate in common audible ringing.

- » If External Day ring is disabled, or the system is not in the day mode, external page ringing is disabled.
- » Ringing CO lines not assigned CO line group access for a particular SLT may be answered in a UDA service. Dialing privileges are unavailable on CO lines to which an SLT does not have access. CO lines without UDA status may not be answered or accessed via UDA procedures.
- » If two single-line telephones attempt to retrieve one ringing CO line simultaneously, one user is connected to the incoming CO line and the other user receives intercom busy tone.
- » The special ring mode is treated as day mode.

Universal Night Answer (UNA)

Description

If a line is marked UNA, this activates night service answering of incoming calls on this line by stations not normally assigned access to the line(s) by dialing feature code [#5]. This station must have a direct CO appearance or an available loop key assigned to do this. Lines marked as UNA also activate Night Ringing over External Page when in the night mode if External Night Ringing is set to Yes.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 (Page A) is lit. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the UNA flexible button (**Button #3**).

Features and Operation

5. Enter a 0 or 1 on the dial pad to enable/disable this feature.

[0] = Disabled

[1] = Enabled

UNA	0-1
ENABLED	

6. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... UNA is enabled.

Voice Mail

Description

Up to eight Voice Mail groups can be configured in the *STS* system. Each group can contain up to 24 Voice Mail designated ports, each of which interfaces with a port on an SLT card (or DTIB if using a Digital Voice Mail).

An externally provided Voice Mail system or Auto Attendant must be connected to the *STS* system for Voice Mail or Auto Attendant operation. Voice Mail automatically handles unanswered calls. Station user can then retrieve messages left at their stations.

Auto Attendants can handle incoming calls and route callers to station users without intervention from the systems Attendant. Direct incoming ring to Voice Mail/Auto Attendant groups can be done directly through CO Line Ringing Assignments. The buttons on the digital telephone are defined as shown when entering the Voice Mail programming area:

VM GROUP 1 XXXX * [1] Q	VM GROUP 2 XXXX * [2] W	VM GROUP 3 XXXX * [3] E	VM GROUP 4 XXXX * [4] R
VM GROUP 5 XXXX * [5] T	VM GROUP 6 XXXX * [6] Y	VM GROUP 7 XXXX * [7] U	VM GROUP 8 XXXX * [8] I
ALTERNATIVE VM GROUP * [9] O	LEAVE * [10] P	RETRIEVE * [11] A	STATION ASSIGN * [12] S
NO ANS LEAVE * [13] D	BUSY LEAVE * [14] F	* [15] G	* [16] H
* [17] J	* [18] K	* [19] L	* [20] ;
* [21] Z	* [22] X	* [23] C	* [24] V

Programming Steps

1. Press FLASH and dial [65]. The following message displays.

VXXXX
ENTER BUTTON NUMBER

XXXX = 3- or 4-digit flexible voice mail group number

The top left button in the flexible button field is lit for programming Voice Mail Group 440.

2. To change Voice Mail groups or enter further voice mail groups, press the appropriate flexible button 1-8 (440–447) and perform the following procedures.



If installing a Vodavi voice mail system (except MiniVoice), skip directly to Button 12 and enter voice mail ports.

*Certain programming is required in the Voice Mail system connected to the **STS** system for proper operation.*

Tone Mode Calling option (6#) must be programmed as leading digits in transfer sequence(s) of Voice Mail system to force tone ringing to key telephones in the handsfree mode.

DEFAULT ... No voice mail stations are assigned.

Alternate Voice Mail Group

Description

An Alternate Voice Mail Group may be programmed so that if all voice mail ports are in use, the call can be routed to an alternate group. This is useful when more than 24 ports are required for voice mail traffic.

Programming Steps

1. Press the ALTERNATE VM GROUP flexible button (**FLASH 65, Button #9**).
2. Enter a valid flexible Voice Mail Group number.

VXXXX ALTERNATE VM GROUP
####

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To delete an alternate voice mail group assignment:

1. Press [#].
2. Then press the HOLD button.

Standard Leave Mail Index Entry

Description

The Standard Leave Mail Index specifies the digits to be outpulsed when the in-band digits are sent to a Voice Mail system. These digits are required to connect a caller who is forwarded into voice mail, to the called station's mailbox.

Programming Steps

1. Press the STANDARD LEAVE flexible button (**FLASH 65, Button #10**).
2. Enter a valid Standard Leave Mail Index number (0-7) on the dial pad.

VXXXX STANDARD LEAVE	0-7
#	

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To delete a leave mail index entry:

1. Press [#] in the desired location on the keypad.
2. Then press the HOLD button.

DEFAULT ... Voice Mail Group 1 (440) Standard Leave Mail Index is set to zero (0).

Retrieve Mail Index Entry

Description

The Retrieve Mail Index specifies the digits to be outpulsed when the in-band digits are sent to a Voice Mail system. These digits are required to connect a station user to their mailbox.

Programming Steps

1. Press the RETRIEVE flexible button (**FLASH 65, Button #11**).
2. Enter a valid outpulsing table number (0-7) on the dial pad.

VXXXX RETRIEVE MAIL	0-7
#	

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To delete a retrieve mail index entry:

1. Press the pound key [#].
2. Then press HOLD.

DEFAULT ... Voice Mail Group 1 (440) Retrieve Mail Index is set to 1.

Station Assignments

Description

Up to 24 extension numbers may be programmed into a voice mail group. A flexible button may be programmed with a fixed or flexible voice mail group pilot number (440-447 = fixed). This button then acts as a DSS for that voice mail group when pressed and also serves as the message waiting indication for that VM group.

Programming Steps

1. Press the STATION ASSIGN flexible button (**FLASH 65, Button #12**).
2. Enter **SSS 1** to add a station (SSS = 3- or 4-digit flexible VM station number),
-or-
Enter **SSS 0** to delete a station (SSS = 3- or 4-digit flexible VM station number).

VXXXX STA ####, ####, ####, ####, ####, ####, ####, ####

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

No Answer Leave Mail Index Entry

Description

The No Answer Leave Mail Index specifies the digits to be outpulsed when the in-band digits are sent to a Voice Mail system. These digits are required to connect a caller who is forwarded into voice mail in a No Answer condition, to the called station's mailbox.

Programming Steps

1. Press the NO ANS LEAVE flexible button (**FLASH 65, Button #13**).
2. Enter a valid No Answer Leave Mail Index number (0-7) on the dial pad:

VXXXX NO ANS LEAVE 0-7 #

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To delete a no answer leave mail index entry:

1. Press [#].
2. Then press HOLD.

DEFAULT ... Voice Mail Group 1 (440) No Answer Leave Mail Index is set to none (#).

Busy Leave Mail Index Entry

Description

The Busy Leave Mail Index specifies the digits to be outpulsed when the in-band digits are sent to a Voice Mail system. These digits are required to connect a caller who is forwarded into voice mail in a Busy condition, to the called station's mailbox.

Programming Steps

1. Press the BUSY LEAVE flexible button (**FLASH 65, Button #14**).
2. Enter a valid Busy Leave Mail Index number (0-7) on the dial pad:

VXXXX BUSY LEAVE	0-7
#	

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To delete a busy leave mail index entry:

1. Press [#].
2. Then press HOLD.

DEFAULT ... Voice Mail Group 1 (440) Busy Leave Mail Index is set to none (#).

VMID Station Numbers

Description

The VMID Station Numbers feature must be used **after** changing station numbers with the Flexible Numbering feature. Voice Mail ID numbers will be changed to match current station numbers once HOLD is pressed. (Eliminates need for technician to program individual VMID numbers.)



This feature should be accomplished after the flexible numbers are assigned. Implementing this feature could cause the VM box numbers to be re-programmed.

Programming Steps

1. Press VMID STATION button (**FLASH 06, Button #15**). The following message displays:

VMID SAME AS STA # PRESS HOLD

2. Press HOLD to save the entry. A confirmation tone sounds.

VM Transfer with ID Digits

Description

The Voice Mail Index feature provides an Attendant or station user a way to transfer a caller directly into a voice mail box. Station identification digits can be entered by the transferring party.

Using this feature, a caller can be transferred to a voice mail box when:

- A station user on the system is not forwarded to VM, or
- The destination voice mail box owner is not a station user.

CO trunks and internal calls may be transferred into voice mail using this feature. If no voice mail ID digits are dialed by the transferring station, the ID digits of the transferring station are sent to voice mail.

This feature permits dialing digits 000-9999 when using the VM with ID feature. On a per station basis, the ID number that is sent to voice mail can be flexible.

By default, the station number is sent to the voice mail system. In FLASH 50, Page B, Button #13 of administrative programming, there is a field to insert from 0-4 digits (0000-9999) which can be sent to the voice mail system in place of the station number. This is useful when a station user manually transfers a caller to a mailbox.

Operation

When a caller wants to be transferred into a user's Voice Mail box and that user's station is not forwarded into voice mail, the Attendant or a station user may initiate a Voice Mail Transfer in one of the following methods:

1. The initiating station presses the TRANS button.
2. Dial the Voice Mail Group number,
-or-
Press the preprogrammed VM group button.
3. Dial the desired party's VMID (Mail Box location) and go on-hook. The system makes the connection to an available Voice Mail port and sends the Leave Mail Prefix (if any) plus the digits dialed as the VMID number, then the Leave Mail Suffix digits (if any). The system then cuts through the transferred caller.



The VMID (mail box location) can be any number between 000 through 999. If 4-digit VMID (Flash 09) is enabled, the range is between 0000 through 9999.

The use of 000 or 0000 results in no voice mail ID digits being passed to the voice mail unit.

-or-

1. The initiating system presses the Voice Mail button.
2. Press DSS button to transfer desired party's Voice Mail ID.

Conditions

- » CO Trunks and Internal Calls may be transferred into Voice Mail using this feature.
- » If no VMID digits are dialed by the transferring station, the identification digits of the transferring station are sent to VM.

VM Tone Mode Calling Option

Description

Voice Mails Systems and/or Automated Attendants can utilize the Calling Station Tone Mode option. This is useful when using supervised transfer or call screening options on voice mail or Auto Attendant(s) requiring ring back tone for proper call handling.

The VM Tone Mode Calling feature lets the Voice Mail system override a called station's H or P intercom settings.

Operation

The VM system must be programmed when placing a call to a station and Tone Ringing is desired.

1. Dial [6#] on the dial pad.
2. Dial the station extension (call tone rings station).

Voice Mail ID Translation

Description

The Voice Mail ID Translation feature enables programming of the station number sent to the Voice Mail via In-Band integration. By default, the station number is sent to the Voice Mail system. In station programming, there is a field to insert a 4-digit entry (0000-9999) which can be sent to the Voice Mail system in place of the station number. (FLASH 67, Button #4 enables the VMID digit length.)

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial [50] or dial [51]. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (*100-149*) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the VOICEMAIL ID flexible button (**Button #13**). The following message displays:

VOICEMAIL ID 0000-9999 0100

- Enter a VM ID number which corresponds to 0000 to 9999.
- Press HOLD to update the table. A confirmation tone sounds and the display updates.

DEFAULT... Station Numbers are assigned as VMID Digits.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

Message Waiting Indication

Description

When Voice Mail receives a voice message for a user who has a station on the **STS** System, the VM connected to the system can leave a message indication at the VM user's station. When the station retrieves their mail, the VM system can cancel the message waiting indication left at a station via a VM port.

The message waiting indication displays on the programmed Voice Mail (group) button. If such a button was not programmed, a voice mail message waiting indication displays on the MSG WAIT button as a normal message waiting signal.

The LCD Message Indication feature presents the number of new Voice Messages to users on their LCD display. The new VM LCD message on the keyset takes priority over Forward, DND, Messages, and idle displays. Ringing, Recalling, Outgoing Calls, and current call operation displays override the VM message display for the duration of the call or operation.

Operation

If your Message Waiting button or programmed Voice Mail Group button is flashing, you may have a voice message waiting.

To enter the voice mail system to check for mail:

1. Dial the Voice Mail Group number [440-447],
-or-
Press the preprogrammed Voice Mail group button or flashing Message Wait button,
-or-
Use the Soft Key's VM1 option (group 440 only).
2. When prompted, enter the mailbox password.

Message Wait / VM Button Flash Rate

Description

The Message Wait/VM Button flash rate is the rate at which the Message Wait and VM button(s) flashes when you receive a message/voice mail message. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.



The fixed message button should not be used as a Voice Mail button.

Programming Steps

1. Press the MSG WAIT/VM BTN flexible button (**FLASH 07, Button #4**). The following message displays:

MSG WAIT / VM BTN	00-28
RED STEADY ON	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Message Wait/VM Button flash rate is set for a Red Steady On (01).

Voice Mailbox Button

Description

A correctly programmed button will receive a message-waiting indication (MWI) from the voice mail system. This allows any station with multiple voice mail buttons to receive the MWI for each of the programmed buttons.

Station feature codes 460-467 represent voice mail groups 440-447 respectively. The functions of these codes are to provide:

- Direct mailbox access for local stations. This allows an attendant to have one-button transfer directly to a mailbox.
- Multiple MWI capability per key station. This allows one station to have MWI for multiple mailboxes.
- Multiple direct mailbox access. This allows one-button access to different mailboxes from one keyset.

To program a Mailbox Button:

1. Press SPEED twice.
2. Press the desired flexible button to be programmed.
3. Dial the mailbox feature access code (460-467 = voice mail group 1-8).
4. Dial the VMID number.

For example, 4606037 represents a mailbox button (group 1) for VMID 6037.



SINGLE LINE TELEPHONE

Not applicable

Voice Mail Group Button

Operation

To program a VM GROUP button:

1. Press SPEED twice.
2. Press the desired flexible button to be programmed.
3. Dial a 3-digit VM Group number (440-447 = voice mail groups 1-8).

Voice Mail Group Access

Operation

To access a VM Group:

Dial VM Group number (440-447),

-or-

Press preprogrammed VM Group flexible button,

-or-

Use Soft Key's VM1 option when in an idle condition (to access group 440)

Initialize Voice Mail Group Parameters

Description

VM Group Parameters may be initialized, setting all data fields to their original default values.

Table 2-26: Voice Mail Group Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 65	VOICE MAIL GROUPS		
	1-8	Voice Mail Groups (440-447)	None
	9	Alternate Voice Mail Group	None
	10	Standard Leave Mail Index Entry	VM Group 1 Index = 0
	11	Retrieve Mail Index Entry	VM Group 1 Index = 1
	12	Station Assignments	None
	13	No Answer Leave Mail Index Entry	VM Group 1 Index = # (none)
	14	Busy Leave Mail Index Entry	VM Group 1 Index = # (none)
FLASH 66	1-8	Voice Mail In-Band Signaling	Table 0: Pre=P7, Suf=None Table 1: Pre=P7, Suf=✱ Tables 2-6: None Table 7: Pre=P7, Suf=2
	9	Voice Mail Disconnect Table	None
FLASH 67	1	Voice Mail In-Band Digits	Enabled
	2	Voice Mail Transfer/Forward	Enabled
	3	Voice Mail Broker	Enabled
	4	VMID Digit Length	3
	6	VM Port	Disabled
	7	VM Port Number	3

Programming Steps

1. Press the VOICE MAIL GROUPS flexible button (**FLASH 80, Button #12**). The following message displays:

<p>INITIALIZE VM GROUP PRESS HOLD</p>

2. Press the HOLD button. A confirmation tone sounds.

Print Voice Mail Group Parameters

Description

The Print Voice Mail Group command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device. When printing the VM Group Parameters, the following data prints:

- Voice Mail Group Parameters
- Voice Mail Outpulsing Table (including the disconnect table)
- Voice Mail Options

VM	ALT	LEV	RET	STN#	Mailbox Table
440		0##	1		Index Group ID
441		###	#		1 440
442		###	#		2 440
443		###	#		3 440
444		###	#		4 440
445		###	#		5 440
446		###	#		6 440
447		###	#		7 440
					8 440
					9 440
					10 440
					11 440
					12 440
					13 440
					14 440
					15 440
					16 440
					17 440
					18 440
					19 440
					20 440
				
				
					240 440
					241 440
					242 440
					243 440
					244 440
					245 440
					246 440
				
				
					255 440

Figure 2-22: Voice Mail Group Parameters Printout

Programming Steps

1. Press the VOICE MAIL GROUP flexible button (**FLASH 85, Button #13**). The following message displays:

PRINT VM GROUP
 PRESS HOLD

2. To print data for Voice Mail Group Parameters, press the HOLD button. The following message displays:

PRINTING VM GROUP

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Voice Mail In-Band Features

In-Band Signaling Integration

Description

The **STS** allows programming so that if a station programmed to receive incoming CO line ringing is forwarded to Voice Mail, they may have incoming callers routed directly into their station's voice mail box through the use of In-Band signaling. Alternately, incoming CO lines can be programmed to ring directly into the Voice Mail system. In this case, callers are answered by the Voice Mail or Auto Attendant Main greeting.

Incoming CO callers can be call forwarded into Voice Mail automatically, if a Preset Forward Destination is programmed for that CO line and the same CO line programmed to ring at one station. CO lines may also be programmed to ring at an Attendant station, call forward into the Voice Mail system (if programmed to ring at one Attendant station) and presented to the main greeting (not the Attendant station's mailbox - except in the case of DID. DID digits are sent to the VM) even when ID digits are enabled.

Entries into the Voice Mail In-Band Features determines the in-band signaling required for ICID Incoming ID Digits (forwards incoming CO callers directly to a Station's Voice Mailbox), and Forward to VM Groups (lets voice mail calls, upon reaching a forwarded to VM station, forward back into the voice mail system).

IN-BAND DIGS CO CALL * 1 Q	FORWARD TO VM GROUPS * 2 W	VM BROKER CALLS * 3 E	VM ID DIGITS * 4 R
* 5 T	VM ENABLE * 6 Y	VM PORT * 7 U	* 8 I

Programming Steps

Press **FLASH** and dial **[67]**. The following message displays:

VM FEATURES ENTER BUTTON NUMBER

Voice Mail In-Band Digits

Description

The Voice Mail In-Band Digits feature enables and disables station in-band signaling. Incoming CO callers can be Station Call Forwarded into voice mail only when the ringing CO line is programmed to ring at one station. CO lines programmed to ring at an Attendant station, call forward into the voice mail system (if programmed to ring only at one Attendant station). Callers are presented to the main greeting (not the Attendant station's mailbox - except in the case of DID. DID digits are sent to the VM) even when ID digits are enabled.

Programming Steps

1. Press the IN-BAND DIGS CO CALL flexible button (**FLASH 67, Button #1**). The following message displays.

IN-BAND DIGS CO CALL 0-1 ENABLED
--

2. Enter a 0 or 1 to Enable/Disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... ID Digits for incoming CO calls is enabled.

Voice Mail Transfer / Forward

Description

The Voice Mail Transfer/Forward feature forwards voice mail calls, upon reaching a forwarded to VM station, back into the voice mail unit. It is useful when VM ports are being used as both Auto Attendant and VM ports. This feature can be enabled/disabled for all VM groups.

Programming Steps

1. Press the FORWARD TO VM GROUPS flexible button (**FLASH 67, Button #2**). The following message displays:

FORWARD TO VM GROUPS 0-1 ENABLED
--

Features and Operation

2. Enter a 0 or 1 to Enable/Disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... VM Transfer/Forward feature is enabled.

*Voice Mail Broker***Description**

The Voice Mail Broker Calls feature modifies the operation of voice mail ports when disabled. Broker operation is unavailable when using supervised transfers to stations. When enabled, the current broker mode operation during supervised transfers remains in effect. This means the call to the station remains as the second party in a broker mode. If disabled, the VM port disconnects the call to a station and returns to the original party.

Programming Steps

1. Press the VM BROKER CALLS flexible button (**FLASH 67, Button #3**). The following message displays:

VM BROKER CALLS	0-1
ENABLED	

2. Enter a 0 or 1 to Enable/Disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
DEFAULT ... VM Broker feature is enabled.

*Voice Mail ID Digit Length***Description**

The Voice Mail ID Digit Length feature modifies the station and CO voice mail identification fields such that the maximum length of these fields is four digits.

Programming Steps

1. Press the VM ID DIGITS flexible button (**FLASH 67, Button #4**). The following message displays:

VM ID DIGITS	2-4
3	

2. Enter a valid number (2, 3, or 4) that corresponds to the number of digits to be dialed.
3. Press HOLD to save the entry. A confirmation tone sounds.
DEFAULT ... VMID length is set to 3 digits.

Voice Mail Modem Access

Description

You can program Vodavi voice mail systems (other than MiniVoice or PathFinder) using the telephone system modem.

Programming Steps

To enable or disable the VM port:

1. Press the VM PORT flexible button (**FLASH 67, Button #6**). The following message displays:

VM PORT DISABLED	0-1
---------------------	-----

2. Enter a 0 or 1 on the dial pad to enable/disable this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT . . . VM Port is disabled.

To indicate which port is used to connect the voice mail system and the telephone system:

1. Press the VM PORT NUMBER flexible button (**FLASH 67, Button #7**). The following message displays:

VM PORT NUMBER: 2	2-2
----------------------	-----

2. Enter a valid number (2) to indicate the port to be used.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT . . . VM Port Number is Port 2.

Operation

To access the voice mail system, you can either:

Dial [498]

-or-

Ring directly to 498

-or-

Be transferred to 498

Conditions

- » The use of this feature requires the use of a straight-thru RS-232 cable connected from the voice mail system to Port 2 on the *STS* system.

Voice Mail One-Touch Recording

Description

The Voice Mail One-Touch Recording feature allows the station user, while on an internal/external call, to press a button and have the system record the conversation in the station user's mailbox. Code [649]+[VVV], where VVV=440-447 for desired VM group.

One-Touch Recording uses Table 7 from the Voice Mail Outpulsing Table. Refer to [page 2-308](#).



Use of this feature when the One-Touch Recording Warning Tone is disabled may be interpreted as a violation of federal, state or local laws, and an invasion of privacy. Check applicable laws in your area before recording calls using this feature.



MiniVoice does not support Voice Mail One-touch recording.

Operation

While on an internal or external call:

1. Station user presses the preprogrammed VM RECORD button, or uses the Soft Key's REC option (for external calls only). The LED flutters red at 240 ipm during the setup and the following message displays:

RECORDING SETUP MMM DD YY 00:00 am
--

2. Once the system connects to the station user's mailbox, the flexible button LED lights solid green and the LCD displays:

RECORDING MMM DD YY 00:00 am
--

To pause or resume recording after a pause, press the preprogrammed 655 key.

3. When the user finishes recording, press the preprogrammed VM RECORD button or use the Soft Key's STOP option. The LED extinguishes and the normal LCD call information displays.



SINGLE LINE TELEPHONE

Not applicable

Conditions

- » If the user hangs up without terminating the record function, the system performs the exit procedure as described in step 3 above.
- » If the user presses the TRANS, CAMP ON, MSG, or FWD buttons during recording, pressing the button is ignored.
- » During the recording setup, pressing the CONF button is ignored.
- » If a VM port is **not available** when the station user wants to record, the user receives the following display (lasts six seconds):

RECORDING UNAVAILABLE
MMM DD YY 00:00 am

(The user may retry after the display extinguishes.)

- » In the recording mode, pressing the CONF button lets the user add members to the recording (conference). Normal conference operation/conditions apply.
- » If the FLASH or HOLD button is pressed during the recording, the recording is terminated.
- » If a station user presses the record button while in a two-party conference, it is recorded. If the button is pressed a second time, the conference ends and the call is returned to a two-way conversation.
- » Only one active recording per station is allowed.
- » If a conference is being recorded and the conference master exits, the recording stays active. The recording stops if the initiator re-enters the conference and ends it, removes the record function, or the conference ends on its own.
- » Only the initiator of a conference can invoke/remove the record function during a conference.
- » A conference warning tone is not given to conference members, if the initiator is recording the conference and record tone is disabled.
- » Recording is not allowed for a station that is barged in, Executive Overridden, or on an active OHVO call.
- » An Unsupervised Conference Call can be recorded.
- » One-Touch Recording uses Table 7 from the Voice Mail Outpulsing Table. Refer to [page 2-308](#).

One-Touch Recording Warning Tone

Description

The One-Touch Recording Warning Tone feature lets the installer enable/disable the One-Touch Recording Warning Tone on a system-wide basis.



Use of this feature when the One-Touch Recording Warn Tone is disabled may be interpreted as a violation of federal, state, or local laws, and an invasion of privacy. Check applicable laws in your area before recording calls using this feature.

Programming Steps

1. Press the ONE-TOUCH RCD WARNING TONE flexible button (**FLASH 06, Button #10**). The following message displays:

RECORDING WARN TONE	0-1
ENABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable the use of this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Recording Warning Tone is enabled.

Voice Mail Outpulsing Table

Voice Mail In-Band Signaling

Description

Entries in one of the eight Voice Mail Outpulsing Tables determine the In-Band signaling required for:

- Retrieving messages (allows stations to pick up mail).
- Leaving messages (allows stations to leave messages in voice mail).

TABLE 0 * 1 Q	TABLE 1 * 2 W	TABLE 2 * 3 E	TABLE 3 * 4 R
TABLE 4 * 5 T	TABLE 5 * 6 Y	TABLE 6 * 7 U	TABLE 7 * 8 I
DISCONNECT TABLE 8 * 9 O	* 10 P	* 11 A	* 12 S
* 13 D	* 14 F	* 15 G	* 16 H
* 17 J	* 18 K	* 19 L	* 20 ;
* 21 Z	* 22 X	* 23 C	* 24 V

Suggested Uses:

- Build a table (0 for example) for any additional digits other than the station extension number (e.g., Voice Mail Box number) needed for a caller to leave a message in a station’s mailbox (Leave).
- Build another table (1 for example) for any additional digits needed for a mailbox holder to retrieve a message (Retrieve). By Default:

- Table 0** Prefix = P7 (Pause+7) Suffix = None
- Table 1** Prefix = P7 (Pause+7) Suffix = *
- Table 7** Prefix = P7 (Pause+7) Suffix = 2 (Used for One-Touch Record)



Entries are not required in the Outpulsing Table. However, a table must be referenced when setting up the Voice Mail groups for the system to send digits to the voice mail.

Programming Steps

1. Press FLASH and dial [66]. The following message displays:

VOICE	PRE	XXXXXXXXXXXXXE
MAIL	Y	SUF XXXXXXXXXXXXXE

*Y = Table Index (0-7)
X = Entered Digits (0-9, #, *, Pauses)*

2. The TABLE 00 flexible button (Button #1) led is lit. To change tables, press the appropriate flexible button (Buttons 2-8) and perform the following procedures.
3. Dial one of the following, when required:
 - [0] = If a prefix is required
 - [1] = If a suffix is required
 - [#] = If entry is to be deleted
4. Enter up to 12 digits, including [*] and [#], TRANS button = pause.
5. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To clear entries in a table:

Press the pound key once [#], followed by HOLD.

Voice Mail Disconnect Table

Description

A disconnect signal can be programmed into the **STS** system to notify the VM system that a call has been abandoned. This is accomplished through in-band signaling. If a CO or Intercom disconnect signal is detected, the **STS** system sends a series of DTMF digits programmed in the voice mail disconnect table to the voice mail port. This can be any digit stream up to 12 digits including [*] and [#].

This table serves all eight voice mail groups. When no digits are programmed in the disconnect table, silence is provided to the voice mail port followed by busy tone to aid the voice mail system to recognize that the caller has abandoned the call.

The **STS** system provides Loop Supervision monitoring while a CO call is connected to a port designated as voice mail and passes the Supervision to the voice mail.



Loop Supervision must be enabled on the CO lines (in CO Line programming) for the VM Disconnect feature to operate.

Programming Steps

1. Press the DISCONNECT TABLE 8 flexible button (**FLASH 66, Button #9**). This table number is used for the voice mail disconnect signal.
2. Enter up to 12 digits used for the disconnect signal, including [*] and [#], TRANS button = pause.

VOICE DIS E
MAIL

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... There are no entries in the Disconnect Table (Table #8).

Volume Control

Operation

The volume control on the Digital Key Telephone controls ringing, handset, and speakerphone volumes. It also affects the receive volume of the Wanderer cordless unit.

While using these function/features, Digital Key Telephones display the following messages:

Listening to Background Music ...

SPEAKER BGM	[#####]
MMM DD YY	HH:MM am

Using the speakerphone on an Intercom call ...

SPEAKER CALL	[#####]
MMM DD YY	HH:MM am

Using the handset on an Intercom call ...

HANDSET ICM	[#####]
MMM DD YY	HH:MM am

Using the speakerphone on a CO call ...

SPEAKER CALL	[#####]
MMM DD YY	HH:MM am

Using the handset on a CO call ...

HANDSET CO	[#####]
MMM DD YY	HH:MM am

Receiving a page announcement ...

SPEAKER PAGE	[#####]
MMM DD YY	HH:MM am

Receiving an incoming tone ringing Intercom or CO call ...

SPEAKER RING	[#####]
MMM DD YY	HH:MM am

**SINGLE LINE TELEPHONE**

The volume control on the Vodavi Single Line Telephone is located on the right side of the telephone. The slider switch options are HI for loud volume, LO for low volume, and OFF to turn the ringer off. Two-line models have a volume switch for each line. Certain models do not have an OFF option.

Speakerphone models have a sliding volume switch to adjust speakerphone volume. Slide the switch toward you for lower volume or away from you for increased speakerphone volume.

Each model has a volume button that can be pressed to increase or decrease the handset volume.

The B/Z ringer switch of 2700-series SLTs is located on the bottom of the telephone near the line jacks. This switch should be set to the Z mode for business/hospitality applications and to the B mode for residential applications.



The MSG light and the Line In Use (LIU) LEDs will not operate when set in the B ringer mode.

For single line telephones that are not equipped with a volume control slider switch or to increase the volume greater than that allowed by the slider switch, use the following steps.

While on a CO line call or an intercom call:

1. Briefly depress and release the hookswitch.
2. Dial 638.
3. Dial a valid number (0-9) to select a volume level.

-or-

Use [*] or [#] to scroll to increase or decrease volume level.

Volume selections relate to a baseline volume. The options are:

0 = -15DB	5 = 0DB
1 = -12DB	6 = 3DB
2 = -9DB	7 = 6DB
3 = -6DB	8 = 7.5DB
4 = -3DB	9 = 9DB

4. Briefly depress and release the hookswitch to return to the call.

3

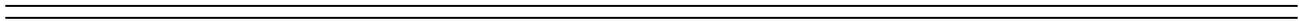
Attendant Features and Operation

The Attendant and Attendant(s) with DSS/BLF features of the *STS* System are listed and described in alphabetical order. Attendant features are in addition to digital station features. The instructions in this chapter are based on the use of a digital display telephone.

» » » » » » »

NOTES

» » » » » » »



Introduction

The instructions in this chapter are based on the use of a digital display telephone. The **STS** System provides the following keys, indicators and features:

Handset and Speaker are located at the left side of the front panel. A handset is provided to allow confidential conversation when desired. Lifting the handset from its cradle (going off-hook) disengages the station's built-in speaker. The speaker is located directly below the center portion of the handset. The station may be operated with the handset on-hook. When this occurs, audio is transmitted to the station user through the station's speaker.

Fixed Feature Buttons function as follows:

- VOLUME BAR lets the user adjust ringer, speakerphone and handset volume.
- H-T-P lets the user select the ICM Signaling Mode, handsfree tone, or privacy.
- FLASH button terminates an outside call and restores dial tone without hanging up the handset. It also transfers calls behind a PBX or Centrex within those systems.
- CAMP ON button lets you alert a busy party to an outside line that is on hold and waiting.
- MSG (Message Wait) button lets you initiate a message waiting indication at stations that are busy, unattended, or in Do Not Disturb. Message Waiting Callback request left at your station is indicated by a flashing MSG WAIT LED.
- SPEED button gives you access to speed dialing, save number redial and last number redial. This button also accesses flexible button programming.
- TRANS (Transfer) button transfers an internal or external call from one station to another.
- CONF (Conference) button establishes and builds conference calls.
- FWD (Forward) button lets you forward your calls to another destination.
- ON/OFF button lets you make a telephone call without lifting the handset. It turns the telephone on and off when using the speakerphone.
- MUTE button lets you switch the built-in microphone on or off when using the speakerphone, or the handset microphone when using the handset.
- HOLD button lets you place an outside caller on hold.
- Interactive Soft Keys are used to work in conjunction with fixed and flexible features.

Flexible Buttons access idle outside lines, provide DSS/BLF for internal stations, access speed dial numbers and activate features. These buttons can be programmed by the individual station user. The default flexible feature buttons are described as follows:

- CALL BACK button lets you initiate a call back request to another busy station. As soon as that station becomes idle, the station that left the call back request is automatically signaled. A flexible button must be assigned to use this feature.
- PICK-UP button lets you pickup a tone ringing intercom call, transferred, incoming, or recall an outside line call to a specific unattended station by group or directed call pickup.
- DND (DO NOT DISTURB) button. On Attendant stations, this button becomes the system Night Mode button. A flexible button must be assigned to use this feature.
- LINE QUEUE button lets you queue onto an outside line when all lines in a group are busy. Your station is placed in queue awaiting a line in the same group to become available.

Outside Calls are announced by a tone signal repeated every 3.2 seconds. The corresponding outside line indicator flashes slowly.

Intercom Calls can be tone ringing or voice announce. If it is voice announced, the receiving station receives two bursts of tone prior to the announcement. If it is a tone ringing call, the receiving station hears a tone ring every 2.4 seconds.

Attendant Features - Index

Table 3-1: Attendant Features

Features	Page
ATTENDANT FEATURES	
911 ALERT	3-5
ATTENDANT CO LINE EXTERNAL (OFF-NET) FORWARD	3-6
ATTENDANT CUSTOM MESSAGE	3-7
ATTENDANT DAY/NIGHT/SPECIAL	3-8
ATTENDANT DIRECTORY LIST PROGRAMMING	3-9
ATTENDANT DISABLE OUTGOING CO LINE	3-12
ATTENDANT OVERRIDE	3-13
ATTENDANT SETTING TIME AND DATE	3-14
ATTENDANT STATION ASSIGNMENT	3-15
ATTENDANT UNAVAILABLE	3-16
ATTENDANT VOICE MAIL ALARM CLEAR	3-17
DISPLAY TIMER	3-21
ICLID CALL MANAGEMENT TABLES	3-22
RECALL	3-24
RELEASE BUTTON	3-24
SPEED DIAL - SYSTEM STORING	3-25
ATTENDANT WITH DSS/BLF FEATURES	
BUSY LAMP FIELD INDICATORS	3-17
DIRECT STATION CALLING	3-17
MAPPING OPTIONS	3-18
TRANSFER SEARCH	3-17
STATION ID FOR DSS/BLF CONSOLE WITH MAP	3-21

911 Alert

Description

Any station user or attendant who programs a flexible button for 911 ALERT (feature code 608) will be alerted of internal stations placing 911 calls. The system can store the sixteen most recent 911 calls. Calling information includes the time/date of the call, as well as the station number from which the call was placed.

The initial 911 Alert indications include:

- Audible ringing tone
- Green flashing 911 ALERT flexible button LED
- Automatic LCD display of 911 call information

E911 CALL	XX:	STA XXXX
MM/DD/YY		HH:MM

XX = Index number (01-16)

Operation

Station users and attendants can press the 911 ALERT flexible button as necessary to view additional 911 calls' information in the stored list. After a station user or attendant views the information for all 911 calls in the system list:

- All users' LEDs change to a solid red indication.
- The audible ringing tone at all stations ceases.
- The LCDs at all stations revert to a normal display.

The list remains available for review by pressing the 911 ALERT flexible button as necessary, until after the messages are deleted.

To delete logged 911 Alert messages:

An attendant uses the following steps to delete the messages on a system-wide basis.

1. Press the 911 ALERT flexible button to display the 911 call information for deletion.
2. Press FLASH to delete that message.

Attendant CO Line External (Off-Net) Forward

Description

The Attendant CO Line External (Off-Net) Forward feature lets the first Attendant station forward incoming CO calls to an off-net location. The Attendant must have a direct appearance of the CO line to be forwarded. Forwarding can be established on a per CO line group basis or on an all CO line groups basis. In a speed dial bin, store the number of the off-net location where calls are to forward. Follow instructions provided for storing station or system speed dial numbers.

Operation

To activate off-net forwarding:

1. Dial [603] on the dial pad,
-or-
Press preprogrammed CO OFF-NET FORWARD button.
2. Dial the CO group access code of the group to be forwarded:
[801-823] = CO Group 1-23
[824] = All CO Groups
3. Dial the speed bin number that contains the number where calls are to forward. A confirmation tone sounds.

To cancel off-net forwarding:

1. Dial [603] on the dial pad,
-or-
Press preprogrammed CO OFF-NET FORWARD button.
2. Dial the CO group access code.
3. Dial [#] on the dial pad. A confirmation tone sounds.

Conditions

- » When CO lines are off-net forwarded, these lines display unique flash rates at the Attendant station.

Attendant Custom Message

Description

The Attendant Custom Message feature allows the first programmed Attendant (system administrator) to enter up to ten custom messages for system-wide use by station users. Up to 24 characters may be entered as the custom message (this represent 48 digits entered).

A station user may store any of the available messages under a flexible button assigned as a Message Access button. These messages may be specified and customized by the customer on a system-wide basis.

Message status is stored in a battery-protected area of memory for retention in the event of a power failure or system reset (soft or hard).

Operation

Program the ten custom messages at the first Attendant station as follows:

1. Dial the Custom Message program code [694] on the dial pad. The following message displays:

ENTER MSG NO
MMM DD YY HH:MM am

2. Enter a valid message bin number [21–30]. The following message displays after the bin number has been selected.

mmmmmmmmmm...
ENTER MSG:

3. Enter the custom message using the dial pad keys to enter the letters as shown in [Figure 2-14 on page 2-193](#).
 - Up to 24 alphanumeric characters may be entered for the custom message (this represents 48 digits entered). The actual characters display as the digits are being entered while programming the messages.
 - The Attendant must go idle after programming a message before another message may be programmed.
4. The Attendant then presses the HOLD button to enter the message and a confirmation tone sounds.

Conditions

- » Key telephones and SLTs can leave a message. SLTs are notified that they left a message with a warning tone when going off-hook.
- » Incoming and outgoing calls are not inhibited with a message displayed.
- » When a message is displayed by a key telephone, the DND button LED flashes at the 15 ipm rate.
- » When DND is invoked on the telephone, the message is canceled.
- » Message Access (with desired message) may be assigned to a flexible button.
- » The Message Access function is assigned to a station flexible button in database administration.
- » A station user may store any of the available messages under a flexible button assigned as a Message Access button.
- » The ten Custom Messages display in a similar fashion as Canned messages. The idle station display shows the message that was activated at the station and a calling station receives the STA XXX or name-in-display followed by the programmed custom messages.
- » This feature is not available for use at Attendant stations.

Attendant Day/Night/Special

Description

The system's Automatic Night Mode Feature can be overridden by the Attendant station. The Attendant station user can press their DND button or use a Soft Key option to place the system into Night Mode.

Any designated Attendant can place the system into Night Service.



The Night Service feature provides a means to put the system in night mode from any keyset or remove the system from night mode from any keyset, providing the system was put in night mode by the night service feature flexible button [604]. If the system was placed in night mode by the Attendant using the DND button or if the system was placed in night mode by the automatic schedule, the night service flexible button cannot remove the system from night mode.

Operation

1. Press the preprogrammed NIGHT SERVICE button (631, DND by default) once or use the Soft Key's DND option when in an idle condition to activate the Night mode (LED is lit solid).
2. Press the DND button again to activate the Special mode (LED flashes @ 240 ipm).
 - The DND button (by default) or Soft Key's DND option acts as a rotary in this manner, starting in the Day mode, Night mode, and Special mode.
 - When one Attendant activates this mode, other Attendant stations' DND buttons are lit accordingly.

Attendant Features and Operation

- Enter the name (up to 24 characters may be entered) by using the keys. The display updates as the name is entered.

			Other Codes			
1	A-21 B-22 C-23	D-31 E-32 F-33	1 = 1#	8 = 8#	" = 01	* = *#
G-41 H-42 I-43	J-51 K-52 L-53	M-61 N-62 O-63	2 = 2#	9 = 9#	, = 02	(= #1
P-71 R-72 S-73 Q-74	T-81 U-82 V-83	W-91 X-92 Y-93 Z-94	3 = 3#	0 = 0#	? = 03) = #2
*	OPER 0	#	4 = 4#	Space = 11	/ = 04	+ = #3
			5 = 5#	: = 12	! = *1	= = #4
			6 = 6#	- = 13	\$ = *2	# = ##
			7 = 7#	' = 14	& = *4	. = 24

Figure 3-1: Directory List Keypad Map

- Press SPEED when finished. Confirmation tone sounds and the display shows the new or changed name.
- Press HOLD, then use [*] or [#] to scroll to next entry.
-or-
Hang up to end programming.

To clear an entry:

- Select desired entry.
- Press TRANS.
- Press FLASH.
- Press SPEED. Confirmation tone sounds and entry is erased.

The following procedure is used to associate names to the Local Number/Name Translation Table number only.

- Enter desired three-digit Directory List number (000-199), or dial [*] to scroll up (next entry) or [#] to scroll down (previous entry) through the list.
If just changing a name associated with an existing Table entry, skip to step 4.
- Press TRANS.
- Dial three-digit Local Number/Name Translation Table number (600-799) that represents the desired telephone number.
- Press MUTE.
- Use keys on the dial pad to enter the name (up to 24 characters may be entered). The display updates as the name is entered (refer to [Figure 3-1 on page 3-10](#)).



If an error is made during keystroke entry, press FLASH to clear the current name.

- Press SPEED when finished. Confirmation tone sounds and the display shows the new or changed name.

7. Press HOLD, then use [*] or [#] to scroll to next entry.

-or-

Hang up to end programming.

The following procedure is used to associate names to a system speed dial bin only.

1. Enter desired 3-digit Directory List number (000-199), or dial [*] to scroll up (next entry) or [#] to scroll down (previous entry) through the list.

If changing a name associated with an existing System Speed Dial Bin entry, go to step 4.

2. Press TRANS.
3. Dial system speed dial bin location (*9020-9099*).
4. Press MUTE.
5. Use keys on the dial pad to enter the name (up to 24 characters may be entered). The display will update as the name is entered (refer to [Figure 3-1 on page 3-10](#)).
6. Press SPEED when finished. Confirmation tone sounds and the display updates.
7. Press HOLD, then use [*] or [#] to scroll to next entry.

-or-

Hang up to end programming.

Operation

To view the directory list:

1. Dial the Directory List dial code [680] on the dial pad,
-or-
Press the flexible button programmed as a directory dialing button.
2. Press a button on the key pad, once, twice or three times, that represents the letter of the alphabet to begin viewing the list of names (e.g., when 2 is first pressed, it produces names starting with A. When 2 is pressed a second time, names that start with B display. Pressing 2 a third time displays names that start with C). The alphabet is represented on the key pad as shown below.

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

Names beginning with the letter chosen display on the LCD display.



If there are no names in the Directory List beginning with the desired letter, a name with the next higher letter displays on the LCD display.

Attendant Features and Operation

3. Dial [*] to scroll up (next entry) through the list,
-or-
Dial [#] to scroll down (previous entry) through the list,
-or-
Press another key to view the list for a different letter of the alphabet.
4. When the desired name displays on the LCD, press the SPEED button to automatically dial the destination station or outside phone number (via speed dial).

To transfer a call using directory dialing while on a call:

1. Press the TRANS button.
2. Dial the Directory Dial Code [680] on the dial pad,
-or-
Press the flexible button programmed for directory dialing.
3. Press the digit associated with the person's name and when it displays, press SPEED to automatically dial the destination station.
4. Hang up to complete the transfer.



Calls may be transferred to internal stations only. An attempt to transfer a call off-net (via a speed dial bin) results in the call recalling upon going on-hook.

Conditions

- » If the desired party is an intercom station, that station is signaled according to their intercom selector/H-T-P switch (SLT stations tone ring).
- » If the desired party is associated to a speed dial bin, the system selects a CO line and dials the number programmed into the speed dial bin. Call progress tones are then heard.
- » If station is in Directory Dialing mode and a CO or intercom call rings in, the station must exit Directory Dialing mode to answer the call.

Attendant Disable Outgoing CO Line

Description

The first Attendant can disable CO lines to prevent outgoing access to those lines. This is useful for removing a faulty line from service or for reserving CO lines for important use. All stations that normally make calls on the lines are affected, but incoming calls are unaffected. A CO line may be disabled while it is being used. When the trunk becomes idle, further outgoing access is prevented.

Operation

To disable CO Lines:

1. Lift handset or press ON/OFF button.
2. Dial [602] on the dial pad. A confirmation tone sounds.
3. Press the line button(s) of the CO Line(s) to disable. A confirmation tone sounds and the CO Line button(s) LED flashes.

To reactivate the CO Line(s):

Repeat Steps 1-3 to disable this feature.

Attendant Override

Description

Attendant stations may override a busy station or ring a station in DND. While busy, pressing the override key provides override tone and a five second delay before voice cut-through to the called party occurs, automatically placing any outside line call on Hold. The Attendant Override function must be programmed onto a flexible button and can be enabled or disabled.

Programming Steps

1. Press the ATTN OVERRIDE flexible button (**FLASH 05, Button #1**).
2. Enter a valid number (0 or 1) that corresponds with the following entries:

[0] = Disabled

[1] = Enabled

ATTENDANT OVERRIDE	1-0
DISABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.



Attendant Override functions ONLY when the Attendant station is assigned a flexible button designated as Attendant Override.

DEFAULT ... Attendant Override is disabled.

Operation

To call a station busy on a CO call:

Press the preprogrammed ATTN OVERRIDE button [601]. A long tone is presented to the called party.

After five seconds, the station's CO line is automatically placed on hold and the Attendant is cut-through.

To call a station in Do Not Disturb mode:

Press the preprogrammed ATTN OVERRIDE button. The station is signaled with a Camp On tone.

Attendant Setting Time and Date

Description

The System Time/Date must be set in admin programming or by the first programmed Attendant using feature code 692.

