

# **Panasonic<sup>®</sup>**

## **DBS**

Digital Business System

# **DBS 824**

Panasonic  
**DBS**  
Digital Business System

## DBS 824 Release Notes



## CPC-S/M Version 2.0

Document Number DBS-824-20-705

Part Number 580X00301

April 2, 1996

Panasonic®  
Information & Communications Company  
Business Telephone Systems

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# Introduction

CPC-S/M Version 2 0 supports all features of CPC-S/M Version 1 1, as well as offering support for the new Panasonic 44-Series telephones (VB-44xxx)

# Contents

Topic	Page
<b>Introduction</b>	<b>3</b>
<b>44-Series Phone Support</b>	<b>4</b>
New Phone Features	5
Directory Mode	9
Variable Mode	10
Handset Mute	12
Off-Hook Monitoring	13
Separate Speaker Volumes for Internal vs CO calls	13
Analog Adapter	14
MSG (Message) Key	16
DSS/72 Console - Key Arrangement	18
EM/24 - Key Arrangement	22
<b>Modification to Toll Restriction Service</b>	<b>24</b>
<b>Key Telephone Installation Notes</b>	<b>27</b>

## 44-Series Phone Support

CPC-S/M Version 2 0 provides full support for Panasonic's 44-Series phones (VB-44xxx) Table I below lists all 44-Series phone models and their part numbers Most models are available in two colors gray and black

**Table I 44-Series Phones**

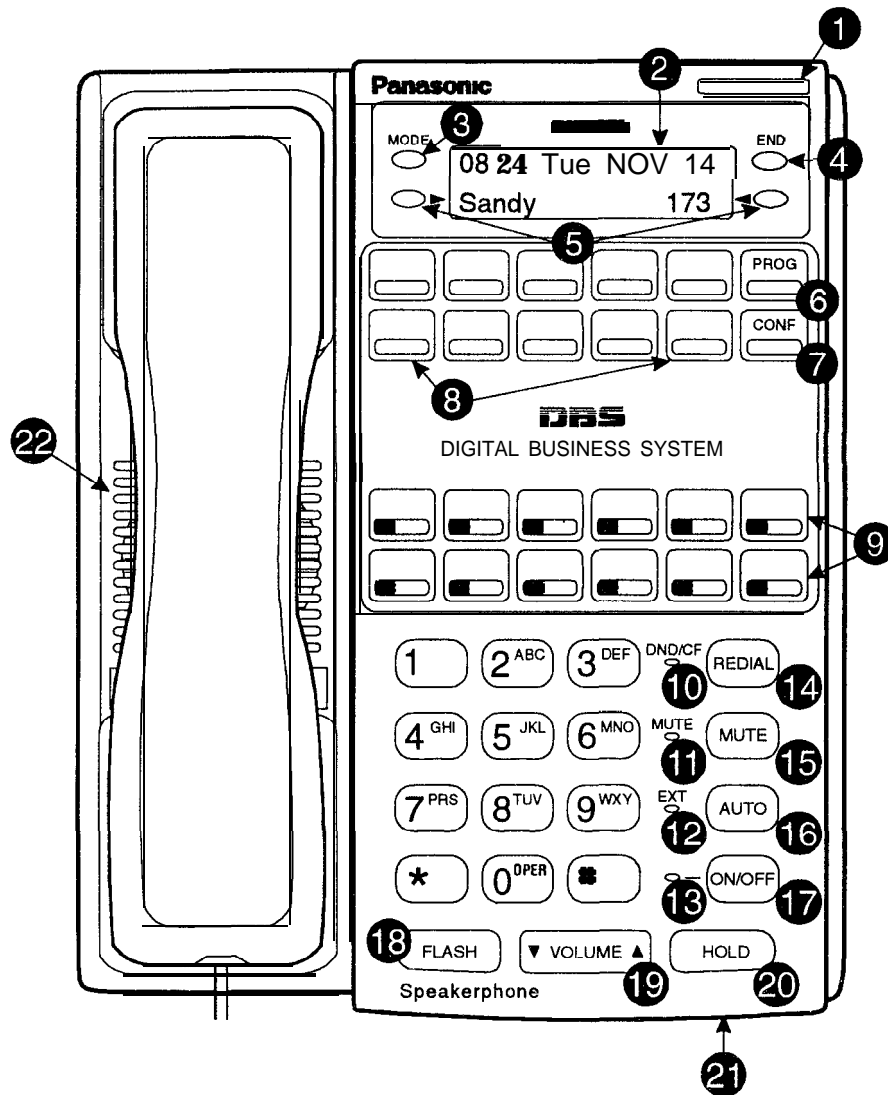
16 Key Phone (gray)	VB 442106
16 Key Phone (black)	VB 442108
16 Key Speakerphone (gray only)	VB 44211G
22 Key Phone (gray only)	VB 44220G
22 Key Small Display Speakerphone (gray)	VB 44223G
22 Key Small Display Speakerphone (black)	VB 442238
34 Key Small Display Phone (gray only)	VB 44230G
34 Key Small Display Speakerphone (gray)	VB 44233G
34 Key Small Display Speakerphone (black)	VB 442338
22 Key Large Display Speakerphone (gray)	VB 44225G
22 Key Large Display Speakerphone (black)	VB 442258
DSS/72 Console (gray)	VB 44320G
DSS/72 Console (black)	VB 443208
EM/24 Unit (gray)	VB 4431 0G
EM/24 Unit (black)	VB 443108