Programming Steps

To set the time and date that appears on display telephones:

1. Press **FLASH** and dial **[11]**. The following message displays:

DATE AND TIME
MMM DD YY HH:MM am

MMM = Month

DD = Day

YY = Year

HH = Hour

MM = Minute

2. Choose display format by pressing the appropriate button in the flexible button field. The time can be displayed in the standard 12-hour format or the 24-hour format.
3. Dial the time and date in the order shown below (2 digits for each entry, for a total of 10 digits):

Year

Month

Day

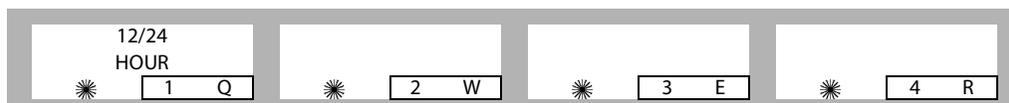
Hour

Minute



To *program* a pm time after selecting the 12-hour format, use 24-hour numbering, e.g., To program a time of 5:00 pm, enter 17:00.

4. Press HOLD to save the entry. A confirmation tone sounds and the display updates.



When entering the time and date, use the following data:

LED Off = 12 Hour Display

LED On = 24 Hour Display

DEFAULT ... Time is set for 12-hour display format.

Operation

1. Dial [692] on the dial pad. A confirmation tone sounds.
2. Enter date and time as follows: YYMMDDHHMM

YY = Year (00-99) HH = Hour (00-23)
MM = Month (01-12) MM = Minute (00-59)
DD = Day (01-31)

When the correct number of digits are entered, a confirmation tone sounds.

3. Press the ON/OFF button to OFF to update the display.

Attendant Station Assignment

Description

Any three Digital Telephones in the system can be assigned as Attendant stations. These stations receive recalls and can place the system into Night Service. The Attendant stations must be either Enhanced or Executive stations.

Programming Steps

1. Press **FLASH** and dial [10]. The following message displays:

ATND STA ASSIGNMENT
100, ####, ####

2. Enter a valid station number (100-8999) on the dial pad, followed by a "1" to add or "0" to delete the attendant assignment.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Station 100 is assigned as the first attendant.

Attendant Unavailable

Description

The Attendant Unavailable feature lets Attendant stations have a button that places their station in an Unavailable Mode. When the station is in the Unavailable Mode, the next Attendant station receives dial "0" calls and recalls. This feature is based on having the three programmed Attendant stations.

Operation

1. When the (first programmed) Attendant presses the preprogrammed UNAVAILABLE flexible button,
-or-
Dials the Attendant Unavailable code [607] on the dial pad, the following results occur:
 - The LED on the flexible button lights solid, if programmed.
 - Recalls and dial "0" calls now ring at the second Attendant.
 - If the second Attendant places their phone in unavailable, the third Attendant receives recalls and dial "0" calls.
2. When the first Attendant *repeats the process* (using Unavailable button or code [607]), the following results occur:
 - The LED on the flexible button, if programmed, extinguishes.
 - The first Attendant resumes normal operation.
 - The second and third Attendants will not receive recalls or dial "0" calls.

Conditions

- » This feature lets the programmed Attendant stations receive Attendant recalls only. No other Attendant type functions are given to this station when the station is in the Attendant mode.
- » If Attendant A (first programmed) is available, incoming calls and recalls are directed to this station regardless of other Attendant stations status.
- » The special ring mode can be set so the alternate Attendant does not receive an incoming CO ring until the main Attendant places their phone in special and unavailable modes.
- » If all Attendants in the system are unavailable, no Attendants are available for internal/external callers.
- » Recalls are directed to all programmed available Attendants.
- » If only one Attendant is programmed in the system, and that Attendant is unavailable, users dialing zero hear an error tone.

Attendant Voice Mail Alarm Clear

Description

The Attendant display shows an alarm condition when the system detects that the digital voice mail is out of service.

Operation

The attendant can dial feature code [656] to clear any alarm from the display. It will not clear the condition, just clear the display.

DSS/BLF Console with Map

Description

An optional Direct Station Selector (DSS) console is available which may be associated with an Attendant station to provide additional buttons for DSS/Busy Lamp Field (BLF) features.

Busy Lamp Field Indicators

Each station key on the DSS console has a corresponding indicator that shows whether the station is idle or busy. The indicator is lit when the station is busy and unlit if the station is idle. A station in DND mode is shown by a flashing indicator.

Direct Station Calling

Enables the Attendant to make an intercom voice call to any digital telephone in the system. You can automatically put an outside caller on hold and simultaneously make an intercom call to an internal station; also you can transfer an intercom or outside call that is on hold to another station.

Release Key

Allows the Attendant to disconnect calls while off-hook, speeding up call handling time.

Transfer Search

Allows the Attendant to make a series of intercom calls without hanging up the handset. An intercom connection is switched to another station whenever a DSS key is pressed. Pressing the next DSS key terminates the previous intercom call.

Mapping Options

The DSS/BLF Console unit can access Stations, Direct Appearing CO Lines, or features that may be assigned to any of the flexible buttons (refer to [“Flexible Button Assignment” on page 2-149](#)). Buttons assigned as CO lines cannot be changed, buttons assigned as Stations can be changed by the user. Refer to [Figure 3-2](#) and [Figure 3-3](#).

DSS Console Map #1 -- by default 12 CO Lines, 36 Stations (100-135). This provides a default layout of a 12 X 36 configuration.

CO1	CO2	CO3	CO4
CO5	CO6	CO7	CO8
CO9	CO10	CO11	CO12
100	101	102	103
104	105	106	107
108	109	110	111
112	113	114	115
116	117	118	119
120	121	122	123
124	125	126	127
128	129	130	131
132	133	134	135

Figure 3-2: DSS Console Map #1

DSS Console Map #2 -- by default has 48 Stations, 100–147. All buttons are flexible and can be changed by the station user. This map can be duplicated on another DSS/BLF console and assigned to the same station.

100	101	102	103
104	105	106	107
108	109	110	111
112	113	114	115
116	117	118	119
120	121	122	123
124	125	126	127
128	129	130	131
132	133	134	135
136	137	138	139
140	141	142	143
144	145	146	147

Figure 3-3: DSS Console Map #2

DSS Console Map #3 -- by default, CO Lines 1-28 appear in sequential order.

CO1	CO2	CO3	CO4
CO5	CO6	CO7	CO8
CO9	CO10	CO11	CO12
CO13	CO14	CO15	CO16
CO17	CO18	CO19	CO20
CO21	CO22	CO23	CO24
CO25	CO26	CO27	CO28

Figure 3-4: DSS Console Map #3

Station ID for DSS/BLF Console With Map

Description

Each system port must be programmed to identify the type of station that operate on that port. Each station type must be identified.



When identifying a station as a DSS/BLF console, you must also enter the station number of the key telephone to which the DSS/BLF console is associated. To associate a DSS console with Station 100, the entry would be 1100 [HOLD].

Programming Steps

1. Press the STATION ID flexible button (**FLASH 50, Page B, Button #1**).

STATION ID	0-8
KEYSET - STS 24BTN	

2. Dial **[1-3]** on the dial pad to identify the desired DSS map number (refer to [“Mapping Options” on page 3-18](#)).
3. Enter a valid station number to which the DSS/BLF Console is associated.
4. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

STATION ID	0-8
DSS MAP X ASSOC XXX	

X = 1-2
XXX = Station Number

Display Timer

Description

The Attendant Display Timer changes the way in which multiple calls ringing at the Attendant station are displayed. If two calls are ringing at an Attendant station, when the station goes off hook, the first call is answered. The LCD display then updates to show the second call that is ringing, which sometimes does not allow the station to view the current call's LCD information. The display timer keeps the current call's information on the LCD for a programmable time period before showing any other calls ringing in at the time.

The Attendant Display Timer setting is variable from 00-99 seconds.

Programming Steps

1. Press the ATTENDANT DISPLAY TIMER flexible button (**FLASH 02, Button #2**). The following message displays:

ATTENDANT DISPLAY	00-99
01	

2. Enter a valid number on the dial pad that corresponds to 00-99 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Attendant Display Timer is set for 1 second.

ICLID Call Management Tables

Description

Two ICLID Call Management Tables are maintained in the system. These tables consist of an Answered Call Management Table and an Unanswered Call Management Table. Each have a 100-entry capacity.

Answered Call Management Table

Description

The Answered ICLID Table feature adds a table that captures the ICLID calls that were answered. The table can store up to 100 entries of the most recently answered ICLID calls. A station may dial a unique access code to view the entries, scroll through the entries, and dial a desired entry back. The table displays the number as well as the station that answered the call.

Operation

This table may be accessed from any user station display phone so the answered calls may be reviewed and handled by the end user. Any Attendant station(s) can delete a table entry, one entry at a time. Upon entering the review process, the functions available to a phone are:

Table 3-2: ICLID Answered Call Management

Function	Button
Go to beginning of table	Dial Code 659
Toggle between Name/Number	MUTE
Step to next table entry	HOLD
Delete table entry (Attendant only)	FLASH
Exit table review function	ON/OFF
Step to previous table entry	TRANSFER
Call Back	SPEED

Conditions

- » Telco must activate Caller ID service.
- » Auto Attendant calls are considered answered.

Unanswered Call Management Table

Description

An Unanswered Call Management Table with 100-entry capacity is maintained in the system. The calling number/name information pertaining to any unanswered call is placed in this table at the time the system determines the call was abandoned.

This table may be accessed from any display telephone to review unanswered calls. Only an Attendant station(s) can delete an entry from this table.

Operation

This table may be accessed from any station display phone so that the unanswered calls may be reviewed and handled by the end user. Upon entering the review process, the functions available to a phone are:

Table 3-3: ICLID Unanswered Call Management

Function	Button
Go to beginning of table	Dial Code 635
Toggle between Name/Number	MUTE
Step to next table entry	HOLD
Delete table entry (Attendant only)	FLASH
Exit table review function	ON/OFF
Step to previous table entry	TRANSFER
Call Back	SPEED

Conditions

- » Telco must activate Caller ID service.
- » Auto Attendant calls are considered answered.

Recall

Description

A held CO call left unattended by a station recalls the Attendant(s) after a programmable time period elapses. A recalling CO line flashes at a distinctive rate and has an LCD display that identifies the originating station of the unanswered call.

Operation

To answer a recall, press OUTSIDE LINE button that is flashing at a very fast rate.

Conditions

- » Recall does not apply to intercom calls placed on hold.

Attendant Recall Timer

Description

The Attendant Recall Timer determines the time a recalling call rings at the attendant station(s) before the system releases the line. When a CO Line recalls to the Attendant station and is still unanswered, the system releases the line at the expiration of this timer and automatically places the line to an idle condition.

The Attendant Recall Timer setting is variable from 00–60 minutes. An entry of 00 causes the Attendant(s) station to ring until answered.

Programming Steps

1. Press the ATTENDANT RECALL TIMER flexible button (**FLASH 01, Button #3**). The following message displays:

ATND RECALL TIMER	00-60
01	

2. Enter a valid number on the dial pad that corresponds to 00-60 minutes.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Attendant Recall Timer is set for 1 minute.

Release Button

Description

The Release Button feature lets the station user disconnect calls while off-hook (on handset, not speakerphone), speeding up call handling time. While off-hook (on handset, not speakerphone) on an intercom call, transfer sequence, page announcement, or CO call:

Press the preprogrammed RELEASE button [641] to terminate intercom call, transfer sequence, page announcement or CO call.

Speed Dial - System Storing

System Speed numbers must be entered by the first programmed Attendant. If no Attendant is specified, enter at Station 100.

1. Press SPEED once, then press desired outside line key; or select an outside line automatically by pressing the SPEED button twice.
2. Dial the System Speed bin location (*9020-9099*).
3. Dial telephone number.
4. Press the SPEED button.
5. Hang up.
 - Pressing the TRANS button during number entry initiates a Pulse-To-Tone switchover.
 - Pressing the HOLD button during number entry inserts a Pause.
 - Pressing the FLASH key inserts a Flash into the speed number.
 - Pressing the TRANS button as the first entry in the speed bin inserts a no-display character causing the numbers stored in the bin not to display on the Digital Telephones when the bin is accessed.

Speed Bin numbers 9060-9099 are NOT monitored by Toll Restriction.

Attendant Features and Operation

4

Uniform Call Distribution

This chapter covers the topic of Uniform Call Distribution (UCD).



Uniform Call Distribution

Description

Eight Uniform Call Distribution (UCD) groups can be programmed, each containing up to eight station numbers. Each group is assigned a pilot number. When this number is dialed, the first available agent in that group is rung. Calls are routed to the station that has been on-hook for the longest period of time.

UCD Calls In Queue Status Display

Description

The UCD Calls In Queue Status Display allows UCD agents to view information about the UCD group on their display. The display shows how many calls are in queue, how many agents are available, and the length of time the oldest call has been in queue.



This feature cannot be used with a call in progress. The station is considered busy for incoming calls during this operation. Each time this feature is used, wrap-up is started.

If a UCD member is taken out of the group (e.g., DND, All Call Forward, Unavailable, etc.) they do not receive calls in queue information.

Operation

There are two methods of viewing UCD group Call Queue Status.

1. In-service UCD agents and the assigned overflow station see the quantity of calls in queue on the LCD of their station for the UCD group of which they are a member. If every member of the UCD group is busy and calls are in queue, the Supervisor/Agent Queue Status display is seen at all UCD members of that group.
2. Any station not assigned in a UCD group can view the number of calls in queue for any given UCD Group. To view the number of calls in queue the station user either dials the UCD Calls In Queue Status Display code [567] or presses a flexible button (preprogrammed with this code), then enters the UCD group desired. The LCD displays, on a real time basis, the number of calls in queue for that group.

Alternate UCD Group Assignments

Description

An Alternate UCD Group can be programmed so that if no station in a group is available, the alternate group is checked for an available station. This provides a way to chain or link UCD Groups together.

Programming Steps

To establish an Alternate UCD Group:

1. Press **FLASH** and dial [**60**].
2. Enter the UCD Group number (550-557) on the dial pad.
3. Press **HOLD**. A confirmation tone sounds and the display updates.

4. Press the ALTERNATE GROUP flexible button (**FLASH 60, Button #2**).

AXXXX ALTERNATE GROUP
####

5. Enter another UCD Group number to designate the Alternate UCD Group.
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To delete an Alternate UCD Group:

1. Press [#].
2. Then press the HOLD button.

Incoming CO Direct Ringing

Description

CO Lines can be programmed to ring directly into a UCD group. When all agents are busy and RAN is enabled, the system answers the caller and presents the Primary Recorded Announcement automatically.

Message Interval Timer

Description

The UCD Message Interval Timer (MIT) determines the length of time a caller remains in queue (listening to MOH, if provided) between recorded announcements. The UCD Message Interval Timer setting is variable from 000 to 600 seconds.

Programming Steps

1. Press the MIT TIMER flexible button (**FLASH 61, Button #2**). The following message displays:

MESSAGE INTERVAL 000-600
060

2. Enter a valid number on the dial pad which corresponds to 000-600 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.



The UCD Ring and Message Interval Timers only apply when RAN ports are specified. If RAN ports are not specified, incoming callers continue to receive a ringback tone.

DEFAULT ... UCD Message Interval Timer is set for 60 seconds.

No-Answer Recall Timer

Description

If a call routed to a station via UCD is not answered by the UCD Agent/Station before the No-Answer Recall Timer expires, the call is returned to UCD Queue with the highest priority. In addition, the station that failed to answer the ringing UCD call is placed into an out-of-service (OOS) state. The UCD No-Answer Timer setting is variable from 000–300 seconds.

Programming Steps

1. Press the NO-ANSWER RECALL TIMER flexible button (**FLASH 61, Button #5**). The following message displays:

NO - ANS RECALL	000-300
000	

2. Enter a valid number on the dial pad which corresponds to 000-300 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... UCD No-Answer Timer is at 000 (disabled).

No-Answer Retry Timer

Description

When the No-Answer Recall timer expires, a station that failed to answer the ringing UCD call is placed into an out-of-service (OOS) state. The station that was taken out-of-service (OOS) is placed back in service if the agent hits their available flexible button or dials the available flexible code. The agent is also placed back in service if the No-Answer Retry timer expires. If the agent does not answer their next UCD call, they are again taken out-of-service. This cycle continues until the station answers calls, logs out, or goes unavailable. The No-Answer Retry Timer setting is variable from 000–999 seconds.

Programming Steps

1. Press the NO-ANSWER RETRY TIMER flexible button (**FLASH 61, Button #6**). The following message displays:

NO - ANSWER RETRY	000-999
300	

2. Enter a valid number on the dial pad which corresponds to 000-999 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... No-Answer Retry Timer is set for 300 seconds.

Overflow Station Assignment

Description

When an Overflow Station is assigned, callers that remain in queue for a specified amount of time are routed to the assigned Overflow Station. The Overflow Station MAY NOT be one of

the UCD Group stations. Only CO calls transferred to a UCD Group, overflow to the Overflow Station when RAN Tables are assigned.

Programming Steps

To assign an UCD Overflow Station:

1. Press **FLASH** and dial **[60]**.
2. Enter the fixed or flexible group number (550-557) on the dial pad.
3. Press HOLD.
4. Press the OVERFLOW STATION flexible button (**FLASH 60, Button #3**).
5. Enter a valid flexible station number to designate the UCD Group's Overflow Station.

A XXXX OVERFLOW STATION
####

6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To delete an UCD Overflow Station:

1. Press [#] three times.
2. Then press the HOLD button.

Conditions

- » The caller must hear a recorded announcement before the call will overflow.

Overflow Station Forwarding

Description

An overflow station may be assigned to route callers in queue to a designated station after a specified time. The overflow station may not be one of the UCD group stations.

This feature allows UCD calls reaching the UCD Overflow Station to call forward to another station. This is allowed or denied on a system-wide basis. Once enabled in programming, a UCD Overflow station can Busy/No-Answer forward to Voice Mail Groups, Hunt Groups and stations. If the UCD Overflow station is busy or does not answer before the no-answer call timer expires, the UCD call forwards to the programmed destination (e.g., Voice Mail).

Programming Steps

1. Press the OVERFLOW STA FWD flexible button (**FLASH 06, Button #6**). The following message displays:

OVERFLOW STA FWD	0-1
DISABLED	

2. Enter a 0 or 1 on the dial pad to enable/disable the use of this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... Overflow Station Forward is disabled.

Operation

To activate Call Forwarding:

1. Lift the handset or press ON/OFF button.
2. Press the FWD button or dial [640] (or a flexible number substituted for feature code 640).
3. Dial the desired code:
[6] = All Calls
[7] = No Answer Calls
[8] = Busy Calls
[9] = Busy and No Answer Calls
4. Dial the destination number where to forward calls (Station, Voice Mail, UCD groups, or Hunt group). Confirmation tone sounds.
5. Replace handset or press ON/OFF button.

To remove Call Forwarding:

1. Lift handset or press ON/OFF button.
2. Press the FWD button. A confirmation tone sounds and the FWD LED extinguishes.

Conditions

- » An overflow station may be assigned to route callers in queue to a designated station after a specified time. A queued call is one that has been answered by a recorded announcement device or transferred into the group.

Overflow Timer

Description

The UCD Overflow Timer determines the length of time a caller remains in queue for a UCD group. When the timer expires, the caller is routed to the designated overflow station.

The timer starts when an incoming call is answered and presented to the first recorded announcement. Transferred CO callers overflow at the expiration of the Overflow Timer. The UCD Overflow Timer setting is variable from 000–600 seconds.

Programming Steps

1. Press the OVERFLOW TIMER flexible button (**FLASH 61, Button #3**). The following message displays:

OVERFLOW	000-600
060	

2. Enter a valid number on the dial pad which corresponds to 000-600 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... UCD Overflow Timer is set for 60 seconds.

Primary Agent Assignments

Description

The Primary Agent Assignment feature allows the stations serving as primary agents to be entered into the UCD group. Up to 8 UCD Agents can be entered into a Group.

Programming Steps

1. Press **FLASH** and dial [**60**].
2. Enter the fixed or flexible group number (550-557) on the dial pad.
3. Press HOLD.
4. Press the PRIMARY AGENT flexible button (**FLASH 60, Button #7**). The following message displays:

A XXXX PRIMARY AGENTS
END

5. To **add** a station as a primary agent of the UCD group, use the dial pad as follows:
 - Enter XXXX 1 (XXXX = flexible station number).
 - Press the HOLD button.
6. To **delete** a primary agent from the UCD group, use the dial pad as follows:
 - Enter XXXX 0 (XXXX = flexible station number).
 - Press HOLD to save the entry. A confirmation tone sounds and the display updates.
7. To **view** primary agents in the UCD group, press button #7 (Each depression toggles through seven agents at a time).

Primary Recorded Announcement

Description

A Primary Recorded Announcement (RAN) may be assigned to the group. This message is the first one presented to the caller.

Programming Steps

1. Press **FLASH** and dial [**60**].
2. Enter the UCD Group number (550-557) on the dial pad.
3. Press HOLD.
4. Press the PRIMARY RAN flexible button (**FLASH 60, Button #10**).

A XXXX	PRIMARY RAN	1-8
#		

5. Enter a valid number (1-8) for the desired RAN Announcement Table or a (#) to remove the entry.
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

Recorded Announcements

Description

Recorded announcement (RAN) devices can be assigned to provide up to eight different messages, if all stations in a UCD group are busy. The eight messages are available to all eight UCD groups in different configurations. A RAN table can be the answer port for unanswered incoming calls to a UCD group, while another table can provide the secondary message. Each RAN device can provide an announcement to one caller at a time. Subsequent callers are queued onto the message on a first-in basis.

The Digital Voice Mail (DVM) can be used as a RAN device for UCD groups.

Recorded Announcement Tables

Description

Determines the type, index (port) number and message length for the eight available Recorded Announcements (RAN). There are eight RAN Tables that can be programmed. Table 1 can be the answer port for unanswered incoming calls to a UCD group.

The type can be either a CO line port, an SLT port, Voice Mail, or a RAN Hunt Group port. The index number specifies which circuit for the type of interface. The message length is used to match the maximum length of the message to the device that is used.

Voice Mail can be used as a RAN Announcer for UCD Groups. A menu is provided to play the announcement.

Programming Steps

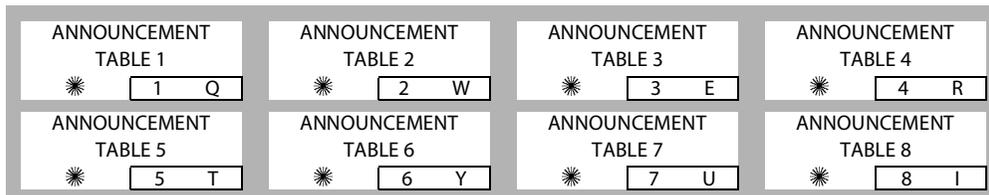
If Recorded Announcement (RAN) devices are installed to operate with UCD, these tables must be programmed.

1. Press **FLASH** and dial **[62]**. The following message displays:

ANNOUNCEMENT TABLE 1			
TYPE #	IDX	####	TIME ###

The top left button in the flexible button field is lit for programming UCD RAN Announcement Table #1.

2. To change to another UCD RAN Announcement Table, press **FLASH 62** and a flexible button 2-8 for Tables 2-8 respectively.



To program a Table for a CO Line port:

1. Press the TABLE X flexible button (1-8).
2. Dial [1] for CO Port Interface.
3. Dial the desired CO line number, using a 4-digit format, e.g., for CO line 1, enter 0001.
4. Enter message duration (000-300 seconds).
5. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To program a Table for an SLT port:

1. Press the TABLE X flexible button (1-8).
2. Dial [2] for SLT Port Interface.
3. Dial the desired SLT station number, using a 4-digit format, e.g., for SLT station number 120, enter 0120.
4. Enter message duration (000-300 seconds).
5. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To program a Table for a RAN Hunt Group port:

1. Press the TABLE X flexible button (1-8).
2. Dial [3] for RAN Hunt Group.
3. Dial [0458-0461] for RAN Hunt Group used.
4. Enter message duration (000-300 seconds).
5. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

To program a Table for Digital Voice Mail:

1. Press the TABLE X flexible button (1-8).
2. Dial [4] for the Voice Mail function.
3. Dial the desired Voice Mail Group number, using a 4-digit format, e.g., for Voice Mail Group 440, enter 0440.
4. Dial a three-digit menu number [000-999].
5. Dial (0-9).
 - 0 = No DTMF Detection, No Messages Played (Default).
 - 1 = DTMF Detection, No Message.
 - 2 = No DTMF, Place In Queue Message.
 - 3 = DTMF Detection, Place In Queue Message.
 - 4 = No DTMF, Hold Time Message.
 - 5 = DTMF Detection, Hold Time Message.
 - 6 = No DTMF, Both Messages.
 - 7 = DTMF Detection, Both Messages.
 - 8 = Not used at this time.
 - 9 = Not used at this time.
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.



To program a Table for Flash-based Voice Mail, refer to "Recorded Announcement Tables" on page C-5.

To clear entries:

1. Press the [#] button.
2. Then press HOLD.

Ring Timer

Description

The UCD Ring Timer determines how long a call rings into a busy UCD group before being presented to the first recorded announcement. The UCD Ring Timer setting is variable from 000–300 seconds.



A RAN Table must be specified in UCD programming. If a RAN Table is NOT specified, incoming CO callers are not answered but continue to receive ringback.

Programming Steps

1. Press the RING TIMER flexible button (**FLASH 61, Button #1**). The following message displays:

RING	000-300
060	

2. Enter a valid number on the dial pad which corresponds to 000-300 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... UCD Ring Timer is set for 60 seconds.

Secondary Recorded Announcement

Description

A Secondary Recorded Announcement (RAN) may be assigned to the group. This announcement can be used for follow-up information after the Primary message. This announcement plays after the Message Interval Timer setting expires.

Programming Steps

1. Press **FLASH** and dial **[60]**.
2. Enter the UCD Group number (550-557) on the dial pad.
3. Press HOLD.
4. Press the SECONDARY RAN flexible button (**FLASH 60, Button #11**).

A	X	X	X	X	SECONDARY RAN	1-8
#						

5. Enter number (1-8) for the desired RAN Announcement Table or a (#) to remove the entry.
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

UCD Available/Unavailable

Description

If you are a UCD agent, you may place your station in the Available mode to receive UCD calls, or you may place your station in the Unavailable mode to block UCD calls from ringing your station.

The UCD Available/Unavailable DSS/BLF flash rate is the rate at which a DSS appearance for a station in UCD Unavailable mode flashes. This flash rate can be programmed to 29 different options identified in the flash rate table. This enables the programmer to customize the key system configuration to desired flash rates.

Programming Steps

1. Press the UCD UNAVL – DSS/BLF flexible button (**FLASH 07, Button #8**).

UCD UNAVL DSS / BLF	00-28
RED 60 IPM DBL WINK OFF	

2. Enter a valid number (00-28) on the dial pad to correspond to one of the 29 available options (refer to [Table 2-14 on page 2-148](#)).
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... UCD Available/Unavailable DSS/BLF flash rate is set for a Red 60 ipm Double Wink Off (04).

Operation

To make a station available:

Dial [566] on the dial pad,

-or-

Press the preprogrammed Available/Unavailable button. You may now receive UCD calls.

To make a station unavailable:

Dial [566] on the dial pad,

-or-

Press the preprogrammed Available/Unavailable button. You are now blocked from receiving UCD calls.

Conditions

- » If key is programmed, it will flash at 60 ipm double wink.

UCD Calls In Queue Display

Operation

From an idle display key telephone:

1. Dial [567] on the dial pad, followed by the UCD Group number (550-557),

-or-

Press preprogrammed flexible button. ON/OFF button LED lights steady.

- This idle display prompts a Supervisor that a group is having problems answering their calls.
 - The display tells the agent and their supervisor how many calls are in queue.
 - The agent automatically receives the calls in queue display whenever there is a call in queue.
2. Hang up the handset or press ON/OFF button to terminate display.



This feature cannot be used with a call in progress. The station is considered busy for incoming calls during this operation.

Wrap-up Timer

Description

After completion of a UCD call (on-hook) the agent is not subjected to another UCD call for the duration of the Wrap-up Timer (regardless of the number of calls in queue), allowing the agent to finish call related work or to access other facilities. This allows agents to remove themselves from the group (i.e., DND, Unavailable, Call Forward) or originate another call. The Wrap-up Timer is programmed as part of the UCD database (system-wide). The Wrap-up Timer setting is variable from 000 to 999 seconds.

Programming Steps

1. Press the WRAP-UP TIMER flexible button (**FLASH 61, Button #4**). The following message displays:

A XXXX WRAP-UP TIME 000-999
004

2. Enter a valid number on the dial pad which corresponds to 000-999 seconds.
3. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Wrap-up Timer is set for 4 seconds.

Initialize UCD Group Parameters

Description

UCD Group Parameters may be initialized setting all data fields to their original, default values.

Table 4-1: UCD Group Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 60	UCD GROUPS 550-557		
	2	Alternate UCD Group Assignment	None
	3	UCD Overflow Station Assignment	None
	7	UCD Primary Agent Assignment	None
	10-11	Recorded UCD Announcement Assignment(s)	None
FLASH 61	UCD TIMERS		
	1	UCD Ring Timer	60 sec
	2	UCD Message Interval Timer	60 sec
	3	UCD Overflow Timer	60 sec
	4	UCD Auto Wrap-up Timer	004 sec
	5	UCD No-Answer Recall Timer	000=Disabled
	6	UCD No-Answer Retry Timer	300 sec
FLASH 62	1-8	UCD Announcement Tables (RAN)	None

Programming Steps

1. Press the UCD GROUPS flexible button (**FLASH 80, Button #11**).

INITIALIZE UCD GROUP PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print UCD Group Parameters

Description

The Print UCD Group command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

Programming Steps

1. Press the UCD GROUPS flexible button (**FLASH 85, Button #12**). The following message displays:

PRINT UCD GROUP
PRESS HOLD

2. To print data for the UCD Group Parameters, press the HOLD button. The following message displays:

PRINTING UCD GROUP

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

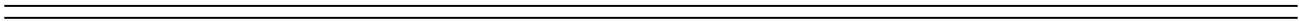
A

ICLID / Caller ID

This specification provides the functional and implementation definition for the addition of the ICLID feature to the *STS* Digital Key Telephone System.



NOTES



Introduction

Description

Incoming Calling Line Identification (ICLID), or Caller ID, is a service provided from the telephone company. Usually this service provides the number and name (not available in some cases) of the calling party for identification prior to answering the call. Calling party number and name are delivered in between this first and second ring using FSK (Frequency Shift Key) format.

For this feature to operate properly, it must be activated from the Central Office so the numbers or name, if available, of the calling party are delivered over the individual tip and ring of the CO lines during the first silent interval between ringing.

The following illustration depicts the configuration presumed for the implementation of the ICLID feature for the system. The phones are presumed to be in a UCD group in order to allow proper operation with the system.

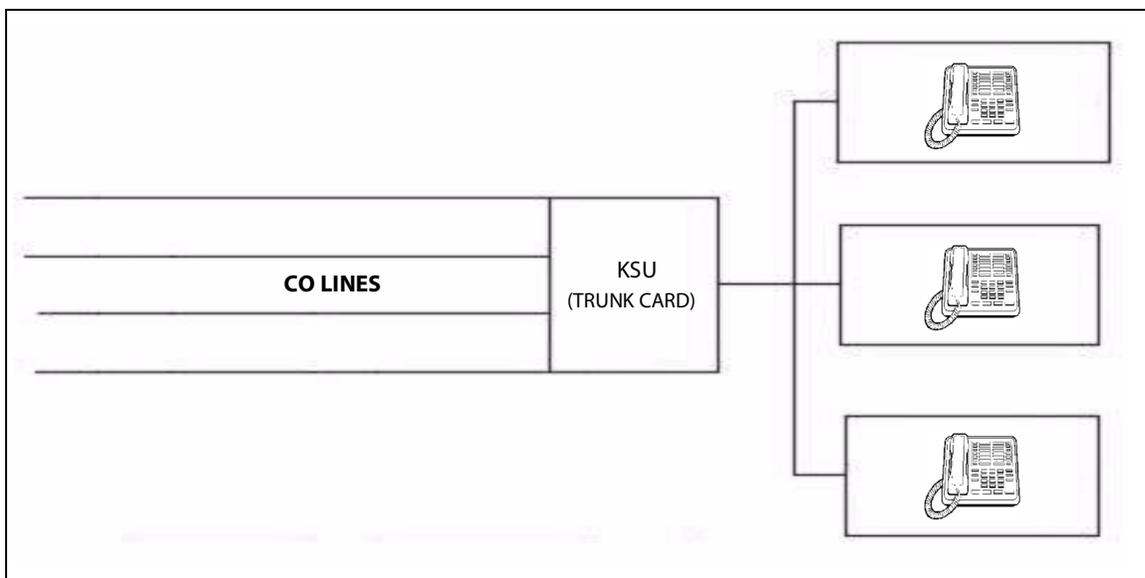


Figure A-1: Caller ID System Configuration

Functional Performance

Description

The key system operation of the ICLID feature is dependent on the feature first being activated from the central office so that the numbers of the calling party are delivered over the individual tip and ring of the CO lines during the first silent interval between ringing.

The features implemented are:

- ❑ Display of calling number/name on initial ring-in of a line on the display keysets.
- ❑ Recording of incoming call number/name on the SMDR printout.
- ❑ Management of an Unanswered Call table from a display phone with appropriate privilege level to allow tracking of unanswered calls for statistical information and return call management.
- ❑ Local translation of incoming numbers to names according to a table of number/name equivalences which can be administered by the system.

Caller ID Name/Number

Description

The Caller ID Name/Number feature lets a station user program a flexible button to view the number and name on the LCD when receiving a Caller ID CO call.

If the feature is enabled, use flexible button [653], the LED is lit solid and the name/number is displayed. During the call, the user can press the flexible button to view the normal call information. The LCD displays the number of the caller on the top line the name on the bottom line.

Operation

To program a Caller ID Name/Number button:

1. Press [SPEED] + [SPEED].
2. Press the desired flexible button. A confirmation tone sounds.
3. Dial 653 (Caller ID Name/Number code).

DEFAULT ... No button is assigned on telephones.



SINGLE LINE TELEPHONE

SLTs cannot display Caller ID information.

Conditions

- » When enabled, this display overrides transfer call LCD messages, Call Pickup messages, and Answer messages. If the user wishes to view the Line Number/Call Timer and the standard call information, they can press the flexible button to toggle between the name/number and normal mode.
- » A flexible button must be programmed for this feature to operate.

Calling Number/Name Display

Description

The Calling Number/Name Display feature is intended as the basic offering of the ICLID service when associated with the *STS*. Whenever an incoming call is received at the system, the number received along with the ringing signal is stored in the line control tables and used at various points in the processing of the call.

The primary function is that the calling number is displayed (if available) at any point at which the LINE RINGING is displayed in the system.



If two lines are ringing in at the same time, the display shows the oldest line information. After one of the lines is answered, the display shows the information on the unanswered line.

With the availability of the Calling Name feature, if the calling name is provided, the system delivers that to the display instead of the calling number.

The specification for this feature is that the system displays its LINE RINGING message as normally implemented and alter that display to the calling number/name if the information is made present on the line.

This allows the normal operation of the system when ICLID information is not presented or the device which intercepts it and provides the information to the KSU is missing or failed.

```
0000000001111111122222
123456789012345678901234
```

```
bbbbNAAAAAAAAAAAAAAAAbbbbb
```

-or-

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

- If the Calling Name is available, the display is shown as above where X... represents the internal table storage of the calling name. Note that although the Central Office delivery of the calling name is 15 characters, the internal table used to store the name for translation of a received number is 24 characters in width.

ICLID / Caller ID

- If the Central Office delivers a Name, it is positioned left justified in the 24-character field on the display. Note that if a number is received which matches a number/name translation, the translated name is used and the name delivered from the Central Office is effectively discarded.
- If No Name is available from the Central Office or a Translation Table, the delivered number is displayed as the repeated character N (14 characters).

*Incoming Number/Name for SMDR Records***Description**

When the Incoming Number/Name feature is implemented, the system operates normally in the absence of ICLID information or the failure of the ICLID equipment. If the information is present at the time that an SMDR record is generated for a call, it alters the content and format of the SMDR output record.

- If the calling number is available, the number is output in the SMDR record in the same location as the dialed number is located in the outgoing call record.
- If the calling name is present, an additional line is output in the SMDR identifying the name. This record immediately follows the normal SMDR record. The normal SMDR record includes an indicator that states the following record with name identification is present.

Unanswered calls are recorded in the SMDR record for incoming calls with a U indicator to provide caller identification for statistical and call-back purposes.

*Local Name Translation***Description**

An administrable table provides a local translation from a received calling number to a name. This table can be administered by the customer from the attendant console location. In cases of conflict between the name delivered from the CO and that in the local translation table, the local translation table shall rule. 200 entries are provided.

ICLID Programming**Description**

The *STS* system can provide ICLID input on the RS-232C connector of the BKSU. When ICLID is desired, the following system-wide parameters determine how the ICLID information is distributed.

Programming Steps

1. Press **FLASH** and dial **[56]**. The following message displays:

ICLID	NAME	BAUD	PORT
NO	YES	9600	1

- To program ICLID features, use the flexible button(s) as defined in the following procedures.

Button # 1 = Disable/Enable

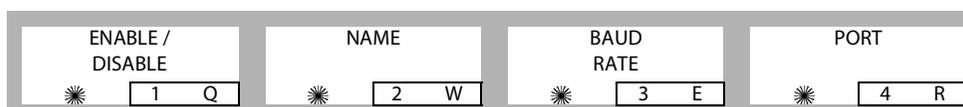
Button # 2 = Name In Display

Button # 3 = Baud Rate Display

Button # 4 = Port Assignment

- After all entries are made, press HOLD to accept the data.

When entering the ICLID features programming area the buttons on the digital telephone are defined as shown below:



If caller ID is used in the system, you must use Flash 40, Page C, Button #2 to set the Ring Delay Timer to a setting of 05 (sec). This allows sufficient time for receipt of ICLID information from the telephone company (refer to ["Ring Delay Timer" on page A-8](#)).

Enable/Disable

Description

The ICLID (Incoming Calling Line Identification) feature was added to the *STS* system. For this feature to operate properly, it must be activated from the Central Office so the numbers of the calling party are delivered over the individual tip and ring of the CO lines between the first and second ring cycle.

Programming Steps

- Press the DISABLE/ENABLE flexible button (**FLASH 56, Button #1**) to toggle between the options of NO for disable and YES for enable.
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... ICLID is disabled (NO option).

Name in Display

Description

The system can be set to display the incoming telephone number or the person's name on the LCD display.

Programming Steps

- Press the NAME flexible button (**FLASH 56, Button #2**) to toggle between the options of YES to show the name or NO to show the incoming telephone number in the LCD.
- Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... The system shows the name on the LCD display (YES option).

Baud Rate Display

Description

The **STS** system can provide ICLID input on the standard RS-232C of the BKSU (also on LCOB w/CIDU). The baud rate is displayed as 150, 300, 600, 1200, 2400, 4800, 9600, or 19.2K baud.

Programming Steps

The ICLID baud rate is programmed using **FLASH 15** Baud Rate assignments. The LCD displays the current baud rate based on which number is assigned to the ICLID Port number.



When FLASH 56, Button #3 is pressed, an error tone is received.

Baud rate does not apply to the CIDU.

DEFAULT ... Baud Rate is 9600.

Port Assignment

Programming Steps

1. Press the PORT flexible button (**FLASH 56, Button #4**) to specify which port to use for ICLID information.
2. Enter a valid number for one of the ICLID Ports:
[1] = Port # 1 (RS-232C on BKSU)
[2] = Port # 2 (RS-232C on BKSU)



Use Port 1 or 2 for ICLID.

ICLID NAME	BAUD	PORT
NO	YES	9600 1

(LCD displays current baud rate assigned to the ICLID Port number.)

3. Press HOLD to accept the data. A confirmation tone sounds and the display updates.

DEFAULT ... Port #1.

Ring Delay Timer

Description

The Ring Delay timer was added to the **STS** to accommodate ICLID interface requirements. The Ring Delay timer is started whenever a CO Line detects incoming ringing. When the timer expires, CO line ringing is detected by digital telephones and SLTs.

The purpose of this timer is to wait until after the first ring cycle to be detected by the digital system so the ICLID information is passed down the CO line prior to being answered. In some cases, it may be necessary to set the Ring Delay Timer to five seconds so all the ICLID information is received from the Central Office. The Ring Delay Timer setting is variable from 00-20 seconds.

Programming Steps

1. Press **FLASH** and dial **[40]**. The following message displays:

CO LINE ATTRIBUTES
SELECT A CO LINE RANGE

2. Enter a valid number for the range of lines being programmed. If only one line is being programmed, enter that number twice (001 001).



If HOLD is pressed without entering a CO range, ALL CO lines are selected.

3. Press Button #21 to select Page C. The display updates. The following message displays to indicate current programming of that line or group of lines:

XXX - XXX PAGE C
ENTER BUTTON NUMBER

XXX-XXX = CO Line Range

4. Press the RING DELAY TIMER flexible button (**FLASH 40, Page C, Button #2**). The following message displays:

RING DELAY TIMER 00-20
00

5. Enter a valid number on the dial pad (00–20) which corresponds to 00-20 seconds.
6. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

DEFAULT ... Ring Delay Timer is set at 00 (disabled).

Initialize ICLID-DID Tables

Description

ICLID - DID Table parameters may be initialized, setting all data fields to their original default values.

Table A-1: ICLID Table Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 43	ICLID TABLES		
	1	ICLID Ringing Assignments	None
	17	View ICLID Ringing Assignments	None
	18	Next ICLID Route Number	None
	19	Previous ICLID Route Number	None
	20	Select Route Number	None
FLASH 44	DID TABLES		
	1	Route Number	refer to Figure A-2
	2	DID Phone Number	None
	3	Name Assigned to Number	None
	4	Erasing a DID Table Entry	None
FLASH 55	NAME/NUMBER TRANSLATION		
	1	Route Number	1
	2	Phone Number	None
	3	Name	None
	4	Clear Entry	None
FLASH 56	1	ICLID Disable/Enable	No=Disabled
	2	ICLID Name in Display	Yes=Telephone number in display
	3	ICLID Baud Rate Display	9600
	4	ICLID Port Assignment	Port #1

Programming Steps

1. Press the ICLID TABLES flexible button (**FLASH 80, Button #8**). The following message displays:

INITIALIZE ICLID-DID
PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print ICLID - DID Tables

Description

The Print ICLID-DID Tables command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device. When printing the ICLID - DID Tables, the following data prints (an example follows the programming steps):

- ICLID Features
- ICLID Translation Table
- ICLID Unanswered Call Table
- ICLID Ringing Assignments Table
- DID Translation Table

Programming Steps

1. Press the ICLID-DID TABLES flexible button (**FLASH 85, Button #9**). The following message displays:

PRINT ICLID-DID
PRESS HOLD

2. To print the ICLID-DID Table(s), press the HOLD button. The following messages display:

PRINTING ICLID-DID

PRINTING ICLID TRANS NO

PRINTING ROUTE

PRINTING DID TRANS NO

3. When the system finishes sending the requested information to the printer, a confirmation tone sounds.

ICLID / Caller ID

ICLID	NAME	BAUD	PORT
N	Y	9600	1
ICLID TRANSLATION TABLE			

ENTRY	ROUTE	NAME	NUMBER
600	##		.
601	##		.
602	##		.
603	##		.
... and so on through 799			
ICLID UNANSWERED CALL TABLE			

NONE			
ROUTE RING ASSIGNMENTS			

00	NONE		
01	NONE		
... and so on through 99 - NONE			
100	S100A		
101	S101A		
... and so on through 149 - S149A			
150	NONE		
151	NONE		
... and so on through 251 - NONE			
DID TRANSLATION TABLE			

ENTRY	ROUTE	NUMBER	NAME
000	100	0000000	
001	101	0000001	
::	::	::	
049	149	0000049	
050	001	0000050	
051	001	0000051	
::	::	::	
098	001	0000098	
099	199	0000099	
100	100	0000100	
101	101	0000101	
::	::	::	
149	149	0000149	
150	150	0000150	
151	001	0000151	
::	::	::	
198	001	0000198	
199	199	0000199	
200	100	0000200	
... and so on through Entry 999			

Figure A-2: ICLID - DID Tables Printout

ICLID Call Management Tables

Description

Two ICLID Call Management Tables are maintained in the system. These tables consist of an Answered Call Management Table and an Unanswered Call Management Table. Each have a 100-entry capacity.

Answered Call Management Table

Description

The Answered ICLID Table feature adds a table that captures the ICLID calls that were answered. The table can store up to 100 entries of the most recently answered ICLID calls. A station may dial a unique access code to view the entries, scroll through the entries, and dial a desired entry back. The table displays the number as well as the station that answered the call.

Operation

This table may be accessed from any user station display phone so the answered calls may be reviewed and handled by the end user. Any Attendant station(s) can delete a table entry, one entry at a time. To enter the review process, dial [659]. The functions available to a user are:

Table A-1: Caller ID Display (Answered Calls)

Function	Button
Go to beginning of table	Dial Code 659
Toggle between Name/Number	MUTE
Step to next table entry	HOLD
Delete table entry (Attendant only)	FLASH
Exit table review function	ON/OFF
Step to previous table entry	TRANSFER
Call Back	SPEED

Conditions

- » Telco must activate Caller ID service.
- » Auto Attendant calls are considered answered.

Unanswered Call Management Table

Description

An Unanswered Call Management Table with 100 entry capacity is maintained in the system. The calling number/name information pertaining to any unanswered call is placed in this table at the time the system determines the call was abandoned.

This table may be accessed from any display telephone to review unanswered calls. Only an Attendant station can delete an entry from this table.

Operation

To enter the review process, dial [635]. The functions available to a phone are:

Table A-2: Caller ID Display (Unanswered Calls)

Function	Button
Go to beginning of table	Dial Code 635
Toggle between Name/Number	MUTE
Step to next table entry	HOLD
Delete table entry (Attendant only)	FLASH
Exit table review function	ON/OFF
Step to previous table entry	TRANSFER
Call Back	SPEED

Conditions

- » Telco must activate Caller ID service.
- » Auto Attendant calls are considered answered.

B

Least Cost Routing

This section describes the Least Cost Routing (LCR) feature and how to program the eight LCR Tables to monitor the digits dialed at each station and select the best route for the call.

» » » » » » »

NOTES

» » » » » » »

Introduction

The Least Cost Routing (LCR) feature allows the system to automatically select the least costly route available according to the number dialed, the time of day/day of week, the class of service (COS) assigned to the station/trunk group priority level assigned. When a station user dials an outside number, the LCR feature analyzes the number, then automatically chooses an outside line from the group that is programmed as most economical.

The LCR feature puts the responsibility of choosing the least expensive route for each area code and exchange code on the system administrator, not on the station user. In order to make a routing decision, the LCR feature is programmed in the system database. The successful operation of this feature is completely dependent on the accuracy of the programming. The *STS* may be programmed on a per station basis to force the use of LCR for outgoing access. This allows the system administrator to maintain greater control over dialing patterns and the lines used for placing outgoing CO calls.

LCR Tables

There are eight (8) different tables which are set up to monitor the dialing of digits of a station and to select the best route programmed for the call.

3-Digit Routing Table -- allows the system to handle call routing in areas that require a 1 before a long distance number and in areas that do not require the 1 for 7-, 8-, 10-, & 11-digit dialing.

6-Digit Routing Table -- is used to determine the route for one or more office codes programmed within the same area code.

Exception Code Table -- is used to route operator assisted calls and any other calls which would use a one or two-digit number rather than a three-digit area code.

Route List Table -- contains four Time Period Routing Lists that are used in conjunction with other LCR table settings.

Insert/Delete Table -- is used to add/remove digits from a number before or after it is dialed.

Daily Start Time Table -- allows the user to match the Time Periods discount structure to the carrier's rate schedule.

Weekly Schedule Table -- allows the user to assign the Time-of-Day and Day-of-Week to use the least costly route for a specific dialed number.

Toll Information Table -- allows common call routing for all toll information calls: 1-(xxx)555-1212, (xxx)555-1212, 1-555-1212, and 555-1212.

DEFAULT LCR Database -- provides basic routing for all local and long distance dialing.

Related Information

Quick Reference		
➡ Flash 05	Button #7	LCR function must be enabled after LCR Tables are programmed (refer to "Enable/Disable Least Cost Routing" on page B-19).
➡ Flash 06	Button #9	LCR Call Progress feature -- To allow all users to hear digits being dialed (refer to "LCR Call Progress" on page B-15).
➡ Flash 01	Button #20	Interdigit Timeout (refer to "Inter-Digit Time-Out" on page 2-173).

LCR Flowchart

This diagram illustrates the path of an outgoing call as it relates to the LCR feature when programmed.

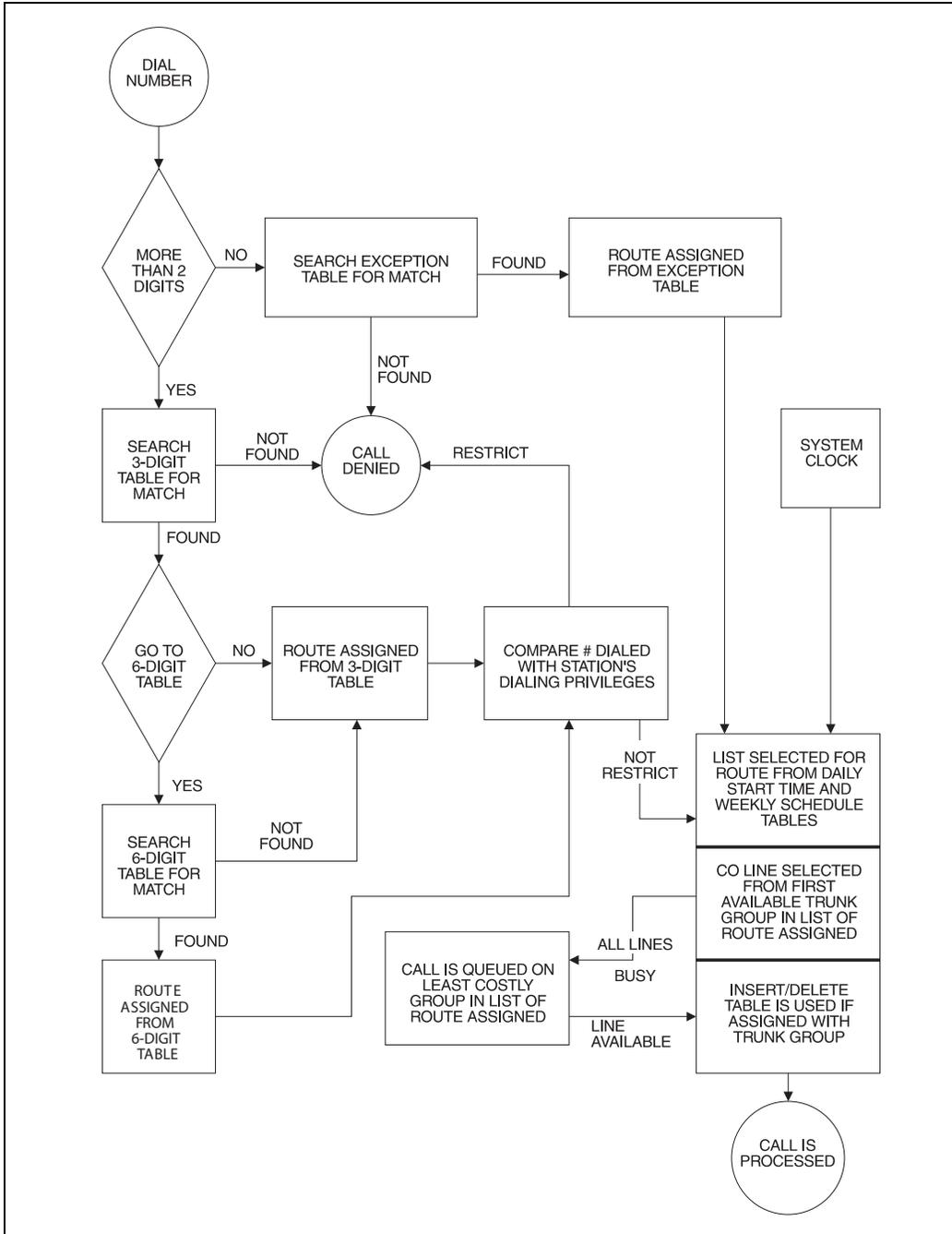


Figure B-1: LCR Flowchart

Operation (When LCR is Enabled)

To place an Outside Call:

1. Dial [9] on the dial pad,
-or-

Press preprogrammed LCR button.

2. Dial the desired telephone number.
3. Wait for an answer. Lift handset or use the speakerphone to converse.

If all available lines are busy, remain off-hook for four seconds to automatically be queued onto LCR for an available line, then hang up.

To answer an LCR Queue Call Back:

1. When telephone is signaled, answer the call.
2. Desired telephone number is automatically redialed.



Only one LCR Queue Call Back request may be initiated by a station. When a second request is made, the first request is cancelled.

If the 911 feature is enabled, the LCR access code is 800 instead of 9.

CO Line Queue Cancel

To cancel a Call Back Request:

1. Dial the CO Line Queue Cancel code [626] on the dial pad.
2. Replace handset or press ON/OFF button.

Programming LCR Tables

Description

The Least Cost Routing (LCR) feature allows automatic selection of the most economical trunk according to the number dialed and the time of the day and day of the week. There are eight (8) different tables set up to monitor the dialing of digits of a station and to select the best route programmed for the call.



Flash 05, button #7 must be used to enable the Least Cost Routing feature.

The buttons on the digital telephone are defined as shown when entering the LCR Tables Programming area:

3-DIGIT TABLE * [1] Q	6-DIGIT TABLE * [2] W	EXCEPTION TABLES * [3] E	ROUTE LIST TABLE * [4] R
INSERT / DELETE TABLE * [5] T	DAILY TIME TABLE * [6] Y	WEEKLY TIME TABLE * [7] U	TOLL INFORMATION * [8] I

Programming Steps

If the system is in the programming mode, continue using the program codes. If starting to program here, enter the programming mode.

1. Press **FLASH** and dial **[75]**. The following message displays:

LCR TABLES
 ENTER BUTTON NUMBER

2. There are eight tables which can be programmed here for LCR (you must also program LCR Class of Service in Station Programming). Use the procedures listed below to program these LCR tables.



It is extremely important that the worksheets be completed before programming the LCR tables.

3-Digit Area / Office Code Table

Description

Both Leading 1 and Non-Leading 1 tables include all area codes (NPAs), and office codes (NXXs), from 200 to 999, including such numbers as 911, 411, etc. A complete entry into these tables include a route list table to be used, if the 6-digit table is to be checked and the number of digits likely to be dialed (Example: 7 or 10 digits). All local office codes must be entered in this table even if they do not require long distance calling.

The number of digits to expect entry aids the system in identifying when the last digit is dialed and to begin routing the call. This also helps to free SLT DTMF receivers if SLT traffic in the system is heavy.

For international calls, use 00 as number of digits to expect. This causes the system to wait five seconds (or inter-digit time-out) after user dials last digit before the system accesses a CO Line and dials out.

Programming Steps

1. Press the 3-DIGIT TABLE flexible button (**FLASH 75, Button #1**). The following message displays:

3 DIGIT ROUTING TABLE
 ENTER L NNN RRY PP HOLD

L = [0] for Non-Leading 1 (1 not dialed), [1] for Leading 1 (1 is dialed)

NNN = Area/Office Code

RR = Route List Number 00-15

Y = [0] Do not go to 6-digit table, [1] Go to 6-digit table

PP = Number of digits expected to be dialed.

2. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

6-Digit Office Code Table

Description

The 6-Digit Office Code Table determines a route for one or a group of individual office codes within an area code. Certain office codes within an area code can be given unique or special routing. If the office code dialed is not found in the 6-digit Office Code Table, the call is then routed according to the route list table as was entered in the 3-digit table.

The system allows twenty 6-digit Area/Office code tables (up to 800 entries per table) that may be used to route specific office codes within an area code. Each table routes calls for a common area code to a specified route. All entries made to a table route those office codes to the specified route list table. An area code may be entered into more than one 6-digit table with different routes specified.

Programming Steps

1. Press the 6-DIGIT TABLE flexible button (**FLASH 75, Button #2**). The following message displays:

6 DIGIT ROUTING TABLE ENTER * AAA RR NNN HOLD
--

* = [0] to remove codes, [1] to add codes

AAA = Area Code

RR = Route Number 00-15

NNN = Office Code

2. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.
3. Enter additional office codes to be programmed into the same Area Code/Route Table, pressing HOLD after each office code entry.
4. Press a flexible button to program a different table.

To Delete All Entries in an Area Code/Route Table:

Enter [0 AAA RR ###].

Exception Code Table

Description

The Exception Code Table is used for operator calls and any other calls that use a one- or two-digit entry, rather than a three-digit area code.

Programming Steps

1. Press EXCEPTION TABLES flexible button (**FLASH 75, Button #3**). This message displays:

EXCEPTION CODE TABLE ENTER * XX RR HOLD
--

* = [0] to remove code from table, [1] to add code to table

XX = Exception codes for single digit codes, press MUTE button as 2nd digit.
(The [*] may be entered as the 1st digit only.)

RR = Route Table Number 00–15

2. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.
3. Press **FLASH 75, Button #3** again for further entries. Up to 20 Exception Codes may be programmed in this table.

Route List Table

Description

Each of the 16 Route List Tables available contains four Time Period Routing Lists, one for each of the 4 daily start time periods. Within each Time Period Route List up to 7 CO (outside) line groups and their corresponding Insert/Delete table, if any, and LCR Class Of Service Priority are programmed on a per line group basis.

When routing a CO call through LCR, CO Line groups are accessed in sequence so that the first line group entered represents the least costly (and first selected) and the last line group entered represents the most costly (and last selected).

The Route List Table references many other tables when processing a call for routing. First, the Daily Start Time Table is referenced to determine what start time entry should be checked in the Weekly Schedule Table. The corresponding entry in the weekly schedule table depending on the day of the week then determines which Time Period Route List should be used within the Route List Table.

The system then begins to check for idle lines in the first entered CO line group and proceeds until an idle line is found. While it is searching for an idle CO line the Station LCR COS is checked against the entries for LCR COS Priority of the specific CO line groups (see *LCR COS Priority* explanation).

- When an idle CO Line is found with a LCR priority equal to or higher than the stations LCR COS, a final check should be made to see if an Insert/Delete Table should be referenced.
- When all of the tables and entries are checked, the system then processes the call on the outside CO line.



Make sure you made entries into all Time Period Route Lists referenced in the weekly schedule table.

Appendix B - Least Cost Routing

LCR COS Priority

A station should be assigned a class of service for LCR. The LCR COS can be between 0 and 6, with 0 being unrestricted and 6 being the most restrictive. Within the time period route List table, line groups are given an LCR COS Priority assignment between 0 and 6.

A station using LCR is able to use only those CO (outside) line groups with a priority assignment of equal or higher value than the station's LCR Class of Service (e.g., a station with LCOS 3 can use line groups with a priority between 3 and 6).

Table B-1: LCR Class of Service Table

Allow Access To Route		LCR CO Line Group Priority						
		0	1	2	3	4	5	6
S T A L C R C O S	0	Y	Y	Y	Y	Y	Y	Y
	1	N	Y	Y	Y	Y	Y	Y
	2	N	N	Y	Y	Y	Y	Y
	3	N	N	N	Y	Y	Y	Y
	4	N	N	N	N	Y	Y	Y
	5	N	N	N	N	N	Y	Y
	6	N	N	N	N	N	N	Y

N = Cannot Use Line Group
Y = Has Access to Line Group

Programming Steps

1. Press the ROUTE LIST TABLE flexible button (**FLASH 75, Button #4**). The following message displays:

ROUTE LIST TABLE
RR T GG DD L

RR = Route List Table Number 00-15
T = Time Period Route List 1-4
GG = CO Line Group 00-23
DD = Insert/Delete Table reference 00-19 (## for none)
L = LCR Class of Service (LCOS)

2. To create an entry, dial [RR] + [T] + [GG] + [DD] + [L], then press HOLD to save the entry. A confirmation tone sounds and the display updates.
3. To enter additional CO Line groups in the same Time Period Route List number, dial [GG] + [DD] + [L], then press HOLD.

To enter data for a different time period route list:

1. Press program **FLASH 75, Button #4** and enter all data (RR T GG DD L).
2. Repeat the above to program a new Route Number 00 to 15 or press a flexible button to program other LCR information.
3. To advance to the next entry, use Button #18.
4. To return to a previous entry, use Button #19.

When **Call Cost** feature is enabled in FLASH 05, Button #11, the following message displays.

ROUTE LIST TABLE RR T CCC GG DD L

RR = Route List Table Number 00-15

T = Time Period Route List 1-4

CCC = Cost for one minute (\$ 0.00–\$ 9.99)

GG = CO Line Group 00-23

DD = Insert/Delete Table reference 00-19 (## for none)

L = LCR Class of Service (LCOS)

Insert/Delete Table

Description

Digits can be either added or deleted when dialing a number. For instance, if a user dials a long distance call that should be placed on a foreign exchange (FX) line, the digit [1] and the three-digit area code (NPA) dialed by the user must be deleted before the call can be placed on that FX line. An Insert/Delete table can be programmed to do this.

Digits can also be added to a number that has been dialed by the user. For instance, Other Common Carrier (OCC) access codes and authorization (ID) codes can be automatically inserted by the system either in front of, and/or behind the number dialed.

There are twenty Insert/Delete Tables and each allows entries in a delete table and a pre- and post-insert table. Up to 40 digits (including pauses) can be inserted (20 pre and 20 post) and up to 16 digits can be deleted. Digits can be inserted before or after the number dialed, but can be deleted only from the start of the number dialed.

To ensure that a pause is inserted in LCR at default, the database programming was changed to add a pause in each of the 20 LCR Insert and Delete Tables and insert table 0 in each of the route tables.

Programming Steps

1. Press INSERT/DELETE TABLE flexible button (**FLASH 75, Button #5**). The following message displays:

DIGIT INSERT / DELETE ENTER TT X DDD HOLD
--

2. Enter the table information as follows:
 - TT = Insert/Delete Table Number 00–19
 - X = [0] Pre-Delete numbers (first digits dialed in the number),
-or-
[1] Pre-Insert numbers (insert digits in front of number dialed,
-or-
[2] Post-Insert numbers (insert digits behind number dialed).
 - DDD = Digits (up to 16-digits may be deleted from the beginning of the number dialed and up to 40 digits can be inserted (20 pre and 20 post).
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.

To add and delete numbers in the same table:

1. Enter the different Insertion/Deletion tables in step 1.
2. Enter as separate entries using the same table number.
3. In the Insert Tables for LCR Programming, press the TRANS button for a pause.
 - The [*] and [#] digits are allowed as valid digits for inserting digits dialed over the network.
 - The [*] and [#] are valid entries for adding digits in both the pre (in front of) or post (behind the number) tables.
 - The [*] and [#] cannot be used as delete characters in the Delete tables.

To delete a table:

Enter a valid table number and press the HOLD button.

Daily Start Time Table

Description

The Daily Start Time Table correlates the LCR Routing Table to the time sensitive discount structure offered by the customers carrier.

EXAMPLE -- In the most common situation:

- The most expensive rate period is between 8:00 am and 5:00 pm, often called the day rate.
- The first discount period usually starts at 5:00 pm and runs until 11:00 pm, often called Evening Rates.
- The remaining time (from 11:00 pm until 8:00 am) is referred to as night time rates which usually have the biggest discount.

Weekly Time Table -- With the wide selection of Common Carriers, the least costly route for a particular area code may be different at different times of the day. To accommodate this situation, this table and the Weekly Time Table work together, dividing the day into four possible time periods. By default these tables are set at the standard divisions of 8 am, 5 pm, and 11 pm. However, these times can be changed.

Entries in the Daily Start Time table are used to select the time period to reference in the weekly schedule. Based on the time a call is placed, the daily start time table selects the time period to choose in the weekly schedule. The weekly schedule is then used to determine the time period route list in the Route List Table to use for routing the call for a particular day of the week. Times are entered in the 24-hour format.

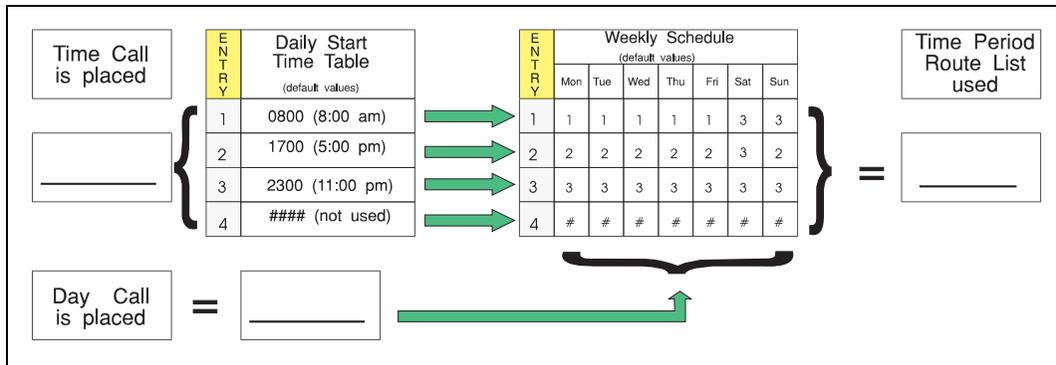


Figure B-2: Daily Start Time and Weekly Schedule Tables

Programming Steps

1. Press the DAILY START flexible button (**FLASH 75, Button #6**). The following message displays:

DAILY START TIME TABLE
HHMM HHMM HHMM HHMM HOLD

2. Enter times in military format (2400 hours) in succession.
3. Press the HOLD button to save the entry. A confirmation tone sounds and the display updates.
 - Default times are 0800, 1700, 2300 (8 AM, 5 PM, and 11 PM), and the fourth time is disabled (####).
 - To change a Start Time, all times must be re-entered. Four pound signs [####] are displayed if nothing is entered for a specific time.

Weekly Schedule Table

Description

The Weekly Schedule Table determines what Time Period Route List to use within the Route List Table. When a call is placed and ultimately sent to a route list (call is not denied) based on the time of day the call is placed, the Daily Start Time Table selects the time period to reference in the Weekly Schedule Table.

The Time Period Route entered for the specified time period, as determined in the Daily Start Time Table and based on the day of week, is then selected and the call is routed according to the specified Time Period Route List.

EXAMPLE -- If a call is placed at 5:45 pm on a Monday, then according to the Daily Start Time Table (using default values) the entry for time period two of the weekly schedule is checked. Because it is Monday the entry for time period two on Monday is used and the result is that the Time Period Route List number two (again using default values) is used for all routes. Thus, the call is routed according to the entries in Time Period Two Route List no matter what route (00–15) is selected.

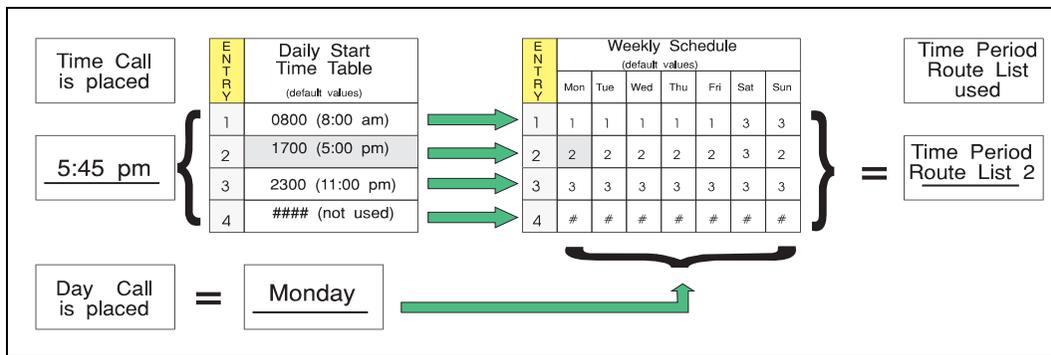


Figure B-3: Daily and Weekly Start Time Table

Programming Steps

1. Press the WEEKLY SCHED flexible button (**FLASH 75, Button #7**). The following message displays:

WEEKLY SCHEDULE TABLE
ENTER D T T T T HOLD

D = Day of the Week:

[0] thru [6] = Monday thru Sunday

T = Time Period Route List (1-4) to use for the time-of-day (based on the Daily Start Time table). Enter values for all time periods specified in the Daily Start Time table for that day.

1st T = Time Period Route List for first Daily Start Time (applies to all Route List tables).

2nd T = Time Period Route List for second Daily Start Time (applies to all Route List tables).

3rd T = Time Period Route List for third Daily Start Time (applies to all Route List tables).

4th T = Time Period Route List for fourth Daily Start Time (applies to all Route List tables).

2. Press the HOLD button after each complete daily entry. A confirmation tone sounds and the display updates.

LCR Routing for Toll Information

Description

The LCR Routing for Toll Information feature adds provisions to the LCR call processing which allows common call routing for all toll information calls. 1-(XXX) 555-1212, (XXX) 555-1212, 1-555-1212, and 555-1212 calls are intercepted and sent to a selected route in the Route List Table.

Numbers dialed are integrated and if it is determined to be a toll information call, either preceded with an area code or without or with a leading digit 1 or not, the call is sent to the route designated in programming.

By default, Toll Information Calls are sent to Route List Table Zero (0) which allows toll information calls to be placed on the system at default. A Toll Information route is chosen over a 3-digit or 6-digit route assignment if both are assigned. Entering the pound key twice [##] denies all Toll Information Calls.

Programming Steps

1. Press the TOLL INFO flexible button (**FLASH 75, Button #8**). This message displays:

LCR ROUTE FOR 555 - 1212
ENTER ROUTE

2. Enter a valid Route List number (00–15) for the Route referenced in the Route List table.
3. Press the HOLD button after programming the Route number. A confirmation tone sounds and the display updates.
4. Enable LCR at this point.

LCR Call Progress

Description

The LCR CALL PROGRESS Feature enables the installer to select, on a system-wide basis, whether users hear call progress indications.



If this feature is disabled, a confirmation tone is given after the last digit is dialed. The user does not hear the line being seized or the outputting of digits to the Central Office.

Programming Steps

1. Press LCR CALL PROGRESS flexible button (**FLASH 06, Button #9**). This message displays:

LCR CALL PROGRESS 0-1
ENABLED

2. Enter a 0 or 1 on the dial pad to enable/disable the use of this feature.
[0] = Disabled
[1] = Enabled
3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... LCR Call Progress feature is enabled.

Default LCR Database

Description

In an effort to decrease installation and set up time usually associated with LCR, a default LCR database was incorporated.

The default LCR database provides basic routing for local and long distance dialing. Default entries have been made in the 3-Digit Table for local office codes (NNXs) and all area codes (NPAs). Six routes have been established with the default database for routing of all calls under default.

Forced Least Cost Routing (LCR)

Description

Stations may be forced to place outgoing CO calls by use of LCR (dial [9]) to access an outside line. This lets the system administrator control dialing patterns and lines used for outgoing CO calls. This can be enabled/disabled on a per-station basis for additional flexibility and control. Forced LCR is optional (disabled) for all stations, and eliminates access to all other line groups.

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (100-351) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-or-

Enter a valid **flexible** number (100-8999) to be programmed.

- Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A ENTER BUTTON NUMBER

XXX = 3- or 4-digit flexible number

- Press the FORCE LCR flexible button (**Button #11**). The following message displays:

FORCE LCR DISABLED	0-1
-----------------------	-----

- Enter a 0 or 1 on the dial pad to enable/disable this feature.
 - [0] = Disabled
 - [1] = Enabled
- Press HOLD to save the entry. A confirmation tone sounds.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

*LCR Class of Service (COS)***Description**

Stations can be given a class of service assignment for Least Cost Routing. The range is between 0-6, with 0 being unrestricted and 6 the most restricted. A station can use LCR routes with a priority number equal to or higher than the stations LCR COS assignment. Stations are given unrestricted access (0).

Use Flash 50 programming when you want to modify a range of stations' attributes using **fixed** station numbers.

Use Flash 51 programming to modify a single station's attributes using a **flexible** station number.

Programming Steps

1. Press **FLASH** and dial **[50]** or dial **[51]**. Flexible button #24 (New Range) is lit and one of the following messages displays:

Flash 50 - Fixed Numbers

STATION ATTRIBUTES
SELECT A STATION RANGE

Flash 51 - Flexible Numbers

ENTER STATION NUMBER

2. Enter the range of **fixed** station numbers (100-351) to be programmed. If only one station is being programmed, enter that number twice, e.g., [100 100].



If HOLD is pressed without entering a station range, ALL stations are selected.

-OR-

Enter a valid **flexible** number (100-8999) to be programmed.

3. Press HOLD to save the entry. A confirmation tone sounds and the display updates. Flexible button #19 is lit. The display updates to reflect current programming for Page A:

Flash 50 - Fixed Numbers

XXX - XXX PAGE A
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE A
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

4. Press button #20. The display updates to reflect current programming for Page B.

Flash 50 - Fixed Numbers

XXX - XXX PAGE B
ENTER BUTTON NUMBER

XXX-XXX = fixed station range

Flash 51 - Flexible Numbers

SXXX PAGE B
ENTER BUTTON NUMBER

SXXX = 3- or 4-digit flexible number

5. Press the LCR COS flexible button (**Button #9**). The following message displays:

LCR CLASS OF SERVICE 0-6
0

6. Enter a valid number (0–6) to correspond to the LCR Class of Service desired.
7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.

Conditions

- » Only one station at a time can be programmed when using a flexible station number.
- » When in Flash 51 programming, if you press HOLD without specifying a flexible number to be programmed, you will get the station that is in port/station 100.

*Enable/Disable Least Cost Routing***Description**

To use Least Cost Routing, it must be enabled. Before enabling LCR, refer to the Least Cost Routing programming tables.

After the tables are programmed, you may then enable LCR for the system. After system initialization, a default LCR database is loaded into the LCR section of memory.

Programming Steps

1. Press the LCR ENABLE flexible button (**FLASH 05, Button #7**).
2. Enter a 0 or 1 that corresponds with the following entries:
 - [0] = Disabled
 - [1] = Enabled

LEAST COST ROUTING	0-1
DISABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.

DEFAULT ... LCR is disabled.

*Call Cost Display***Description**

The Call Cost Display feature allows a user to view the approximate cost of each call made. This approximate cost is also printed as part of the SMDR record. The Call Cost Display replaces the call duration display when a call is made using LCR.

The cost information is programmable by selecting one of the 16 route list tables and one of the four time periods. This allows the user to program four separate costs based on the time of day for each of the 16 routes. The costs entered in the tables are costs for one minute, however, costs are calculated using a 1/10th of a minute value. These costs are rounded down and are based on the start time of the call, even if the call extends into a different time period. The SMDR printout contains a cost calculated using a 1/10th of a minute increment and the display updates approximately every 30 seconds.

Programming Steps

1. Press the CALL COST DISPLAY flexible button (**FLASH 05, Button #11**).
2. Enter a 0 or 1 that corresponds with the following entries:
 [0] = Disabled
 [1] = Enabled

CALL COST DISPLAY	0-1
DISABLED	

3. Press HOLD to save the entry. A confirmation tone sounds.
 DEFAULT ... Call Cost Display is disabled.

Conditions

- » The user must have LCR enabled to get the Call Cost Display.
- » When Call Cost Display is enabled, it changes the entry format for FLASH 75, Button #4 to include an entry of the cost for one minute.

Initialize LCR Tables

Description

The LCR Tables may be initialized to set all tables to their original, default values. The following tables are reset to their original default value after initialization of the LCR Tables:

Table B-2: LCR Table Defaults

Program Code	Flexible Button	Features	Default Value (after initialization)
FLASH 75	LCR TABLES		
	1	3-Digit Area/Office Code Table	None
	2	6-Digit Area/Office Code Table	
	3	Exception Code Table	
	4	Route List Table	
	5	Insert/Delete Table	
	6	Daily Start Time Table	
	7	Weekly Schedule Table	
	8	LCR Routing for Toll Information	Table 0

Programming Steps

1. Press the LCR TABLES flexible button (**FLASH 80, Button #7**). This message displays:

INITIALIZE LCR TABLES
PRESS HOLD

2. Press the HOLD button. A confirmation tone sounds.

Print LCR Tables

Description

The Print LCR Tables command dumps the entire database as a permanent record which can serve as a hardcopy of the database. The system baud rate must match that of the printer or receiving device.

When printing information from the LCR Tables, the following data prints (examples follow programming steps):

- Exception Table
- Route List Table
- Insert/Delete Table
- Daily Time Table
- Weekly Time Table
- Toll Tables
- 6-Digit Table
- 3-Digit Table

Programming Steps

1. Press the LCR TABLES flexible button (**FLASH 85, Button #7**). The following message displays:

PRINT LCR TABLES
PRESS HOLD

2. To print the LCR Tables, press the HOLD button. The following message displays:

PRINTING LCR TABLES

When the system finishes sending the requested information to the printer, a confirmation tone sounds.

Appendix B - Least Cost Routing

LCR Printout

EXCEPTION CODE TABLE								DIGIT INS/DEL TABLE		
-----								-----		
CODE	ROUTE NO							TABLE	DIGITS	
-----								-----		
ROUTE LIST TABLE										

RT	TIME	COST	CO	GRP	INS/DEL	GRP	PR			
0	1	026	1		0		1	0	PRE	P
	2	026	1		0		1	1	PRE	
	3	026	1		0		1	2	PRE	P
	4	026	1		0		1	3	PRE	P
1	1	000	1		0		1	4	PRE	P
	2	000	1		0		1	5	PRE	P
	3	000	1		0		1	6	PRE	P
	4	000	1		0		1	7	PRE	P
2	1	010	1		0		1	8	PRE	P
	2	010	1		0		1	9	PRE	P
	3	010	1		0		1	10	PRE	P
	4	010	1		0		1	11	PRE	P
3	1	072	1		0		1	12	PRE	P
	2	072	1		0		1	13	PRE	P
	3	072	1		0		1	14	PRE	P
	4	072	1		0		1	15	PRE	P
4	1	171	1		0		1	16	PRE	P
	2	171	1		0		1	17	PRE	P
	3	171	1		0		1	18	PRE	P
	4	171	1		0		1	19	PRE	P
5	1	106	1		0		1			
	2	106	1		0		1			
	3	106	1		0		1			
	4	106	1		0		1			
6	1	277	1		0		1			
	2	277	1		0		1			
	3	277	1		0		1			
	4	277	1		0		1			

DAILY START TIME TABLE		

TABLE	TIME	

1	800	
2	1700	
3	2300	
4	####	

WEEKLY SCHEDULE TABLE							

START TIME	M	T	W	T	F	S	S

800	1	1	1	1	1	3	3
1700	2	2	2	2	2	3	2
2300	3	3	3	3	3	3	3
####	3	3	3	3	3	3	3

LCR ROUTE FOR 555-1212

0

6 DIGIT TABLE		

AREA CODE NO	ROUTE	OFFICE CODES

3 DIGIT TABLE										
LEADING 1				NON-LEADING 1						
CODE	RR	PP	6	RR	PP	6	RR	PP	6	
11	##	##	N	6	##	N	261	0	11	N
200	0	11	N	1	7	N	262	0	11	N
201	0	11	N	1	7	N	263	0	11	N
202	0	11	N	1	7	N	264	0	11	N
203	0	11	N	1	7	N	265	0	11	N
204	3	11	N	1	7	N	266	0	11	N
205	0	11	N	1	7	N	267	0	11	N
206	0	11	N	1	7	N	268	0	11	N
207	0	11	N	1	7	N	269	0	11	N
208	0	11	N	1	7	N	270	0	11	N
209	0	11	N	1	7	N	271	0	11	N
210	0	11	N	1	7	N	272	0	11	N
211	##	##	N	1	7	N	273	0	11	N
212	0	11	N	1	7	N	274	0	11	N
213	0	11	N	1	7	N	275	0	11	N
214	0	11	N	1	7	N	276	0	11	N
215	0	11	N	1	7	N	277	0	11	N
216	0	11	N	1	7	N	278	0	11	N
217	0	11	N	1	7	N	279	0	11	N
218	0	11	N	1	7	N	280	0	11	N
219	0	11	N	1	7	N	281	0	11	N
220	0	11	N	1	7	N	282	0	11	N
221	0	11	N	1	7	N	283	0	11	N
222	0	11	N	1	7	N	284	0	11	N
223	0	11	N	1	7	N	285	0	11	N
224	0	11	N	1	7	N	286	0	11	N
225	0	11	N	1	7	N	287	0	11	N
226	0	11	N	1	7	N	288	0	11	N
227	0	11	N	1	7	N	289	0	11	N
228	0	11	N	1	7	N	290	0	11	N
229	0	11	N	1	7	N	291	0	11	N
230	0	11	N	1	7	N	292	0	11	N
231	0	11	N	1	7	N	293	0	11	N
232	0	11	N	1	7	N	294	0	11	N
233	0	11	N	1	7	N	295	0	11	N
234	0	11	N	1	7	N	296	0	11	N
235	0	11	N	1	7	N	297	0	11	N
236	0	11	N	1	7	N	298	0	11	N
237	0	11	N	1	7	N	299	0	11	N
238	0	11	N	1	7	N	300	0	11	N
239	0	11	N	1	7	N	301	0	11	N
240	0	11	N	1	7	N	302	0	11	N
241	0	11	N	1	7	N	303	0	11	N
242	0	11	N	1	7	N	304	0	11	N
243	0	11	N	1	7	N	305	0	11	N
244	0	11	N	1	7	N	306	3	11	N
245	0	11	N	1	7	N	307	0	11	N
246	0	11	N	1	7	N	308	0	11	N
247	0	11	N	1	7	N	309	0	11	N
248	0	11	N	1	7	N	310	0	11	N
249	0	11	N	1	7	N	311	##	##	N
250	0	11	N	1	7	N	312	0	11	N
251	0	11	N	1	7	N	313	0	11	N
252	0	11	N	1	7	N	314	0	11	N
253	0	11	N	1	7	N	315	0	11	N
254	0	11	N	1	7	N	316	0	11	N
255	0	11	N	1	7	N	317	0	11	N
256	0	11	N	1	7	N	318	0	11	N
257	0	11	N	1	7	N	319	0	11	N
258	0	11	N	1	7	N	320	0	11	N
259	0	11	N	1	7	N	321	0	11	N
260	0	11	N	1	7	N	322	0	11	N
							323	0	11	N
							324	0	11	N
							325	0	11	N
							326	0	11	N
							327	0	11	N

Appendix B - Least Cost Routing

328	0	11	N	1	7	N	396	0	11	N	1	7	N
329	0	11	N	1	7	N	397	0	11	N	1	7	N
330	0	11	N	1	7	N	398	0	11	N	1	7	N
331	0	11	N	1	7	N	399	0	11	N	1	7	N
332	0	11	N	1	7	N	400	0	11	N	1	7	N
333	0	11	N	1	7	N	401	0	11	N	1	7	N
334	0	11	N	1	7	N	402	0	11	N	1	7	N
335	0	11	N	1	7	N	403	3	11	N	1	7	N
336	0	11	N	1	7	N	404	0	11	N	1	7	N
337	0	11	N	1	7	N	405	0	11	N	1	7	N
338	0	11	N	1	7	N	406	0	11	N	1	7	N
339	0	11	N	1	7	N	407	0	11	N	1	7	N
340	0	11	N	1	7	N	408	0	11	N	1	7	N
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342	0	11	N	1	7	N	410	0	11	N	1	7	N
343	0	11	N	1	7	N	411	1	4	N	1	3	N
344	0	11	N	1	7	N	412	0	11	N	1	7	N
345	0	11	N	1	7	N	413	0	11	N	1	7	N
346	0	11	N	1	7	N	414	0	11	N	1	7	N
347	0	11	N	1	7	N	415	0	11	N	1	7	N
348	0	11	N	1	7	N	416	3	11	N	1	7	N
349	0	11	N	1	7	N	417	0	11	N	1	7	N
350	0	11	N	1	7	N	418	3	11	N	1	7	N
351	0	11	N	1	7	N	419	0	11	N	1	7	N
352	0	11	N	1	7	N	420	0	11	N	1	7	N
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356	0	11	N	1	7	N	424	0	11	N	1	7	N
357	0	11	N	1	7	N	425	0	11	N	1	7	N
358	0	11	N	1	7	N	426	0	11	N	1	7	N
359	0	11	N	1	7	N	427	0	11	N	1	7	N
360	0	11	N	1	7	N	428	0	11	N	1	7	N
361	0	11	N	1	7	N	429	0	11	N	1	7	N
362	0	11	N	1	7	N	430	0	11	N	1	7	N
363	0	11	N	1	7	N	431	0	11	N	1	7	N
364	0	11	N	1	7	N	432	0	11	N	1	7	N
365	0	11	N	1	7	N	433	0	11	N	1	7	N
366	0	11	N	1	7	N	434	0	11	N	1	7	N
367	0	11	N	1	7	N	435	0	11	N	1	7	N
368	0	11	N	1	7	N	436	0	11	N	1	7	N
369	0	11	N	1	7	N	437	0	11	N	1	7	N
370	0	11	N	1	7	N	438	0	11	N	1	7	N
371	0	11	N	1	7	N	439	0	11	N	1	7	N
372	0	11	N	1	7	N	440	0	11	N	1	7	N
373	0	11	N	1	7	N	441	0	11	N	1	7	N
374	0	11	N	1	7	N	442	0	11	N	1	7	N
375	0	11	N	1	7	N	443	0	11	N	1	7	N
376	0	11	N	1	7	N	444	0	11	N	1	7	N
377	0	11	N	1	7	N	445	0	11	N	1	7	N
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380	0	11	N	1	7	N	448	0	11	N	1	7	N
381	0	11	N	1	7	N	449	0	11	N	1	7	N
382	0	11	N	1	7	N	450	0	11	N	1	7	N
383	0	11	N	1	7	N	451	0	11	N	1	7	N
384	0	11	N	1	7	N	452	0	11	N	1	7	N
385	0	11	N	1	7	N	453	0	11	N	1	7	N
386	0	11	N	1	7	N	454	0	11	N	1	7	N
387	0	11	N	1	7	N	455	0	11	N	1	7	N
388	0	11	N	1	7	N	456	0	11	N	1	7	N
389	0	11	N	1	7	N	457	0	11	N	1	7	N
390	0	11	N	1	7	N	458	0	11	N	1	7	N
391	0	11	N	1	7	N	459	0	11	N	1	7	N
392	0	11	N	1	7	N	460	0	11	N	1	7	N
393	0	11	N	1	7	N	461	0	11	N	1	7	N
394	0	11	N	1	7	N	462	0	11	N	1	7	N
395	0	11	N	1	7	N	463	0	11	N	1	7	N

464	0	11	N	1	7	N	532	0	11	N	1	7	N
465	0	11	N	1	7	N	533	0	11	N	1	7	N
466	0	11	N	1	7	N	534	0	11	N	1	7	N
467	0	11	N	1	7	N	535	0	11	N	1	7	N
468	0	11	N	1	7	N	536	0	11	N	1	7	N
469	0	11	N	1	7	N	537	0	11	N	1	7	N
470	0	11	N	1	7	N	538	0	11	N	1	7	N
471	0	11	N	1	7	N	539	0	11	N	1	7	N
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473	0	11	N	1	7	N	541	0	11	N	1	7	N
474	0	11	N	1	7	N	542	0	11	N	1	7	N
475	0	11	N	1	7	N	543	0	11	N	1	7	N
476	0	11	N	1	7	N	544	0	11	N	1	7	N
477	0	11	N	1	7	N	545	0	11	N	1	7	N
478	0	11	N	1	7	N	546	0	11	N	1	7	N
479	0	11	N	1	7	N	547	0	11	N	1	7	N
480	0	11	N	1	7	N	548	0	11	N	1	7	N
481	0	11	N	1	7	N	549	0	11	N	1	7	N
482	0	11	N	1	7	N	550	0	11	N	1	7	N
483	0	11	N	1	7	N	551	0	11	N	1	7	N
484	0	11	N	1	7	N	552	0	11	N	1	7	N
485	0	11	N	1	7	N	553	0	11	N	1	7	N
486	0	11	N	1	7	N	554	0	11	N	1	7	N
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488	0	11	N	1	7	N	556	0	11	N	1	7	N
489	0	11	N	1	7	N	557	0	11	N	1	7	N
490	0	11	N	1	7	N	558	0	11	N	1	7	N
491	0	11	N	1	7	N	559	0	11	N	1	7	N
492	0	11	N	1	7	N	560	0	11	N	1	7	N
493	0	11	N	1	7	N	561	0	11	N	1	7	N
494	0	11	N	1	7	N	562	0	11	N	1	7	N
495	0	11	N	1	7	N	563	0	11	N	1	7	N
496	0	11	N	1	7	N	564	0	11	N	1	7	N
497	0	11	N	1	7	N	565	0	11	N	1	7	N
498	0	11	N	1	7	N	566	0	11	N	1	7	N
499	0	11	N	1	7	N	567	0	11	N	1	7	N
500	0	11	N	1	7	N	568	0	11	N	1	7	N
501	0	11	N	1	7	N	569	0	11	N	1	7	N
502	0	11	N	1	7	N	570	0	11	N	1	7	N
503	0	11	N	1	7	N	571	0	11	N	1	7	N
504	0	11	N	1	7	N	572	0	11	N	1	7	N
505	0	11	N	1	7	N	573	0	11	N	1	7	N
506	3	11	N	1	7	N	574	0	11	N	1	7	N
507	0	11	N	1	7	N	575	0	11	N	1	7	N
508	0	11	N	1	7	N	576	0	11	N	1	7	N
509	0	11	N	1	7	N	577	0	11	N	1	7	N
510	0	11	N	1	7	N	578	0	11	N	1	7	N
511	##	##	N	1	7	N	579	0	11	N	1	7	N
512	0	11	N	1	7	N	580	0	11	N	1	7	N
513	0	11	N	1	7	N	581	0	11	N	1	7	N
514	3	11	N	1	7	N	582	0	11	N	1	7	N
515	0	11	N	1	7	N	583	0	11	N	1	7	N
516	0	11	N	1	7	N	584	0	11	N	1	7	N
517	0	11	N	1	7	N	585	0	11	N	1	7	N
518	0	11	N	1	7	N	586	0	11	N	1	7	N
519	3	11	N	1	7	N	587	0	11	N	1	7	N
520	0	11	N	1	7	N	588	0	11	N	1	7	N
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526	0	11	N	1	7	N	594	0	11	N	1	7	N
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528	0	11	N	1	7	N	596	0	11	N	1	7	N
529	0	11	N	1	7	N	597	0	11	N	1	7	N
530	0	11	N	1	7	N	598	0	11	N	1	7	N
531	0	11	N	1	7	N	599	0	11	N	1	7	N