# New Phone Features

New DBS features that can be executed on the 44-Series phones are described below

**Note:** The new features introduced with these phones are supported by CPC-S/M Version 2 0, CPC-AII/B Version 8 0, and CPC-EX Version 1 0 You can also use the 44-series phones with previous DBS versions, but the new features won't be supported

**Figure 1** 44-Series Small-Display Phone



**Table 2 Key to 44-Series Small-Display Phone**

#	Feature	Description
1	Message Indicator	Indicates that you have a message
2	Display	Displays information about phone's status, menus, dialing directories, and text message information
3	Mode Key	Used to change display modes from default to directory mode
4	End Key	Used to exit directory mode and return display to default mode
5	Select Keys	Used to select and dial a System Speed Dial, Personal Speed Dial, or Extension number from a directory
6	PROG Key	Used to program FF and one-touch keys and to adjust ringer volume. Depending on the setup of your system, may also be used to transfer calls
7	CONF Key	Used to establish conference calls, check FF key and one-touch features, and scroll through messages
8	One-Touch Keys	Used to make outside calls or to access call handling features
9	Flexible Function (FF) Keys	Used to access outside lines or to access call-handling features
10	DND/CF Indicator	Indicates that Do-Not-Disturb, Call Forwarding, or Absence Message is set
11	MUTE Indicator	Indicates that your voice is muted - i.e., party on the other end cannot hear you. Lights solid when your hands-free microphone is muted and flashes when your handset is muted
12	EXT Indicator	Lights when you are on a call, flashes when you hold a call
13	ON/OFF Indicator	Lights when ON/OFF key has been pressed
14	REDIAL Key	Use to redial last outside number dialed
15	MUTE Key	Used to activate/deactivate MUTE function. When activated, the party on the other end cannot hear you. (See item 11, MUTE Indicator.)
16	AUTO Key	Used to access speed dialing, enter account codes, or for message waiting answer/cancel
17	ON/OFF Key	Used to make a call without lifting handset
18	FLASH Key	Used to end an outside call and to restore dial tone without hanging up receiver
19	VOLUME Key	Used to adjust level of tones, background music, ringing, receiver volume, and display contrast
20	HOLD Key	Used to hold calls, to retrieve held calls, and to complete FF key programming
21	Microphone	Used to talk with other party without using the handset
22	Speaker	Outputs tones and voice at your extension