Appendix B - Least Cost Routing

600	0	11	N	1	7	N	668	0	11	N	1	7	N
601	0	11	N	1	7	N	669	0	11	N	1	7	N
602	0	11	N	1	7	N	670	0	11	N	1	7	N
603	0	11	N	1	7	N	671	0	11	N	1	7	N
604	0	11	N	1	7	N	672	0	11	N	1	7	N
605	0	11	N	1	7	N	673	0	11	N	1	7	N
606	0	11	N	1	7	N	674	0	11	N	1	7	N
607	0	11	N	1	7	N	675	0	11	N	1	7	N
608	0	11	N	1	7	N	676	0	11	N	1	7	N
609	0	11	N	1	7	N	677	0	11	N	1	7	N
610	0	11	N	1	7	N	678	0	11	N	1	7	N
611	##	##	N	1	7	N	679	0	11	N	1	7	N
612	0	11	N	1	7	N	680	0	11	N	1	7	N
613	3	11	N	1	7	N	681	0	11	N	1	7	N
614	0	11	N	1	7	N	682	0	11	N	1	7	N
615	0	11	N	1	7	N	683	0	11	N	1	7	N
616	0	11	N	1	7	N	684	0	11	N	1	7	N
617	0	11	N	1	7	N	685	0	11	N	1	7	N
618	0	11	N	1	7	N	686	0	11	N	1	7	N
619	0	11	N	1	7	N	687	0	11	N	1	7	N
620	0	11	N	1	7	N	688	0	11	N	1	7	N
621	0	11	N	1	7	N	689	0	11	N	1	7	N
622	0	11	N	1	7	N	690	0	11	N	1	7	N
623	0	11	N	1	7	N	691	0	11	N	1	7	N
624	0	11	N	1	7	N	692	0	11	N	1	7	N
625	0	11	N	1	7	N	693	0	11	N	1	7	N
626	0	11	N	1	7	N	694	0	11	N	1	7	N
627	0	11	N	1	7	N	695	0	11	N	1	7	N
628	0	11	N	1	7	N	696	0	11	N	1	7	N
629	0	11	N	1	7	N	697	0	11	N	1	7	N
630	0	11	N	1	7	N	698	0	11	N	1	7	N
631	0	11	N	1	7	N	699	0	11	N	1	7	N
632	0	11	N	1	7	N	700	0	11	N	1	7	N
633	0	11	N	1	7	N	701	0	11	N	1	7	N
634	0	11	N	1	7	N	702	0	11	N	1	7	N
635	0	11	N	1	7	N	703	0	11	N	1	7	N
636	0	11	N	1	7	N	704	0	11	N	1	7	N
637	0	11	N	1	7	N	705	3	11	N	1	7	N
638	0	11	N	1	7	N	706	4	11	N	1	7	N
639	0	11	N	1	7	N	707	0	11	N	1	7	N
640	0	11	N	1	7	N	708	0	11	N	1	7	N
641	0	11	N	1	7	N	709	3	11	N	1	7	N
642	0	11	N	1	7	N	710	0	11	N	1	7	N
643	0	11	N	1	7	N	711	##	##	N	1	7	N
644	0	11	N	1	7	N	712	0	11	N	1	7	N
645	0	11	N	1	7	N	713	0	11	N	1	7	N
646	0	11	N	1	7	N	714	0	11	N	1	7	N
647	0	11	N	1	7	N	715	0	11	N	1	7	N
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650	0	11	N	1	7	N	718	0	11	N	1	7	N
651	0	11	N	1	7	N	719	0	11	N	1	7	N
652	0	11	N	1	7	N	720	0	11	N	1	7	N
653	0	11	N	1	7	N	721	0	11	N	1	7	N
654	0	11	N	1	7	N	722	0	11	N	1	7	N
655	0	11	N	1	7	N	723	0	11	N	1	7	N
656	0	11	N	1	7	N	724	0	11	N	1	7	N
657	0	11	N	1	7	N	725	0	11	N	1	7	N
658	0	11	N	1	7	N	726	0	11	N	1	7	N
659	0	11	N	1	7	N	727	0	11	N	1	7	N
660	0	11	N	1	7	N	728	0	11	N	1	7	N
661	0	11	N	1	7	N	729	0	11	N	1	7	N
662	0	11	N	1	7	N	730	0	11	N	1	7	N
663	0	11	N	1	7	N	731	0	11	N	1	7	N
664	0	11	N	1	7	N	732	0	11	N	1	7	N
665	0	11	N	1	7	N	733	0	11	N	1	7	N
666	0	11	N	1	7	N	734	0	11	N	1	7	N
667	0	11	N	1	7	N	735	0	11	N	1	7	N

736	0	11	N	1	7	N	804	0	11	N	1	7	N
737	0	11	N	1	7	N	805	0	11	N	1	7	N
738	0	11	N	1	7	N	806	0	11	N	1	7	N
739	0	11	N	1	7	N	807	3	11	N	1	7	N
740	0	11	N	1	7	N	808	0	11	N	1	7	N
741	0	11	N	1	7	N	809	5	11	N	1	7	N
742	0	11	N	1	7	N	810	0	11	N	1	7	N
743	0	11	N	1	7	N	811	##	##	N	1	7	N
744	0	11	N	1	7	N	812	0	11	N	1	7	N
745	0	11	N	1	7	N	813	0	11	N	1	7	N
746	0	11	N	1	7	N	814	0	11	N	1	7	N
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748	0	11	N	1	7	N	816	0	11	N	1	7	N
749	0	11	N	1	7	N	817	0	11	N	1	7	N
750	0	11	N	1	7	N	818	0	11	N	1	7	N
751	0	11	N	1	7	N	819	0	11	N	1	7	N
752	0	11	N	1	7	N	820	0	11	N	1	7	N
753	0	11	N	1	7	N	821	0	11	N	1	7	N
754	0	11	N	1	7	N	822	0	11	N	1	7	N
755	0	11	N	1	7	N	823	0	11	N	1	7	N
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757	0	11	N	1	7	N	825	0	11	N	1	7	N
758	0	11	N	1	7	N	826	0	11	N	1	7	N
759	0	11	N	1	7	N	827	0	11	N	1	7	N
760	0	11	N	1	7	N	828	0	11	N	1	7	N
761	0	11	N	1	7	N	829	0	11	N	1	7	N
762	0	11	N	1	7	N	830	0	11	N	1	7	N
763	0	11	N	1	7	N	831	0	11	N	1	7	N
764	0	11	N	1	7	N	832	0	11	N	1	7	N
765	0	11	N	1	7	N	833	0	11	N	1	7	N
766	0	11	N	1	7	N	834	0	11	N	1	7	N
767	0	11	N	1	7	N	835	0	11	N	1	7	N
768	0	11	N	1	7	N	836	0	11	N	1	7	N
769	0	11	N	1	7	N	837	0	11	N	1	7	N
770	0	11	N	1	7	N	838	0	11	N	1	7	N
771	0	11	N	1	7	N	839	0	11	N	1	7	N
772	0	11	N	1	7	N	840	0	11	N	1	7	N
773	0	11	N	1	7	N	841	0	11	N	1	7	N
774	0	11	N	1	7	N	842	0	11	N	1	7	N
775	0	11	N	1	7	N	843	0	11	N	1	7	N
776	0	11	N	1	7	N	844	0	11	N	1	7	N
777	0	11	N	1	7	N	845	0	11	N	1	7	N
778	0	11	N	1	7	N	846	0	11	N	1	7	N
779	0	11	N	1	7	N	847	0	11	N	1	7	N
780	0	11	N	1	7	N	848	0	11	N	1	7	N
781	0	11	N	1	7	N	849	0	11	N	1	7	N
782	0	11	N	1	7	N	850	0	11	N	1	7	N
783	0	11	N	1	7	N	851	0	11	N	1	7	N
784	0	11	N	1	7	N	852	0	11	N	1	7	N
785	0	11	N	1	7	N	853	0	11	N	1	7	N
786	0	11	N	1	7	N	854	0	11	N	1	7	N
787	0	11	N	1	7	N	855	0	11	N	1	7	N
788	0	11	N	1	7	N	856	0	11	N	1	7	N
789	0	11	N	1	7	N	857	0	11	N	1	7	N
790	0	11	N	1	7	N	858	0	11	N	1	7	N
791	0	11	N	1	7	N	859	0	11	N	1	7	N
792	0	11	N	1	7	N	860	0	11	N	1	7	N
793	0	11	N	1	7	N	861	0	11	N	1	7	N
794	0	11	N	1	7	N	862	0	11	N	1	7	N
795	0	11	N	1	7	N	863	0	11	N	1	7	N
796	0	11	N	1	7	N	864	0	11	N	1	7	N
797	0	11	N	1	7	N	865	0	11	N	1	7	N
798	0	11	N	1	7	N	866	0	11	N	1	7	N
799	0	11	N	1	7	N	867	0	11	N	1	7	N
800	0	11	N	1	7	N	868	0	11	N	1	7	N
801	0	11	N	1	7	N	869	0	11	N	1	7	N
802	0	11	N	1	7	N	870	0	11	N	1	7	N
803	0	11	N	1	7	N	871	0	11	N	1	7	N

Appendix B - Least Cost Routing

872	0	11	N	1	7	N	940	0	11	N	1	7	N
873	0	11	N	1	7	N	941	0	11	N	1	7	N
874	0	11	N	1	7	N	942	0	11	N	1	7	N
875	0	11	N	1	7	N	943	0	11	N	1	7	N
876	0	11	N	1	7	N	944	0	11	N	1	7	N
877	0	11	N	1	7	N	945	0	11	N	1	7	N
878	0	11	N	1	7	N	946	0	11	N	1	7	N
879	0	11	N	1	7	N	947	0	11	N	1	7	N
880	0	11	N	1	7	N	948	0	11	N	1	7	N
881	0	11	N	1	7	N	949	0	11	N	1	7	N
882	0	11	N	1	7	N	950	0	11	N	1	7	N
883	0	11	N	1	7	N	951	0	11	N	1	7	N
884	0	11	N	1	7	N	952	0	11	N	1	7	N
885	0	11	N	1	7	N	953	0	11	N	1	7	N
886	0	11	N	1	7	N	954	0	11	N	1	7	N
887	0	11	N	1	7	N	955	0	11	N	1	7	N
888	0	11	N	1	7	N	956	0	11	N	1	7	N
889	0	11	N	1	7	N	957	0	11	N	1	7	N
890	0	11	N	1	7	N	958	0	11	N	1	7	N
891	0	11	N	1	7	N	959	0	11	N	1	7	N
892	0	11	N	1	7	N	960	0	11	N	1	7	N
893	0	11	N	1	7	N	961	0	11	N	1	7	N
894	0	11	N	1	7	N	962	0	11	N	1	7	N
895	0	11	N	1	7	N	963	0	11	N	1	7	N
896	0	11	N	1	7	N	964	0	11	N	1	7	N
897	0	11	N	1	7	N	965	0	11	N	1	7	N
898	0	11	N	1	7	N	966	0	11	N	1	7	N
899	0	11	N	1	7	N	967	0	11	N	1	7	N
900	0	11	N	1	7	N	968	0	11	N	1	7	N
901	0	11	N	1	7	N	969	0	11	N	1	7	N
902	3	11	N	1	7	N	970	0	11	N	1	7	N
903	0	11	N	1	7	N	971	0	11	N	1	7	N
904	0	11	N	1	7	N	972	0	11	N	1	7	N
905	4	11	N	1	7	N	973	0	11	N	1	7	N
906	0	11	N	1	7	N	974	0	11	N	1	7	N
907	0	11	N	1	7	N	975	0	11	N	1	7	N
908	0	11	N	1	7	N	976	0	11	N	1	7	N
909	0	11	N	1	7	N	977	0	11	N	1	7	N
910	0	11	N	1	7	N	978	0	11	N	1	7	N
911	1	4	N	1	3	N	979	0	11	N	1	7	N
912	0	11	N	1	7	N	980	0	11	N	1	7	N
913	0	11	N	1	7	N	981	0	11	N	1	7	N
914	0	11	N	1	7	N	982	0	11	N	1	7	N
915	0	11	N	1	7	N	983	0	11	N	1	7	N
916	0	11	N	1	7	N	984	0	11	N	1	7	N
917	0	11	N	1	7	N	985	0	11	N	1	7	N
918	0	11	N	1	7	N	986	0	11	N	1	7	N
919	0	11	N	1	7	N	987	0	11	N	1	7	N
920	0	11	N	1	7	N	988	0	11	N	1	7	N
921	0	11	N	1	7	N	989	0	11	N	1	7	N
922	0	11	N	1	7	N	990	0	11	N	1	7	N
923	0	11	N	1	7	N	991	0	11	N	1	7	N
924	0	11	N	1	7	N	992	0	11	N	1	7	N
925	0	11	N	1	7	N	993	0	11	N	1	7	N
926	0	11	N	1	7	N	994	0	11	N	1	7	N
927	0	11	N	1	7	N	995	0	11	N	1	7	N
928	0	11	N	1	7	N	996	0	11	N	1	7	N
929	0	11	N	1	7	N	997	0	11	N	1	7	N
930	0	11	N	1	7	N	998	0	11	N	1	7	N
931	0	11	N	1	7	N	999	0	11	N	1	7	N
932	0	11	N	1	7	N							
933	0	11	N	1	7	N							
934	0	11	N	1	7	N							
935	0	11	N	1	7	N							
936	0	11	N	1	7	N							
937	0	11	N	1	7	N							
938	0	11	N	1	7	N							
939	0	11	N	1	7	N							

C

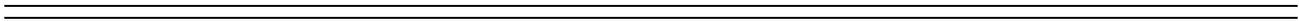
Flash-Based Voice Mail

This appendix includes an introduction, system programming procedures, and user procedures for the *Flash-based Voice Mail* system.

» » » » » » » »

NOTES

» » » » » » » »



Introduction

System Capabilities

The *Flash-based Voice Mail* is a compact, high-performance, voice processing system. This feature-rich system will give even the smallest businesses the image of a much larger company. Productivity will increase because messages can be recorded, replied to, or forwarded to the appropriate person when necessary. Since nearly half of all telephone transactions require only one-way communications, the voice mail function streamlines business communication.

When a message is recorded, the voice mail system converts human speech to digital data and stores it in flash-memory.

When the message is retrieved, the voice mail system converts the digital data back to human speech.

When a user is unavailable and has forwarded their calls: the voice mail system answers the telephone, takes messages, and stores the messages for retrieval at a later time, from any location.

Basic Features

This single-company basic voice mail system provides the ability to:

- Send copies of messages.
- Send messages to multiple destinations.
- Delete, reply, save, or skip a message.
- Receive message information indicating the date, time, and sender information, if available.
- Change recorded name, personal greeting, and password.
- Playback controls when sending or reviewing messages.
- Record a temporary greeting.

8-Port System -- More than one person can use the voice mail system features. Each port allows one user to access the voice mail system. A port is a path to the voice mail system. For example, up to eight users can be recording or reviewing messages at the same time with an 8-port voice mail system. Since not all users access the voice mail system at the same time, many users can be supported.

Ease-of-Use -- The *Flash-based Voice Mail* uses single digit commands, so there are no complex commands to memorize. The system constantly prompts users for the next action to be taken. Experienced users can interrupt prompts or even skip ahead several steps, if they know the digit for the desired action.

Mailbox Functions -- By using a Touch-Tone telephone, you can receive or send messages from any location through your voice mailbox. If you are busy in your office or away on a business trip, customers, vendors, or other employees can leave detailed messages in your voice mailbox. Protected by your password, these messages are completely confidential.

Programming the Voice Mail System

The **STS** must be programmed to recognize the slot location where the Voice Mail Interface Board is installed. Also, the voice mail's system features must be programmed using a touch tone telephone programming device and a personal computer. The following sections describe these programming requirements.

Card Slot Programming

Description

The Card Slot Programming feature provides a means to assign the peripheral cards to alternative peripheral card slots. The Voice Mail Interface Board can be installed in either slot 7 of the BKSU or in slot 13 of the EKSU.

SLOT 0 * 1 Q	SLOT 1 * 2 W	SLOT 2 * 3 E	SLOT 3 * 4 R
SLOT 4 * 5 T	SLOT 5 * 6 Y	SLOT 6 * 7 U	SLOT 7 * 8 I
SLOT 8 * 9 O	SLOT 9 * 10 P	SLOT 10 * 11 A	SLOT 11 * 12 S
SLOT 12 * 13 D	SLOT 13 * 14 F	* 15 G	* 16 H

Related Information

Quick Reference		
➔ Flash 80	Button #20	System Reset (refer to "System Reset" on page 2-260).

Programming Steps

1. Press **FLASH** and dial **[24]**. The following message displays:

CABINET 0 ENTER BUTTON NUMBER

2. Press the button corresponding to the desired slot location. (Buttons #1-14 indicate peripheral card slots 0-13.) **Use either slot 7 or slot 13 for Voice Mail Interface Boards.**

CAB 0	SLOT XX	00-18
DTIB		

3. Enter a valid number for the type of card plugged into the current peripheral card slot.

[00] = None	[13] = SL04 (represents SLIB w/ 4 ports)
[02] = DTIB	[15] = LCI4 (represents LCOBC)
[04] = SL02 (represents SLIB w/ 2 ports)	[17] = VM1B (represents flash-based VMIB)
[09] = T1IB	[18] = VM2B (represents pentium-based VMIB)
4. Press HOLD to save the entry. A confirmation tone sounds and the display updates.
5. Press the reset button on the Main Board Unit (MBU).

DEFAULT ... Slot 0, 1, and 2 are identified as DTIB, LCI4, and SL02 respectively.

Conditions

- » After programming card slots, a system reset must be performed.
- » If a caller ID card is used in the system, you must use FLASH 40, Page C, Button #2 to set the Ring Delay Timer to a setting of 05 (sec). This allows sufficient time for receipt of ICLID information from the telephone company. Refer to *"Ring Delay Timer" on page A-8*.

Recorded Announcement Tables

Description

The **Flash-based Voice Mail** can be used as a RAN Announcer for UCD Groups. A RAN mailbox is provided to play the announcement.

This feature establishes the type, index (port) number and message length for the eight available Recorded Announcements (RAN). There are eight RAN Tables that can be programmed. Table 1 can be the answer port for unanswered incoming calls to a UCD group.

Programming Steps

If Recorded Announcement (RAN) devices are installed to operate with UCD, these tables must be programmed.

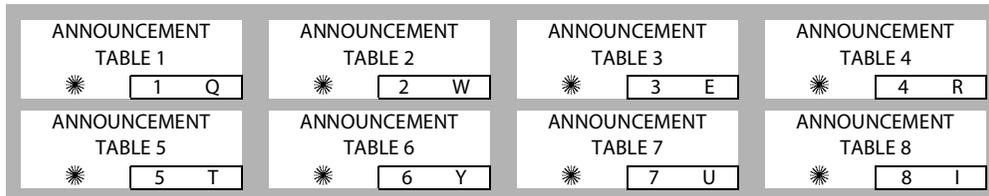
To program a Table for **Flash-based Voice Mail**:

1. Press **FLASH** and dial **[62]**. The following message displays:

ANNOUNCEMENT TABLE 1			
TYPE #	IDX	####	TIME ###

The top left button in the flexible button field is lit for programming UCD RAN Announcement Table #1.

2. To change to another UCD RAN Announcement Table, press **FLASH 62** and a flexible button 2-8 for Tables 2-8 respectively.



3. Dial [4] for the Voice Mail function.
4. Dial the desired Voice Mail Group number, using a 4-digit format, e.g., for Voice Mail Group 440, enter 0440.
5. Dial a three-digit RAN mailbox number [801-816].
6. Dial (0).
7. Press HOLD to save the entry. A confirmation tone sounds and the display updates.



To program a Table for a **Digital Voice Mail**, a CO Line port, an SLT port, or a RAN Hunt Group port, refer to ["Recorded Announcements" on page 4-9](#).

To clear entries:

1. Press the [#] button.
2. Then press HOLD.

Programming Devices for *Flash-based Voice Mail System*

Flash-based Voice Mail programming is accomplished by using a touch-tone telephone and a personal computer. [Table C-1](#) shows the categories of programming that can be performed by each device.

Table C-1: Programming Device Comparison

Administration	Telephone	Computer
Class of Service		•
Date and Time	•	•
Debug		•
Free Sectors (message storage time remaining)		•
Invalid Digits		•
Mailbox Administration		
Change Access Codes	•	•
Add a Mailbox	•	•
Delete a Mailbox	•	•
Record a Mailbox Greeting	•	
Reset Message Wait Indication	•	•
Notification		
Activate	•	•
Edit Number		•
New Number		•
Numbering Plan		•
Open and Close Schedule		•
Operating Mode		
Day	•	•
Night	•	•
Automatic	•	•
Password (System)		•
PBX Integration (Telephone Type)	•	•
PBX Integration parameters		•
Record Prompts	•	
Review Prompts	•	
Select System Greeting / per Port		
Normal	•	•
Night	•	•
Temporary	•	•
System Greeting		
Review	•	
Record	•	
Delete	•	
Version Number		•

The following is the recommended sequence for programming the voice mail system to perform basic operations. Perform programming in the order shown in [Table C-2](#) starting at the top of the table and continuing to the bottom of the table. This table illustrates the flow of programming; detailed programming steps are contained in following sections titled [“Programming System Functions Via Telephone”](#) and [“Programming System Functions Via Computer”](#).

Table C-2: Basic Programming

Using Computer Programming	
Programming Type	Description
PBX Integration	Select your telephone system from a list of possibilities. Example - selection number 00 represents Vodavi STS 2-digit telephone systems.
Open & Close Schedule	Identify the hours of your business operation.
Number Plan	Activate the numbers that will appear as menu selections.
Mailbox Assignment	<input type="checkbox"/> Identify mailbox and extension numbers. <input type="checkbox"/> Activate pager/beeper notification option.
Class of Service	Verify COS settings.
Auto Attendant Config	Verify Auto Attendant Configuration
Using Telephone Programming	
Programming Type	Description
DTMF	Record system greeting (1-9)
DTMF	Record RAN mailboxes (801-816)

Programming System Functions Via Telephone

To access the System Administrator Mailbox:

1. Dial into voice mail.
2. When the system answers, dial [*] + [#] followed by the System Administrator Mailbox number:

[#]+[0] = two-digit mailbox system

[#]+[00] = three-digit mailbox system

[#]+[000] = four-digit mailbox system

The system will announce: "Mailbox 15-00", which is the System Administrator Mailbox number. This number does not conflict with Mailbox 15 in a two-digit mailbox system.

3. When requested, enter the System Administrator password. Default = [9]+[#]+[56].



To change the System Administrator password refer to ["Mailbox Administration"](#) on page C-11.

The System Administrator Mailbox menu plays to prompt you to select one of the options listed below.

- Press:
- [1] for system greetings
 - [2] for Mailbox Administration
 - [3] for Auto Attendant configuration
 - [4] to set date and time
 - [5] to set operating mode
 - [6] to select PBX integration
 - [7] to record a prompt
 - [8] to listen to a prompt
 - [9] to change Open/Close Schedule

4. Select the appropriate button to select the desired option. Descriptions of the options are provided on the next several pages.

Administrator Options

System Greetings

The programmed Day or Night greeting for each port, as programmed in the Number Plan screen, is the first announcement played to outside callers when they reach the system. Callers will either dial the system's access number directly or they might be forwarded when the dialed extension is busy or unanswered.

You have the option to record up to nine programmable greetings to provide callers with certain information and instructions upon their entering the system.

You can customize the system sign-on greetings to meet your organization's needs. When you record a customized greeting, remind subscribers to dial [#] to identify themselves to the system as subscribers. This is important for new subscribers who can get confused and end up leaving unintended messages for others rather than entering their own mailboxes.

Outside callers who have never encountered a voice message system should be given clear instructions on what to do when they reach the system. Since mailbox numbers are generally the same as the extension numbers, a caller can leave a message by just dialing a [*] before the extension number of their intended party. By customizing the system greeting, explicit directions can be given to the outside caller.

To program system greetings:

1. Access the System Administrator Mailbox as described on [page C-9](#). The System Administrator Mailbox Menu plays.
2. Press [1] to access system greetings. The system will prompt you for the greeting number (1-9).
3. Enter the desired greeting number.

For example:

1 = Default Day greeting

2 = Default Night greeting

3 = Default Temporary greeting

4 - 9 = Open for customized greetings

4. You will be prompted with the following three choices:

Press [1] to Review. The greeting selected in Step 3 is played, then you are returned to Step 4.

Press [2] to Record. You will be prompted to record the greeting selected in Step 3. When you finish recording, press [#] to save the recording. Then you are returned to Step 4.

Press [3] to Delete. The system will announce that the greeting selected in Step 3 is deleted, then you are returned to Step 4.

5. When you finish work on the greeting initially selected in Step 3, you have three choices:
 - Press [*] to go back to Step 3 and select another greeting to manage.
 - Press [*] + [*] to return to the Administrator Options Menu.
 - Press [*] + [*] + [*] to exit the system completely.

Mailbox Administration

Mailbox administrative functions are normally accessed using the programming terminal along with the appropriate programming screens on the system. However, for your convenience, a number of functions can be performed using your System Administrator mailbox. These include:

- Changing an unknown/forgotten mailbox access code to a new temporary access code.
- Adding new mailboxes. You may need to use the Mailbox Setup Screen to enter any additional information.
- Deleting an existing mailbox.
- Recording personal mailbox greetings.
- Resetting a Message Waiting Indicator (MWI).

These five activities are described in detail below.



When accessing any of these features, you are first asked to enter a mailbox number. This is the mailbox that will be acted upon.

Changing a Mailbox Access Code

If a subscriber forgets their access code, you can reset it without deleting the mailbox and its messages. Once they are given the new temporary access code, the subscriber should immediately enter their mailbox and change the temporary access code to one of their own.



This is the only method for changing the administrator mailbox access code.

To change a Mailbox Access Code:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options Menu plays.
2. Press [2] to access mailbox administration.
3. After the prompt, enter the mailbox number for which you want to change the access code.
4. After the next prompt press [1] to change an access code.
5. Enter the new access code, then press [#] to accept. The system will announce the new access code for confirmation, then you are returned to the Administrator Options menu in Step 1.
6. When you finish changing the access code(s), you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.
7. Give the new temporary access code to the subscriber. Tell the subscriber to enter their mailbox immediately to change the access code to one of their own choice.

Adding a Mailbox

When you add a mailbox to the system, several default values are assigned: the extension number will be the same as the mailbox number, the password will be [0] + [0] + [0] + [0], the Class of Service will default to 1, and the Outcall function will be turned OFF. If you need to change these options from the default values, you will have to use the Programming Terminal.

To add a mailbox:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [2] to access mailbox administration.
3. After the prompt, enter the mailbox number for which you want to add.
4. After the next prompt, press [2] to add a mailbox. The system confirms addition of mailbox and then returns you to the Administrator Options Menu in Step 1.
5. When you finish adding a mailbox, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Deleting a Mailbox



Deleting a mailbox is a permanent action and the mailbox or its messages cannot be recovered after the delete action is confirmed by pressing [#].

To delete a mailbox:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [2] to access mailbox administration.
3. After the prompt, enter the mailbox number for which you want to delete.
4. After the next prompt, press [3] to delete the mailbox.
5. After the prompt, press [#] to confirm deletion or [*] to cancel. You are then returned to the Administrator Options Menu in Step 1.
6. When you finish mailbox deletion activities, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Recording a Mailbox Greeting

You can use the System Administrator's Mailbox to record the mailbox greeting for any system mailbox, as well as for RAN mailboxes.

To record a mailbox greeting:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [2] to access mailbox administration.
3. After the prompt, enter the mailbox number for which you want to record a greeting.



RAN mailbox numbers are 801-816.

4. After the next prompt, press [4] to record a mailbox greeting.
5. After the beep, record the mailbox greeting, then press [#] when finished.
6. After the prompt, press [#] to confirm the recording is satisfactory. You are then returned to the Administrator Options Menu in Step 1.
7. When you finish recording mailbox greeting activities, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Resetting a Message Waiting Indicator

The System Administrator can reset the message waiting indicator (MWI) for a mailbox. When this option is selected, the system checks the current status of any messages stored in the mailbox. The system then dials the appropriate MWI "turn on" code if there are new messages in the mailbox and the appropriate "turn off" code if there are no new messages in the mailbox. This operation will re-synchronize the physical MWI with the mailbox message status.

To reset an MWI:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [2] to access mailbox administration.
3. After the prompt, enter the mailbox number for which you need to reset the MWI.
4. After the next prompt, press [5] to reset MWI. The system confirms that the request has been processed and you are returned to the Administrator Options Menu in Step 1.
5. When you finish resetting MWI activities, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Auto Attendant Configuration

Using this option allows you to easily change the greeting a caller will hear on a given port between the programmed Day/Night greeting and the programmed Temporary greeting. This is useful when a Temporary greeting for something like a weather-related closing needs to be activated from a remote location.

To change the Auto Attendant Configuration:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [3] for Auto Attendant Configuration.
3. After the prompt, press [1] to select normal greeting or [2] to select temporary greeting.
4. After the prompt, press the appropriate port number to change [1] - [8]. You are returned to the Administrator Options Menu in Step 1.
5. When you finish Auto Attendant Configuration activities, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Setting Date and Time

You may use the System Administrator Mailbox to set the system date and time. The time and date stamp is used for all envelope information and to check delivery notifications. It is important to set the system date and time accurately.



The time and date must be reset whenever there is a local time change such as Daylight Savings Time.

To set the system date and time:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [4] to Set Date and Time.
3. After the prompt, press:
 - [1] to review data - the current date and time settings in the Voice Mail are announced, then you are returned to the Administrator Options Menu.
 - or-
 - [2] to change data - after the first prompt, enter the time in four-digit military time format e.g., 0930 for 9:30 a.m. or 1830 for 6:30 p.m. After the second prompt, enter the date as a six-digit number in MMDDYY format. You are then returned to the prompt that asks if you want to review data, change data, or exit.
 - or-
 - [*] to exit - you are returned to the Administrator Options Menu.
4. When you finish setting Date and Time activities, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Setting Operating Mode

Under normal conditions, the pre-programmed Auto Attendant screen controls the greeting that plays when the *Flash-based Voice Mail* answers a caller. This screen tells the *Flash-based Voice Mail* which greeting to play based upon the time of day, Day or Night, which is programmed in the Open & Close screen.

There may be a time when it is desirable to change the system from Day (Mode 1) to Night (Mode 2) at an other-than-normal time. The System Administrator can accomplish this by dialing into the system, rather than having to access the programming terminal.



*When the mode is changed manually to either Mode 1 or Mode 2, the **Flash-based Voice Mail** stays in that mode until the System Administrator changes the mode back to Automatic mode through the Administration Options menu. The mode cannot be changed from the programming terminal.*

The following are the System Operating Mode Numbers and their meanings.

- Mode 1 - Fixed Day Mode: the system is in Day Mode all of the time.
- Mode 2 - Fixed Night Mode: the system is in Night Mode all of the time.
- Mode 3 - Automatic Mode: the system follows the Open & Close times as programmed.

To change the Operating Mode:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [5] to Set Operating Mode.
3. After the prompt, press:
 - [1] to review data - the system will announce the current Mode and then you are returned to the prompt that asks if you want to review data, change data, or exit.
 - or-
 - [2] to change data - after the prompt, press:
 - [1] for Day Mode - choice is confirmed, then you return to prompt asking if you want to review, change, or exit.
 - or-
 - [2] for Night Mode - choice is confirmed, then you return to prompt asking if you want to review, change, or exit.
 - or-
 - [3] for Automatic Mode - choice is confirmed, then you return to prompt asking if you want to review, change, or exit.
 - or-
 - [*] to exit - you are returned to the Administrator Options Menu.
4. When you finish Setting the Operating Mode, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Selecting PBX Integration

The *Flash-based Voice Mail* uses a set of pre-programmed PBX Integration screens. These screens provide standard configurations for various PBX systems that might be used with the *Flash-based Voice Mail*.

The current PBX Integration may be changed from the System Administrator Mailbox.

To change the PBX Integration:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [6] to Select PBX Integration.
3. After the prompt, press:
 - [1] to review data - the system will announce the current PBX Integration and then you are returned to the prompt that asks if you want to review data, change data, or exit.
 - or-
 - [2] to change data - after the prompt, enter the desired two-digit Integration Number (00 = Vodavi STS 2 digit; 01 = Vodavi STS 3 digit; 02 = Vodavi STS 4 digit). You are then returned to the prompt that asks if you want to review data, change data, or exit.
 - or-
 - [*] to exit - you are returned to the Administrator Options Menu.
4. When you finish Selecting a PBX Integration, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Recording a Prompt

The *Flash-based Voice Mail* is shipped with a complete set of system voice prompts. These system prompts cover all system operations and functions.

There may be occasions, however, when it is desired to change the wording of a prompt to meet a specific requirement. This function allows such changes.

Refer to "[Voice Prompts](#)" on [page C-39](#) for a complete listing of the system's default voice prompts.



All of the supplied prompts are the same voice and volume level. If you desire to re-record a prompt, you should ensure that you use the same volume level and a similar tonal quality as the original.

You must not change any of the listed options and their activation keys. If you do, you will become confused when the options do not work as expected. There is no way to change these options in the field.

To re-record a System Prompt:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options menu plays.
2. Press [7] to Record a Prompt.
3. After the prompt, enter the three-digit prompt number of the prompt that you want to re-record.
4. After the beep, record your new prompt, then press [#] when finished recording. You are then returned to the Administrator Options Menu.
5. When you finish Recording a Prompt, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

Listening to a Prompt

The *Flash-based Voice Mail* includes a method of listening to any or all of the recorded prompts. This may be used to determine whether it is necessary to modify a prompt. You can listen to a single prompt, a range of prompts, or the last prompt that was recorded.

To listen to System Prompts:

1. Access the System Administrator Mailbox as described on [page C-9](#). The Administrator Options Menu plays.
2. Press [8] to Listen to a Prompt.
3. After the prompt, enter one of the following three options:
 - A three-digit prompt number, then when prompted enter the same number a second time. The selected prompt plays and then you are returned to the Administrator Options Menu.
 - or-
 - The first three-digit number of the range followed by the second three-digit number of the range. The selected prompts play and then you are then returned to the prompt that asks if you want to listen to a single prompt, listen to a range of prompts, or listen to the last prompt recorded.
 - or-
 - Press [#] to listen to the last prompt recorded. After the prompt plays you are returned to the Administrator Options Menu.
4. When you finish Listening to Prompts, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

*Flash-Based Voice Mail**Change Open and Close Schedule*

The *Flash-based Voice Mail* allows the system administrator to change the Opening and Closing Schedule via a DTMF telephone. This is useful for unscheduled closings or hour changes.

To change the Open & Close Schedule:

1. Access the System Administrator's Mailbox as described on [page C-9](#). The Administrator Options Menu plays.
2. Press [9] to change Open and Closing schedule. You are prompted to select the day of the week to modify.
3. Press the desired digit [1] through [7] to select a day of the week (Sun-Sat) to modify. You are prompted to select an option to either change the Closing time or the Opening time.
4. Press [2] for Closing time or [6] for Opening time. You are prompted to select an option to review, modify, or delete the time.
5. Press [1] to review, [2] to modify, or [3] to delete the selected value. A recorded announcement is provided to confirm the action you have taken.
6. Press [*] after your changes are complete.
7. When all schedule changes are complete, you have three choices:
 - Press [1] through [9] to select another System Administrator task to perform.
 - Press [*] to return to the system Main CCR Menu.
 - Press [*] + [*] to exit the system completely.

*Programming System Functions Via Computer***PC Accessibility**

Cable Connection -- The cable between the *Flash-based Voice Mail* unit and the PC **must** be a NULL MODEM arrangement with a 9-pin female connector on each end.

- Lift the cover of the *STS* unit to access the programming port.
- After connecting the cable to the PC, plug the other end into the programming port on the *Flash-based Voice Mail* card.

Desktop or Laptop -- Programming is accomplished through the use of a laptop or standard PC desktop system. No special software is required. Any communications package that supports ANSI terminal emulation will work. The required port speed and protocol is 9600 BAUD, N-8-1.

If HyperTerminal is the communications package to be used, perform the following steps before programming:

1. Select Start > Programs > Accessories > Communications > HyperTerminal.
2. Setup a new connection using the following settings:
 - a. Select COM1 or COM2, as required by your PC, then press OK.
 - b. On the Comport Settings screen, set 9600, N 8 1, Flow Control to XON, XOFF.
 - c. Click OK.
 - d. Click on File > Properties, then select the Settings tab.
 - e. Select Auto Detect as the emulation.
 - f. Click on the ASCII setup button and uncheck the "Wrap lines that exceed terminal width" option.
 - g. Click OK, then click OK again.
8. The HyperTerminal connection is now configured properly for programming the *Flash-based Voice Mail*.
9. Exit HyperTerminal, then re-start the program.
10. After connected to the *Flash-based Voice Mail*, press ESC to access the Main Programming Menu.

Navigating in the System

Programming the *Flash-based Voice Mail* requires that you make entries in specific fields on several programming screens.

- These screens are accessed from the main menu by selecting a number and pressing the <ENTER> key.
- While working on a particular screen, use the arrow keys or the <ENTER> key to move through the fields. After you change a given field, press the <ENTER> key to save your change.



The <TAB> key **does not** provide field-to-field movement.

- If you are working in an area with multiple pages, such as the mailbox screen, press <F1> to go forward 1 screen and <F2> to go back 1 screen.
- When you finish work on a particular screen, press the <ESC> key to return to the Programming Menu.
- When you finish programming, type *exit* and press the <ENTER> key to shut down the programming interface.
- Access to the *Flash-based Voice Mail* is protected by password to prevent unauthorized changes to voice mail system parameters.

(The voice mail password must be re-entered each time you access the Programming area.)

Menu Option Screens

Signing On

This is the screen first shown when the programming terminal is connected.

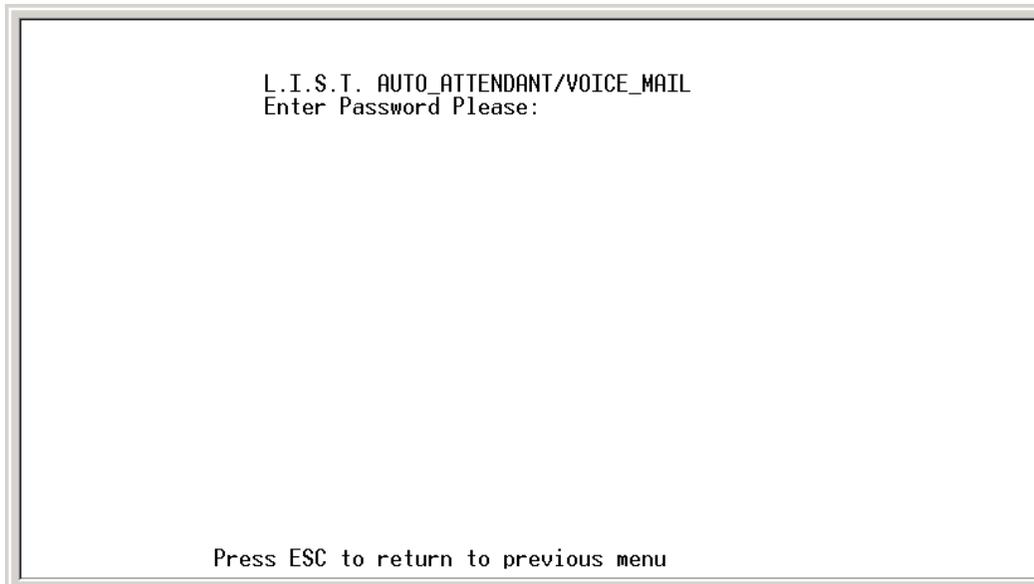


Figure C-1: Sign-On Screen

To enter the programming area, type in the correct password, then press <ENTER>.

The default factory password is 0000. It can be changed by selecting Option 8 on the Programming Menu.

The *Flash-based Voice Mail* displays the Programming Menu shown in [Figure C-2](#).

Programming Menus

The programming functions available are shown in [Figure C-2](#). Each function shown in the Programming Menus screen is linked to another screen where its parameters can be set. Each screen is described on the following pages.

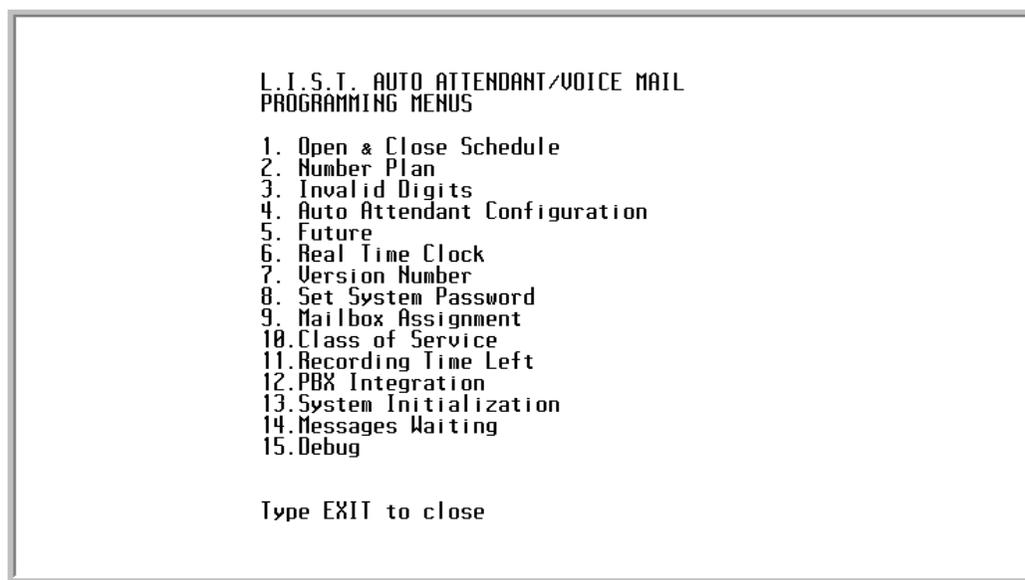


Figure C-2: Programming Menu Screen

1. To go to a specific screen, use the arrow keys to scroll down to your choice,
-or-
Type in the desired menu choice number.
2. Press the <ENTER> key to go to that screen.



If the Programming Menu screen is left unattended for longer than five minutes, the screen will close and you will need to re-enter the System Password to gain access to the Programming Menu screen again.

Open and Close Schedule

This time control screen is used to set the time when the *Flash-based Voice Mail* switches from Day to Night mode or Night to Day mode. Separate greetings are available for each mode. The greetings introduce callers to your company and tell them what digits to press to access certain departments, extensions, mailboxes, etc.

The Day/Opening greeting plays from the time you specify in the Open field until the time specified in the Close field. The Night/Close greeting plays after the time specified in the Close field until the next specified time in the Open field. For example, in [Figure C-3](#) the Day greeting is played during weekdays from 9:00 a.m. through 5:00 p.m. The Night greeting is played from 5:00 p.m. through 9:00 a.m. Monday through Friday, and from 5:00 p.m. Friday through 9:00 a.m. Monday.

Open & Close Schedule							
	SUN	MON	TUE	WED	THU	FRI	SAT
Open:	9:00 AM	- -					
Close:	5:00 PM	- -					

Press ESC to return to previous menu

Figure C-3: Open & Close Schedule Screen

1. Enter the desired time schedule for each day as required. For example, Open: 9:00 AM, Close: 5:00 PM.
2. Press <ENTER> to store each entry.



Leaving the Open and Close entries blank for a given day will represent a 24-hour period.

Entries can be made using 24-hour notation, e.g., 18:00 represents 6:00 p.m.

To delete an entry:

1. Press the arrow key until the desired field is selected.
2. Then press <F4>.



If you use the F4 key to clear all of the times, the system will continue to use the greeting that was active at the time that you cleared the entries.

System Numbering Plan

This menu screen is used to control how the *Flash-based Voice Mail* system processes digits entered by a caller.

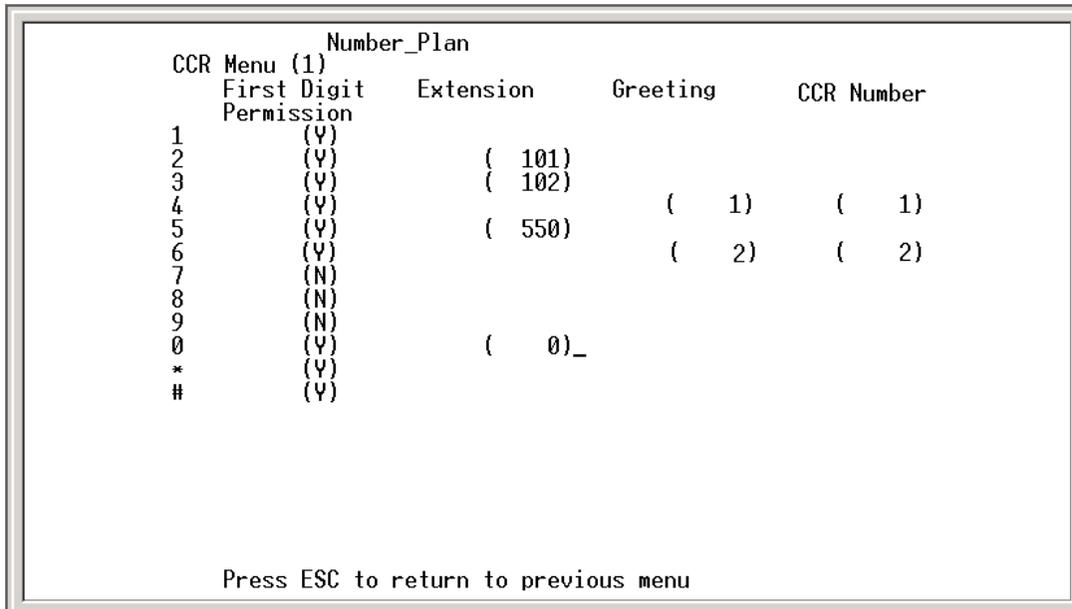


Figure C-4: Number Plan Screen

Field	Description
FIRST DIGIT PERMISSION	<p>This field tells the system whether a given digit is allowed to process additional digits.</p> <p>For example:</p> <ul style="list-style-type: none"> <input type="checkbox"/> If your extension numbers start with 1, this field will contain a Y and other fields to its right will be blank. When a caller dials a 1, the system knows additional digits will follow and be acted on (Figure C-5). <input type="checkbox"/> If this field contains a Y, the system will check the following fields and perform the actions designated in these fields: <ul style="list-style-type: none"> <input type="checkbox"/> EXTENSION -- dials the extension number specified and connects the caller. <input type="checkbox"/> GREETING -- plays the specified greeting to the caller. <input type="checkbox"/> CCR -- takes the caller to the specified one of five possible pre-programmed routing menus and plays the greeting for that menu. <input type="checkbox"/> If the field contains an N, the system will tell the caller that they have dialed an incorrect digit and they will be allowed to dial again.
EXTENSION	<p>This field may contain any valid extension number as the destination. For example, for Sales press [2]. extension 101 is dialed, and the caller is connected to Sales (Figure C-5).</p>
GREETING	<p>This field contains the greeting number to be played when this digit is dialed. Active greeting numbers are 01-09 and they are recorded via telephone programming. An entry in the Greeting field requires an associated entry in the CCR Number field, even if the CCR Number is the same as the CCR Menu from which you are configuring</p>
CCR	<p>Custom Call Routing (CCR). This field may contain a CCR menu number of 1-5 that links a to an additional number plan when the caller presses the digit in the left column. Up to five number plans can be used (Fig. C-7). CCR numbers can also be tiered, as described by the second example below. To access CCR menus for configuration, press F1 to increment ascending from CCR 1-5 or press F2 to increment descending from CCR 5-1.</p> <p>For example:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A CCR Menu 1 entry of 2 in the CCR field could link to a number plan for Sales, 3 for Tech Support, 4 for Services, and 5 for Repairs. Figure C-8 graphically portrays this example. <input type="checkbox"/> A CCR Menu 1 entry of 2 in the CCR field will link to CCR Menu 2 number plan (Sales). Sales can be subdivided into In-State and Out-of-State sales making two entries (3 & 4) in the CCR field of CCR Menu 2. Figure C-9 graphically portrays this example.



When you program a digit that will route to another CCR box, you **MUST** enter a greeting number that will be played when the caller is sent to the CCR box.



Dual-action keys have a 3-second pause prior to switching to another CCR. For example, you are prompted to dial an extension (100 series) or press 1 for Sales. After pressing [1], the system pauses until either additional digits are entered for an extension or 3 seconds elapse, whichever occurs first.

The example in [Figure C-5](#) shows that when the number 1 and additional digits of an extension are dialed, the call will be transferred to that extension. For example, if 108 is dialed, the call will transfer to extension 108. If the numbers 2, 3, or 5 are dialed, the caller will go directly to the corresponding extension or UCD/ACD group (101, 102, or 550). If number 4 is dialed, greeting 1 will be played to the caller. If number 6 is dialed, the caller will be linked to the CCR Menu 2 number plan. The system administrator has designated numbers 7, 8, and 9 as invalid numbers in this example.



When the Dial-By-Name feature is enabled, the first dialed digit of 4 is dedicated exclusively to the Dial-By-Name function. To enable the Dial-By-Name feature, set a value of "Y" in the First Digit Permission field that is associated with the first dialed digit of 4; also the fields for Extension, Greeting, and CCR Number must be left blank.

CCR Menu (1)	Number_Plan First Digit Permission	Extension	Greeting	CCR Number
1	(Y)			
2	(Y)	(101)		
3	(Y)	(102)		
4	(Y)		(1)	(1)
5	(Y)	(550)		
6	(Y)		(2)	(2)
7	(N)			
8	(N)			
9	(N)			
0	(Y)	(0)_		
*	(Y)			
#	(Y)			

Press ESC to return to previous menu

Figure C-5: Number Plan Example

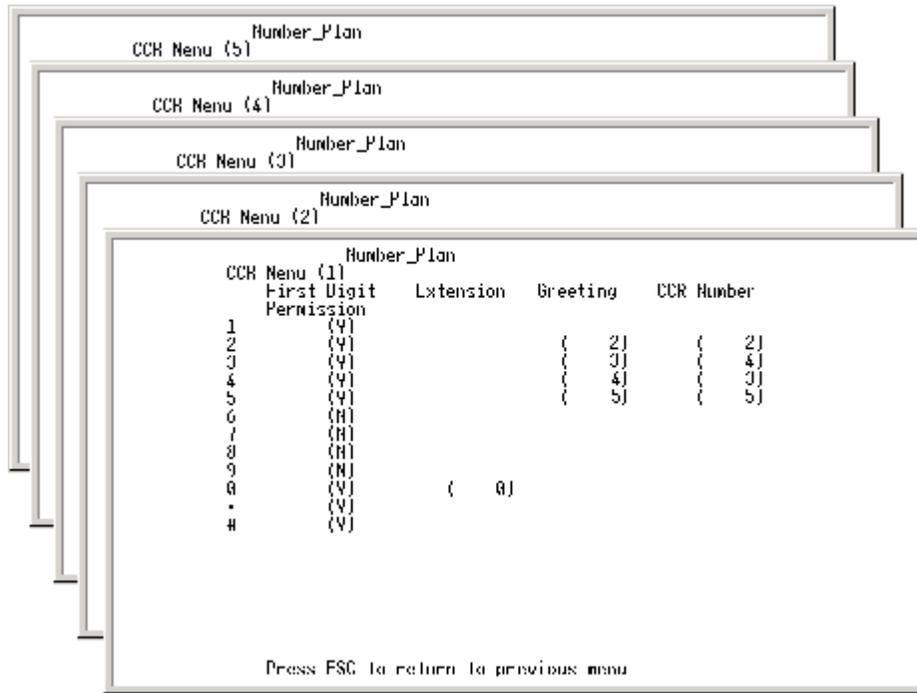


Figure C-6: Five Possible Number Plans

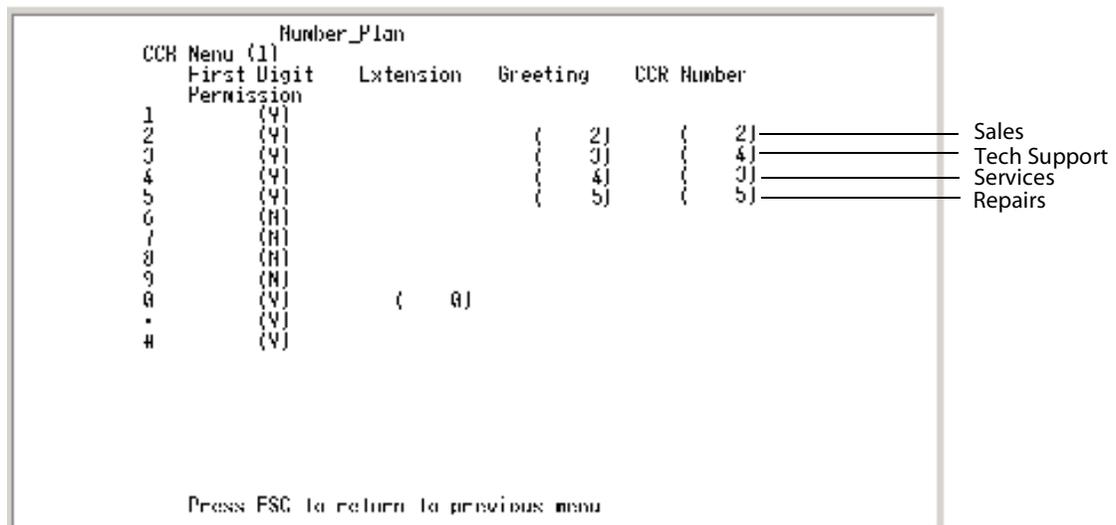


Figure C-7: CCR Menus Example

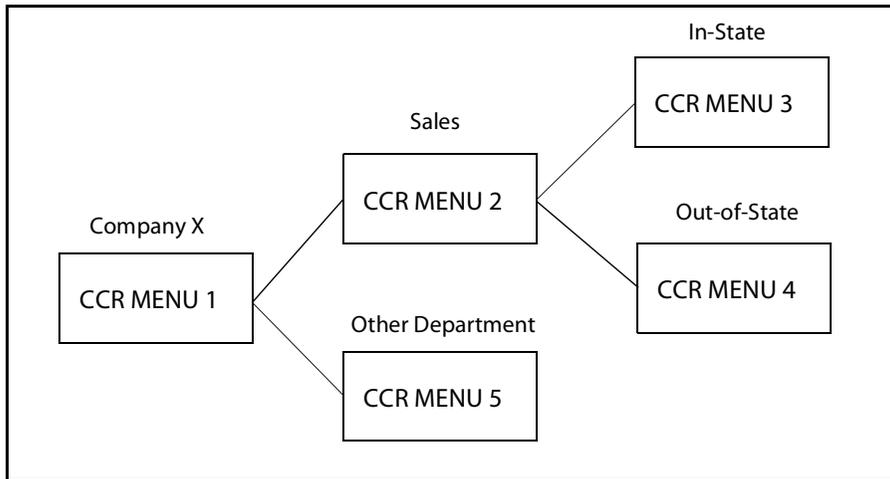


Figure C-8: CCR Menu Tiering Example

Invalid Digits

This screen is used to instruct the *Flash-based Voice Mail* to ignore certain digits that may be dialed. When these digits are encountered, they are ignored.

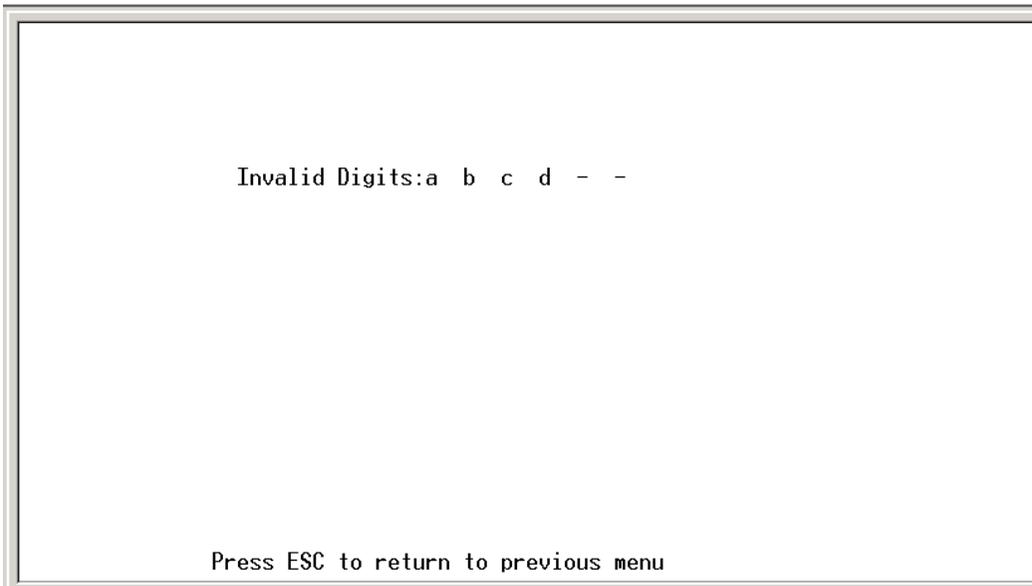


Figure C-9: Invalid Digits Screen

Auto Attendant Configuration

This “Voice Lines” screen is used to control what a caller will hear when a given port answers. Each port may play a different greeting.

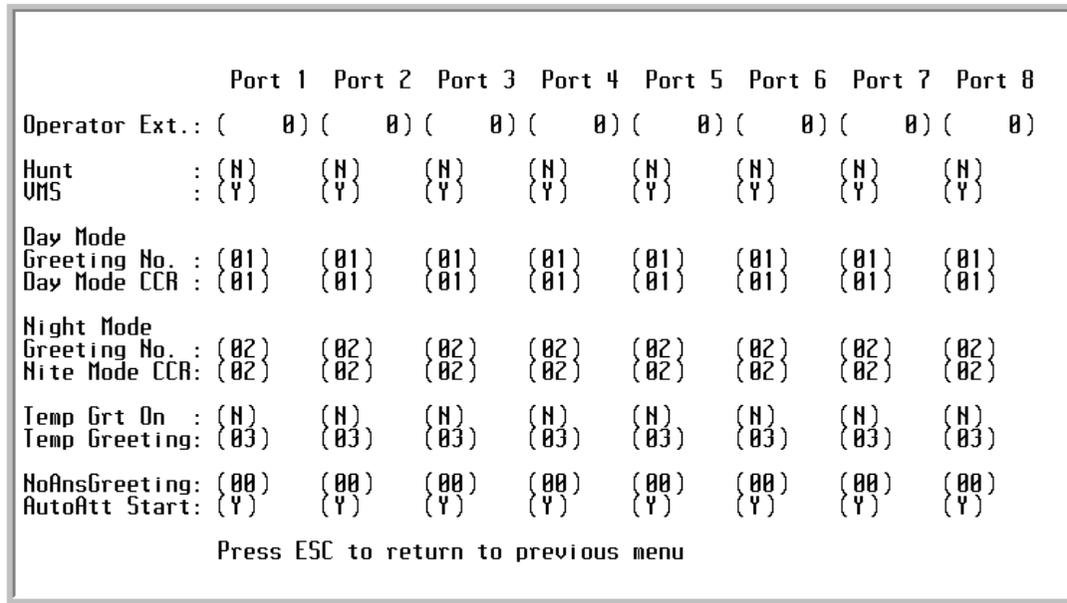


Figure C-10: Auto Attendant Screen

Each column in *Figure C-10* represents a given port from 1 to 8. The fields in each column are explained below.

Field	Description
OPRERATOR EXT	This is the extension number of the Operator’s extension for this port. When a caller dials [0], this is the destination extension.
HUNT	<i>Future option - not currently active</i>
VMS	<i>Future option - not currently active</i>
DAY MODE	
GREETING NO.	The greeting number (01-09) that plays when this port is accessed during the day hours, as defined in the Open & Close Schedule.
DAY MODE CCR	The number (01-05) identifying the CCR menu that answers during the day hours, as defined in the Open & Close Schedule.
NIGHT MODE	
GREETING NO.	The greeting number (01-09) that plays when this port is accessed during the night hours, as defined in the Open & Close Schedule.
NITE MODE CCR	The number (01-05) identifying the CCR menu that answers during the night hours, as defined in the Open & Close Schedule.

Flash-Based Voice Mail

Field	Description
TEMP GRT ON	<input type="checkbox"/> If this field is set to Y, the programmed TEMP GREETING message will be played to a caller. <input type="checkbox"/> If this field is set to N, the programmed GREETING NO. message will be played. This message may be changed from any telephone - internal or external.
TEMP GREETING	If Temp Greeting is active (Y), this is the greeting that plays when this port answers.
NOANS GREETING	<i>Future option - not currently active</i>
AUTOATT START	<input type="checkbox"/> If this option is set to Y, the system goes off-hook on an incoming call and waits for integration digits. NOTE -- This is the default setting and it should not be changed unless necessary. <input type="checkbox"/> If this option is set to N, the system goes off-hook on an incoming call and immediately plays the programmed greeting according to the Open & Close Schedule, but does not respond to DTMF tones.

System Clock Adjustments

This screen is used to adjust the Real Time Clock settings of the *Flash-based Voice Mail*. Use the arrow keys to navigate left and right, then make the desired changes.

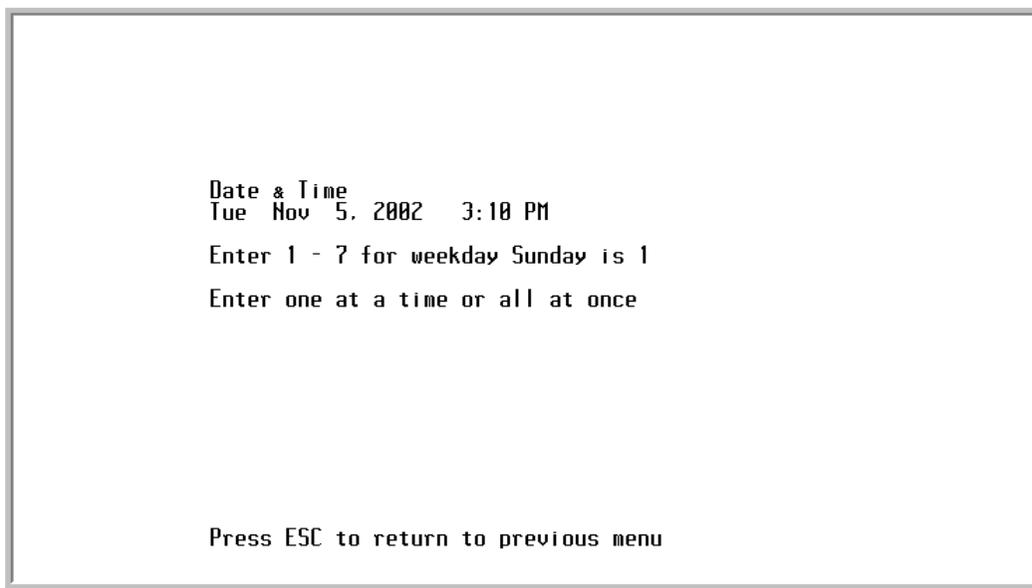


Figure C-11: Date & Time Screen

To enter a new date and time:

1. Enter a value of 1-7 to identify the day of the week.

1 = Sunday	5 = Thursday
2 = Monday	6 = Friday
3 = Tuesday	7 = Saturday
4 = Wednesday	
2. Press the right arrow key or press the <ENTER> key.
3. Enter a value of 1-12 to indicate the month.
4. Press the right arrow key or press the <ENTER> key.
5. Enter a four-digit value to indicate the year.

6. Press the right arrow key or press the <ENTER> key.
7. Enter a value of 1-24 to set the hour field.
Use military 24-hour format to set the Time.
8. Press the right arrow key or press the <ENTER> key.
9. Enter a value of 0-59 to set the minutes field.
Example -- To set the time to 6 p.m., enter 18:00. The voice mail system will automatically convert the military time to standard time notation when the changes are saved.
Any or all settings may be changed at the same time.
10. When you finish making changes, press the <ENTER> key to save the new settings.



You can press the <Enter> key after each value entered. A shortcut is to enter a string of values separated by a <space> between each value, then pressing <Enter>. For example: an entry of 2 <space> 3 <space> 17 <space> 2003 <space> 18 <space> 30 <Enter>, will represent Monday, March 17, 2003, 6:30 p.m.

Version Number

This choice will display the current Software Version and Prompts Version numbers. This information is useful when speaking with technical support personnel.

Set System Password

This screen is used to change the system password. If you wish to change the voice mail system password from the default value of 0000, enter the new password here. (The password MUST be four digits.)

The new password takes effect next time you access programming menus.

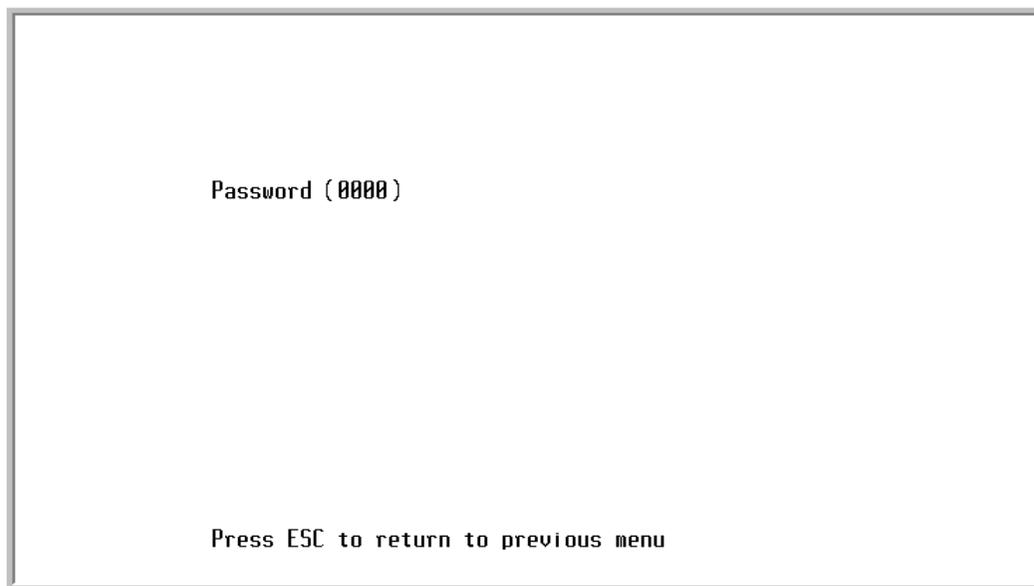


Figure C-12: Password Screen

Flash-Based Voice Mail

Mailbox Assignment

This screen controls mailbox user options. Each mailbox may be assigned any of the four available Classes of Service, and be allowed or denied the ability to make outcalls to a beeper. A description of the fields on the mailbox assignment screen are provided below.

Mailbox No	Access Ext	Ext_No Code	Class of Service	Dial Out	Beeper No	Msg_Ind	Name & Name_Mode Last	Direct Xfr
1	100	0000	100	1	Off	0		Off
2	101	0000	101	1	Off	0		Off
3	102	0000	102	1	Off	0		Off
4	103	1234	103	1	Off	1		Off
5	104	0000	104	1	Off	0		Off
6	105	0000	105	1	Off	0		Off
7	106	0000	106	1	Off	0		Off
8	107	0000	107	1	Off	0		Off
9	108	0000	108	1	Off	0		Off
10	109	0000	109	1	Off	0		Off
11	110	0000	110	1	Off	0		Off
12	111	0000	111	1	Off	0		Off
13	112	0000	112	1	Off	0		Off
14	113	0000	113	1	Off	0		Off
15	114	0000	114	1	Off	0		Off
16	115	0000	115	1	Off	0		Off
17	116	0000	116	1	Off	0		Off
18	117	0000	117	1	Off	0		Off
19	118	0000	118	1	Off	0		Off
20	119	0000	119	1	Off	0		Off
21	120	0000	120	1	Off	0		Off

Press ESC to return to previous menu

Figure C-13: Mailbox Assignment Screen

Field	Description
MAILBOX - NO - EXT	This heading contain two fields: <input type="checkbox"/> Mailbox index number. This is generated automatically by the system. <input type="checkbox"/> Mailbox number that relates to the physical extension number. Example, 100-148.
ACCESS CODE	Password designated by the mailbox owner for accessing the mailbox. (The default password is 0000. It is changeable from 0000-9999.)
EXT_NO	Number of the physical extension for this mailbox. <input type="checkbox"/> This is the station that will be the destination of callers when transferred by the voice mail system. <input type="checkbox"/> It is also the number used when activating or deactivating MWI indicators.
CLASS OF SERVICE	Number of the assigned Class of Service as programmed in Class of Service screen.
DIAL OUT	Controls whether a given mailbox is allowed to make outcalls to a beeper/pager
BEEPER NO	Allows beeper outcalls. <input type="checkbox"/> Only enter the beeper/pager telephone number. <input type="checkbox"/> The system will verify the outdial access code entered on the PBX Integration Screen.
MSG_IND	Shows the current status of the telephone MWI indicator according to the system. <input type="checkbox"/> 0 = OFF <input type="checkbox"/> 1 = ON

Field	Description
NAME & NAME_MODE	<p>These two fields control whether the Dial-By-Name directory function uses the first or last name of the mailbox user.</p> <p>The NAME field allows up to 17 characters. Type the first name and the last name. Use a space between the first and last names. Capitalize the first letter of the first and last names.</p> <p>The NAME_MODE field tells the <i>Flash-based Voice Mail</i> whether to search using the Last or the First name. To change this value from Last to First, press the Enter key until you are in the Name field. Press the Up arrow and the cursor will highlight the "L" in Last. Type "F" and press the Enter key. The value will change to First.</p>
DIRECT XFR	<p>This field indicates whether a mailbox user has set their mailbox to transfer callers directly to their mailbox or to be transferred to the programmed extension number. This is an indicator field and cannot be changed manually from the terminal.</p> <p>Off - the caller is transferred to the extension</p> <p>On - the caller is transferred to the mailbox to leave a message</p>



When the integration type is changed on screen 12, the *Flash-based Voice Mail* will automatically insert the correct mailboxes into this screen as a default condition.

When there are more mailboxes than appear on the screen, press [F1] to go forward one screen and [F2] to go back one screen.

Adding a Mailbox

From the Main Menu:

1. Press <9> to enter Mailbox Assignments.
2. Move the cursor to the first available line, at a position left of the index number field. Press [F1] to go to the next page, if necessary.
3. Enter in order:
 - a. Next index number, then space.
 - b. Mailbox extension number, then space.



A system can use 2-digit, 3-digit, or 4-digit mailbox numbers. However, a system cannot number mailboxes using a combination of 2, 3, and 4-digit lengths. For example, if 2-digit numbering is used, then all mailboxes must be numbered with 2 digits.

- c. Access code if available, otherwise 0000 (valid codes are 0000-9999), then space.
 - d. Extension number to be associated with this mailbox (this must be the same number as the mailbox number).
 - e. Press <ENTER>. To continue adding mailboxes, return to step 3a.
6. After you finish adding mailboxes, press <ESC> to save your changes and return to the Programming Menu.

An example of a valid entry is: [32] + space + [100] + space + [0000] + space + [100] + <ENTER> + <ESC>



When adding a mailbox, the Class of Service field automatically updates to a default value of 1 and the Dial Beeper No Out field automatically updates to Off. After the mailbox is established, these fields and the beeper/pager No can be modified as desired.

If an invalid beeper/pager number is entered, a user cannot activate this type of notification remotely.

*Flash-Based Voice Mail**Deleting a Mailbox*

From the Programming Menu:

1. Press <9> to enter Mailbox Assignments.
2. Move the cursor bar down to the mailbox that is to be deleted.
3. Press <F4> to delete the mailbox.
4. Press <Y> to confirm delete.
5. When you finish, press <ESC> to save your changes and return to the Programming Menu.

Class of Service

The *Flash-based Voice Mail* provides four Classes of Service. Each COS has three parameters that may be specified:

Class of Service			
Service Class	Save Period in days	Length of Msg in minutes	Number of Messages
1	10	2	15
2	20	5	15
3	30	5	15
4	30	5	30

Press ESC to return to previous menu

Figure C-14: Class of Service Screen

Field	Description
SAVE PERIOD IN DAYS	Specifies the number of days that a message is retained before being automatically deleted. No warning is given before the message is deleted. It is important to delete messages so that the storage space is not completely consumed.
LENGTH OF MSG IN MINUTES	Controls the allowable recorded length of a message that may be left in a user's mailbox.
NUMBER OF MESSAGES	Controls the total number of messages that a given mailbox user may have in their mailbox at any one time. The mailbox will indicate that it is full, once this count is matched. For example, if set to 5, the 6th caller receives a message "I'm sorry, the mailbox is full".

Recording Time Left

This screen is used to display the amount of voice storage space that is currently available in the *Flash-based Voice Mail*. The Memory Expansion Module increases the storage space by 360 minutes.

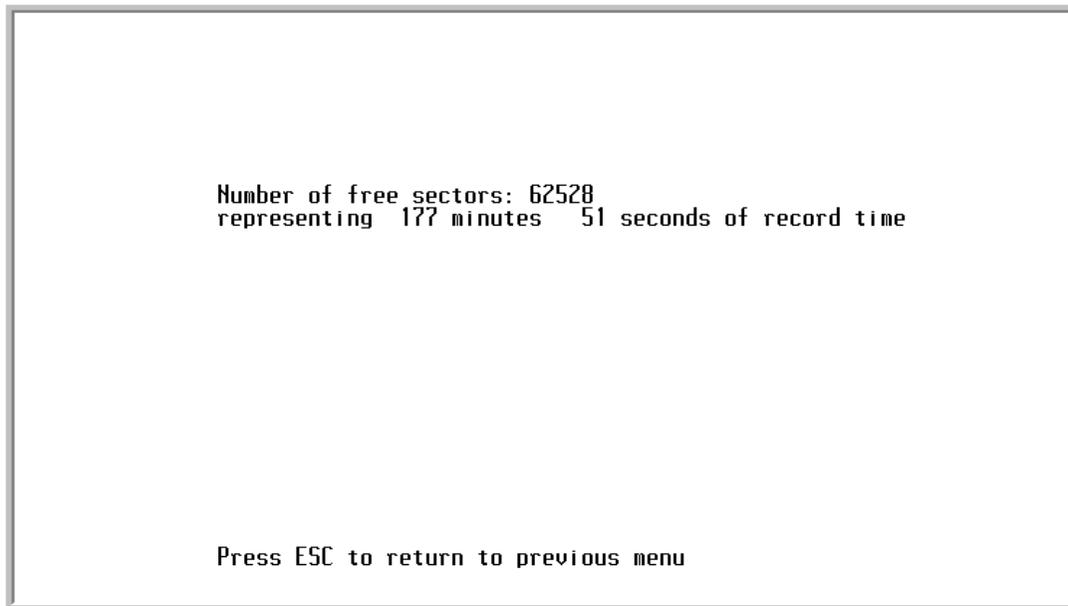


Figure C-15: Free Sectors Screen

PBX Integration

The *Flash-based Voice Mail* provides several preprogrammed integration modules as shown in [Figure C-16](#).

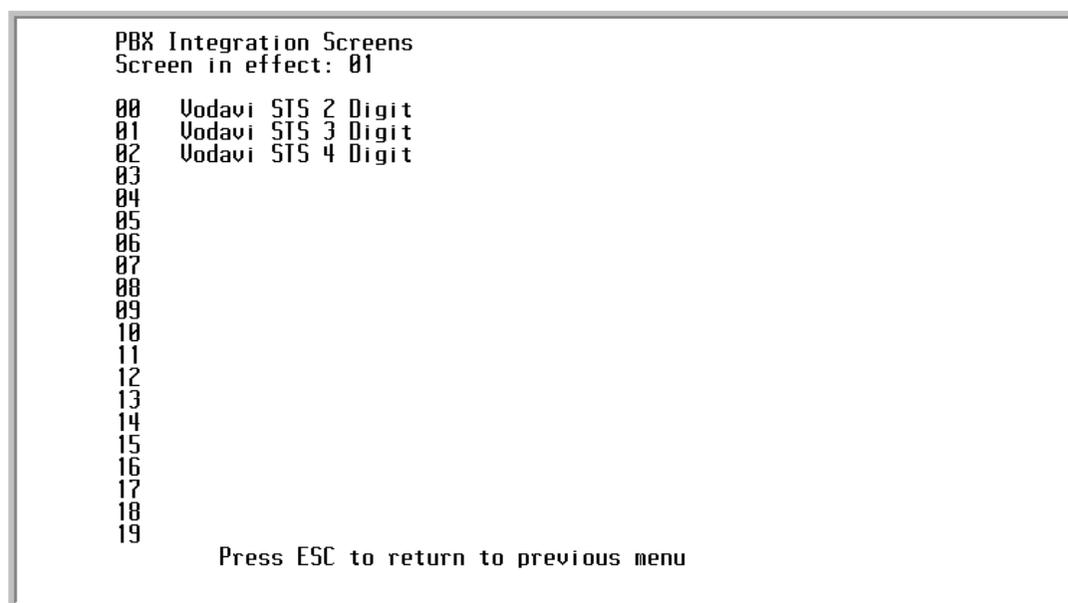


Figure C-16: PBX Integration Screen (1 of 2)

Selecting an STS Numbering Plan -- Use the arrow keys to scroll to the desired number corresponding to the desired numbering plan, then press the <ENTER> key. Your selection is displayed in the *Screen in Effect* field.

For example, if you scroll to 01 for Vodavi STS 3 Digit numbering plan and press <ENTER>, the *Screen In Effect* field displays 01.

Changing a Parameter --



It is only necessary to select the specific STS numbering plan as shown in Figure C-16. Parameters for the selected STS numbering plan (shown in Figure C-17) do not need to be modified unless under the direction of Technical Support personnel.

In cases where you need to change a parameter used by the PBX integration screen, perform the following steps:

1. Use the arrow keys to scroll to select your PBX integration, then press the <ENTER> key.
2. Press the <ENTER> key a second time to display the next PBX Integration Screen.

PBX Integration Programming - (Sub Menu)



Changing from one PBX integration to another will wipeout all of the existing mailboxes and there is no way to recover them.

PBX INTEGRATION SCREEN

PBX Code:	01	Name:Vodavi STS 3 Digit	
MWI Code On:	W1:	MWI Code Off:	W1:
MWI/Outdial Port Control:	00030000	Mail Box Length:	3
Transfer Sequence:	L&	Internal Call Prefix:	
Reconnect Sequence:	L&	Minimum On-Hook Delay:	20
Outdial Call Prefix:	L9.T	Hangup Code:	****
First Digit Timeout(100 ms):	25	Last Digit Timeout(100 ms):	25
Direct Voice Mail Access:	*	Dial by Name Digit:	4

DTMF Protocol	Action	DTMF Protocol	Action
XXXX01XMMM	EnterMB	X55502XMMM	TakeMSG
X55503XMMM	TakeMSG	X55504XMMM	TakeMSG
*	UcMail_Acc	*	EnterMB
		128	FaxExt

Press ESC to return to previous menu

Figure C-17: PBX Integration Screen (2 of 2)

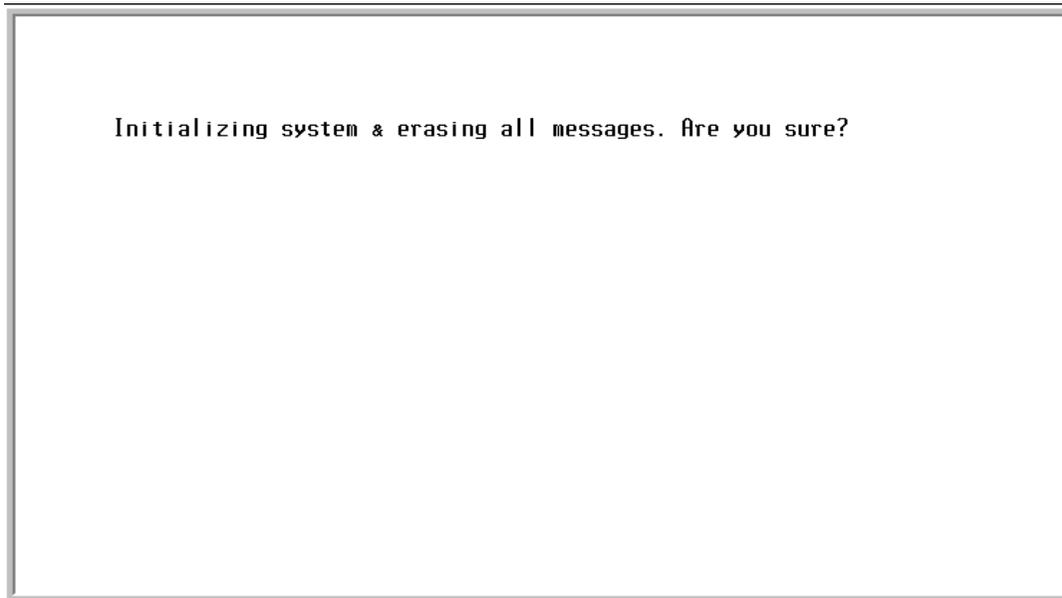
Field	Description
PBX CODE	Number the system uses to determine which PBX screen to reference for system parameters. <i>Example</i> -- If 01 is selected as the PBX Integration, the system will use the entries located on screen 01 to determine integration patterns, MWI on & off codes, etc.
NAME	Descriptive name used to visually identify the particular Integration Screen. This name is the one displayed in the PBX Integration Selection Menu.

Field	Description
MWI CODE ON	Code the system sends when a mailbox has a new message. <ul style="list-style-type: none"> <input type="checkbox"/> This code tells the telephone system to activate the MWI indicator for that mailbox's extension. <input type="checkbox"/> When entering the code, the colon character ":" represents the extension number. <i>Example</i> -- If your MWI On code is W1 followed by the extension number, enter the following sequence: ,W1: <input type="checkbox"/> It is recommended to always end the sequence with a comma (1-second pause) to allow the telephone system enough time to accept the command.
MWI CODE OFF	Code the system sends when a mailbox user has checked all new messages. <ul style="list-style-type: none"> <input type="checkbox"/> This code tells the telephone system to deactivate the MWI indicator for that mailbox's extension. <input type="checkbox"/> When entering the code, the character ":" represents the extension number. <i>Example</i> -- If your MWI Off code is W1 followed by the extension number, enter the following sequence: ,W1: <input type="checkbox"/> It is recommended to always end the sequence with a comma (1 second pause) to allow the telephone system enough time to accept the command.
MWI/OUTDIAL PORT CONTROL	Digit position tells the system which ports are allowed to make outdials. The first 4 positions correspond to ports 1 through 4 - from left to right. The last four digit positions must contain zeroes. <i>Default = 00030000.</i> (This tells the system to use port 4 to make all outdial calls.)
MAILBOX LENGTH	Tells the system how many digits are required for the mailbox numbers used in the system. The default is 3 digits. The setting is changeable between 2-4 digits.
TRANSFER SEQUENCE	Dialing pattern the system uses to transfer a caller from the Auto Attendant to a mailbox user's telephone. (<i>Default = L&</i>)
INTERNAL CALL PREFIX	System dials prefix to access internal dial tone. (This field is normally blank since most telephone systems supply dial tone when the port is taken off-hook to dial.)
RECONNECT SEQUENCE	Dialing pattern the system will use to reconnect to a caller when there is no answer at the called telephone extension. (<i>Default = L&</i>)
MINIMUM ON-HOOK DELAY	Period of time that a port will wait after hanging up before attempting to use that port for an outdial operation. <ul style="list-style-type: none"> <input type="checkbox"/> This prevents collisions when a new call appears at the port right after it has released a previous caller. <input type="checkbox"/> If no new incoming call is detected before this timer expires, the outdial request will be processed.
OUTDIAL CALL PREFIX	Dialing pattern used to tell the PBX an outside line is needed, such as during an outdial operation. <i>Default = L9,T.</i> If your trunk access code is different, change this value as required.
HANG-UP CODE	Most PBX systems are either programmed or automatically send a disconnect code. <ul style="list-style-type: none"> <input type="checkbox"/> When the PBX port is about to close (EX: an outside caller has hung up) a digit string is sent to the voice mail system. <input type="checkbox"/> If this string matches the entry in this field, the system saves any messages being recorded and then the port closes and waits for the next call.
FIRST DIGIT TIMEOUT	When receiving an incoming call: <ul style="list-style-type: none"> <input type="checkbox"/> This is the time that the system waits to see if DTMF integration strings are being sent to the system. <input type="checkbox"/> If no digits are received during this period, the system will then play the main greeting for that port and be ready to accept caller-dialed digits. (<i>Default value = 20, which represents 2000 ms or 2 seconds</i>)

Flash-Based Voice Mail

Field	Description
LAST DIGIT TIMEOUT	When the system receives DTMF integration strings: <ul style="list-style-type: none"> <input type="checkbox"/> This is the period of time to wait after each digit to determine if more digits are coming. <input type="checkbox"/> As each digit is received, this timer is re-started. <input type="checkbox"/> Once this timer expires, the system assumes that all DTMF integration digits have been received. <input type="checkbox"/> The received string is then analyzed to determine how the call must be processed.
DIRECT VOICE MAIL ACCESS	This is the digit that allows a caller to bypass the recorded greetings and go directly to a mailbox user's greeting.
DIAL BY NAME DIGIT	This is the digit that, when pressed, will activate the Dial-By-Name directory search function.
PROTOCOL AREA (DTMF / ACTION)	Area has two fields. Values are matched pairs: a DTMF Protocol and an Action to take if that protocol is found. <ul style="list-style-type: none"> <input type="checkbox"/> All protocol entries are compared in sequence to the inbound DTMF digits until a match is found. <input type="checkbox"/> If no match is found, the call is directed to the main greeting for that port.
- DTMF PROTOCOL	The pattern is matched against the incoming DTMF string for all call processing. After the correct pattern has been matched, then the corresponding action is taken <i>e.g.</i> , Protocol pattern MMM represents 3 digits.
- ACTION TAKEMSG ENTERMB VCMail_ACC IGNORE FAXEXT	Once a matching DTMF protocol is found, the Action column tells the system what to do with that particular call. The allowable actions are: <ul style="list-style-type: none"> <input type="checkbox"/> Take a message into the requested mailbox. <input type="checkbox"/> Open the requested mailbox, ask caller for password. <input type="checkbox"/> Signal the voice mail that a mailbox number will follow and open the corresponding mailbox to take a message. <input type="checkbox"/> Take no action when this DTMF protocol is received. <input type="checkbox"/> The voice mail system has built-in Fax Tone recognition. If a call is received on a port and fax tones are heard, the incoming call will be transferred to the programmed Fax Extension, if it exists and has been programmed in this section. To set up a Fax Extension (128 for this example): <ol style="list-style-type: none"> 1. Attach a fax machine to the dedicated single-line port 128. 2. Type 128 <space> F in any vacant field of the DTMF Protocol section. 3. Press the <ENTER> key. The entry will become 128 FaxExt Any time fax tones are detected, the call will be transferred to extension 128.
PROTOCOL ENTRY ORDER	This is the order of integration information as the telephone system sends it to the voice mail port. <p>Integration Examples</p> <p>Example 1 -- System answers a call and receives a three-digit extension number: 104 ... The system receives an entry for MMM. The Action for this protocol is TakeMsg. Once the match is made, the system opens mailbox 104, plays the mailbox greeting to the caller and records the message.</p> <p>Example 2 -- System answers a call and receives a code followed by a 3-digit extension number: [*] 104 ... The system receives an entry for [*]MMM. The Action for this protocol is TakeMsg. Once the match is made, the system opens mailbox 104, plays the mailbox greeting to the caller and records the message.</p> <p>Example 3 -- System answers a call and receives a code followed by a 3-digit extension number: [#] 104 ... The system receives an entry for #MMM. The Action for this protocol is EnterMB. Once the match is made, the system opens mailbox 104, plays the mailbox name to the caller and asks for their password.</p>

System Initialization



Enter [Y] to initialize the voice mail system and erase all messages. Enter [N] or press [Esc] to exit this option without initializing the voice mail system.



This action is permanent and non-reversible once activated by entering [Y]. Once initialized, you MUST select a new PBX integration (refer to ["PBX Integration" on page C-33](#)).

Messages Waiting Display

This screen displays how many new messages are waiting in the voice mail system and the mailboxes that own them.

- If a line has multiple mailbox numbers, this indicates that the message has been copied to other mailboxes.
- As mailbox owners listen to their messages and delete them, their numbers will be removed from the screen.

Msg No	Mailboxes
0	103
2	101
3	103
14	

Press ESC to return to previous menu

Figure C-18: Messages Waiting Screen

Debug Information Screen

This screen shows various trouble-shooting information fields. They will usually be used in conjunction with a Vodavi technician when trying to identify a problem that may be occurring.



This screen is accessible only when the Dealer Password is used to enter System Programming. Contact Technical Support for details.

Voice Prompts

The following table provides a listing of the default voice prompts that the system contains.

Table C-3: Voice Prompts (Defaults)

Number	Prompt
001	Hello, please enter the extension number of the person you are trying to reach. To reach an Operator, press 0.
002	Enter your mailbox number
003	I am sorry, there is no such mailbox number
004	Enter your password
005	Invalid password
006	Mailbox menu...To review your messages, press 1; Send a message, press 2; Mailbox options, press 3.
007	You have entered an incorrect digit
008	If you are satisfied with this message, press #...; to review, press 1; re-record, press 2; append, press 3; to cancel, press *
009	To replay the message, press 1...; to save this message, press 2; delete it, press 3; to send a copy, press 4; reply, press 5; for message information, press 8
010	To deactivate ...
011	Record a message at the tone. When you have finished , press #
012	To activate ...
013	Mailbox options ... Greetings, press 1; Password, press 2; Outcall notification, press 3; direct transfer, press 4
014	Hanging up now ... goodbye
015	Message deleted
016	To confirm deletion of this message, press #, to cancel, press *
017	To copy with comments, press 1, to copy without comments, press 2
018	Enter destination number
019	The mailbox is not empty
020	The system is full
021	Enter a new password
022	Press 1
023	No
024	You have...
025	new
026	and
027	saved
028	message
029	messages
030	Zero
031	One
032	Two
033	Three
034	Four
035	Five
036	Six
037	Seven
038	Eight
039	Nine
040	Ten
041	Eleven
042	Twelve

Table C-3: Voice Prompts (Defaults)

Number	Prompt
043	Thirteen
044	Fourteen
045	Fifteen
046	Sixteen
047	Seventeen
048	Eighteen
049	Nineteen
050	Twenty
051	Thirty
052	Forty
053	Fifty
054	Sixty
055	Seventy
056	Eighty
057	Ninety
058	1999
059	Two thousand
060	Message from
061	Mailbox
062	Message sent
063	an outside party
064	Sunday
065	Monday
066	Tuesday
067	Wednesday
068	Thursday
069	Friday
070	Saturday
071	January
072	February
073	March
074	April
075	May
076	June
077	July
078	August
079	September
080	October
081	November
082	December
083	AM
084	PM
085	Press 1 to change an access code, 2 to add a mailbox, 3 to delete a mailbox, 4 to record a mailbox greeting, 5 to reset MWI
086	Make your selection now
087	Dial system greeting

Table C-3: Voice Prompts (Defaults)

Number	Prompt
088	This message is too short, please record a longer message
089	Outcall notification is active
090	Outcall notification is deactivated
091	If you have a mailbox on this system, press #
092	Message delivered
093	Message saved
094	Message deleted
095	To send your message now, press #, to cancel, press *
096	* if there are no other recipients or enter next recipient's mailbox number now
097	I am sorry you are experiencing difficulties
098	First message
099	Next message
100	First saved message
101	You have entered too few digits
102	Password
103	At the tone, record your message. When you have finished recording, press #
104	System prompt review: To listen to one prompt, enter the three digit prompt number twice; To listen to a range of prompts, enter the range's first three digit prompt number followed by the second three digit prompt number; To listen to the prompt that was recorded last press the # key.
105	Please enter your three-digit number
106	Enter the extension number of the party you are calling. To dial by name, press 4.
107	- 0.7 seconds of silence - (NO RECORDING NEEDED HERE)
108	That mailbox is full and cannot accept any new messages
109	Remaining recording time is sixty seconds
110	You have no messages in your mailbox
111	Please hold, while I transfer your call
112	Press any key to continue
113	Greetings... Review, press 1; Record, press 2; Delete, press 3
114	To review your name, press 1; mailbox greeting, press 2; temporary greeting, press 3
115	To record your name, press 1; mailbox greeting, press 2; temporary greeting, press 3
116	To delete your name, press 1; mailbox greeting, press 2; temporary greeting, press 3
117	Greeting has not been recorded
118	Name has not been recorded
119	Temporary greeting has not been recorded
120	Greeting was deleted
121	Name was deleted
122	Temporary greeting was deleted
123	There is no free mailbox
124	Is located in table entry . . .
125	Press # to confirm deletion of this mailbox, * to cancel
126	Mailbox was deleted
127	To select normal greeting press 1, to select temporary greeting press 2, to set greeting number, press 3.
128	- Default Voice Menu greeting -
129	- Welcome 1 = System Greeting 01
130	- Welcome 2 = System Greeting 02
131	- Greeting 3 = System Greeting 03
132	- Greeting 4 = System Greeting 04

Table C-3: Voice Prompts (Defaults)

Number	Prompt
133	- Greeting 5 = System Greeting 05
134	- (Initially empty) = System Greeting 06
135	- (Initially empty) = System Greeting 07
136	- (Initially empty) = System Greeting 08
137	- (Initially empty) = System Greeting 09
138	- (Open prompt)
139	- (Open prompt)
140	- (Open prompt)
141	- (Open prompt)
142	- (Open prompt)
143	- (Open prompt)
144	Select port number
145	Port number . . .
146	. . . ls set to . . .
147	Normal greeting
148	Temporary greeting
149	Administrator options - For System greetings, press 1; Mailbox Administration, press 2; Auto Attendant configuration, press 3; Set date and time, press 4; Set operating mode, press 5; To select PBX integration, press 6; To record a prompt, press 7; To listen to a prompt, press 8; To change Opening and Closing schedule, press 9.
150	Your request has been processed
151	Enter greeting number
152	Greeting was recorded
153	Greeting was erased
154	To review data press 1; to change, press 2; to exit press *
155	Enter time in 24-hour format
156	Enter date in MMDDYY format
157	Mode
158	Select mode: for day mode, press 1; for night mode, press 2; for automatic mode, press 3
159	Dial integration number
160	Integration number
161	This mailbox already exists
162	You selected an invalid integration number
163	The system has reached 80 percent of capacity
164	Your mailbox is already in use
165	Your outcall number needs to be programmed
166	Dial extension number
167	Dial class of service number
168	The mailbox is now active
169	Enter the 3-digit prompt number and record at the tone. Press # when finished
170	Enter new value
171	For DISA operation press 4
172	This feature is not available
173	This feature is currently in use, please try again later
174	Dial destination number
175	End of messages
176	Playback is paused. Press 6 to resume playback.
177	To review, press 1; To change, 2; To delete 3

Table C-3: Voice Prompts (Defaults)

Number	Prompt
178	The beeper number is
179	Insert the beeper number
180	Deleted
181	The opening time for
182	The closing time for
183	Time is not set
184	Select day of week - 1 for Sunday through 7 for Saturday
185	Select opening or closing time - 2 for close and 6 for open
186	Day greeting
187	Night greeting
188	Greeting
189	Is selected for
190	All ports
191	No ports
192	Select day, night, or temporary greeting - 3 for day, 6 for night, or 8 for temporary
193	Port
194	Select first letter of last name
195	For
196	Press
197	Select first letter of first name
198	Transfer options - press 1 to transfer to your extension, press 2 to transfer to your mailbox
199	Transfer is set to extension
200	Transfer is set to mailbox
201	To dial beeper number, press 4

User Operations

This section explains how to operate the *Flash-based Voice Mail* features.