Figure 2 44-Series Large-Display Phone

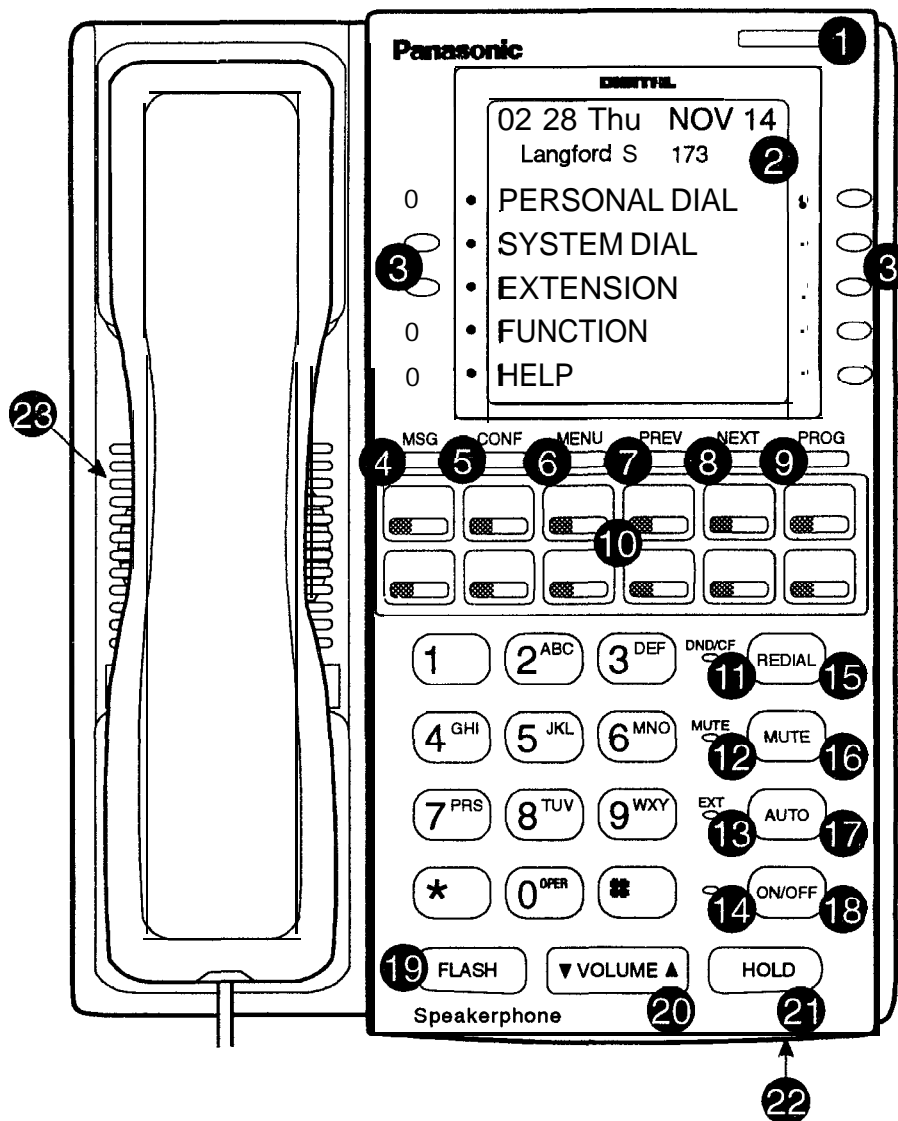


Table 3 Key to 44-Series Large-Display Phone

#	Feature	Description
1	Message Indicator	Indicates that you have a message
2	Display	Displays information about phone's status, menus, dialing, direct tones, and text message information
3	Soft Keys	Used to make outside calls or to access call-handling features



#	Feature	Description
4	MSG Key	-Used for Auto-CallBack to a telephone which has left a text message or to access voice messages
5	CONF Key	Used to establish conference calls check FF and one touch key settings, and scroll through messages
6	MENU Key	Used to return to the Mam Menu screen The default Mam Menu screen contains the following items <ul style="list-style-type: none"> <li>. PERSONAL DIAL</li> <li>. SYSTEM DIAL</li> <li>. EXTENSION</li> <li>. FUNCTION</li> <li>. HELP</li> </ul>
7	PREV Key	Used to return to the previous menu
8	NEXT Key	Used to advance to the next menu
9	PROG Key	Used to program FF and one touch keys and to adjust ringer volume Depending on the setup of your system may also be used to transfer calls
10	Flexible Function (FF) Keys	Used to access outside lines or to access call-handling features
11	DND/CF Indicator	Indicates that Do-Not Disturb Call Forwarding or Absence Message is set
12	MUTE Indicator	Indicates that your voice is muted - i.e., party on the other end cannot hear you Lights solid when your hands-free microphone is muted and flashes when your handset is muted
13	EXT Indicator	Lights when you are on a call flashes when you hold a call
14	ON/OFF Indicator	Lights when ON/OFF key has been pressed
15	REDIAL Key	Used to redial last outside number dialed
16	MUTE Key	Used to activate/deactivate MUTE function When activated the party on the other end cannot hear you (See item 12 MUTE Indicator)
17	AUTO Key	Used to access speed dialing enter account codes or for message waiting answer cancel
17	RECALL Key	Used to make a call without lifting handset
20	VOLUME Key	Used to end an outside call and to restore dial tone without hanging up receiver
21	HOLD Key	Used to adjust level of tones background music, ringing, receiver volume and display contrast
22	Microphone	Used to hold calls to retrieve held calls and to complete FF key programming

## Directory Mode

**44-Series phones only**

**CPC-All/B Version 8.0, CPC-S/M Version 2.0, or CPC-EX Version 1.0 only**

### Description

On the new small-display phones, you can use the phone's select keys (as well as other keys) to scroll through a directory of existing System Speed Dial (SSD) names, Personal Speed Dial (PSD) names, or extension names -- and select one to dial. For example, if you can't remember the party's extension number or speed-dial number to which you want to transfer a call on hold, you can use Directory Mode to find the number and execute the transfer.

**Note** This new feature applies to the 44-series small-display phone only (i.e., phones with a 2-line LCD display).

### Operation

The select keys on the 44-series small-display phone are located next to the display's 2nd line. Pressing select key 1 (">" on the left) or select key 2 ("<" on the right) will access the displayed directory.

#### To use Directory Mode

1. Press the MODE key to turn Directory Mode on. The 2nd line of the LCD will display "SSD" on the left and "PSD" on the right.
  - Press the MODE key again to access the directory for extension names. The 2nd line of the LCD will display "EXT" on the left.
2. Press the > select key to access the directory of existing SSD or EXT names, or the < select key to access the PSD directory. The 2nd line will show two speed-dial or extension names at a time (the first 7 characters of each name), beginning with the A's.
3. To scroll through the names (two at a time), press the # key. To back-scroll, press the \* key.
4. To jump to another letter in the directory, press the numeric key for it. For example, press the "6" key to jump to the M's, N's, and O's. The M's will appear first. Press 6 again to jump to the N's, and again to jump to the O's. (**Note** This doesn't work for PSD names unless the system is a DBS 824 CPC-M Version 2.0 or higher, which allows up to 40 PSDs).
  - For names beginning with Q or Z, use the 1 key.
5. When the correct speed-dial or extension name is displayed, you can execute the dialing of its speed-dial or extension number by pressing the select key that points to it (> if the name is displayed on the left, or < if the name is on the right).
  - Or, to exit the directory without selecting a number to dial, press the END key or go on-hook.

## Notes

**Available on small-display phones only** This new feature applies to the 44-series small-display phone only (i e , phones with a 2-line LCD display)

**Incompatibility with older phone versions** Directory Mode is available on the new 44-Series phones only

**Hot Dial Pad and Directory Mode** The Hot Dial Pad feature (FF3 ExtPort# 47#) will not work on an extension in Directory Mode

## Varrable Mode

**44-Series phones only**

**CPC-A11/B Version 8 0, CPC-S/M Version 2 0, or CPC-EX Version 1 0 only**

## Description

This new feature applies to the 44-series small-display phone only (i e , phones with a 2-line LCD display)

When the phone is in Variable Mode the features for Flexible Function Screen select keys 1 and 2 will display during each of the following call states

<u>Call State</u>	<u>Existing Proaram Address*</u>
• Dunning an intercom call	FF3 (ExtPort)# 28# (25-39)#
• Dunning CO dial tone	FF3 (ExtPort)# 29# (25-39)#
• Dunning a trunk call	FF3 (ExtPort)# 30# (25-39)#
• After dialing a busy extension	FF3 (ExtPort)# 33# (25-39)#

\* In these addresses, you assign a Flexible Function Screen (2539) to appear on the extension while it is in the call state

## Operatron

The select keys on the 44-series small-display phone are labeled “>” and “<” to the left and right of the display’s 2nd line. Pressing select key 1 (“>” on the left) or select key 2 (“<” on the right) will perform the displayed feature

### To use Variable Mode

1. Activate Variable Mode by pressing **ON/OFF \*61 ON/OFF**
  - When you dial \*61 in the above sequence, the 1st line of the LCD will display “Variable md ON”. The display will return to normal when you press the second ON/OFF
  - Use existing addresses FF1 2# 7# 2# to assign screen text
  - The \*61 code toggles Variable Mode on and off. Press **ON/OFF \*61 ON/OFF** again to turn Variable Mode off
2. While the extension is engaged in an intercom call, the 2nd line will display select key 1 and 2 features from the Flexible Function Screen

assigned to display in FF3 ExtPort# 28# The same applies when the extension receives CO dial tone (FF3 ExtPort# 29#), during a trunk call (FF3 ExtPort# 30#), and after dialing a busy extension (FF3 ExtPort# 33#)

- Use existing addresses FF1 2# 7# 1# thru 4# to assign select key features to Flexible Function Screens
- Select key features for *Fixed* Function Screens will not appear on small-display phones

3 While the select key feature is displayed, you can execute the feature by pressing the > or < select key

## Notes

***Toggling Variable Mode On/Off with an FF -Key*** You can program the \*6 1 code into an FF-key In programming mode, press FF5 (ExtPort)# (KeyNo)# (\*61)# The FF-key will toggle Variable Mode on/off while the extension is idle or in an off-hook/dial-tone state The FF-key LED will remain lit (red) while Variable Mode is "On" (You can also use a one-touch key to toggle Variable Mode on and off, however, one-touch keys do not contain an LED to indicate when Variable Mode is on )

***Variable Mode After Power-Cycling*** If Variable Mode is "On", the extension will stay in Variable Mode even after power-cycling (system is powered down, then powered back up)

***Incompatibility with older phone versions*** Variable Mode is available on the new 44-Series phones only

***Conditions under which Variable Mode does not work*** Variable Mode will be temporarily overridden under the following conditions during an incoming message state, hold state, message-waiting state, or call-waiting state Incoming messages include

CO Queuing  
Incoming [trunk no ]  
REV [extension no ]  
TRF [trunk no ]  
H-Recall  
Call Wait  
REC [trunk no ]  
Recall Hnt [Hunt Group no ]  
DISA Incoming  
Call [extension no ]  
Transf [extension no ]  
Recall [trunk no ]  
HOLD Recall

## Handset Mute

**44-Series phones only**

**CPC-All/B Version 8.0, CPC-S/M Version 2.0, or CPC-EX Version 10 only**

### Description

While using the handset (not on speaker) during a phone conversation, you can press the MUTE key to block audio path to the other party -- you can still hear them, but they can't hear you. This feature is called "Handset Mute."

### Operation

- 1 To turn on Handset Mute while using the handset, press the MUTE key
  - The MUTE indicator lamp (LED next to MUTE key) will flash
  - The handset transmitter will be muted. You will still be able to hear the other party, but they can't hear you.
- 2 To turn off Handset Mute, do one of the following
  - press the MUTE key again,
  - press HOLD to place the call on hold
  - replace the handset on-hook or
  - press the flashing FF-key to answer another call
    - Note This will drop the first call unless Key Bank Hold is enabled (FF1 2# 1# 9#)
  - The MUTE indicator lamp will stop flashing

### Notes

**Headset Use** The Handset Mute feature also works if you are using a headset on the phone to handle calls (#5 1 activates Headset mode)

**Speakerphone Use** The MUTE key works the same as before (mutes the microphone) when you are on speaker. The MUTE lamp lights steadily when the microphone is muted, and flashes when the handset is muted.

**Handsfree Answerback** The MUTE key enables or disables Handsfree Answerback the same as before. (Handsfree Answerback allows you to answer intercom calls on speaker, without picking up the handset. While the phone is idle, press the MUTE key to toggle between Handsfree Answerback On and Off. When the MUTE indicator lamp is unlit, Handsfree Answerback is ON. When the lamp is lit, Handsfree Answerback is OFF.)

**Offhook Monitoring** This new feature and Handset Mute can both be ON simultaneously, so that both the speaker and handset transmitters are muted (but the speaker and handset receivers still operate). For more information about Offhook Monitoring, see page 13 of these Release Notes.