How to Use the Voice Mail System

- The system is programmed to respond when any of the 12 telephone keys are pressed. If no key is pressed in response to a prompt, the system assumes the caller is confused.
- The system repeats the caller's options. If there is still no response, the system automatically transfers an external caller to an attendant, or politely disconnects a user from the call.
- The system counts the number of errors (incorrect key presses) that a caller makes. If the count exceeds a certain number (usually 3) the caller is politely disconnected. The system does this to allow as many callers on the system as possible.

[*]Key

Use the [*] key to perform the following functions:

- Cancel what you are doing.
- Skip personal greetings and introductory prompts. (It gets you directly to the recording tone.)
- Return to the previous menu, while listening to a prompt.
- Disconnect, when at the Main Menu.

[#] Key

Use the [#] key to perform the following functions:

- Complete a step.
- Send a message.
- Skip a message.
- Denote the end of a variable-length number, such as a password (this keeps the system from having to wait to determine if you are finished entering digits).

Getting Started

Setting Up Your Mailbox

You need the following information from your system administrator to set up your mailbox: the number to reach the voice mail system, your mailbox number, and your temporary password. After you have this information, follow these steps:

1. Call the voice mail system: _____ (for example, dial 440).
2. If you hear the system greeting, press [#], then enter your mailbox number.
3. When asked for your temporary password, enter ____ (for example, 0000).
4. Press [3] for Mailbox Options.
5. Press [2] for Passwords.

6. When prompted, enter your new password. The system will confirm the new number selected and will then take you back to the Personal Options Menu.
7. Press [1] for Greetings.
8. Press [2] to Record.
9. Press [1] to Record your Name and [2] to Record your Mailbox Greeting. Follow the prompts to record both.
10. Press [#] to stop recording.

Your mailbox is now set up and ready to use. You may wish to change your mailbox greeting from time to time. To change your mailbox greeting, refer to "[Changing Your Mailbox Greeting](#)".

Accessing Your Mailbox

1. Call the voice mail system.
2. If you hear the system greeting, press [#] and your mailbox number.
3. Enter your password. The system will then tell you how many new and how many saved messages you have. The main mailbox menu is then played.

Disconnecting from the System

1. When you finish using the system, press [*] until the system says, "Hanging up now. Goodbye."
2. If after pressing [1] you attempt to disconnect while there are new messages in your mailbox, the system plays a message, "The mailbox is not empty."
Press [1] if you wish to listen to the new message. Press [*] to hang up.

Message Options

Review Your Messages

Messages in your mailbox come from either external callers, who leave messages while in the telephone answering mode, or from other internal users. Messages are presented to you in the following order: new messages, skipped messages, and saved messages.

After the last new message has been presented to you, the system searches the mailbox to see if there are any remaining new messages to be reviewed. In particular, if new messages arrive during message review, they are presented in the same order as before but are considered "skipped".

To review the messages in your mailbox:

1. At the main menu, press [1]. The system plays your messages.
2. After each message is reviewed, the system prompts you for an action. The available options are.

[1]	Replay	repeats the entire message.
[2]	Save	keeps the message in your mailbox for future reference.
[3+#]	Delete	allows you to discard the message and confirm deletion.
[4]	Forward/Copy	allows you to forward a copy of the message to another user. When you send a copy, you have the option to send the copy with or without introductory comments.
[5]	Reply	allows you to record a reply to a message sent from another user's mailbox with a single keystroke.
[8]	Message Information	plays the time and date the message was sent, and where the message originated from.
[*]	Cancel	cancels message review.
[#]	Skip	skips to next message in the queue.



Any message not completely reviewed and either saved or deleted remains in the new message queue. If you forget to press [] to cancel review and just hang up, all partially reviewed and unheard messages will remain in the new message queue.*

Replay a Message

At the end of a message (when the system prompts with the "After Reviewing" menu) you can replay that message in its entirety.

1. At the Main Menu, press [1] to review the message.
2. When the message ends, press [1] again to replay the message.

Save a Message

If the message needs to be acted on later, it may be saved. Saved messages are kept in a separate queue. They will be played after new messages.

1. At the Main Menu, press [1] to review the message.
2. Press [2] to save the message.

Delete a Message

Deleting messages keeps the mailbox clear and reduces the need for system storage capacity. To delete a message:

1. At the Main Menu, press [1] to review the message.
2. Press [3] to delete the message.
3. Press [#] to confirm deletion.



*After a message has been deleted, it **cannot** be restored.*

Forward a Copy to Another Mailbox

You may wish to forward a copy of a message to another user. You can record introductory remarks and send the remarks plus a copy of the message to another user or just send the message. Copies may be sent to one or more users. You may send copies of messages that are received in either voice mail or telephone answering mode. To send a copy of a message:

1. At the Main Menu, press [1] to review the message.
2. Press [4] to forward the message.
3. Select the desired option:
Send w/ Comments = [1], then record your comments.
-or-
Send w/o Comments = [2].
4. Press [#], then enter destination.

Reply to a Message

You can reply to a message sent from another user's mailbox by pressing one key. Therefore, users should enter their own mailbox to record a message before sending, so recipients can conveniently reply.

1. At the Main Menu, press [1] to review the message.
2. Press [5] to reply to the message.
3. Press [#] if the message is acceptable.
4. Press [#] again to send the reply.

Message Information

Details about a message are available: who sent it and the time and date it was delivered. This information is called Message Information. To access message information, press [8] after listening to the message to hear the information that relates to that message.

- The time and date stamp on a new message always relates to message delivery.
- Once a message is saved, the time and date stamp refers to the time it was first saved.
- This time and date stamp allows the user to know how much longer the message can stay in the mailbox before it is automatically deleted.
- Reviewing a message and re-saving it does not change the time and date stamp or when the system automatically deletes the message.

Options While Reviewing

As you become more experienced, you may want to control the playback of the messages you receive. The system playback controls are designed to give you that flexibility. For example, with playback controls, you can scan through a long message to find a telephone number without reviewing the entire message. After dialing [1] to review a message, you can press:

- [1] Rewind to the beginning of the message
- [6] Pause and restart the message
- [7] Rewind 5 seconds
- [9] Fast Forward 5 seconds
- [#] Skip to the next message

Send a Message

1. At the Main Menu, press [2] to access options to send a message.
2. Press [2] to Record a Message. The system prompts you to begin recording your message.
3. Record the message.
4. Press [#] to end the recording.

The system prompts you to send the message after giving you a chance to:

- [1] listen to the message you have just recorded,
 - [2] re-record the message,
 - or-
 - [3] append to the recording,
 - or-
 - [*] delete the message and begin again.
5. When the message is acceptable, press [#].
 6. Enter the destination.
 - The destination is the mailbox number of the person who is to receive the message. Messages may be sent individually or in combination with other destinations.
 - Once you enter the mailbox number, the system plays back the name of the person whose mailbox you have selected.
 - If you have selected the wrong mailbox, press the [*] key and enter a new number.
 7. Press [#] if there are no more destinations, or continue from Step 5.

Mailbox Greeting Options

Changing Your Mailbox Greeting

Your mailbox greeting is played to outside callers who enter a system mailbox in the telephone answering mode. This greeting enables you to give callers information about your schedule and to encourage callers to leave detailed messages.

To change your mailbox greeting:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting Options.
3. Press [2] to select the Record option.
4. Press [2] to record a Mailbox Greeting.
5. Record your greeting, then press [#].



If a mailbox greeting has not been recorded, the system uses your recorded name.

Reviewing Your Mailbox Greeting

You may use Personal Options to review your recorded greeting. To review your mailbox greeting:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [1] to select the Review option.
4. Press [2] to review the Mailbox Greeting.

Deleting Your Mailbox Greeting

The standard system greeting (recorded name) may be selected at any time by deleting your recorded greeting without recording a new one.

To delete your mailbox greeting:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [3] to select the Delete option.
4. Press [2] to delete the Mailbox Greeting.

Recording Your Name

You record your name the first time you use your mailbox. The recording of the name will be used to verify destinations, or as part of a system-generated personal greeting. You may change the way your name is recorded at any time.

To record your name:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [2] to select the Record option.
4. Press [1] to record your name.
5. Record your name, then press [#].

Reviewing Your Name

You may use Personal Options to review your recorded name. To review your name:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [1] to select the Review option.
4. Press [1] to review the recording of your name.

Deleting Your Name

To delete your name:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [3] to select the Delete option.
4. Press [1] to delete the recording of your name.

Recording Your Temporary Greeting

To record a Temporary Greeting:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [2] to select the Record option.
4. Press [3] to record a Temporary Greeting.
5. Record the greeting, then press [#]

Reviewing Your Temporary Greeting

To review your temporary greeting:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [1] to select the Review option.
4. Press [3] to review the Temporary Greeting.

Deleting Your Temporary Greeting

To delete a temporary greeting:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [1] to access Mailbox Greeting options.
3. Press [3] to select the Delete option.
4. Press [3] to delete the Temporary Greeting.

Passwords

There is one password that is associated with each user mailbox. Each password is 4 numeric digits in length. A zero [0] should not be used as the first digit.

Changing Your Password

To change your password:

1. At the Main Menu, press [3] to access Mailbox Options.
2. Press [2] for Passwords.
3. Enter the desired password.

Outcall Notification

You can use the optional outcall notification feature to have the system call your pager and notify you that a new message has been received in your mailbox. Your system administrator will set up your notification schedule and can program your pager number. You can also program your pager number using the procedure, ["Entering An Outcall Number"](#), described below.

Turning Outcall On/Off

Once the outcall schedules and your pager number have been programmed, outcall notification can be turned on and off whenever desired. Outcall On/Off is a toggle. If outcall notification has been turned on, this procedure will turn it off.

1. From the Main Menu, press [3] to access Mailbox Options.
2. Press [3] for Outcall Notification.
3. Press [1] to activate or deactivate this option.



If an Outcall number is not already entered (refer to ["Entering An Outcall Number"](#) on page C-51), Outcall Notification cannot be activated.

Entering An Outcall Number

You must enter a telephone number so that the system will be able to automatically inform you of new messages via the Outcall Notification feature.

1. From the Main Menu, press [3] to access Mailbox Options.
2. Press [3] for Outcall Notification.
3. Press [4] to select the Outcall Number option.
4. Enter the Outcall telephone number.
5. Either press [1] to review, [2] to change, or [3] to delete the Outcall telephone number.

Direct Transfer

You can program the voice mail system so that incoming calls either initially ring at your extension prior to transferring to your voice mailbox or ring directly to your voice mailbox.

1. From the Main Menu, press [3] to access Mailbox Options.
2. Press [4] for Direct Transfer.
3. Press [1] to select the Extension option or press [2] to select the Mailbox option.

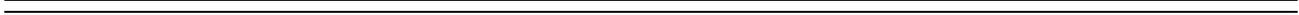
D

Customer Database Programming

This appendix provides information about database programming. Use the detailed procedures contained in other chapters and appendices for actual programming via *STS* display telephone. Use the Customer Database Worksheets in this appendix to help keep track of the system programming changes made for each individual system.



NOTES



Introduction

The *STS* system is programmed to meet each customer's individual needs. All programming is done at any 24-Button *STS* Telephone as the programming station or through an ASCII terminal or PC. The digital display model is required for programming.

When the programming mode is entered, the digital telephone being used no longer operates as a telephone but as a programming station with all of the buttons redefined. The keys on the dial pad are used to enter data fields (Program Codes) associated with system, station, and CO line features as well as specific data that requires a numeric entry. Flexible buttons toggle on or off features, or enable entry of specific data fields. LEDs and the LCD display provide a visual indication of entered data and their value.

Programming is also performed using an ASCII terminal, or a computer capable of emulating an ASCII terminal. This form of programming is done locally (on-site) by connecting the terminal directly to the RS-232C connector on the BKSU or is performed remotely (off-site) through the use of the 9600 baud modem. The method and steps to program the system via a PC are identical to those used when programming from a digital key set. A button to keyboard mapping is provided (refer to [Figure D-2 on page D-4](#)) to help minimize familiarization and training time.

The system must be initialized to load default data into memory at the time of installation. If this preprogramming is acceptable to the customer, initialization is all that is needed. Refer to [Table E-1 on page E-3](#) for a listing of all the default values.

When features are programmed, tones are provided to determine if a correct or incorrect entry has been made. A solid one second tone indicates the data was accepted. An interrupted tone means an error was made. When this occurs, re-enter the data and information.

Until new data is entered and accepted, the system continues to operate under default or previously entered values.

The system database is updated on a real-time basis as new data is entered, by pressing the Hold button. The system continues to operate with the current database and is updated with any newly entered or changed data without interruption to telephone operation or call processing in progress. However, if for example a station's attributes are changed while that station is off-hook on an active call, the newly entered data does not take effect until the station goes on-hook or becomes idle.

When using a PC to program the system, the following chart presents the data terminal characters that are equivalent to the key set buttons.



Some features must have more than one data field programmed for that feature to work. This information is stated in the instructions.

```

adm>
REMOTE ADMIN KEY DEFINITION
-----
Keyset   Term   Keyset   Term   Keyset   Term
-----
0         0     FLEX 1   Q     FLEX 13  D
1         1     FLEX 2   W     FLEX 14  F
2         2     FLEX 3   E     FLEX 15  G
3         3     FLEX 4   R     FLEX 16  H
4         4     FLEX 5   T     FLEX 17  J
5         5     FLEX 6   Y     FLEX 18  K
6         6     FLEX 7   U     FLEX 19  L
7         7     FLEX 8   I     FLEX 20  ;
8         8     FLEX 9   O     FLEX 21  Z
9         9     FLEX 10  P     FLEX 22  X
*         *     FLEX 11  A     FLEX 23  C
#         #     FLEX 12  S     FLEX 24  V
TRANS    B     MUTE     N     ON-OFF   M
FLASH    ,     HOLD     CR    HELP     ?
adm>
    
```

Figure D-1: Data Terminal Program Codes Cross Reference

FLEX 1	FLEX 2	FLEX 3	FLEX 4
Q	W	E	R
FLEX 5	FLEX 6	FLEX 7	FLEX 8
T	Y	U	I
FLEX 9	FLEX 10	FLEX 11	FLEX 12
O	P	A	S
FLEX 13	FLEX 14	FLEX 15	FLEX 16
D	F	G	H
FLEX 17	FLEX 18	FLEX 19	FLEX 20
J	K	L	;
FLEX 21	FLEX 22	FLEX 23	FLEX 24
Z	X	C	V

Figure D-2: Programming Button Mapping

Program Mode Entry (Key Station)

Programming is performed at any 24-button Digital Display Terminal. Programming is always done at this type of station regardless of the class of service or which station has been assigned as the attendant(s).

To enter the Program Mode:

1. Press the ON/OFF button (optional). LED lights and intercom dial tone sounds.
2. On the dial pad, press [*][*][3][2][2][6] (default password). A confirmation tone sounds.
3. The ON/OFF button LED is lit. The system is ready to program.

DEFAULT ... Station 100 programming only

Program Mode Entry (Data Terminal or PC)

A PC terminal connected to the RS-232C port on the MBU, or remotely through the 9600 baud modem, is used for database programming. When using a data terminal (ASCII or PC capable of emulating an ASCII terminal) on-site or locally, to program the system:

1. Press <Enter> on the terminal.
2. Enter the password [default = **3226vodavi**], and press <Enter> again. Proper entry of the password results in the Adm> prompt. Proceed with programming referring to [Figure D-1 on page D-4](#) for terminal characters that represent the key set buttons. By entering [?] from the terminal, a Help screen displays.

When entering the system remotely via a PC, access to the modem is accomplished by accessing Port 499 through a direct ringing assignment or through DISA or by being transferred to Port 499.

Initialization

The system has been preprogrammed with certain features called default data (refer to [Table E-1 on page E-3](#)). These features are loaded into memory when the system is initialized.



The system should be initialized when installed or at any time the database has been corrupted.

To Return the Database to the System Default Values:

1. Place Switch #8 on BKSU to the ON position.
2. Turn the power off and on to initialize the system database to the default.
3. Once database is initialized (phone displays the station number), place Switch #8 in the OFF position to protect the database.

Database Programming Worksheets

Before attempting programming, it is strongly recommended that customer database worksheets be prepared (Refer to *"Programming Tables" on page D-11*). These worksheets should become part of the permanent record of customer programming. Refer to the following sections when preparing the worksheets.

Database Upload/Download Routine

The Database Upload/Download Routine (**FLASH 86**) provides a maintenance facility which permits the user to download the database to a PC, when a software change is made or when the system needs to be initialized and reprogrammed. The Upload/Download Routine facilitates the programming of a database on an in-house system which is downloaded to a PC and then uploaded to a system in the field.

After the system maintenance is completed, the file saved in the PC can then be uploaded to the system.



All trace modes such as: SMDR (Flash 21), ICLID (Flash56), and Maintenance Event Traces MUST be turned off before a download is performed!

Default telephone type = 24-button model

Upload/Download through Remote Administration

First, connect one end of an RS-232C serial cable from the RS-232C connector on the BKSU to the desired Comm Port on the PC.



Use a straight-through DB-9 to DB-9 (female to female) cable.

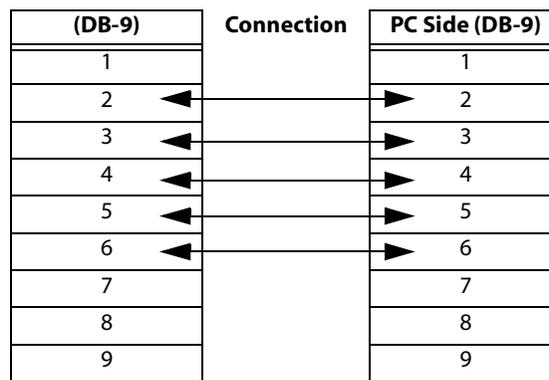


Figure D-3: KSU to PC Connection Configuration

Then load a communication software package (e.g., Hyperterminal) into the PC and complete the following steps to reconfigure the system.

HYPERTERMINAL -- Uploading a Database File

After opening HyperTerminal, and the New Connection screen displays, complete the following steps:

1. Type a connection name and select the appropriate icon, then click <OK>.
2. When the Phone Number screen displays, change the setting in the Connect Using box to: Direct to COM1, and then click <OK>.
3. Once the COM1 Properties screen displays, change the settings as shown, and then click <OK>.
 - Baud Rate = 9600
 - Parity = None
 - Data Bits = 8
 - Stop Bits = 1
 - Flow Control = Xon/Xoff or None
4. Press <Enter> and complete the following fields:

Screen Field	Action
ENTER PASSWORD:	Type password: XXXXVODAVI (XXXX = default password for online administration)
ADM> ,	Type program number.
ADM>86	Load database routine. Type button number.
ADM>Q	Upload database. Press HOLD button.
ADM>	Press <Enter> key twice.

5. On the tool bar, click <Transfer> and select Send File.
6. Change Protocol setting to XMODEM.
7. Click <Browse> to locate database file; double-click on the filename.
8. Click <Send>. Adm> prompt displays when file transfer is complete.

HYPERTERMINAL -- Downloading a Database File

After opening HyperTerminal, and the New Connection screen displays, complete the following steps:

1. Type connection name and select appropriate icon, then click <OK>.
2. When the Phone Number screen displays, change the setting in the Connect Using box to: Direct to COM1, and then click <OK>.
3. Once the COM1 Properties screen displays, change the settings as shown, and then click <OK>.
 - Baud Rate = 9600
 - Parity = None
 - Data Bits = 8
 - Stop Bits = 1
 - Flow Control = Xon/Xoff or None
4. Press <Enter> and complete the following fields:

Screen Fields	Action
ENTER PASSWORD:	Type password: XXXXVODAVI (XXXX = default password for online administration)
ADM>,	Type program number.
ADM>86	Load database routine. Type button number.
ADM>W	Download database. Press HOLD button.
ADM>	Press <Enter> key twice.

5. On the tool bar, click <Transfer> and select Receive File.
6. Change Receive Protocol setting to XMODEM, and click <Receive>.
7. Type database filename and click <OK>. The Adm> prompt displays when the file transfer is complete.

ECOM -- Uploading a Database File

After opening ECOM:

1. Press <Alt> + <P> to open COM Port Options.
2. Change COM port settings as follows, and click <OK>.
 - Baud Rate = 9600
 - Parity = None
 - Data Bits = 8
 - Stop Bits = 1
 - Flow Control = no boxes checked, Xon=17, Xoff=19
3. Press <Enter> and complete the following fields:

Screen Fields	Action
ENTER PASSWORD:	Type password: XXXXVODAVI (XXXX = default password for online administration)
ADM> ,	Type program number.
ADM>86	Load database routine. Type button number.
ADM>Q	Upload database. Press HOLD button.
ADM>	Press <Enter> key twice.

4. Press <PgUp> on keyboard or locate file and select Upload.
5. Highlight XMODEM and click <OK>.
6. Type or select upload filename and click <OK>. The Adm> prompt displays when the file transfer is complete.

ECOM -- Downloading a Database File

After opening ECOM:

1. Press <Alt> + <P> to open COM Port Options.
2. Change COM port settings as follows, and click <OK>.
 - Baud Rate = 9600
 - Parity = None
 - Data Bits = 8
 - Stop Bits = 1
 - Flow Control = no boxes checked, Xon=17, Xoff=19
3. Press <Enter> and complete the following fields:

Screen Fields	Action
ENTER PASSWORD:	Type password: XXXXVODAVI (XXXX = default password for online administration)
ADM> ,	Type program number.
ADM>86	Load database routine. Type button number.
ADM>W	Download database. Press HOLD button.
ADM>	Press <Enter> key twice.

4. Press <PgDn> on keyboard or locate file and select Download.
5. Highlight XMODEM and click <OK>.
6. Type or select download filename and click <OK>. The Adm> prompt displays when the file transfer is complete.

Programming Tables

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 01	System Timers				
	1	System Hold Recall Timer	000-300	060 sec	
	2	Exclusive Hold Recall Timer	000-300	180 sec	
	3	Attendant Recall Timer	00-60	01 min	
	4	Transfer Recall Timer	000-300	045 sec	
	7	Pause Timer	1-9	2 sec	
	8	Call Park Recall Timer	000-600	180 sec	
	9	Conference/DISA Timer	00-99	10 min	
	10	Paging Time-out Timer	00-60	15 sec	
	11	CO Ring Detect Timer	2-9	3=300 ms	
	12	SLT DTMF Receiver Timer	005-100	020 sec	
	13	Message Wait Reminder Tone	000-104	000 min	
	14	SLT Hook Switch Timer	05-20	10=1 sec	
	15	SLT Hook Switch Bounce Timer	000-100	030=300 ms	
	16	SMDR Call Qualification Timer	00-60	30 sec	
	17	Automatic Call Back Timer	00-99	03 sec	
18	Reminder Ring Timer	00-99	00 sec		
20	Flexible Inter-Digit Time-out	01-99	5 sec		
FLASH 02	Additional System Timers				
	1	Repeat Redial Timer	006-999	060 sec	
	2	Attendant Display Timer	00-99	01 sec	
	3	Call Coverage Ring Timer	00-99	05 sec	
	4	Modem Answer T/O	25-99	025 sec	
	5	Pulse Dial Inter-Digit Timer	300-600	300 ms	
	6	DTMF Time Operation	1-9	1=100ms	

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 05	System Features 1 Programming				
	1	Attendant Override	Disabled/Enabled	Disabled	
	2	Hold Preference	System/Exclusive	System	
	3	External Night Ring	Disabled/Enabled	Disabled	
	4	Executive Override Warning Tone	Disabled/Enabled	Enabled	
	5	Page Warning Tone	Disabled/Enabled	Enabled	
	6	Background Music Channel	Disabled/Enabled	Enabled	
	7	Least Cost Routing	Disabled/Enabled	Disabled	
	8	Account Codes - Forced	Disabled/Enabled	Disabled	
	9	Group Listening	Disabled/Enabled	Disabled	
	10	Idle Speaker Mode	Disabled/Enabled	Disabled	
	11	Call Cost Display Feature	Disabled/Enabled	Disabled	
	12	Music-On-Hold	Disabled/Enabled	Enabled	
FLASH 06	System Features 2 Programming				
	1	Privacy Release Tone Option	Disabled/Enabled	Enabled	
	2	Distinctive CO Ringing	Disabled/Enabled	Enabled	
	3	Verified Account Code	Disabled/Enabled	Disabled	
	4	Call Forward Display	Disabled/Enabled	Enabled	
	5	External Day Ring	Disabled/Enabled	Disabled	
	6	Overflow Station Forward	Disabled/Enabled	Disabled	
	7	Direct Transfer Mode	Disabled/Enabled	Enabled	
	8	Station ID Lock	Disabled/Enabled	Disabled	
	9	LCR Call Progress	Disabled/Enabled	Enabled	
	10	One-Touch Recording Warning Tone	Disabled/Enabled	Enabled	
	11	Ringback on Transfer	Disabled/Enabled	Disabled	
	13	911 Feature (Attendant Alert)	Disabled/Enabled	Disabled	
	14	E911 Feature	Disabled/Enabled	Disabled	
	15	VMID Station Numbers		STA #s=VMID	

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 07	Flash Rates (Programmable)				
	1	Incoming CO Line Ringing	00-28	Red 480ipm flutter (08)	
	2	Incoming Intercom Ringing	00-28	Red 120ipm flutter (11)	
	3	Call Forward Button	00-28	Red Steady On (01)	
	4	Message Wait/VM Button	00-28	Red Steady On (01)	
	5	Message CallBack DSS/BLF	00-28	Red 120ipm flutter (11)	
	6	Do Not Disturb DSS/BLF	00-28	Red 60ipm dbl wink off (04)	
	7	Auto CallBack DSS/BLF	00-28	Red 120ipm flash (10)	
	8	UCD Available/Unavailable DSS/BLF	00-28	Red 60ipm dbl wink off (04)	
	9	Transfer CO Ringing	00-28	Red 120ipm flash (10)	
	10	Recall CO Ringing	00-28	Red 480ipm flutter (08)	
	11	Queued CO Ringing	00-28	Green 480ipm flutter (22)	
	12	Exclusive Hold	00-28	Green 120ipm flash (24)	
	13	System Hold	00-28	Red 60ipm dbl wink off (04)	
	14	In Use Hold (I-Hold)	00-28	Green 60ipm flash (17)	
	15	Camp-On Button	00-28	Red 120ipm flash (10)	
	16	Call Back Button	00-28	Red 120ipm flash (10)	
	17	Line Queue Button	00-28	Red 480ipm flutter (08)	
	18	Do Not Disturb Button	00-28	Red Steady On (01)	
19	Intercom Hold Button	00-28	Red 15ipm flash (09)		

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 09	1	MOH Assignments	Channel 3	None	
	2	MOH Assignments	Channel 4	None	
	3	MOH Assignments	Channel 5	None	
	4	MOH Assignments	Channel 6	None	
	5	MOH Assignments	Channel 7	None	
	6	MOH Assignments	Channel 8	None	
	7	E911 Power Failure	SLT Sta #	None	
	9	Leading Digit	0-9	0	
	10	School Mode	0, 6-9	0	
	11	School Forward Destination	Dest #	None	
FLASH 10		Attendant Station Assignment		STA 100	
FLASH 11	1	System Time And Date	YY/MM/DD/HH/ MM, 12/24	MMM/DD/ YY, 12Hr	
FLASH 12		PBX Dialing Codes	5 (2-digits)	None	
FLASH 13	1	Executive/Secretary Pairs	Sta #, Sta #	None	
	2	Executive/Secretary Pairs	Sta #, Sta #	None	
	3	Executive/Secretary Pairs	Sta #, Sta #	None	
	4	Executive/Secretary Pairs	Sta #, Sta #	None	
FLASH 14	1	Relay Programming		None	
FLASH 15	Baud Rate Assignments				
	1	Port #1 (RS-232C port on BKSU)		9600	
	2	Port #2 (RS-232C port on BKSU)		9600	
	3	Port #3 (optional modem - baud auto-negotiated)		None	N/A
FLASH 20	Access Codes				
	1	DISA Access Code	100-999	100	
	2	Database Admin Password	0000-9999	3226	

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 21	Station Message Detail Recording				
	1	SMDR Enable/Disable	Disabled/Enabled	Disabled	
	2	Long Distance/Local Assignment	LD/All	LD Only	
	3	Character Print Assignment	80/30	80	
	5	SMDR Port Assignments	1 or 2	Port #1	
FLASH 22	Weekly Night Mode Schedule				
	1	Automatic/Manual Operation	Auto/Manual	Manual	
	2	Day of Week Programming	08:00-17:00 ####-####	(0-4) (5-6)	
	3	Day of Week Programming	08:00-17:00 ####-####	(0-4) (5-6)	
	4	Day of Week Programming	08:00-17:00 ####-####	(0-4) (5-6)	
	5	Day of Week Programming	08:00-17:00 ####-####	(0-4) (5-6)	
	6	Day of Week Programming	08:00-17:00 ####-####	(0-4) (5-6)	
	7	Day of Week Programming	08:00-17:00 ####-####	(0-4) (5-6)	
	8	Day of Week Programming	08:00-17:00 ####-####	(0-4) (5-6)	
FLASH 42	Flexible CO Port Assignments				
	1	Flexible CO Port		Ports 1-4	
	2	Flexible CO Port		Ports 5-8	
	3	Flexible CO Port		Ports 9-12	
	4	Flexible CO Port		Ports 13-16	
	5	Flexible CO Port		Ports 17-20	
	6	Flexible CO Port		Ports 21-24	
	7	Flexible CO Port		Ports 25-28	

Customer Database Programming

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 47	T-1/ISDN Alarm Programming				
	1	Carrier Loss Alarm	Disabled/Enabled	Enabled	
	2	Blue Alarm	Disabled/Enabled	Enabled	
	3	Yellow Alarm	Disabled/Enabled	Enabled	
	4	Red Alarm	Disabled/Enabled	Enabled	
	5	Bipolar Alarm	Disabled/Enabled	Enabled	
	6	Frame Slip Alarm	Disabled/Enabled	Enabled	
	7	Data Errors Alarm	Disabled/Enabled	Enabled	
	11	Enable/Disable (Carrier Loss Alarm)	Disabled/Enabled	Enabled	
	12	Clear Alarm	Disabled/Enabled	Enabled	
	13	Minor Alarm	00-99 min	15 min	
	14	Major Alarm	00-99 min	30 min	
	15	Time Period	00-99 min	5 min	
	16	Attendant Display	Disabled/Enabled	Enabled	
FLASH 52	Flexible Numbering Assignments				
	21/24	Station		Port	Flexible
		100		100	
		101		101	
		102		102	
		103		103	
		104		104	
		105		105	
		106		106	
		107		107	
		108		108	
		109		109	
		110		110	
		111		111	
		112		112	
		113		113	
		114		114	
115		115			
116		116			

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 52	Flexible Numbering Assignments				
	21/24	Station		Port	Flexible
		117		117	
		118		118	
		119		119	
		120		120	
		121		121	
		122		122	
		123		123	
		124		124	
		125		125	
		126		126	
		127		127	
		128		128	
		129		129	
		130		130	
		131		131	
		132		132	
		133		133	
		134		134	
		135		135	
		136		136	
		137		137	
		138		138	
		139		139	
		140		140	
		141		141	
		142		142	
	143		143		
	144		144		
	145		145		
	146		146		
	147		147		

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 52	Flexible Numbering Assignments				
	21/24	Station		Port	Flexible
		148		148	
		149		149	
		Numbering Plan		Fixed	Flexible
		911 Attendant Alert		608	
		Account Code		627	
		All Call Page		700	
		Answering Machine Ring		6540	
		Answering Machine Speaker		6541	
		Attendant CO Line External (Off-Net) Forward		603	
		Attendant Custom Message		694	
		Attendant Day/Night/Special (DND Key)		631	
		Attendant Directory List Programming		693	
		Attendant Disable Outgoing CO Line		602	
		Attendant Override		601	
		Attendant Setting Time and Date		692	
		Attendant Unavailable		607	
		Attendant Voice Mail Alarm Clear		656	
		Background Music		632	
		Call Back		622	
		Call Coverage - Non-Ringing		647	
		Call Coverage - Ringing		646	
		Call Forward		640	
		Call Forward - Follow Me		642	
		Call Park Group 1		430	
		Call Park Group 2		431	
		Call Park Group 3		432	
		Call Park Group 4		433	
		Call Park Group 5		434	
		Call Park Group 6		435	
		Call Park Group 7		436	
		Call Park Group 8		437	

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data	
FLASH 52	Flexible Numbering Assignments					
	21/24	Numbering Plan			Fixed	Flexible
		Call Park - Personal			438	
		Call Park - Station			439	
		Call Park Pickup - Station			#6	
		Call Park Pickup - System (group 1)			#430	
		Call Park Pickup - System (group 2)			#431	
		Call Park Pickup - System (group 3)			#432	
		Call Park Pickup - System (group 4)			#433	
		Call Park Pickup - System (group 5)			#434	
		Call Park Pickup - System (group 6)			#435	
		Call Park Pickup - System (group 7)			#436	
		Call Park Pickup - System (group 8)			#437	
		Caller ID Display (Answered Calls)			659	
		Caller ID Display (Unanswered Call)			635	
		Caller ID Name/Number			653	
		Calling Forward Override			5#	
		Calling Station Handsfree Mode Override			7#	
		Calling Station Tone Mode Override			6#	
		Camp On			620	
		Clear Fwd, DND, Msg			662	
		CO Line (Idle) Direct Access			88	
		CO Line Group Access Code (group 0)			800	
		CO Line Group Access Code (group 1)			801	
		CO Line Group Access Code (group 2)			802	
		CO Line Group Access Code (group 3)			803	
		CO Line Group Access Code (group 4)			804	
		CO Line Group Access Code (group 5)			805	
		CO Line Group Access Code (group 6)			806	
		CO Line Group Access Code (group 7)			807	
CO Line Group Access Code (group 8)			808			
CO Line Group Access Code (group 9)			809			
CO Line Group Access Code (group 10)			810			

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 52	Flexible Numbering Assignments				
	21/24	Numbering Plan		Fixed	Flexible
		CO Line Group Access Code (group 11)		811	
		CO Line Group Access Code (group 12)		812	
		CO Line Group Access Code (group 13)		813	
		CO Line Group Access Code (group 14)		814	
		CO Line Group Access Code (group 15)		815	
		CO Line Group Access Code (group 16)		816	
		CO Line Group Access Code (group 17)		817	
		CO Line Group Access Code (group 18)		818	
		CO Line Group Access Code (group 19)		819	
		CO Line Group Access Code (group 20)		820	
		CO Line Group Access Code (group 21)		821	
		CO Line Group Access Code (group 22)		822	
		CO Line Group Access Code (group 23)		823	
		CO Line Group Access Code (all groups)		824	
		CO Line Queue		621	
		CO Line Queue Cancel		626	
		Conference		624	
		Dial By Name		6*	
		Directory Dial		680	
		Do Not Disturb		631	
		DTMF Receiver Test		657	
		Executive Override		625	
		Flash (Centrex)		660	
		Group Call Pickup		#0	
		Headset Mode		634	
	HPT		667		
	Hunt Group (group 1)		450		
	Hunt Group (group 2)		451		
	Hunt Group (group 3)		452		
	Hunt Group (group 4)		453		
	Hunt Group (group 5)		454		

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data	
FLASH 52	Flexible Numbering Assignments					
	21/24	Numbering Plan			Fixed	Flexible
		Hunt Group (group 6)			455	
		Hunt Group (group 7)			456	
		Hunt Group (group 8)			457	
		Intercom Button			645	
		Keypad Mode			648	
		LCR (E911 active on CO Line)			800	
		LCR (if active) or CO Line Group 1			9	
		Loop Key			89	
		Message Wait			623	
		Modem			499	
		Modem - Voice Mail Access			498	
		Mute			629	
		Name In Display			690	
		Night Service			604	
		Off Hook Voice Over			628	
		Page - All Call			700	
		Page - External Zone			761	
		Page - Internal (zone 1)			701	
		Page - Internal (zone 2)			702	
		Page - Internal (zone 3)			703	
		Page - Internal (zone 4)			704	
		Page - Internal (zone 5)			705	
		Page - Internal (zone 6)			706	
		Page - Internal (zone 7)			707	
		Page - Internal (zone 8)			708	
		Page - Internal (all zones)			709	
Page - Meet Me			770			
Personal Messages			633			
Release Button			641			
Repeat Redial			643			
Ring Down / Hot Line / Off-Hook Preference			691			

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data	
FLASH 52	Flexible Numbering Assignments					
	21/24	Numbering Plan			Fixed	Flexible
		Ring Tone			695	
		School Zone			630	
		SLT Conference Park			664	
		SLT Directed Call Pickup			#1	
		SLT Message Wait Answer			663	
		SLT Speed Dial			668	
		SLT Speed Programming			661	
		SLT Volume			638	
		Software Version			605	
		Station/Port Fixed Number			611	
		Station Relocate			636	
		Stop Trace			658	
		UCD AVA/UNA			566	
		UCD CIQ Status Display (any group)			567	
		UCD Group 1			550	
		UCD Group 2			551	
		UCD Group 3			552	
		UCD Group 4			553	
		UCD Group 5			554	
		UCD Group 6			555	
		UCD Group 7			556	
		UCD Group 8			557	
		Unanswered CO Call Transfer			639	
		Universal Day/Night Answer			#5	
		Voice Mail Group (group 1)			440	
		Voice Mail Group (group 2)			441	
		Voice Mail Group (group 3)			442	
		Voice Mail Group (group 4)			443	
Voice Mail Group (group 5)				444		
Voice Mail Group (group 6)			445			
Voice Mail Group (group 7)			446			

Table D-1: System Parameters

Program Code	Flexible Button	Function	Format	Default	Customer Data	
FLASH 52	Flexible Numbering Assignments					
	21/24	Numbering Plan			Fixed	Flexible
		Voice Mail Group (group 8)			447	
		Voice Mail Message Cancel			421	
		VM Message Set			420	
		Voice Mail Message Set w/ Count			422	
		Voice Mail One Touch Recording			649	
		Voice Mail Pause/Resume Recording			655	
		Voice Mailbox Button (group 1)			460	
		Voice Mailbox Button (group 2)			461	
		Voice Mailbox Button (group 3)			462	
		Voice Mailbox Button (group 4)			463	
		Voice Mailbox Button (group 5)			464	
		Voice Mailbox Button (group 6)			465	
		Voice Mailbox Button (group 7)			466	
		Voice Mailbox Button (group 8)			467	
Volume Increase/Decrease			638			

Table D-2: Directory Dialing Defaults (FLASH 23)

Route	Bin	Name	Route	Bin	Name
000	100		035	135	
001	101		036	136	
002	102		037	137	
003	103		038	138	
004	104		039	139	
005	105		040	140	
006	106		041	141	
007	107		042	142	
008	108		043	143	
009	109		044	144	
010	110		045	145	
011	111		046	146	
012	112		047	147	
013	113		048	148	
014	114		049	149	
015	115		050	150	
016	116		051	151	
017	117		052	152	
018	118		053	153	
019	119		054	154	
020	120		055	155	
021	121		056	156	
022	122		057	157	
023	123		058	158	
024	124		059	159	
025	125		060	160	
026	126		061	161	
027	127		062	162	
028	128		063	163	
029	129		064	164	
030	130		065	165	
031	131		066	166	
032	132		067	167	
033	133		068	168	
034	134		069	169	

Table D-2: Directory Dialing Defaults (FLASH 23)

Route	Bin	Name	Route	Bin	Name
070	170		106	206	
071	171		107	207	
072	172		108	208	
073	173		109	209	
074	174		110	210	
075	175		111	211	
076	176		112	212	
077	177		113	213	
078	178		114	214	
079	179		115	215	
080	180		116	216	
081	181		117	217	
082	182		118	218	
083	183		119	219	
084	184		120	220	
085	185		121	221	
086	186		122	222	
087	187		123	223	
088	188		124	224	
089	189		125	225	
090	190		126	226	
091	191		127	227	
092	192		128	228	
093	193		129	229	
094	194		130	230	
095	195		131	231	
096	196		132	232	
097	197		133	233	
098	198		134	234	
099	199		135	235	
100	200		136	236	
101	201		137	237	
102	202		138	238	
103	203		139	239	
104	204		140	240	
105	205		141	241	

Table D-2: Directory Dialing Defaults (FLASH 23)

Route	Bin	Name	Route	Bin	Name
142	242		171	271	
143	243		172	272	
144	244		173	273	
145	245		174	274	
146	246		175	275	
147	247		176	276	
148	248		177	277	
149	249		178	278	
150	250		179	279	
151	251		180	280	
152	252		181	281	
153	253		182	282	
154	254		183	283	
155	255		184	284	
156	256		185	285	
157	257		186	286	
158	258		187	287	
159	259		188	288	
160	260		189	289	
161	261		190	290	
162	262		191	291	
163	263		192	292	
164	264		193	293	
165	265		194	294	
166	266		195	295	
167	267		196	296	
168	268		197	297	
169	269		198	298	
170	270		199	299	

Table D-3: Cabinet/Card Programming (FLASH 24)

Cabinet	Slot	Board	Options	# Of Ports	Port Assignment
B A S I C	0	DTIB			
	1	LCI4			
	2	SLIB (2 port)			
	3				
	4				
	5				
	6				
	7				
E X P A N D	8				
	9				
	10				
	11				
	12				
	13				

**BOARD
CODES**

- 00 = None
- 02 = DTIB
- 04 = SL02
- 09 = T1IB
- 13 = SL04
- 15 = LCI4
- 17 = VMD1
- 18 = VMD2

NA

- 8 (DTIB only used in slots 0, 3, 4, 8, 9, or 10)
- 2 (2-port SLIB only used in slot 2)
- 24 (T1IB only used in slots 5, 6, 7, 11, 12, or 13)
- 4 (4-port SLIB only used in slots 3, 4, 8, 9, or 10)
- 4 (LCI4 only used in slots 1, 5, 6, 11, 12, or 13)
- 8 (Flash-based VMIB only used in slots 7 or 13)
- 8 (Pentium-based VMIB only used in slots 7 or 13)

TOTAL

Table D-4: Hunt Group Parameters (FLASH 30)

Program Code	Flexible Button	Function	Pilot, Pilot Ring All, or Station	Stations (Up To 8)
FLASH 30	Hunt Groups:			
	1	Hunt Group 1 (450)		
	2	Hunt Group 2 (451)		
	3	Hunt Group 3 (452)		
	4	Hunt Group 4 (453)		
	5	Hunt Group 5 (454)		
	6	Hunt Group 6 (455)		
	7	Hunt Group 7 (456)		
	8	Hunt Group 8 (457)		
	9	Hunt Group 9 (458)	RAN	
	10	Hunt Group 10 (459)	RAN	
	11	Hunt Group 11 (460)	RAN	
	12	Hunt Group 12 (461)	RAN	
13	Pilot/All Ring/Circular			

Table D-5: Verified Account Codes (FLASH 31)

Entry	Default		New COS		Digits (12 Max.)	Entry	Default		New COS		Digits (12 Max.)
	D	N	D	N			D	N	D	N	
00	1	1				35	1	1			
01	1	1				36	1	1			
02	1	1				37	1	1			
03	1	1				38	1	1			
04	1	1				39	1	1			
05	1	1				40	1	1			
06	1	1				41	1	1			
07	1	1				42	1	1			
08	1	1				43	1	1			
09	1	1				44	1	1			
10	1	1				45	1	1			
11	1	1				46	1	1			
12	1	1				47	1	1			
13	1	1				48	1	1			
14	1	1				49	1	1			
15	1	1				50	1	1			
16	1	1				51	1	1			
17	1	1				52	1	1			
18	1	1				53	1	1			
19	1	1				54	1	1			
20	1	1				55	1	1			
21	1	1				56	1	1			
22	1	1				57	1	1			
23	1	1				58	1	1			
24	1	1				59	1	1			
25	1	1				60	1	1			
26	1	1				61	1	1			
27	1	1				62	1	1			
28	1	1				63	1	1			
29	1	1				64	1	1			
30	1	1				65	1	1			
31	1	1				66	1	1			
32	1	1				67	1	1			
33	1	1				68	1	1			
34	1	1				69	1	1			

Table D-5: Verified Account Codes (FLASH 31)

Entry	Default		New COS		Digits (12 Max.)	Entry	Default		New COS		Digits (12 Max.)
	D	N	D	N			D	N	D	N	
70	1	1				105	1	1			
71	1	1				106	1	1			
72	1	1				107	1	1			
73	1	1				108	1	1			
74	1	1				109	1	1			
75	1	1				110	1	1			
76	1	1				111	1	1			
77	1	1				112	1	1			
78	1	1				113	1	1			
79	1	1				114	1	1			
80	1	1				115	1	1			
81	1	1				116	1	1			
82	1	1				117	1	1			
83	1	1				118	1	1			
84	1	1				119	1	1			
85	1	1				120	1	1			
86	1	1				121	1	1			
87	1	1				122	1	1			
88	1	1				123	1	1			
89	1	1				124	1	1			
90	1	1				125	1	1			
91	1	1				126	1	1			
92	1	1				127	1	1			
93	1	1				128	1	1			
94	1	1				129	1	1			
95	1	1				130	1	1			
96	1	1				131	1	1			
97	1	1				132	1	1			
98	1	1				133	1	1			
99	1	1				134	1	1			
100	1	1				135	1	1			
101	1	1				136	1	1			
102	1	1				137	1	1			
103	1	1				138	1	1			
104	1	1				139	1	1			

Table D-5: Verified Account Codes (FLASH 31)

Entry	Default		New COS		Digits (12 Max.)	Entry	Default		New COS		Digits (12 Max.)
	D	N	D	N			D	N	D	N	
140	1	1				173	1	1			
141	1	1				174	1	1			
142	1	1				175	1	1			
143	1	1				176	1	1			
144	1	1				177	1	1			
145	1	1				178	1	1			
146	1	1				179	1	1			
147	1	1				180	1	1			
148	1	1				181	1	1			
149	1	1				182	1	1			
150	1	1				183	1	1			
151	1	1				184	1	1			
152	1	1				185	1	1			
153	1	1				186	1	1			
154	1	1				187	1	1			
155	1	1				188	1	1			
156	1	1				189	1	1			
157	1	1				190	1	1			
158	1	1				191	1	1			
159	1	1				192	1	1			
160	1	1				193	1	1			
161	1	1				194	1	1			
162	1	1				195	1	1			
163	1	1				196	1	1			
164	1	1				197	1	1			
165	1	1				198	1	1			
166	1	1				199	1	1			
167	1	1				200	1	1			
168	1	1				201	1	1			
169	1	1				202	1	1			
170	1	1				203	1	1			
171	1	1				204	1	1			
172	1	1				205	1	1			

Table D-5: Verified Account Codes (FLASH 31)

Entry	Default		New COS		Digits (12 Max.)	Entry	Default		New COS		Digits (12 Max.)
	D	N	D	N			D	N	D	N	
206	1	1				228	1	1			
207	1	1				229	1	1			
208	1	1				230	1	1			
209	1	1				231	1	1			
210	1	1				232	1	1			
211	1	1				233	1	1			
212	1	1				234	1	1			
213	1	1				235	1	1			
214	1	1				236	1	1			
215	1	1				237	1	1			
216	1	1				238	1	1			
217	1	1				239	1	1			
218	1	1				240	1	1			
219	1	1				241	1	1			
220	1	1				242	1	1			
221	1	1				243	1	1			
222	1	1				244	1	1			
223	1	1				245	1	1			
224	1	1				246	1	1			
225	1	1				247	1	1			
226	1	1				248	1	1			
227	1	1				249	1	1			

Table D-6: CO Line Group Queuing (FLASH 39)

Group	Default	Customer Setting	Group	Default	Customer Setting
0	Enabled		12	Enabled	
1	Enabled		13	Enabled	
2	Enabled		14	Enabled	
3	Enabled		15	Enabled	
4	Enabled		16	Enabled	
5	Enabled		17	Enabled	
6	Enabled		18	Enabled	
7	Enabled		19	Enabled	
8	Enabled		20	Enabled	
9	Enabled		21	Enabled	
10	Enabled		22	Enabled	
11	Enabled		23	Enabled	

Table D-7: CO Line Programming (FLASH 40)

Data Field	Pge/Btn	CO Line Port Number								Default
		1	2	3	4	5	6	7	8	
PAGE C		Page C is selected by pressing PAGE C flexible button.								
Flash Timer	C/1									10=1.0 sec
Ring Delay Timer	C/2									Disabled
Wink Timer	C/3									140 ms
Release Timer	C/4									020=200 ms
Reseize Timer	C/5									200=2.0 sec
Guard Timer	C/6									05=0.5 sec
Seize Timer	C/7									010=0.1 sec
Preset Forward Timer	C/8									10 sec
DID Collect Timer	C/9									015=150 ms
T1 Collect Timer	C/10									015=150 ms

Table D-8: Miscellaneous CO Parameters (FLASH 40/41)

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 41	1	Dial Pulse Parameters	60/40, 66/33	60/40, 10 pps	
	3	DID Digits		3	
	5	DID Incoming Signal		DTMF	
	6	T1 Incoming Signal		DTMF	
	7	T1 Framing Type		D4SF-AMI	
	8	LCOB Loop Length		0=Short/1=Long	1=Long

Table D-9: CO Line Ringing Assignments (FLASH 40)

_____ TO _____	STA	D	N	S	STA	D	N	S	STA	D	N	S
CO LINE(S)												
TYPE: _____												

NUMBER												
_____ TO _____	STA	D	N	S	STA	D	N	S	STA	D	N	S
CO LINE(S)												
TYPE: _____												

NUMBER												
_____ TO _____	STA	D	N	S	STA	D	N	S	STA	D	N	S
CO LINE(S)												
TYPE: _____												

NUMBER												
_____ TO _____	STA	D	N	S	STA	D	N	S	STA	D	N	S
CO LINE(S)												
TYPE: _____												

NUMBER												

Btn #11 = Enter Ringing Assignments
 Btn #17 = Display Ringing Assignments

Ringing Assignments:

0 = No Ringing (unassigned/
 to delete a station)
 1 = Day Ringing (**D**)
 2 = Night Ringing (**N**)
 3 = Day/Night Ringing (**DN**)

4 = Special Only (**S**)
 5 = Day/Special (**DS**)
 6 = Night/Special (**NS**)
 7 = All Modes - Day/Night/
 Special (**A**)

Table D-10: DID/ICLID Default Ringing Assignments (FLASH 43)

ICLID Route	Default Destination	Ringing Assignments	ICLID Route	Default Destination	Ringing Assignments
000	None		023	None	
001	None		024	None	
002	None		025	None	
003	None		026	None	
004	None		027	None	
005	None		028	None	
006	None		029	None	
007	None		030	None	
008	None		031	None	
009	None		032	None	
010	None		033	None	
011	None		034	None	
012	None		035	None	
013	None		036	None	
014	None		037	None	
015	None		038	None	
016	None		039	None	
017	None		040	None	
018	None		041	None	
019	None		042	None	
020	None		043	None	
021	None		044	None	
022	None		045	None	

1. Route 000 in the ICLID Ringing Assignment Table is used as the intercept route. Calls to numbers not contained in the DID table will follow Route 000. If Route 000 is defaulted to **none**, the call will follow Route 001.