**Barge-Ins During Handset Mute** If another phone barges in on your call while Handset Mute is ON, and you change to conference talk (but not by pressing HOLD), Handset Mute will remain ON.

**FF-Key/One-Touch Key Restriction** Handset Mute cannot be assigned to an FF-key or a one-touch (soft) key.

## **Off-Hook Monitoring**

**44-Series phones only**

**CPC-All/B Version 8 0, CPC-S/M Version 2 0, or CPC-EX Version 10 only**

### **Description**

Off-Hook Monitoring lets you put a call on speaker while the handset is off-hook. You can still communicate with the outside party via the handset, but you will also be able to hear him on the phone's speaker. He will only be able to hear what is spoken through your handset, however - audio will not be transmitted through your microphone.

### **Operation**

- 1 During a handset call, press the ON/OFF key
  - Another receiver path is established on the phone's speaker -- you can now hear the outside party on the speaker as well as in the handset
  - Your phone's microphone is muted so that the outside party hears only what is spoken through your handset. (To mute handset transmission, press MUTE.)
- 2 To disable Off-Hook Monitor ("kill" the speaker but stay on the line with the outside party through the handset), press ON/OFF again.

## **Separate Speaker Volumes for Internal vs. CO calls**

**44-Series phones only**

**CPC-All/B Version 8 0, CPC-S/M Version 2 0, or CPC-EX Version 1 0 only**

### **Description**

You can now establish separate speaker volumes internal (intercom) and external (CO) calls.

### **Operation**

To adjust volume levels, press the VOLUME key (A or ▼) during the appropriate call state.

### **Notes**

Adjusting speaker volume will affect only the speaker (i.e., not the handset), and vice-versa.

## Analog Adapter

**44-Series phones only**

**CPC-All/B Version 8 0, CPC-S/M Version 2 0, or CPC-EX Versron 1 0 only**

### Description

The Analog Adapter (VB-44100) consists of a base adapter and PC board which is installed on the underside of the phone. It is used to connect the 44-series large-display phone to an analog device such as an SLT telephone, cordless phone, FAX machine, or modem. This allows the same phone line to be used to alternate between normal phone calls and analog communications (*To install, see the instructions supplied with VB-44100*).

### Programmng

to register the installation of the Analog Adapter on an extension

**FF3 (ExtPort)# 51# (0 or 1)#**

Extension Port where  
VB-44225 Large-Display  
Phone is installed

**0=Analog Adapter IS not  
installed on this extension**

**1=Analog Adapter is  
installed on this extension**

to implement data security measures (interrupt tones, overmdes)  
for the Analog Port

**FF3 (ExtPort)# 52# (0 or 1)#**

Extension Port where  
VB-44225 Large-Display  
Phone is installed

**0=Disable data security on the  
Analog Adapter**

**1=Enable data security on the  
Analog Adapter**

NOTE This address will affect only the Analog Adapter, not the Large-Display phone itself

## Operation

The first device to go off-hook will seize the line (off-hook is either lifting the handset or pressing the ON/OFF key) If the analog device goes off-hook first, the large-display phone will be unable to dial or go off-hook

You can choose which device will ring by going off-hook at either the digital key telephone or the analog device and dialing \*71 The digital key telephone display will reflect "Analog port RING" or "Key Tel RING", depending on which device is selected - the default is "Key Tel RING"

You can still *answer* an incoming call from either device, regardless of which device is ringing For example, if the analog device is ringing, you can pick up the call on the digital key telephone by going off-hook before the analog device does Similarly, if the digital key telephone is ringing or has not answered a voice call, the analog device can pick up the call by going off-hook first

You can program the \*71 ring select command into an FF key Pressing the key toggles between "Analog Port RING" and "Key Tel RING" When the analog port is set to ring, the FF key LED lights red When the key telephone is set to ring, the LED is off

## Notes

### *Phone Restrictions*

- The Analog Adapter will work on the large-display phone only (VB-44225)
- A dial-pulse SLT will not function on the analog port
- Stutter Dial Tone (indicating Call-Forwarding mode, Do-Not-Disturb mode, etc ) will not function on an SLT connected to the Analog Adapter
- An analog phone connected to the Analog Adapter cannot program or access speed dials

### *Incoming Calls*

- You cannot program both devices to ring simultaneously
- The "\*71" code will not work if the other device is in use
- The "\*71" code will not work if FF3 (ExtPort)# 51# is set to "0"
- If set to "Analog port RING", the large-display phone will work like an SLT/OPX (no page announcements, no voice calls from other extensions, etc )
- If the phone is in CF/DND (Call-Forward or Do Not Disturb), the phone will remain in CF/DND even if the ringing device is changed via the \*71 code
- The incoming ring pattern for the analog device is the same as for the digital key telephone (determined by the Extension Ring Pattern in FF3 (ExtPort)# 38# (0-9)#) If this address is set to "0" (determined by CO), the analog device will automatically default to "1 second ON, 3 seconds OFF"



**Ring Patterns Not Applicable to Analog Device** The following ring pattern addresses **will not** affect the analog device

Transfer Ring Pattern	FF1 2# 1# 28# (0-6)#
SLT DISA Ring Pattern	FF1 2# 1# 30# (0 or 1)#
Inbound Ring Pattern	FF2 (Trunk)# 17# (0-9)#