2. Route 001 in the ICLID Ringing Assignment Table is used for Busy calls. If Route 001 is defaulted to **none**, the caller is given a busy tone. Calls to busy stations (i.e., without an available Loop or CO button) will follow Route 001.

Table D-10: DID/ICLID Default Ringing Assignments (FLASH 43)

ICLID Route	Default Destination	Ringing Assignments	ICLID Route	Default Destination	Ringing Assignments
046	None		070	None	
047	None		071	None	
048	None		072	None	
049	None		073	None	
050	None		074	None	
051	None		075	None	
052	None		076	None	
053	None		077	None	
054	None		078	None	
055	None		079	None	
056	None		080	None	
057	None		081	None	
058	None		082	None	
059	None		083	None	
060	None		084	None	
061	None		085	None	
062	None		086	None	
063	None		087	None	
064	None		088	None	
065	None		089	None	
066	None		090	None	
067	None		091	None	
068	None		092	None	
069	None		093	None	

1. Route 000 in the ICLID Ringing Assignment Table is used as the intercept route. Calls to numbers not contained in the DID table will follow Route 000. If Route 000 is defaulted to **none**, the call will follow Route 001.

2. Route 001 in the ICLID Ringing Assignment Table is used for Busy calls. If Route 001 is defaulted to **none**, the caller is given a busy tone. Calls to busy stations (i.e., without an available Loop or CO button) will follow Route 001.

Table D-10: DID/ICLID Default Ringing Assignments (FLASH 43)

ICLID Route	Default Destination	Ringing Assignments	ICLID Route	Default Destination	Ringing Assignments
094	None		118	118A	
095	None		119	119A	
096	None		120	120A	
097	None		121	121A	
098	None		122	122A	
099	None		123	123A	
100	100A		124	124A	
101	101A		125	125A	
102	102A		126	126A	
103	103A		127	127A	
104	104A		128	128A	
105	105A		129	129A	
106	106A		130	130A	
107	107A		131	131A	
108	108A		132	132A	
109	109A		133	133A	
110	110A		134	134A	
111	111A		135	135A	
112	112A		136	136A	
113	113A		137	137A	
114	114A		138	138A	
115	115A		139	139A	
116	116A		140	140A	
117	117A		141	141A	

1. Route 000 in the ICLID Ringing Assignment Table is used as the intercept route. Calls to numbers not contained in the DID table will follow Route 000. If Route 000 is defaulted to **none**, the call will follow Route 001.

2. Route 001 in the ICLID Ringing Assignment Table is used for Busy calls. If Route 001 is defaulted to **none**, the caller is given a busy tone. Calls to busy stations (i.e., without an available Loop or CO button) will follow Route 001.

Table D-10: DID/ICLID Default Ringing Assignments (FLASH 43)

ICLID Route	Default Destination	Ringing Assignments	ICLID Route	Default Destination	Ringing Assignments
142	142A		166	None	
143	143A		167	None	
144	144A		168	None	
145	145A		169	None	
146	146A		170	None	
147	147A		171	None	
148	148A		172	None	
149	149A		173	None	
150	None		174	None	
151	None		175	None	
152	None		176	None	
153	None		177	None	
154	None		178	None	
155	None		179	None	
156	None		180	None	
157	None		181	None	
158	None		182	None	
159	None		183	None	
160	None		184	None	
161	None		185	None	
162	None		186	None	
163	None		187	None	
164	None		188	None	
165	None		189	None	

1. Route 000 in the ICLID Ringing Assignment Table is used as the intercept route. Calls to numbers not contained in the DID table will follow Route 000. If Route 000 is defaulted to **none**, the call will follow Route 001.

2. Route 001 in the ICLID Ringing Assignment Table is used for Busy calls. If Route 001 is defaulted to **none**, the caller is given a busy tone. Calls to busy stations (i.e., without an available Loop or CO button) will follow Route 001.

Table D-10: DID/ICLID Default Ringing Assignments (FLASH 43)

ICLID Route	Default Destination	Ringing Assignments	ICLID Route	Default Destination	Ringing Assignments
190	None		214	None	
191	None		215	None	
192	None		216	None	
193	None		217	None	
194	None		218	None	
195	None		219	None	
196	None		220	None	
197	None		221	None	
198	None		222	None	
199	None		223	None	
200	None		224	None	
201	None		225	None	
202	None		226	None	
203	None		227	None	
204	None		228	None	
205	None		229	None	
206	None		230	None	
207	None		231	None	
208	None		232	None	
209	None		233	None	
210	None		234	None	
211	None		235	None	
212	None		236	None	
213	None		237	None	

1. Route 000 in the ICLID Ringing Assignment Table is used as the intercept route. Calls to numbers not contained in the DID table will follow Route 000. If Route 000 is defaulted to **none**, the call will follow Route 001.

2. Route 001 in the ICLID Ringing Assignment Table is used for Busy calls. If Route 001 is defaulted to **none**, the caller is given a busy tone. Calls to busy stations (i.e., without an available Loop or CO button) will follow Route 001.

Table D-10: DID/ICLID Default Ringing Assignments (FLASH 43)

ICLID Route	Default Destination	Ringing Assignments	ICLID Route	Default Destination	Ringing Assignments
238	None		245	None	
239	None		246	None	
240	None		247	None	
241	None		248	None	
242	None		249	None	
243	None		250	None	
244	None		251	None	

1. Route 000 in the ICLID Ringing Assignment Table is used as the intercept route. Calls to numbers not contained in the DID table will follow Route 000. If Route 000 is defaulted to **none**, the call will follow Route 001.

2. Route 001 in the ICLID Ringing Assignment Table is used for Busy calls. If Route 001 is defaulted to **none**, the caller is given a busy tone. Calls to busy stations (i.e., without an available Loop or CO button) will follow Route 001.

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
000	100	0000000	
001	101	0000001	
002	102	0000002	
003	103	0000003	
004	104	0000004	
005	105	0000005	
006	106	0000006	
007	107	0000007	
008	108	0000008	
009	109	0000009	
010	110	0000010	
011	111	0000011	
012	112	0000012	
013	113	0000013	
014	114	0000014	
015	115	0000015	
016	116	0000016	
017	117	0000017	
018	118	0000018	
019	119	0000019	
020	120	0000020	
021	121	0000021	
022	122	0000022	
023	123	0000023	
024	124	0000024	
025	125	0000025	
026	126	0000026	
027	127	0000027	
028	128	0000028	
029	129	0000029	
030	130	0000030	
031	131	0000031	
032	132	0000032	
033	133	0000033	
034	134	0000034	
035	135	0000035	
036	136	0000036	
037	137	0000037	
038	138	0000038	
039	139	0000039	
040	140	0000040	
041	141	0000041	

Entry	Route	Number	Name
042	142	0000042	
043	143	0000043	
044	144	0000044	
045	145	0000045	
046	146	0000046	
047	147	0000047	
048	148	0000048	
049	149	0000049	
050	001	0000050	
051	001	0000051	
052	001	0000052	
053	001	0000053	
054	001	0000054	
055	001	0000055	
056	001	0000056	
057	001	0000057	
058	001	0000058	
059	001	0000059	
060	001	0000060	
061	001	0000061	
062	001	0000062	
063	001	0000063	
064	001	0000064	
065	001	0000065	
066	001	0000066	
067	001	0000067	
068	001	0000068	
069	001	0000069	
070	001	0000070	
071	001	0000071	
072	001	0000072	
073	001	0000073	
074	001	0000074	
075	001	0000075	
076	001	0000076	
077	001	0000077	
078	001	0000078	
079	001	0000079	
080	001	0000080	
081	001	0000081	
082	001	0000082	
083	001	0000083	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
084	001	0000084	
085	001	0000085	
086	001	0000086	
087	001	0000087	
088	001	0000088	
089	001	0000089	
090	001	0000090	
091	001	0000091	
092	001	0000092	
093	001	0000093	
094	001	0000094	
095	001	0000095	
096	001	0000096	
097	001	0000097	
098	001	0000098	
099	199	0000099	
100	100	0000100	
101	101	0000101	
102	102	0000102	
103	103	0000103	
104	104	0000104	
105	105	0000105	
106	106	0000106	
107	107	0000107	
108	108	0000108	
109	109	0000109	
110	110	0000110	
111	111	0000111	
112	112	0000112	
113	113	0000113	
114	114	0000114	
115	115	0000115	
116	116	0000116	
117	117	0000117	
118	118	0000118	
119	119	0000119	
120	120	0000120	
121	121	0000121	
122	122	0000122	
123	123	0000123	
124	124	0000124	
125	125	0000125	

Entry	Route	Number	Name
126	126	0000126	
127	127	0000127	
128	128	0000128	
129	129	0000129	
130	130	0000130	
131	131	0000131	
132	132	0000132	
133	133	0000133	
134	134	0000134	
135	135	0000135	
136	136	0000136	
137	137	0000137	
138	138	0000138	
139	139	0000139	
140	140	0000140	
141	141	0000141	
142	142	0000142	
143	143	0000143	
144	144	0000144	
145	145	0000145	
146	146	0000146	
147	147	0000147	
148	148	0000148	
149	149	0000149	
150	001	0000150	
151	001	0000151	
152	001	0000152	
153	001	0000153	
154	001	0000154	
155	001	0000155	
156	001	0000156	
157	001	0000157	
158	001	0000158	
159	001	0000159	
160	001	0000160	
161	001	0000161	
162	001	0000162	
163	001	0000163	
164	001	0000164	
165	001	0000165	
166	001	0000166	
167	001	0000167	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
168	001	0000168	
169	001	0000169	
170	001	0000170	
171	001	0000171	
172	001	0000172	
173	001	0000173	
174	001	0000174	
175	001	0000175	
176	001	0000176	
177	001	0000177	
178	001	0000178	
179	001	0000179	
180	001	0000180	
181	001	0000181	
182	001	0000182	
183	001	0000183	
184	001	0000184	
185	001	0000185	
186	001	0000186	
187	001	0000187	
188	001	0000188	
189	001	0000189	
190	001	0000190	
191	001	0000191	
192	001	0000192	
193	001	0000193	
194	001	0000194	
195	001	0000195	
196	001	0000196	
197	001	0000197	
198	001	0000198	
199	199	0000199	
200	100	0000200	
201	101	0000201	
202	102	0000202	
203	103	0000203	
204	104	0000204	
205	105	0000205	
206	106	0000206	
207	107	0000207	
208	108	0000208	
209	109	0000209	

Entry	Route	Number	Name
210	110	0000210	
211	111	0000211	
212	112	0000212	
213	113	0000213	
214	114	0000214	
215	115	0000215	
216	116	0000216	
217	117	0000217	
218	118	0000218	
219	119	0000219	
220	120	0000220	
221	121	0000221	
222	122	0000222	
223	123	0000223	
224	124	0000224	
225	125	0000225	
226	126	0000226	
227	127	0000227	
228	128	0000228	
229	129	0000229	
230	130	0000230	
231	131	0000231	
232	132	0000232	
233	133	0000233	
234	134	0000234	
235	135	0000235	
236	136	0000236	
237	137	0000237	
238	138	0000238	
239	139	0000239	
240	140	0000240	
241	141	0000241	
242	142	0000242	
243	143	0000243	
244	144	0000244	
245	145	0000245	
246	146	0000246	
247	147	0000247	
248	148	0000248	
249	149	0000249	
250	001	0000250	
251	001	0000251	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
252	001	0000252	
253	001	0000253	
254	001	0000254	
255	001	0000255	
256	001	0000256	
257	001	0000257	
258	001	0000258	
259	001	0000259	
260	001	0000260	
261	001	0000261	
262	001	0000262	
263	001	0000263	
264	001	0000264	
265	001	0000265	
266	001	0000266	
267	001	0000267	
268	001	0000268	
269	001	0000269	
270	001	0000270	
271	001	0000271	
272	001	0000272	
273	001	0000273	
274	001	0000274	
275	001	0000275	
276	001	0000276	
277	001	0000277	
278	001	0000278	
279	001	0000279	
280	001	0000280	
281	001	0000281	
282	001	0000282	
283	001	0000283	
284	001	0000284	
285	001	0000285	
286	001	0000286	
287	001	0000287	
288	001	0000288	
289	001	0000289	
290	001	0000290	
291	001	0000291	
292	001	0000292	
293	001	0000293	

Entry	Route	Number	Name
294	001	0000294	
295	001	0000295	
296	001	0000296	
297	001	0000297	
298	001	0000298	
299	199	0000299	
300	100	0000300	
301	101	0000301	
302	102	0000302	
303	103	0000303	
304	104	0000304	
305	105	0000305	
306	106	0000306	
307	107	0000307	
308	108	0000308	
309	109	0000309	
310	110	0000310	
311	111	0000311	
312	112	0000312	
313	113	0000313	
314	114	0000314	
315	115	0000315	
316	116	0000316	
317	117	0000317	
318	118	0000318	
319	119	0000319	
320	120	0000320	
321	121	0000321	
322	122	0000322	
323	123	0000323	
324	124	0000324	
325	125	0000325	
326	126	0000326	
327	127	0000327	
328	128	0000328	
329	129	0000329	
330	130	0000330	
331	131	0000331	
332	132	0000332	
333	133	0000333	
334	134	0000334	
335	135	0000335	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
336	136	0000336	
337	137	0000337	
338	138	0000338	
339	139	0000339	
340	140	0000340	
341	141	0000341	
342	142	0000342	
343	143	0000343	
344	144	0000344	
345	145	0000345	
346	146	0000346	
347	147	0000347	
348	148	0000348	
349	149	0000349	
350	001	0000350	
351	001	0000351	
352	001	0000352	
353	001	0000353	
354	001	0000354	
355	001	0000355	
356	001	0000356	
357	001	0000357	
358	001	0000358	
359	001	0000359	
360	001	0000360	
361	001	0000361	
362	001	0000362	
363	001	0000363	
364	001	0000364	
365	001	0000365	
366	001	0000366	
367	001	0000367	
368	001	0000368	
369	001	0000369	
370	001	0000370	
371	001	0000371	
372	001	0000372	
373	001	0000373	
374	001	0000374	
375	001	0000375	
376	001	0000376	
377	001	0000377	

Entry	Route	Number	Name
378	001	0000378	
379	001	0000379	
380	001	0000380	
381	001	0000381	
382	001	0000382	
383	001	0000383	
384	001	0000384	
385	001	0000385	
386	001	0000386	
387	001	0000387	
388	001	0000388	
389	001	0000389	
390	001	0000390	
391	001	0000391	
392	001	0000392	
393	001	0000393	
394	001	0000394	
395	001	0000395	
396	001	0000396	
397	001	0000397	
398	001	0000398	
399	199	0000399	
400	100	0000400	
401	101	0000401	
402	102	0000402	
403	103	0000403	
404	104	0000404	
405	105	0000405	
406	106	0000406	
407	107	0000407	
408	108	0000408	
409	109	0000409	
410	110	0000410	
411	111	0000411	
412	112	0000412	
413	113	0000413	
414	114	0000414	
415	115	0000415	
416	116	0000416	
417	117	0000417	
418	118	0000418	
419	119	0000419	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
420	120	0000420	
421	121	0000421	
422	122	0000422	
423	123	0000423	
424	124	0000424	
425	125	0000425	
426	126	0000426	
427	127	0000427	
428	128	0000428	
429	129	0000429	
430	130	0000430	
431	131	0000431	
432	132	0000432	
433	133	0000433	
434	134	0000434	
435	135	0000435	
436	136	0000436	
437	137	0000437	
438	138	0000438	
439	139	0000439	
440	140	0000440	
441	141	0000441	
442	142	0000442	
443	143	0000443	
444	144	0000444	
445	145	0000445	
446	146	0000446	
447	147	0000447	
448	148	0000448	
449	149	0000449	
450	001	0000450	
451	001	0000451	
452	001	0000452	
453	001	0000453	
454	001	0000454	
455	001	0000455	
456	001	0000456	
457	001	0000457	
458	001	0000458	
459	001	0000459	
460	001	0000460	
461	001	0000461	

Entry	Route	Number	Name
462	001	0000462	
463	001	0000463	
464	001	0000464	
465	001	0000465	
466	001	0000466	
467	001	0000467	
468	001	0000468	
469	001	0000469	
470	001	0000470	
471	001	0000471	
472	001	0000472	
473	001	0000473	
474	001	0000474	
475	001	0000475	
476	001	0000476	
477	001	0000477	
478	001	0000478	
479	001	0000479	
480	001	0000480	
481	001	0000481	
482	001	0000482	
483	001	0000483	
484	001	0000484	
485	001	0000485	
486	001	0000486	
487	001	0000487	
488	001	0000488	
489	001	0000489	
490	001	0000490	
491	001	0000491	
492	001	0000492	
493	001	0000493	
494	001	0000494	
495	001	0000495	
496	001	0000496	
497	001	0000497	
498	001	0000498	
499	199	0000499	
500	100	0000500	
501	101	0000501	
502	102	0000502	
503	103	0000503	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
504	104	0000504	
505	105	0000505	
506	106	0000506	
507	107	0000507	
508	108	0000508	
509	109	0000509	
510	110	0000510	
511	111	0000511	
512	112	0000512	
513	113	0000513	
514	114	0000514	
515	115	0000515	
516	116	0000516	
517	117	0000517	
518	118	0000518	
519	119	0000519	
520	120	0000520	
521	121	0000521	
522	122	0000522	
523	123	0000523	
524	124	0000524	
525	125	0000525	
526	126	0000526	
527	127	0000527	
528	128	0000528	
529	129	0000529	
530	130	0000530	
531	131	0000531	
532	132	0000532	
533	133	0000533	
534	134	0000534	
535	135	0000535	
536	136	0000536	
537	137	0000537	
538	138	0000538	
539	139	0000539	
540	140	0000540	
541	141	0000541	
542	142	0000542	
543	143	0000543	
544	144	0000544	
545	145	0000545	

Entry	Route	Number	Name
546	146	0000546	
547	147	0000547	
548	148	0000548	
549	149	0000549	
550	001	0000550	
551	001	0000551	
552	001	0000552	
553	001	0000553	
554	001	0000554	
555	001	0000555	
556	001	0000556	
557	001	0000557	
558	001	0000558	
559	001	0000559	
560	001	0000560	
561	001	0000561	
562	001	0000562	
563	001	0000563	
564	001	0000564	
565	001	0000565	
566	001	0000566	
567	001	0000567	
568	001	0000568	
569	001	0000569	
570	001	0000570	
571	001	0000571	
572	001	0000572	
573	001	0000573	
574	001	0000574	
575	001	0000575	
576	001	0000576	
577	001	0000577	
578	001	0000578	
579	001	0000579	
580	001	0000580	
581	001	0000581	
582	001	0000582	
583	001	0000583	
584	001	0000584	
585	001	0000585	
586	001	0000586	
587	001	0000587	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
588	001	0000588	
589	001	0000589	
590	001	0000590	
591	001	0000591	
592	001	0000592	
593	001	0000593	
594	001	0000594	
595	001	0000595	
596	001	0000596	
597	001	0000597	
598	001	0000598	
599	199	0000599	
600	100	0000600	
601	101	0000601	
602	102	0000602	
603	103	0000603	
604	104	0000604	
605	105	0000605	
606	106	0000606	
607	107	0000607	
608	108	0000608	
609	109	0000609	
610	110	0000610	
611	111	0000611	
612	112	0000612	
613	113	0000613	
614	114	0000614	
615	115	0000615	
616	116	0000616	
617	117	0000617	
618	118	0000618	
619	119	0000619	
620	120	0000620	
621	121	0000621	
622	122	0000622	
623	123	0000623	
624	124	0000624	
625	125	0000625	
626	126	0000626	
627	127	0000627	
628	128	0000628	
629	129	0000629	

Entry	Route	Number	Name
630	130	0000630	
631	131	0000631	
632	132	0000632	
633	133	0000633	
634	134	0000634	
635	135	0000635	
636	136	0000636	
637	137	0000637	
638	138	0000638	
639	139	0000639	
640	140	0000640	
641	141	0000641	
642	142	0000642	
643	143	0000643	
644	144	0000644	
645	145	0000645	
646	146	0000646	
647	147	0000647	
648	148	0000648	
649	149	0000649	
650	001	0000650	
651	001	0000651	
652	001	0000652	
653	001	0000653	
654	001	0000654	
655	001	0000655	
656	001	0000656	
657	001	0000657	
658	001	0000658	
659	001	0000659	
660	001	0000660	
661	001	0000661	
662	001	0000662	
663	001	0000663	
664	001	0000664	
665	001	0000665	
666	001	0000666	
667	001	0000667	
668	001	0000668	
669	001	0000669	
670	001	0000670	
671	001	0000671	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
672	001	0000672	
673	001	0000673	
674	001	0000674	
675	001	0000675	
676	001	0000676	
677	001	0000677	
678	001	0000678	
679	001	0000679	
680	001	0000680	
681	001	0000681	
682	001	0000682	
683	001	0000683	
684	001	0000684	
685	001	0000685	
686	001	0000686	
687	001	0000687	
688	001	0000688	
689	001	0000689	
690	001	0000690	
691	001	0000691	
692	001	0000692	
693	001	0000693	
694	001	0000694	
695	001	0000695	
696	001	0000696	
697	001	0000697	
698	001	0000698	
699	199	0000699	
700	100	0000700	
701	101	0000701	
702	102	0000702	
703	103	0000703	
704	104	0000704	
705	105	0000705	
706	106	0000706	
707	107	0000707	
708	108	0000708	
709	109	0000709	
710	110	0000710	
711	111	0000711	
712	112	0000712	
713	113	0000713	

Entry	Route	Number	Name
714	114	0000714	
715	115	0000715	
716	116	0000716	
717	117	0000717	
718	118	0000718	
719	119	0000719	
720	120	0000720	
721	121	0000721	
722	122	0000722	
723	123	0000723	
724	124	0000724	
725	125	0000725	
726	126	0000726	
727	127	0000727	
728	128	0000728	
729	129	0000729	
730	130	0000730	
731	131	0000731	
732	132	0000732	
733	133	0000733	
734	134	0000734	
735	135	0000735	
736	136	0000736	
737	137	0000737	
738	138	0000738	
739	139	0000739	
740	140	0000740	
741	141	0000741	
742	142	0000742	
743	143	0000743	
744	144	0000744	
745	145	0000745	
746	146	0000746	
747	147	0000747	
748	148	0000748	
749	149	0000749	
750	001	0000750	
751	001	0000751	
752	001	0000752	
753	001	0000753	
754	001	0000754	
755	001	0000755	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
756	001	0000756	
757	001	0000757	
758	001	0000758	
759	001	0000759	
760	001	0000760	
761	001	0000761	
762	001	0000762	
763	001	0000763	
764	001	0000764	
765	001	0000765	
766	001	0000766	
767	001	0000767	
768	001	0000768	
769	001	0000769	
770	001	0000770	
771	001	0000771	
772	001	0000772	
773	001	0000773	
774	001	0000774	
775	001	0000775	
776	001	0000776	
777	001	0000777	
778	001	0000778	
779	001	0000779	
780	001	0000780	
781	001	0000781	
782	001	0000782	
783	001	0000783	
784	001	0000784	
785	001	0000785	
786	001	0000786	
787	001	0000787	
788	001	0000788	
789	001	0000789	
790	001	0000790	
791	001	0000791	
792	001	0000792	
793	001	0000793	
794	001	0000794	
795	001	0000795	
796	001	0000796	
797	001	0000797	

Entry	Route	Number	Name
798	001	0000798	
799	199	0000799	
800	100	0000800	
801	101	0000801	
802	102	0000802	
803	103	0000803	
804	104	0000804	
805	105	0000805	
806	106	0000806	
807	107	0000807	
808	108	0000808	
809	109	0000809	
810	110	0000810	
811	111	0000811	
812	112	0000812	
813	113	0000813	
814	114	0000814	
815	115	0000815	
816	116	0000816	
817	117	0000817	
818	118	0000818	
819	119	0000819	
820	120	0000820	
821	121	0000821	
822	122	0000822	
823	123	0000823	
824	124	0000824	
825	125	0000825	
826	126	0000826	
827	127	0000827	
828	128	0000828	
829	129	0000829	
830	130	0000830	
831	131	0000831	
832	132	0000832	
833	133	0000833	
834	134	0000834	
835	135	0000835	
836	136	0000836	
837	137	0000837	
838	138	0000838	
839	139	0000839	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
840	140	0000840	
841	141	0000841	
842	142	0000842	
843	143	0000843	
844	144	0000844	
845	145	0000845	
846	146	0000846	
847	147	0000847	
848	148	0000848	
849	149	0000849	
850	001	0000850	
851	001	0000851	
852	001	0000852	
853	001	0000853	
854	001	0000854	
855	001	0000855	
856	001	0000856	
857	001	0000857	
858	001	0000858	
859	001	0000859	
860	001	0000860	
861	001	0000861	
862	001	0000862	
863	001	0000863	
864	001	0000864	
865	001	0000865	
866	001	0000866	
867	001	0000867	
868	001	0000868	
869	001	0000869	
870	001	0000870	
871	001	0000871	
872	001	0000872	
873	001	0000873	
874	001	0000874	
875	001	0000875	
876	001	0000876	
877	001	0000877	
878	001	0000878	
879	001	0000879	
880	001	0000880	
881	001	0000881	

Entry	Route	Number	Name
882	001	0000882	
883	001	0000883	
884	001	0000884	
885	001	0000885	
886	001	0000886	
887	001	0000887	
888	001	0000888	
889	001	0000889	
890	001	0000890	
891	001	0000891	
892	001	0000892	
893	001	0000893	
894	001	0000894	
895	001	0000895	
896	001	0000896	
897	001	0000897	
898	001	0000898	
899	199	0000899	
900	100	0000900	
901	101	0000901	
902	102	0000902	
903	103	0000903	
904	104	0000904	
905	105	0000905	
906	106	0000906	
907	107	0000907	
908	108	0000908	
909	109	0000909	
910	110	0000910	
911	111	0000911	
912	112	0000912	
913	113	0000913	
914	114	0000914	
915	115	0000915	
916	116	0000916	
917	117	0000917	
918	118	0000918	
919	119	0000919	
920	120	0000920	
921	121	0000921	
922	122	0000922	
923	123	0000923	

Table D-11: DID Translation Table (FLASH 44)

Entry	Route	Number	Name
924	124	0000924	
925	125	0000925	
926	126	0000926	
927	127	0000927	
928	128	0000928	
929	129	0000929	
930	130	0000930	
931	131	0000931	
932	132	0000932	
933	133	0000933	
934	134	0000934	
935	135	0000935	
936	136	0000936	
937	137	0000937	
938	138	0000938	
939	139	0000939	
940	140	0000940	
941	141	0000941	
942	142	0000942	
943	143	0000943	
944	144	0000944	
945	145	0000945	
946	146	0000946	
947	147	0000947	
948	148	0000948	
949	149	0000949	
950	001	0000950	
951	001	0000951	
952	001	0000952	
953	001	0000953	
954	001	0000954	
955	001	0000955	
956	001	0000956	
957	001	0000957	
958	001	0000958	
959	001	0000959	
960	001	0000960	
961	001	0000961	

Entry	Route	Number	Name
962	001	0000962	
963	001	0000963	
964	001	0000964	
965	001	0000965	
966	001	0000966	
967	001	0000967	
968	001	0000968	
969	001	0000969	
970	001	0000970	
971	001	0000971	
972	001	0000972	
973	001	0000973	
974	001	0000974	
975	001	0000975	
976	001	0000976	
977	001	0000977	
978	001	0000978	
979	001	0000979	
980	001	0000980	
981	001	0000981	
982	001	0000982	
983	001	0000983	
984	001	0000984	
985	001	0000985	
986	001	0000986	
987	001	0000987	
988	001	0000988	
989	001	0000989	
990	001	0000990	
991	001	0000991	
992	001	0000992	
993	001	0000993	
994	001	0000994	
995	001	0000995	
996	001	0000996	
997	001	0000997	
998	001	0000998	
999	199	0000999	

Table D-12: Station Programming (FLASH 50/51)

Data Field	Page/Btn	Station Numbers						Default
Light Control	B/15							0=None
Cordless Key Telephone Unit (CKTU) Button	B/17							00=No Btn assigned
Headset Mode	B/18							1=2.5 mm jack
PAGE C	21	Page C is selected by pressing PAGE C flexible button						
Internal No Answer Forward	C/1							None
Internal Busy Forward	C/2							None
External No Answer Forward	C/3							None
External Busy Forward	C/4							None
No Answer Timer	C/5							10 sec
SLT Loop Supervision	C/7							Enabled
*Features available with optional software.								

Table D-13: Button Assignment Chart (FLASH 50/51)

24-BUTTONTELEPHONESTA#			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

This chart is to be used to assign each flexible button a function.

Defaults	Buttons 1 thru 12 are assigned as Stations 100 thru 111. Buttons 13 thru 18 are assigned as CO Lines 01 thru 06. Buttons 19 is assigned as a Loop button. Button 20 is assigned as a Pool Group button. Buttons 21 thru 24 are flexible buttons with features assigned to them.
Key Station Button Programming BB = Button Number 01-24 LLL = CO Line numbers	To assign a button as a Flexible button (user programmable) enter: BB [0] HOLD To assign a button as a CO Line button, enter: BB [1] LLL HOLD To assign a button as a Loop button, enter: BB [2] HOLD To enter a button as a Pooled Group button, enter: BB [3] G HOLD To enter a button as a Feature button, enter: BB [4] [XXX] HOLD To unassign a button, enter: BB [#] HOLD
SLT Entry (Off-Hook Preference)	When an SLT is being assigned for Off-Hook Preference, enter: 01 [1] LLL HOLD for a specific CO Line, or 01 [3] G HOLD for a CO Group Access (G = Line Group 1-7)

Table D-14: Name/Number Translation Table (FLASH 55)

ENTRY	ROUTE (Button #1)	NUMBER (Button #2)	NAME (Button #3)	ENTRY	ROUTE (Button #1)	NUMBER (Button #2)	NAME (Button #3)
600				633			
601				634			
602				635			
603				636			
604				637			
605				638			
606				639			
607				640			
608				641			
609				642			
610				643			
611				644			
612				645			
613				646			
614				647			
615				648			
616				649			
617				650			
618				651			
619				652			
620				653			
621				654			
622				655			
623				656			
624				657			
625				658			
626				659			
627				660			
628				661			
629				662			
630				663			
631				664			
632				665			

Table D-14: Name/Number Translation Table (FLASH 55)

ENTRY	ROUTE (Button #1)	NUMBER (Button #2)	NAME (Button #3)	ENTRY	ROUTE (Button #1)	NUMBER (Button #2)	NAME (Button #3)
666				700			
667				701			
668				702			
669				703			
670				704			
671				705			
672				706			
673				707			
674				708			
675				709			
676				710			
677				711			
678				712			
679				713			
680				714			
681				715			
682				716			
683				717			
684				718			
685				719			
686				720			
687				721			
688				722			
689				723			
690				724			
691				725			
692				726			
693				727			
694				728			
695				729			
696				730			
697				731			
698				732			
699				733			

Table D-14: Name/Number Translation Table (FLASH 55)

ENTRY	ROUTE (Button #1)	NUMBER (Button #2)	NAME (Button #3)	ENTRY	ROUTE (Button #1)	NUMBER (Button #2)	NAME (Button #3)
734				767			
735				768			
736				769			
737				770			
738				771			
739				772			
740				773			
741				774			
742				775			
743				776			
744				777			
745				778			
746				779			
747				780			
748				781			
749				782			
750				783			
751				784			
752				785			
753				786			
754				787			
755				788			
756				789			
757				790			
758				791			
759				792			
760				793			
761				794			
762				795			
763				796			
764				797			
765				798			
766				799			

Table D-15: System Speed Dial Numbers

Programmed from the first Attendant Station.

BIN #	Telephone Number	BIN #	Telephone Number
Monitored by Toll Restriction (COS)			
9020		9040	
9021		9041	
9022		9042	
9023		9043	
9024		9044	
9025		9045	
9026		9046	
9027		9047	
9028		9048	
9029		9049	
9030		9050	
9031		9051	
9032		9052	
9033		9053	
9034		9054	
9035		9055	
9036		9056	
9037		9057	
9038		9058	
9039		9059	

Table D-15: System Speed Dial Numbers

Programmed from the first Attendant Station.

BIN #	Telephone Number	BIN #	Telephone Number
Overridden by Toll Restriction (COS)			
9060		9080	
9061		9081	
9062		9082	
9063		9083	
9064		9084	
9065		9085	
9066		9086	
9067		9087	
9068		9088	
9069		9089	
9070		9090	
9071		9091	
9072		9092	
9073		9093	
9074		9094	
9075		9095	
9076		9096	
9077		9097	
9078		9098	
9079		9099	

Table D-16: UCD Group Parameters

Program Code	Flexible Button	Function	ALT (Btn #2)	OVR (Btn #3)	RAN (Pri/Sec) (Btn #10/11)	Stations (Up to 16) (Btn #7)
FLASH 60	UCD Group Programming					
		UCD Group 0 (550)			/	
		UCD Group 1 (551)			/	
		UCD Group 2 (552)			/	
		UCD Group 3 (553)			/	
		UCD Group 4 (554)			/	
		UCD Group 5 (555)			/	
		UCD Group 6 (556)			/	
		UCD Group 7 (557)			/	

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 61	UCD Timers				
	1	UCD Ring Timer	000-300	060	
	2	UCD Message Interval Timer	000-600	060	
	3	UCD Overflow Timer	000-600	060	
	4	UCD Wrap-up Timer	000-999	004	
	5	UCD No-Answer Recall Timer	000-300	000	
	6	UCD No-Answer Retry Timer	000-999	300	

Program Code	Flexible Button	Function	Format	Default	Customer Data
FLASH 62	UCD RAN Announcement Tables				
	1	Announcement Table #1	YXXXMMM	None	
	2	Announcement Table #2	YXXXMMM	None	
	3	Announcement Table #3	YXXXMMM	None	
	4	Announcement Table #4	YXXXMMM	None	
	5	Announcement Table #5	YXXXMMM	None	
	6	Announcement Table #6	YXXXMMM	None	
	7	Announcement Table #7	YXXXMMM	None	
	8	Announcement Table #8	YXXXMMM	None	

Table D-17: Voice Mail Group Parameters

Program Code	Flexible Button	Function	ALT	STD LV	RTV	NO ANS LV	BUSY LV	Extensions
FLASH 65	1	Voice Mail Group 0 (440)		0	1	#	#	
	2	Voice Mail Group 1 (441)						
	3	Voice Mail Group 2 (442)						
	4	Voice Mail Group 3 (443)						
	5	Voice Mail Group 4 (444)						
	6	Voice Mail Group 5 (445)						
	7	Voice Mail Group 6 (446)						
	8	Voice Mail Group 7 (447)						
FLASH 66	Voice Mail In-Band Signaling							
	1	Voice Mail Outpulsing Table 0			[0] Prefix	P7		
					[1] Suffix	None		
	2	Voice Mail Outpulsing Table 1			[0] Prefix	P7		
					[1] Suffix	*		
	3	Voice Mail Outpulsing Table 2			[0] Prefix			
					[1] Suffix			
	4	Voice Mail Outpulsing Table 3			[0] Prefix			
					[1] Suffix			
	5	Voice Mail Outpulsing Table 4			[0] Prefix			
					[1] Suffix			
	6	Voice Mail Outpulsing Table 5			[0] Prefix			
					[1] Suffix			
7	Voice Mail Outpulsing Table 6			[0] Prefix				
				[1] Suffix				
8	Voice Mail Outpulsing Table 7 (One touch Record Reference Table)			[0] Prefix	P7			
				[1] Suffix	*			
9	Voice Mail Disconnect Table 8			Disconnect				
FLASH 67	Voice Mail In-Band Features							
	1	Voice Mail In-Band Digits			Enabled			
	2	Voice Mail Transfer/Forward			Enabled			
	3	VM Broker			Enabled			
	4	VM ID Digits			3			
	6	VM Port			Disabled			
	7	VM Port Number (3-5)			3			

Table D-18: Exception Tables (FLASH 70)

Allow Table A		Allow Table B	
BIN 1		BIN 1	
BIN 2		BIN 2	
BIN 3		BIN 3	
BIN 4		BIN 4	
BIN 5		BIN 5	
BIN 6		BIN 6	
BIN 7		BIN 7	
BIN 8		BIN 8	
BIN 9		BIN 9	
BIN 10		BIN 10	
BIN 11		BIN 11	
BIN 12		BIN 12	
BIN 13		BIN 13	
BIN 14		BIN 14	
BIN 15		BIN 15	
BIN 16		BIN 16	
BIN 17		BIN 17	
BIN 18		BIN 18	
BIN 19		BIN 19	
BIN 20		BIN 20	
Deny Table A		Deny Table B	
BIN 1		BIN 1	
BIN 2		BIN 2	
BIN 3		BIN 3	
BIN 4		BIN 4	
BIN 5		BIN 5	
BIN 6		BIN 6	
BIN 7		BIN 7	
BIN 8		BIN 8	
BIN 9		BIN 9	
BIN 10		BIN 10	

Table D-19: Least Cost Routing (FLASH 75)

CO Line Groups

1	2	3	4	5	6	7

Daily Start Time Table

Start Time	Default Time	Changed Time
1	0800	
2	1700	
3	2300	
4	####	

Weekly Schedule Table

Start Time (From Daily Start Table)	Time Period Route List						
	MON	TUE	WED	THU	FRI	SAT	SUN
1							
2							
3							
4							

Toll Information Route List Table	Default 00

Table D-20: Route List Table

	Route (00-15)	Time (1-4)	Cost	Group (1-7)	Insert/Delete (00-19)	LCR COS	
1 + 10 Digits LD Toll Route	00	1					
		2					
		3					
		4					
7-Digit Local Route	01	1					
		2					
		3					
		4					
1+7 Digits Toll Route	02	1					
		2					
		3					
		4					
Defined By Default	03	1					
		2					
		3					
		4					
	04	1					
		2					
		3					
		4					
	05	1					
		2					
		3					
		4					
	06	1					
		2					
		3					
		4					
	07	1					
		2					
		3					
		4					

Table D-20: Route List Table

	Route (00-15)	Time (1-4)	Cost	Group (1-7)	Insert/Delete (00-19)	LCR COS
Defined By Default	08	1				
		2				
		3				
		4				
	09	1				
		2				
		3				
		4				
	10	1				
		2				
		3				
		4				
	11	1				
		2				
		3				
		4				
	12	1				
		2				
		3				
		4				
	13	1				
		2				
		3				
		4				
	14	1				
		2				
		3				
		4				
15	1					
	2					
	3					
	4					

Table D-21: Insert/Delete Tables

Table	Digits Dialed		
00	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
01	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
02	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
03	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
04	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
05	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
06	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
07	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
08	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
09	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
10	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
11	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
12	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	

Table D-21: Insert/Delete Tables

Table	Digits Dialed		
13	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
14	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
15	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
16	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
17	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
18	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	
19	INSERT	[1] PRE	
		[2] POST	
	DELETE	[0] (PRE)	

Table D-24: 6-Digit Office Code Table

Code #	Exception Codes (XX)	Route (00-15) (RR)	Code #	Exception Codes (XX)	Route (00-15) (RR)
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		

E

Quick Reference Tables

This chapter provides quick-access tables for locating system features and their default configurations.

When using this manual in an electronic format, click on the [blue](#) hyperlinks to quickly navigate to detailed information on the subject.

FLASH CODE INDEX - system features programming, organized in *flash code* numerical sequence.

DEFAULT NUMBERING PLAN - system features and default access codes, organized in *alphabetical* sequence.