**Flash Interaction** Any disconnect signal sent to the analog port must be greater than the SLT Flash Control, otherwise the disconnect signal will be interpreted as a flash and the call will be placed on hold

**Programming Addresses That Affect the Analog Device** The following addresses will control the analog device, but will not affect the digital key telephone

SLT Disconnect Duration	FF1 2# 1 # 31# (0-15)#
SLT Flash Control	FF1 2# 1# 1 1# (0 or 1)#
SLT Onhook Flash Timer	FF1 3# 12# (0-6)#
SLT Disconnect Signal	FF3 (ExtPort)# 45# (0 or 1)#
Analog Port on Large-Display Phone (new)	FF3 (ExtPort)# 51# (0 or 1)#
Data Security on Analog Port (new)	FF3 (ExtPort)# 52# (0 or 1)#

## **MSG (Message) Key**

**44-Series phones only**

**CPC-All/B Version 8.0, CPC-S/M Version 2.0, or CPC-EX Version 10 only**

### **Description**

The new MSG key on the VB-44225 Large-Display Phone adds the following functionality to the phone

- **Auto-Callback** If a callback message has been left by another extension, you can press the MSG key to place an automatic callback to the extension that sent the message. If more than one callback message has been received, pressing the MSG key will perform auto-callback in the order received.
- **Auto-Answer Voice Message** You can press the MSG key to automatically access your voice mailbox. The phone will dial your voice mailbox and send access codes (if programmed) for retrieving new messages.

### **Programming**

Auto-Callback is always enabled for large display phones. Use the following to enable the MSG key for Auto-Answer Voice Message

to enable the MSC key for Auto-Answer Voice Message

**FF3 (ExtPort)# 53# (0 or 1)#**

Extension Port where  
VB-44225 Large-Display  
Phone is installed

**0=Disable MSG key from returning  
a "Message Waiting"**  
**1=Enable MSG key for returning  
a "Message Waiting"**

## Operation

### To Program Voice Mailbox Access Codes into the MSG Key

Press PROG MSG [16-digit number] HOLD

The display will reflect "Regist Data"

### To Confirm a Voice Mailbox Access Code Programmed into the Message Key

Press CONF MSG

The programmed access code will be displayed

## Notes

**Operation With Message Waiting Indicator** The Message Waiting Indicator on the phone's upper right corner will flash whenever a callback message or voice message has been received

**Operation During Call States** The MSG key will work only when the phone is idle, receiving dial tone, or in Directory Mode (via select key)

**Operation If Phone Has Both a Callback Message from another Extension and a Voice Message** Messages are accessed in a First In, First Out order. If the callback message was received before the voice message, then pressing the MSG key will activate Auto-Callback first. Likewise, if the voice message was received before the callback message, pressing the MSG key will access your Voice Mailbox

**Interaction with Tone-Calling Mode** If an Auto-Callback is placed to a phone that is in tone-calling mode (i.e., not voice-calling), that phone must answer or the message canceled before another message can be accessed

**FF-Key Restriction** These new MSG features cannot be assigned to an FF-key

**Reprogramming the MSG key if Extension Number Digits is changed** If the DBS is reprogrammed to use a different extension numbering plan (i.e., changed from 2-digit to 3-digit extensions, 3-digit to 4-digit extensions, etc.), the Voice Mailbox Access Code must be reprogrammed into the MSG key.

## **DSS/72 Console - Key Arrangement**

**44-Series phones only**

**CPC-All/B Version 8.0, CPC-S/M Version 2.0, or CPC-EX Version 1.0 only**

### **Description**

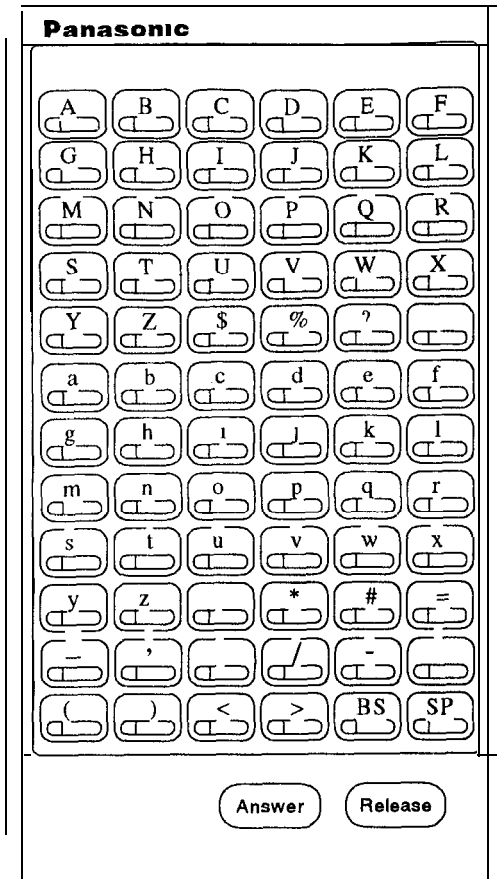
The keys on the new DSS/72 Console (VB-44320) are arranged differently from the VB-43320 model. The new DSS console has 6 columns x 12 rows of keys (not 8 columns x 9 rows as in the previous version). This affects the following:

- **Name and Message Assignments (FF6 addresses)** The alphabetical arrangement of the keys is different.
- **FF-Keys** The FF-keys on the DSS/72 console are numbered left-to-right, bottom row first.
- **DSS #1 Defaults** The default extension number assignments on DSS #1 are different.