» » » » » » »

NOTES

» » » » » » »

Flash Code Index

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
SYSTEM TIMERS		FLASH 01		
System Hold Recall Timer	2-164		1	60 sec
Exclusive Hold Recall Timer	2-162		2	180 sec
Attendant Recall Timer	3-24		3	1 min
Transfer Recall Timer	2-220		4	45 sec
Pause Timer	2-209		7	2 sec
Call Park Recall Timer	2-40		8	180 sec
Conference/DISA Timer	2-98		9	10 min
Paging Time-Out Timer	2-207		10	15 sec
CO Ring Detect Timer	2-96		11	3=300 ms
SLT DTMF Receiver Timer	2-232		12	020 sec
Message Wait Reminder Tone Timer	2-189		13	000=Disabled
SLT Hook Switch Timer	2-232		14	10=1 sec
SLT Hook Switch Bounce Timer	2-233		15	030=300 ms
SMDR Call Qualification Timer	2-252		16	30 sec
Automatic Call Back Timer	2-19		17	03 sec
Reminder Ring Timer	2-93		18	00 sec
Inter-Digit Time-Out	2-173		20	5 sec
ADDITIONAL SYSTEM TIMERS		FLASH 02		
Repeat Redial Timer	2-221		1	60 sec
Attendant Display Timer	3-21		2	01 sec
Call Coverage Ring Timer	2-22		3	05 sec
Modem Answer Timer	2-223		4	025 sec
Pulse Dial Inter-Digit Timer	2-107		5	300 ms
DTMF On/Off Time Operation	2-68		6	1=100ms
SYSTEM FEATURES 1 PROGRAMMING		FLASH 05		
Attendant Override	3-13		1	Disabled
Hold Preference	2-163		2	System
External Night Ring	2-147		3	Disabled
Executive Override Warning Tone	2-143		4	Enabled
Page Warning Tone	2-207		5	Enabled
Background Music	2-16		6	Enabled

Quick Reference Tables

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
Least Cost Routing (LCR)	B-19		7	Disabled
Account Codes – Forced	2-8		8	Disabled
Group Listening	2-158		9	Disabled
Idle Speaker Mode	2-168		10	Disabled
Call Cost Display	B-19		11	Disabled
Music-On-Hold	2-190		12	Enabled
SYSTEM FEATURES 2 PROGRAMMING		FLASH 06		
Barge In Warn Tone	2-144		1	Enabled
CO Ring Tones	2-134		2	Enabled
Verified Account Codes	2-9		3	Disabled
Call Forward Display	2-31		4	Enabled
External Day Ring	2-146		5	Disabled
Overflow Station Forward	4-5		6	Disabled
Direct Transfer Mode	2-124		7	Enabled
Station ID Lock	2-247		8	Disabled
LCR Call Progress	B-15		9	Enabled
One-Touch Recording Warn Tone	2-307		10	Enabled
Ringback on Transfer	2-47		11	Disabled
911 Feature	2-4		13	Disabled
Enhanced 911	2-6		14	Disabled
VMID Same As Station Numbers	2-294		15	STA Numbers = VMID
FLASH RATES (Programmable)	2-148	FLASH 07		
Incoming CO Line Ringing	2-77		1	Red 480 ipm flutter
Incoming Intercom Ringing	2-171		2	Red 120 ipm flutter
Call Forward Button	2-31		3	Red Steady On
Message Wait/VM Button	2-298		4	Red Steady On
Message CallBack – DSS/BLF	2-20		5	Red 120 ipm flutter
Do Not Disturb – DSS/BLF	2-139		6	Red 60 ipm Dbl Wink Off
Auto CallBack – DSS/BLF	2-20		7	Red 120 ipm flash
UCD Available/Unavailable – DSS/BLF	4-12		8	Red 60 ipm Dbl Wink Off
Transfer CO Ringing	2-91		9	Red 120 ipm flash
Recall CO Ringing	2-92		10	Red 480 ipm flutter
Queued CO Ringing	2-92		11	Green 480 ipm flutter
Exclusive Hold	2-162		12	Green 120 ipm flash
System Hold	2-163		13	Red 60 ipm Dbl Wink Off

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
In-Use Hold (I-Hold)	2-84		14	Green 60 ipm flash
Camp On Button	2-50		15	Red 120 ipm flash
Call Back Button	2-18		16	Red 120 ipm flash
Line Queue Button	2-89		17	Red 480 ipm flutter
Do Not Disturb Button	2-138		18	Red Steady On
Intercom Hold Button	2-172		19	Red 15 ipm flash
SYSTEM PARAMETERS PROGRAMMING		FLASH 09		
MOH Assignments (Channels 3-8)	2-189		1-6	None
E911 Power Failure Station	2-7		7	None
Leading Digit	2-186		9	0
School Mode	2-229		10	Disabled
School Forward Destination	2-229		11	None
ATTENDANT STATION ASSIGNMENT	3-15	FLASH 10		STA 100
SYSTEM TIME AND DATE	3-14	FLASH 11	1	MMM/DD/YY, 12-hr display
PBX DIALING CODES	2-55	FLASH 12	--	None
EXECUTIVE/SECRETARY PAIRS	2-145	FLASH 13	1-4	None
RELAY PROGRAMMING	2-222	FLASH 14	1	None
BAUD RATE ASSIGNMENTS		FLASH 15		
Port #1 (RS-232C on the BKSU)	2-17		1	9600 Baud
Port #2 (RS-232C on the BKSU)	2-17		2	9600 Baud
Port #3 (optional modem - baud auto-negotiated)	2-17		3	None
ACCESS CODES		FLASH 20		
DISA Access Code	2-120		1	100
Database Admin Password	2-103		2	3226
STATION MESSAGE DETAIL RECORDING		FLASH 21		
SMDR Enable/Disable	2-250		1	No
Long Distance/All Calls	2-251		2	Long Distance
Character Print Assignment	2-251		3	80
SMDR Port Assignments	2-252		5	Port #1
WEEKLY NIGHT MODE SCHEDULE		FLASH 22		
Automatic/Manual Operation	2-198		1	Manual=No
Day of Week Programming	2-198		2-8	M-F 08:00 17:00, Sat-Sun ###:## #:##
DIRECTORY DIALING		FLASH 23		
Bin/ICM Numbering	2-126		1	None

Quick Reference Tables

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
Name Changes	2-127		2	None
Clearing An Entry	2-127		3	None
Backspace To Correct Error	2-127		4	None
CARD SLOT PROGRAMMING		FLASH 24		
Card Slots (0-13)	2-50		1-14	Slot 0, 1, 2 = DTIB, LCI4, & SL02
HUNT GROUPS		FLASH 30		
Hunt Group Programming	2-165		1-12	None
Station/Pilot/Pilot Ring All -- Hunting Assignments	2-166		13	Pilot
VERIFIED ACCOUNT CODES		FLASH 31		
Account Code	2-11		1	None
Class of Service	2-11		2	None
Delete Code	2-11		3	None
Erase Digits	2-11		4	None
CO LINE GROUP QUEUING	2-72	FLASH 39	1-24	Enabled
CO LINE ATTRIBUTES PAGE A PROGRAMMING		FLASH 40	Btn 19	
DTMF/Dial Pulse Programming	2-67	Page A	1	DTMF
CO/PBX Programming	2-52		2	CO
Universal Night Answer (UNA)	2-199		3	Enabled
DISA CO-to-CO	2-122		4	Enabled
Privacy	2-216		5	Enabled
Loop Supervision Programming	2-85		6	4=400 ms
DISA Programming	2-121		7	None
CO Line Group Programming	2-70		8	Group 01
Class of Service (COS) Programming	2-57		9	COS 1
CO Line Ringing Assignments	2-75		10	None
CO Line Identification Display	2-73		11	Line XXX
CO Direction	2-93		12	Incoming/Outgoing
Display Ring Assignments	2-77		13	100A
DID/TIE Signal	2-117		14	Wink
Lines for 911Use	2-4		15	Disabled
CO LINE ATTRIBUTES PAGE B PROGRAMMING		FLASH 40	Btn 20	
T-1 Signal Type	2-268	Page B	1	Loop
T-1 Ringback	2-270		2	Enabled
T-1 Dial Tone	2-270		3	Disabled

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
Transmit Volume	2-81		4	5=0 dB
Preset Call Forward Destination	2-35		5	None
Preset Forward Voice Mail ID	2-36		6	None
Universal Day Answer (UDA)	2-288		7	Disabled
Music-On-Hold (per CO Line)	2-191		8	Channel 1
Ring Tone (per CO Line)	2-132		9	Tone # 00
CO LINE ATTRIBUTES PAGE C PROGRAMMING		FLASH 40	Btn 21	
Flash Timer Programming	2-54	Page C	1	10=1.0 sec
Ring Delay Timer	A-8		2	00=Disabled
Wink Timer	2-271		3	140 ms
Release Timer	2-79		4	020=200 ms
Reseize Timer	2-80		5	200=2 sec
Guard Timer	2-80		6	05=0.5 sec
Seize Timer	2-81		7	010=0.1 sec
Preset Forward Timer	2-37		8	10 sec
DID Collect Timer	2-118		9	015=150 ms
T-1 Collect Timer	2-272		10	015=150 ms
MISCELLANEOUS CO PARAMETERS		FLASH 41		
Dial Pulse Parameters	2-106		1	60/40, 10 pps
DID Digits	2-115		3	3
DID Incoming Signal	2-116		5	DTMF
T-1 Incoming Signal	2-272		6	DTMF
T-1 Framing Type	2-273		7	D4SF-AMI
LCOB Loop Length	2-185		8	1=Long
CO FLEXIBLE PORT ASSIGNMENT	2-61	FLASH 42	1-7	CO Ports 1-28
ICLID PROGRAMMING		FLASH 43		
ICLID Ringing Assignment(s)	2-112		1	None
View ICLID Ringing Assignments	2-114		17	
Next ICLID Route Number	2-114		18	
Previous ICLID Route Number	2-114		19	
Select Route Number	2-114		20	
DID PROGRAMMING		FLASH 44		
Route Number	2-110		1	refer to Figure A-2 on page A-12
DID Phone Number	2-110		2	None

Quick Reference Tables

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
Name Assigned to Number	2-111		3	None
Erasing a DID Table Entry	2-111		4	None
T-1 ALARM PROGRAMMING		FLASH 47		
Carrier Loss Alarm	2-262		1	Enabled
Blue Alarm	2-262		2	Enabled
Yellow Alarm	2-263		3	Enabled
Red Alarm	2-263		4	Enabled
Bipolar Alarm	2-264		5	Enabled
Frame Slip Alarm	2-264		6	Enabled
Data Errors Alarm	2-265		7	Enabled
Enable/Disable	2-262		11	Enabled
Clear Alarm	2-265		12	Enabled
Minor Alarm	2-266		13	15 min
Major Alarm	2-266		14	30 min
Time Period	2-267		15	5 min
Attendant Display	2-267		16	Enabled
STATION ATTRIBUTES PAGE A PROGRAMMING		FLASH 50/51	Btn 19	
Paging Access	2-205	Page A	1	Enabled
Do Not Disturb	2-136		2	Enabled
Conference Enable/Disable (Per Station)	2-97		3	Enabled
Executive Override	2-139		4	Disabled
Privacy (Per Station)	2-218		5	Enabled
System Speed Dial Access	2-238		6	Enabled
Line Queuing	2-87		7	Enabled
Preferred Line Answer	2-215		8	Enabled
Off-Hook Voice Over (OHVO)	2-200		9	Disabled
Call Forward - Enable/Disable	2-23		10	Enabled
Forced Least Cost Routing	B-16		11	Disabled
Executive Override Blocking	2-142		13	Disabled
CO Line Ringing Options	2-90		14	Muted Ring
Name/Number Display at Idle	2-194		15	Name (Enabled)
CO Line, Loop, and Pool Buttons	2-82		17	Disabled
Admin Access	2-103		18	Disabled

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
STATION ATTRIBUTES PAGE B PROGRAMMING		FLASH 50/51	Btn 20	
Station Identification	2-245/3-21	Page B	1	0 (STS 24-Btn Key set) 6 (SLT w/o MW)
Station Day Class of Service (COS)	2-58		2	COS 1
Station Night Class of Service (COS)	2-59		3	COS 1
Speakerphone Programming	2-234		4	0 (Full Speakerphone)
Pickup Group(s) Programming	2-43		5	Group 1
Paging Zone(s) Programming	2-208		6	Zone 1
School Zone	2-229		7	Disabled
Line Group Access - Station	2-69		8	Group 1
LCR Class of Service (COS)	B-17		9	0 (Unrestricted Access)
Off-Hook Preference Programming	2-225		10	00=No specific button preferred; Enabled
Flexible Button Programming	2-149		11	(blank)
Keypad Mode	2-174		12	Inactive Mode
Voice Mail ID Translation	2-296		13	XXXX=Station #
Display Flexible Buttons	2-153		14	None
Light Control	2-186		15	0=None
Cordless Key Telephone Unit (CKTU) Button	2-101		17	00=No button assigned
Headset Mode	2-159		18	1=2.5 mm jack
STATION ATTRIBUTES PAGE C PROGRAMMING		FLASH 50/51	Btn 21	
Internal No Answer Forward	2-34	Page C	1	None
Internal Busy Forward	2-34		2	None
External No Answer Forward	2-34		3	None
External Busy Forward	2-34		4	None
No Answer Timer	2-35		5	10 sec
SLT Loop Supervision	2-86		7	Enabled
FLEXIBLE NUMBERING ASSIGNMENT		FLASH 52		
Changing a Flexible Code	2-157		1	None
Erasing a Flexible Code	2-157		2	None
Selecting a Flexible Code	2-156		21	None
Next Code Entry	2-156		22	None
Previous Code Entry	2-156		23	None
Selecting a Fixed Code	2-156		24	None

Quick Reference Tables

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
NAME/NUMBER TRANSLATION TABLE		FLASH 55		
Route Number	2-196		1	1
Phone Number	2-196		2	None
Name	2-196		3	None
Clear Entry	2-196		4	None
ICLID FEATURES		FLASH 56		
Enable/Disable	A-7		1	NO=Disabled
Name in Display	A-7		2	YES=phone number in display
Baud Rate Display	A-8		3	9600 Baud
Port Assignment	A-8		4	Port #1
UCD GROUP PROGRAMMING		FLASH 60		
Alternate UCD Group Assignment	4-3		2	None
UCD Overflow Station Assignment	4-5		3	None
UCD Primary Agent Assignments	4-8		7	None
UCD Primary RAN	4-9		10	None
UCD Secondary RAN	4-12		11	None
UCD TIMERS		FLASH 61		
UCD Ring Timer	4-11		1	60 sec
UCD Message Interval Timer	4-4		2	60 sec
UCD Overflow Timer	4-8		3	60 sec
UCD Auto Wrap-up Timer	4-14		4	004 sec
UCD No-Answer Recall Timer	4-5		5	000=Disabled
UCD No-Answer Retry Timer	4-5		6	300 sec
UCD ANNOUNCEMENT TABLES (RAN)	4-9, C-5	FLASH 62	1-8	None
VOICE MAIL PROGRAMMING		FLASH 65		
Voice Mail Groups (440-447)	2-291		1-8	None
Alternate Voice Mail Group	2-291		9	None
Standard Leave Mail Index Entry	2-292		10	VM Group 1 Index = 0
Retrieve Mail Index Entry	2-292		11	VM Group 1 Index = 1
Station Assignment(s)	2-293		12	None
No Answer Leave Mail Index Entry	2-293		13	VM Group 1 Index = # (none)
Busy Leave Mail Index Entry	2-294		14	VM Group 1 Index = # (none)
VOICE MAIL OUTPUTSING TABLE		FLASH 66		
Voice Mail In-Band Signaling				
(Table 0)	2-309		1	Pre=P7 Suf=None

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
(Table 1)	2-309		2	Pre=P7 Suf=*
(Tables 2-6)	2-309		3-7	None
(Table 7)	2-309		8	Pre=P7; Suf=2 (one-touch record)
Voice Mail Disconnect Table	2-310		9	None
VOICE MAIL IN-BAND FEATURES		FLASH 67		
Voice Mail In-Band Digits	2-308		1	Enabled
Voice Mail Transfer/Forward	2-303		2	Enabled
Voice Mail Broker	2-304		3	Enabled
VMID Digit Length	2-304		4	3
VM Port	2-305		6	Disabled
VM Port Number	2-305		7	3
TOLL RESTRICTION PROGRAMMING		FLASH 70		
Allow Table A Programming	2-278		1	None
Deny Table A Programming	2-280		2	None
Allow Table B Programming	2-278		3	None
Deny Table B Programming	2-280		4	None
Special Table 1 Programming	2-281		5	All Codes Denied
Special Table 2 Programming	2-281		6	All Codes Denied
Special Table 3 Programming	2-281		7	All Codes Denied
Special Table 4 Programming	2-281		8	Home
Area Code for Special Table 1	2-282		9	None
Area Code for Special Table 2	2-282		10	None
Area Code for Special Table 3	2-282		11	None
Displaying Toll Table Entries	2-283		12	None
LCR TABLES PROGRAMMING		FLASH 75		None
3-Digit Area/Office Code Table	B-7		1	None
6-Digit Area/Office Code Table	B-8		2	None
Exception Code Table	B-9		3	None
Route List Table	B-9		4	None
Digit Insert/Delete Table	B-11		5	None
Daily Start Time Table	B-12		6	None
Weekly Schedule Table	B-14		7	None
LCR Routing for Toll Information	B-15		8	Table 0

Quick Reference Tables

Table E-1: Feature Default Values

Features	Page #	Program Code	Flexible Button	Default Value
INITIALIZE DATABASE PARAMETERS		FLASH 80		
Initialize System Parameters	2-254		1	Default
Initialize CO Line Attributes	2-64		2	Default
Initialize Station Attributes	2-242		3	Default
Initialize CO Port Assignments / Codes	2-95		4	Default
Initialize Exception Tables	2-284		5	Default
Initialize System Speed Numbers	2-240		6	Default
Initialize LCR Tables	B-20		7	Default
Initialize ICLID - DID Tables	A-10		8	Default
Initialize Directory Dialing Table Parameters	2-129		9	Default
Initialize Hunt Group Parameters	2-167		10	Default
Initialize UCD Group Parameters	4-15		11	Default
Initialize Voice Mail* Group Parameters	2-300		12	Default
Initialize DID-TIE Parameters	2-119		13	Default
Initialize Verified Account Code Table	2-12		14	Default
System Reset	2-260		20	---
PRINTING SYSTEM DATABASE PARAMETERS		FLASH 85		
Printing System Parameters	2-258		1	Default
Printing CO Line Attributes	2-65		2	Default
Printing Station Attributes	2-244		3	Default
Printing CO Port Parameters / Codes	2-95		4	Default
Printing Exception Tables	2-284		5	Default
Printing System Speed Numbers	2-241		6	Default
Printing LCR Tables	B-21		7	Default
Printing Entire System Database	2-105		8	Default
Printing ICLID - DID Tables	A-11		9	Default
Printing Directory Dial Table Parameters	2-130		10	Default
Printing Hunt Group Parameters	2-167		11	Default
Printing UCD Group Parameters	4-16		12	Default
Printing Voice Mail* Group Parameters	2-301		13	Default
Printing DID-TIE Parameters	2-119		14	Default
Printing Verified Account Codes	2-13		15	Default
LOAD DATABASE ROUTINE		FLASH 86		
Upload Database	D-6		1	PC Only
Download Database	D-6		2	PC Only

Default Numbering Plan

Function	Code	Digital	Attendant	Single Line	Page
911 Alert View/Delete (requires button)	608/608+FLASH	•	•		3-5
Account Code (requires button)	627	•	•	•	2-8
Answering Machine Ring	654+[0]	•	•		2-14
Answering Machine Speaker	654+[1]	•	•		2-14
Attendant	0	•		•	--
Attendant Clear Alarm	606		•		2-267
Attendant CO Line External (Off-Net) Forward	603+[NNN]+[YYYY]		•		3-6
Attendant Custom Message	694+[XX]+message		•		3-7
Attendant Day/Night/Special (requires button)	631 (DND key)		•		3-8
Attendant Directory List Programming	693		•		3-9
Attendant Disable Outgoing CO Line	602+press CO line button		•		3-12
Attendant Override (requires button)	601		•		3-13
Attendant Setting Time and Date	692+date and time entry		•		3-14
Attendant Unavailable	607		•		3-16
Attendant Voice Mail Alarm Clear	656		•		3-17
Background Music	632+[0 (off), 1, or 2]	•	•		2-16
Call Back	622			•	2-18
Call Coverage - Non-Ringing (requires button)	647+[XXX]	•	•		2-21
Call Coverage - Ringing (requires button)	646+[XXX]	•	•		2-21
Call Forward	640+[C]	•	•	•	2-23
Call Forward - External (Off-Net)	[640]+[*]+[YYYY]	•	•	•	2-30
Call Forward - Follow Me	642+[XXX]+[C]+destination	•	•	•	2-27
Call Park (location 1-8)	430-437	•	•	•	2-39
Call Park - Personal	438	•	•	•	2-40
Call Park - Station	439+[XXX]	•	•	•	2-42
Call Park Pickup - Station	#6+[XXX]	•	•	•	2-42
Call Park Pickup - System (location 1-8)	#430-#437	•	•	•	2-39
Call Pickup (requires button)	#0	•	•	•	2-45
Caller ID Display (Answered Calls)	659	•	•		A-13
Caller ID Display (Unanswered Calls)	635	•	•		A-14
Caller ID Name/Number (requires button)	653	•	•		A-4

Quick Reference Tables

Function	Code	Digital	Attendant	Single Line	Page
Calling Forward Override	5#[XXX]+press[B]	•	•	•	2-38
Calling Station Handsfree Mode Override	7#[XXX]	•	•	•	2-38
Calling Station Tone Mode Override	6#[XXX]	•	•	•	2-38
Clear Call Forward, DND, Personal Message	662	•	•	•	2-23, 2-136, 2-210
CO Line (Idle) Direct Access	88+[LLL]	•	•	•	2-63
CO Line Group Access Code (group 1-23)	801-823	•	•	•	3-6
CO Line Group Access Code (all groups)	824	•	•	•	3-6
CO Line Queue	621	•	•	•	2-89
CO Line Queue Cancel	626	•	•	•	B-6
Dial-By-Name	6*	•	•		2-131
Directory Dial	680	•	•		2-127
Do Not Disturb	631	•		•	2-137
DTMF Receiver Test	657	•	•	•	--
Executive Override	625	•	•	•	2-141
Flash (Centrex)	660			•	2-55
Headset Mode	634	•	•		2-160
Hunt Group (group 1-8)	450-457	•	•	•	--
Intercom Button (requires button)	645	•	•		2-169
Keypad Mode	648+[#,*]	•	•		2-176
Last Number Redial	[SPEED]+[#]	•	•		2-177
LCR (E911 active on CO Line)	800	•	•	•	B-6
LCR (if active) or CO Line Group 1	9	•	•	•	B-6
Loop Key (requires button)	89	•	•		2-84
Message Wait	623	•	•	•	2-188
Modem	499			•	2-76
Modem - Voice Mail Access	498			•	2-305
Name in Display	690	•	•	•	2-193
Night Service (requires button)	604	•	•		2-197
Off Hook Voice Over (requires button)	628	•	•		2-201
Page - All Call	700	•	•	•	2-204
Page - External Zone	760 or 761	•	•	•	2-204
Page - Internal Zones 1-8, All	701-709	•	•	•	2-204
Page - Meet Me (Answer)	770	•	•	•	2-206
Personal Messages	633+[ZZ]	•		•	2-210
Release Button (requires button)	641	•	•		3-24

Function	Code	Digital	Attendant	Single Line	Page
Repeat Redial	643	•	•		2-221
Ring Down / Hot Line / Off-Hook Preference	691+[BB]	•	•		2-227
Ring Tone	695+[RR]	•	•		2-134
Save Number Redial	[SPEED]+[*]	•	•		2-228
School Zone	630	•	•	•	2-229
SLT Conference Park	664			•	2-101
SLT Directed Call Pickup	#1			•	2-45
SLT Message Wait Answer	663			•	2-189
SLT Speed Dial	668+[YYYY]			•	2-238
SLT Speed Programming	661+[YYYY]			•	2-238
SLT Volume	638+[V]			•	2-312
Software Version	605	•	•		2-234
Speed Dial	[SPEED]+[YYYY]	•	•		2-237
Station Numbers (Fixed)	100-149	•	•	•	--
Station/Port Fixed Number	611	•	•		2-147
Station Relocate	636+[XXX]	•	•		2-253
Stop Trace	658	•	•		--
UCD Available/Unavailable	566	•	•	•	4-12
UCD Calls In Queue Status Display (any group)	567+[UUU]	•	•		4-13
UCD Group (group 1-8)	550-557	•	•	•	--
Unanswered CO Call Transfer	639		•		2-48
Universal Day/Night Answer	#5	•	•	•	2-287
Voice Mail Group (group 1-8)	440-447	•	•	•	--
Voice Mail Message Cancel (VM Port only)	421+[MMMM]			•	--
Voice Mail Message Set (VM Port only)	420+[MMMM]			•	--
Voice Mail Message Set w/count (VM Port only)	422+[MMMM]			•	--
Voice Mail One Touch Recording (requires button)	649+[VVV]	•	•		2-306
Voice Mail Pause/Resume Recording (Digital VM) (reqs btn)	655	•	•		2-306
Voice Mailbox Button (requires button)	460-467+[VMID]	•	•		2-299

LEGEND --

B = Button w/ feature code: 622=Call Back, 620=Camp On, 625=Executive Override, 623=Message Wait, 628=OHVO
 BB = Button Number
 C = Call Forward Condition Code (6-9=All Calls, No Answer, Busy, Busy/No Answer; * = Off-Net)
 LLL = CO Line Number (001-028)
 MMMM = 2- to 4-digit Mailbox Number
 NNN = CO Line Group Access Code of group to be forwarded (801-823 = CO Group 1-23, 824 = All CO Groups)

RR = Ring Tone Number (00-36)
 V = Volume Control Level (0-9)
 VVV = Voice Mail Group Number (440-447)
 XX = Custom Message Number (21-30)
 XXX = Intercom Station Numbers
 YYYY = Speed Dial Bin Numbers (9000-9099)
 ZZ = Personalized Messages

Quick Reference Tables

Index

Numerics

- 3-Digit Area/Office Code Table (LCR) B-7
- 6-Digit Office Code Table (LCR) B-8
- 911
 - 911 Alert 2-5, 3-5
 - 911 Feature 2-4
 - Enhanced 911
 - Integration 2-6
 - Power Failure Station 2-7

A

- Account Codes 2-7
 - Forced 2-8
 - Traveling COS (Verified) 2-9
 - Verified Account Code Table
 - Initialize 2-12
 - Print 2-13
- Administration
 - Access 2-103
 - Password 2-104
- Allow Table 2-278
- Answering a Recall 2-220
- Answering Machine Emulation 2-14
- Attendant
 - CO Line External (Off-Net) Forward 3-6
 - Custom Messages 3-7
 - Day/Night/Special 3-8
 - Directory List Programming 3-9
 - Disable Outgoing CO Line 3-12
 - Display - T-1 Alarms 2-267, 3-17
 - Display Timer 3-21
 - Override 3-13
 - Preset Forward 3-24
 - Recall Timer 3-24
 - Setting Time and Date 3-14
 - Speed Dial - System Storing 3-25
 - Station Assignment 3-15
 - Unavailable (Alternate Position) 3-16
- Auto Callback - DSS/BLF 2-20
- Automatic Call Back Timer 2-19
- Automatic Privacy 2-16

B

- Background Music 2-16
- Barge-In Warn Tone 2-144
- Battery Backup (Memory) 2-17
- Baud Rate Assignments 2-17
- Bipolar Variations Alarm 2-264
- BLF 2-124
- Blue Alarm 2-262
- Busy Lamp Field 2-124
- Busy Leave Mail Index Entry 2-294

C

- Call Back 2-18
- Call Cost Display B-19
- Call Coverage 2-21
 - Ring Timer 2-22
- Call Forward
 - All Calls 2-25
 - Busy 2-26
 - Busy / No Answer 2-26
 - Button Flash Rate 2-31
 - Call Forward - External (Off-Net) 2-30
 - Display 2-31
 - Enable/Disable 2-23
 - Follow Me 2-27
 - No Answer 2-29
 - Override 2-38
 - Preset 2-32
 - Preset Call Forward
 - CO Line 2-35
 - Station 2-33
 - Preset Forward Timer (Incoming Call to a Destination) 2-37
 - Station 2-23
- Call Park 2-39
 - Personal 2-40
 - Recall Timer 2-40
 - Station 2-42
 - System 2-39
- Call Pickup 2-43
 - Directed 2-44
 - Group 2-45

- Call Transfer 2-46, 2-48
- Caller ID Name/Number 2-31, A-4
- Calling Station
 - Handsfree Mode Override 2-38
 - Tone Mode 2-38
- Camp On 2-49
 - Button Flash Rate 2-50
 - Recall 2-50
- Card Slot Programming 2-50, C-4
- Centrex
 - Centrex/PBX 2-52
 - Centrex/PBX Transfer 2-55
 - CO / PBX Programming 2-52
 - Off-Hook Preference 2-53
 - PBX Dialing Codes 2-55
 - Private Line Appearance 2-53
 - Programming *, #, and Hook-Flashes into Speed Dial 2-53
- CKTU 2-174
 - Feature Button 2-101
- Class of Service 2-56
 - CO Line 2-57
 - Station Day COS 2-58
 - Station Night COS 2-59
- Clear Alarm 2-265
- CO
 - Call Transfer 2-48
 - Direction 2-93
 - Flexible Port Assignment 2-61
 - Line
 - Access 2-63
 - Attributes 2-64
 - Initialize 2-64
 - Print 2-65
 - Button Flash Rate 2-77
 - CO Direction 2-93
 - CO Line Group Programming 2-70
 - Display Ring Assignments 2-77
 - DTMF Sending 2-67
 - Group Queuing 2-72
 - Groups 2-69
 - Guard Timer 2-80
 - Identification 2-73
 - Identification Display 2-73
 - Incoming Ringing Assignment 2-75

- In-Use Hold (I-Hold) Flash Rate 2-84
- Line Group Access - Station 2-69
- Line Queuing 2-87
- Loop and Pool Buttons 2-82
- Queue 2-87
- Queue Button Flash Rate 2-89
- Queued CO Ringing Flash Rate 2-92
- Recall CO Ringing Flash Rate 2-92
- Release Timer 2-79
- Reminder Ring Timer 2-93
- Reseize Timer 2-80
- Ringing Assignments 2-75
- Ringing Options 2-90
- Seize Timer 2-81
- Transfer CO Ringing Flash Rate 2-91
- Transmit Volume 2-81
- Loop and Pool 2-82
- Port Parameters and Feature Codes 2-95
 - Initialize 2-95
 - Print 2-95
- Ring Detect Timer 2-96
- CO/PBX Lines (Toll Restrictions) 2-286
- Computer Telephony Integration 2-174
- Conference 2-97
 - Combinations 2-99
 - Conference / DISA Timer 2-98
 - Enable/Disable 2-97
- Cordless Key Telephone Unit Feature Button 2-101
- CTI 2-174
- Custom Messages 3-7

D

- Daily Start Time Table (LCR) B-12
- Data Errors Alarm 2-265
- Data Terminal Program Codes Cross Reference D-4
- Database
 - Administration 2-103
 - Access 2-103
 - Password 2-104
 - Initialization D-5
 - Printout (Dump) 2-105
 - Programming Worksheets D-6
 - Upload/Download 2-224

- Upload/Download Routine D-6
- Day Ring - External 2-146
- Default LCR Database B-16
- Deny Table 2-280
- Dial By Name 2-131
- Dial Pulse
 - Parameters 2-106
 - Sending 2-106
- DID 2-107
 - Collect Timer 2-118
 - DID Digits 2-115
 - DID/TIE Signaling 2-117
 - DID-TIE Parameters
 - Initialize 2-119
 - Print 2-119
 - Erasing a DID Table Entry 2-111
 - Incoming Signaling 2-116
 - Name Assigned to DID Number 2-111
 - Phone Number Programming 2-110
- DID/ICLID
 - Ringling Assignments 2-112
 - View Ringling Assignments 2-114
- Direct Inward Dialing 2-107
- Direct Inward System Access 2-120
- Direct Station Selection 2-124
- Direct Transfer Mode 2-124
- Directed Call Pickup 2-44
- Directory Dial Table Parameters
 - Initialize 2-129
 - Print 2-130
- Directory Dialing 2-125
- Directory List Programming 3-9
- DISA 2-120
 - Access Code 2-120
 - Call Forwarding 2-122
 - CO-to-CO 2-122
 - Programming 2-121
 - Timer 2-98
- Disable Outgoing CO Line 3-12
- Distinctive Ring Tone
 - Enabling/Disabling 2-134
- Distinctive Ringing
 - CO Line Distinctive Ring Tone 2-132
 - Ring Tone - Station (User Selectable) 2-134
- DND 2-136
- Do Not Disturb 2-136

- Button Flash Rate 2-138
- DSS/BLF Flash Rate 2-139
- One Time Do Not Disturb 2-138

DSS 2-124

- DSS/BLF Console with Map 3-17
- DTMF / Dial Pulse Programming 2-67
- DTMF On/Off Time Operation 2-68
- DTMF Sending 2-67

E

- ECOM D-9, D-10
 - Downloading Database D-10
 - Uploading Database D-9
- Erasing a DID Table Entry 2-111
- Exception Code Table (LCR) B-9
- Exclusive Hold 2-161
 - Flash Rate 2-162
 - Recall Timer 2-162
- Executive Override 2-139
 - Barge-In Warn Tone 2-144
 - Blocking 2-142
 - Enable/Disable 2-140
 - Warning Tone 2-143
- Executive/Secretary Pairs 2-145
- External
 - Day Ring 2-146
 - Night Ring 2-147

F

- Feature Codes
 - Initialize 2-95
 - Print 2-95
- Fixed Station/Port Number 2-147
- Flash 2-53
 - Rates (Programmable) 2-148
 - Timer 2-54
- Flexible Button
 - Assignment 2-149
 - Display Flexible Buttons 2-153
 - Programming 2-149
- Flexible Numbering 2-156
- Forced Account Codes (Toll Restrictions) 2-286
- Forced Least Cost Routing B-16
- Forward Override 2-38
- Frame Slip Alarm 2-264

G

Group Call Pickup 2-45
Group Listening 2-158
Guard Timer 2-80

H

Handsfree Mode Override 2-38
Headset Mode 2-159
Hearing Aid Compatible 2-161
Hold
 Exclusive 2-161
 Preference 2-163
 System 2-163
 System Hold Recall Timer 2-164
Hot Keypad 2-164
Hot Line 2-225
Hot Line / Ring Down 2-164
Hunt Group Parameters
 Initialize 2-167
 Print 2-167
Hunt Groups 2-165
Hunting Assignment
 Pilot 2-166
 Pilot All Ring 2-166
 Station 2-166
HyperTerminal
 Downloading Database D-8
 Uploading Database D-7

I

ICLID 2-168
 Answered Call Management Table 3-22, A-13
 Baud Rate Display A-8
 Call Management Tables 3-22, A-13
 Calling Number/Name Display A-5
 Enable/Disable A-7
 ICLID-DID Tables
 Initialize A-10
 Print A-11
 Incoming Number/Name for SMDR Records A-6
 Local Name Translation A-6
 Name in Display A-7
 Port Assignment A-8

Programming A-6
Ring Delay Timer A-8
Unanswered Call Management Table 3-23, A-14

ICLID/DID Ringing Assignments 2-112

Idle Speaker Mode 2-168

In-Band Signaling (VM) 2-308

Initialize

 CO Line Attributes 2-64

 CO Port Parameters & Feature Codes 2-95

 DID-TIE Parameters 2-119

 Directory Dial Table Parameters 2-129

 Hunt Group Parameters 2-167

 ICLID-DID Tables A-10

 LCR Tables B-20

 Station Attributes 2-242

 System Parameters 2-254

 System Speed Numbers 2-240

 Toll Restriction Exception Tables 2-284

 UCD Group Parameters 4-15

 Verified Account Code Table 2-12

 Voice Mail Group Parameters 2-300

Insert/Delete Table (LCR) B-11

Intercom

 Buttons 2-169

 Calling 2-170

 Incoming Intercom Ringing Flash Rate 2-171

 Intercom Hold Button Flash Rate 2-172

 Signaling Select 2-172

 Transfer 2-173

Inter-Digit Time-Out 2-173

In-Use Hold (I-Hold) Flash Rate 2-84

K

Keypad Mode 2-174

L

Last Number Redial 2-177

LCD Display Contrast 2-177

LCD Interactive Display 2-178

LCR B-1

 3-Digit Area / Office Code Table B-7

 6-Digit Office Code Table B-8

 Call Cost Display B-19

- Call Progress B-15
- Daily Start Time Table B-12
- Default Database B-16
- Enable/Disable B-19
- Exception Code Table B-9
- Flowchart B-5
- Forced Least Cost Routing B-16
- Insert/Delete Table B-11
- LCR Class of Service (COS) B-17
- Operation (When LCR is Enabled) B-6
- Printout B-22
- Programming Tables B-6
- Route List Table B-9
- Routing for Toll Information B-15
- Tables B-3
 - Initialize B-20
 - Print B-21
- Weekly Schedule Table B-14
- Leading Digit 2-186
- Least Cost Routing B-1
 - Enable/Disable B-19
- Light Control 2-186
- Line Group Access - Station 2-69
- Line Queue Button Flash Rate 2-89
- LNR 2-177
- Loop and Pool Buttons 2-82
- Loop Supervision Programming
 - CO Line 2-85
 - SLT 2-86

M

- Mailbox Button 2-299
- Major Alarm 2-266
- Meet Me Page 2-206
- Message Callback / DSS/BLF Flash Rate 2-20
- Message Wait 2-188
- Message Wait / VM Button Flash Rate 2-298
- Message Waiting Indication 2-297
- Message Waiting Reminder Tone 2-189
- Messages - Custom 3-7
- Minor Alarm 2-266
- Modem Answer Timer 2-223
- Music-On-Hold 2-189
 - Assignments 2-189
 - Enable/Disable 2-190
 - Per CO Line 2-191

- Mute Key 2-192

N

- Name Assigned to DID Number 2-111
- Name In Display 2-193
- Name/Number Display At Idle 2-194
- Name/Number Translation Table 2-195
- Night Ring - External 2-147
- Night Service 2-197
 - Automatic Night Mode Operation 2-198
 - Automatic/Manual Operation 2-198
 - Day of Week Programming 2-198
 - External Night Ringing 2-199
 - Manual Operation 2-199
 - Night Class of Service (COS) 2-199
 - Night Ringing Assignments 2-199
 - Universal Night Answer (UNA) 2-199
 - Weekly Night Mode Schedule 2-199
- No Answer Leave Mail Index Entry 2-293

O

- Off-Hook
 - Preference 2-225
 - Signaling 2-200
 - Voice Over 2-200
- OHVO 2-200
- One-Touch Recording 2-306
 - Warning Tone 2-307
- Outside Call 2-203
 - Answering 2-203
 - Making 2-203
 - Placing the call on hold 2-204

P

- Paging 2-204
 - Access 2-205
 - Meet Me 2-206
 - Time-Out Timer 2-207
 - Warning Tone 2-207
 - Zone(s) 2-208
- Pause Timer 2-209
- PBX 2-52
- Personal Call Park 2-40
- Personal Messages 2-210
 - Custom Messages 2-211

- Date and Time Entry Messages 2-212
- Flexible Button 2-214
- Pre-assigned Messages 2-210
- Scrollable Canned Messages 2-213
- Pickup Groups 2-43
- Pool Buttons 2-82
- Preferred Line Answer 2-215
- Preset Call Forward
 - ACD, Voice Mail, UCD, or Hunt Groups 2-32
 - Off-Net 2-32
 - Per CO Line 2-32
 - Stations 2-32

Print

- CO Line Attributes 2-65
- CO Port Parameters & Feature Codes 2-95
- DID-TIE Parameters 2-119
- Directory Dial Table Parameters 2-130
- Hunt Group Parameters 2-167
- ICLID-DID Tables A-11
- LCR Tables B-21
- Station Attributes 2-244
- System Parameters 2-258
- System Speed Numbers 2-241
- Toll Restriction Exception Tables 2-284
- UCD Group Parameters 4-16
- Verified Account Code Table 2-13
- Voice Mail Group Parameters 2-301

Privacy

- Automatic 2-16
- Release 2-216

Private Line 2-220

- Program Mode Entry D-5
- Programming Button Mapping D-4
- Pulse Dial Inter-Digit Timer 2-107
- Pulse-To-Tone Switchover 2-107

Q

- Queued CO Ringing Flash Rate 2-92

R

- Recall 2-220, 3-24
 - Answering 2-220
 - CO Ringing Flash Rate 2-92
 - Transfer Recall Timer 2-220
- Red Alarm 2-263

- Redial 2-221
- Relay Programming 2-222
- Release Button 3-24
- Release Timer 2-79
- Reminder Ring Timer 2-93
- Remote
 - Administration 2-223
 - System Monitor And Maintenance 2-224
- Reseize Timer 2-80
- Ring Detect Timer 2-96
- Ring Down 2-225
- Ring Down / Hot Line / Off-Hook Preference 2-225
- Ring Tone - Station (User Selectable) 2-134
- Ringback on Transfer 2-47
- Ringing Assignments
 - DID/ICLID 2-112
 - Viewing 2-114
- Route List Table (LCR) B-9

S

- Save Number Redial 2-228
- School Zone 2-229
- Seize Timer 2-81
- Setting System Time/Date 3-14
- Single Line Telephone 2-232
- SLT 2-232
 - Compatibility 2-232
 - DTMF Receiver Timer 2-232
 - DTMF Receivers (Toll Restrictions) 2-286
 - Hook Flash Bounce Timer 2-233
 - Hook Flash Timer 2-232
 - Loop Supervision Programming 2-86
- SMDR 2-248
 - Baud Rate Display 2-251
 - Call Qualification Timer 2-252
 - Character Print Assignment 2-251
 - Enable/Disable 2-250
 - Long Distance - All Calls Option 2-251
 - Port Assignments 2-252
 - Printout 2-249
- SNR 2-228
- Software
 - Identification Code 3-25
 - Version (MPB) 2-234
- Speakerphone 2-234

-
-
- Special Table 2-281
 - Speed Bins - Chaining 2-240
 - Speed Dial 2-236
 - Access - System 2-238
 - Station 2-236
 - System Storing 3-25
 - Station
 - Attributes 2-242
 - Initialize 2-242
 - Print 2-244
 - Call Park 2-42
 - ID for DSS/DLS Console 3-21
 - ID Lock 2-247
 - Identification 2-245
 - Message Detail Recording 2-248
 - Port Inquiry 2-157
 - Relocation 2-253
 - Ring Tone 2-134
 - System
 - Call Park 2-39
 - Hold 2-163
 - Recall Timer 2-164
 - Parameters 2-254
 - Initialize 2-254
 - Print 2-258
 - Reset 2-260
 - Speed Numbers
 - Initialize 2-240
 - Print 2-241
 - Time/Date 3-14
- T**
- T-1
 - Alarm Programming 2-261
 - Collect Timer 2-272
 - Dial Tone Option 2-270
 - Framing Type 2-273
 - Incoming Signaling 2-272
 - Ringback Option 2-270
 - Signaling Type 2-268
 - Trunking 2-268
 - T-1/ISDN
 - Bipolar Variations Alarm 2-264
 - Blue Alarm 2-262
 - Clear Alarm 2-265
 - Data Errors Alarm 2-265
 - Enable/Disable Carrier Loss Alarm 2-262
 - Frame Slip Alarm 2-264
 - Major Alarm 2-266
 - Minor Alarm 2-266
 - Red Alarm 2-263
 - Time Period 2-267
 - Yellow Alarm 2-263
 - Text Messaging 2-273
 - TIE Signaling 2-117
 - Time Period 2-267
 - Time/Date 3-14
 - Toll Information (LCR Routing) B-15
 - Toll Restriction 2-275
 - Allow Table 2-278
 - Deny Table 2-280
 - Display Toll Table Entries 2-283
 - Exception Tables
 - Initialize 2-284
 - Print 2-284
 - Related Items 2-286
 - Special Table 2-281
 - Toll Table - Entering 2-277
 - Tone Mode Override 2-38
 - Transfer 2-46
 - Ringback 2-47
 - Transmit Volume 2-81
- U**
- UCD 4-3
 - Alternate UCD Group Assignments 4-3
 - Available/Unavailable 4-12
 - Calls In Queue
 - Display 4-13
 - Status Display 4-3
 - Group Parameters
 - Initialize 4-15
 - Print 4-16
 - Incoming CO Direct Ringing 4-4
 - Message Interval Timer 4-4
 - No-Answer
 - Recall Timer 4-5
 - Retry Timer 4-5
 - Overflow
 - Station Assignment 4-5

- Station Forwarding 4-7
- Timer 4-8
- Primary Agent Assignments 4-8
- Primary Recorded Announcement 4-9
- Recorded Announcement Tables 4-9, C-5
- Recorded Announcements 4-9
- Ring Timer 4-11
- Secondary Recorded Announcement 4-12
- Wrap-up Timer 4-14
- UDA/UNA 2-287
- Uniform Call Distribution 4-3
- Universal
 - Day Answer (UDA) 2-288
 - Day/Night Answer 2-287
 - Night Answer (UNA) 2-289

V

- View DID/ICLID Ringing Assignments 2-114
- VM Tone Mode Calling Option 2-296
- VM Transfer with ID Digits 2-295
- VMID Station Numbers 2-294
- Voice Mail 2-290
 - Alternate Voice Mail Group 2-291
 - Broker 2-304
 - Disconnect Table 2-310
 - Flash-based System - Programming C-4
 - Group
 - Access 2-299
 - Button 2-299
 - Parameters
 - Initialize 2-300
 - Print 2-301
 - ID Digit Length 2-304
 - ID Translation 2-296
 - In-Band Digits 2-303
 - Leave Mail Index Entry 2-292
 - Message Waiting Indication 2-297
 - Modem Access 2-305
 - One-Touch Recording 2-306
 - Outpulsing Table 2-308
 - Retrieve Mail Index Entry 2-292
 - Station Assignments 2-293
 - Transfer/Forward 2-303
 - VM Tone Mode Calling Option 2-296
 - VM Transfer with ID Digits 2-295

- VMID Station Numbers 2-294
- Volume Control 2-311

W

- Wanderer 2-174
- Weekly Schedule Table (LCR) B-14
- Wink Timer 2-271

Y

- Yellow Alarm 2-263