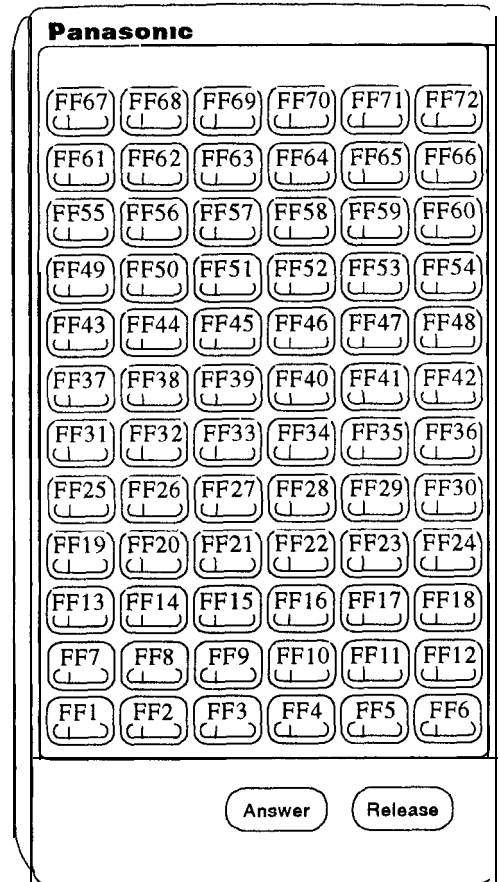
The new arrangement for the DSS keys is shown in Figures 3 & 4.

**Figure 3 DSS/72 Console (VB-44320) keys**

DSS/72 Key Layout (alphabetical)

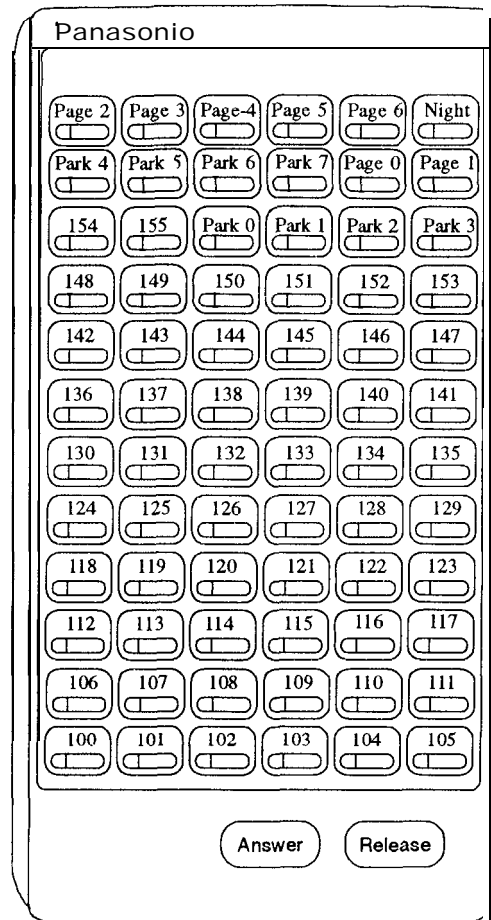


DSS/72 Key Layout (W-key numbermg)



**Figure 4 DSS/72 #1 Default Extension Numbers**

DSS #1 Default Extension Numbers



## Programmng

The DSS/72 console (DSS #1 DSS #4) is assigned to its extension number in the same manner as before

**Terminal Type FF3 (ExtPort)# 2# (11-14)#**

where

- 11 is the first DSS console for the first attendant
- 12 is the second DSS console for the first attendant
- 13 is the first DSS console for the second attendant
- 14 is the second DSS console for the second attendant

The DSS/72 console's FF-keys are assigned feature codes in the same manner as before (the only difference is the numbering arrangement of FF-keys I-72)

**FF Key Assignments    FF5 (DSSPort)# CQNF (1-72)# (Code)#**

The Name and Message Assignment addresses work the same way as before on the DSS/72 console (the only difference is the placement of the keys when entering the characters of the text)

**Extension Name    FF6 1# (ExtPort)# CONF (IO char )#**  
**SSD Name            FF6 2# (SSD)# CONF (16 char )#**  
**PSD Name            FF6 3# (ExtPort)# (PSD)# CONF (16 char )#**  
**Absence Message FF6 4# (5-9)# CONF (15 char )#**  
**Trunk Name          FF6 5# (Trunk)# CONF (6 char )#**  
**Hunt Group Name FF6 6# (HuntGrp)# CONF (10 char )#**  
**CW/OHVAReply    FF6 7# (1-5)# CONF (15 char )#**

Note: If you use the 44-Series DSS/72 for Name and Message assignment, you should use the 44-Series phone for the attendant

## Operation

The 44-Series DSS/72 operates the same as previous models

## EM/24 - Key Arrangement

44-Series phones only

CPC-All/B Version 8.0, CPC-S/M Version 2.0, or CPC-EX Version 1.0 only

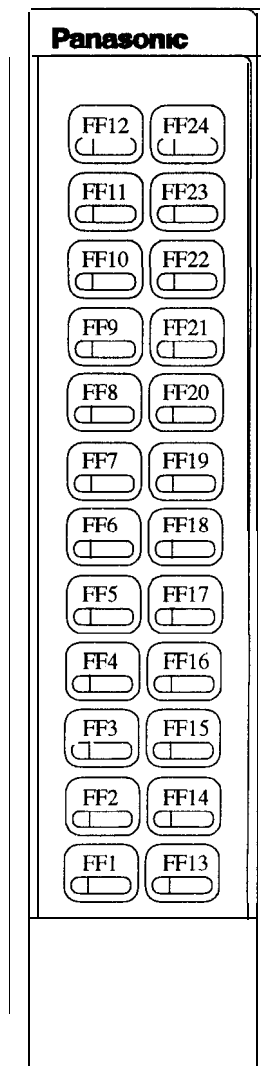
### Description

The keys on the new EM/24 unit (VB-44310) are arranged differently from the VB-43310 model. The new EM/24 unit has 2 columns x 12 rows of keys (not 3 columns x 8 rows as in the previous version). This affects the following:

- **FF-Keys** The FF-keys on the EM/24 are numbered bottom-to-top, left column first.

The new arrangement for the EM/24 keys is shown in Figure 5.

Figure 5 EM/24 Unit (VB-44310) keys



## Programmng

The terminal type for the EM/24 is specified in the same manner as before

**Terminal Type FF3 (EM/24 ExtPort)# 2# (1-48)#**

The EM/24 unit is linked to its extension phone in the same manner as before

**EM/24 Port Assignment FF3 (EM/24 ExtPort)# 3# (phone ExtPort)#**

The EM/24's FF-keys are assigned feature codes in the same manner as before (the only difference is the numbering arrangement of FF-keys 1-24)

**FF Key Assignments FF5 (ExtPort)# (1-24)# CQNF (Code)#**

## Operation

The 44-Series EM/24 operates the same as previous models

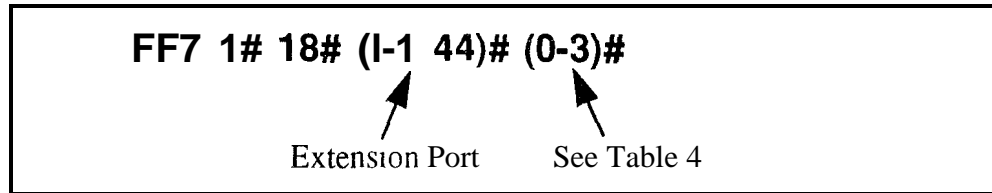


# Modification to Toll Restriction Service

**Description** The program address for TRS Operator Access (FF7 1# 18# ) has been modified to allow an extension to dial “O+NXX” phone numbers, even if “O-only” dialing is denied

Four settings are possible See Table 4 for descriptions

## Programmng



**Table 4 TRS Operator Access settings**

IF EQUAL ACCESS CODE FORMAT IS: 0 = Old Format (10XXX ONLY)			IF EQUAL ACCESS CODE FORMAT IS: 1 = New Format (101XXXX ONLY)		
Setting	Action	Type of Call	Setting	Action	Type of Call
0 (default)	Restrict	0 only and 00 only calls 10XXX0 only calls	0 (default)	Restrict	0 only and 00 only calls 101XXXX0 only calls
	Allow/Deny	0 + additional digits per TRS tables 00 + additional digits per TRS tables 01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch 10XXX0 + additional digits per TRS tables 10XXX01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch		Allow/Deny	0 + additional digits per TRS tables 00 + additional digits per TRS tables 01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch 101XXXX0 + additional digits per TRS tables 101XXXX01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch
continued					

IF EQUAL ACCESS CODE FORMAT IS: <b>0 = Old Format (10XxX ONLY)</b>			IF EQUAL ACCESS CODE FORMAT IS: <b>1 = New Format (101XXXXX ONI Y)</b>		
Setting	Action	Type of Call	Setting	Action	Type of Call
1	Allow  Allow/Deny	0 only and 00 only' only calls 10XXX0 only calls  0 + additional digits per TRS tables 00 + additional digits per TRS tables 01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch 10XXX0 + additional digits per TRS tables 10XXX01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch	1	Allow  Allow/Deny	0 only and 00 only calls 101XXXX0 only calls  0 + additional digits per TRS tables 00 + additional digits per TRS tables 01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch 101XXXX0 + additional digits per TRS tables 101XXXX01 + additional digits per TRS tables Overseas Access Switch and International Calls Switch
2	Restrict  Allow  Allow/Deny	0 only and 00 only calls 10XXX0 only calls  0 + additional digits 00 + additional digits 10XXX0 + additional digits  01 + additional digits per Overseas Access Switch and International Calls Switch 10XXX01 + additional digits per Overseas Access Switch and International Calls Switch	2	Restrict  Allow  Allow/Deny	0 only and 00 only calls 101XXXX0 only calls  0 + additional digits 00 + additional digits 101 XXXX0 + additional digits  01 + additional digits per Overseas Access Switch and International Calls Switch 101XXXX01 + additional digits per Overseas Access Switch and International Calls Switch
3	Allow  Allow/Deny	0 only and 00 only calls 10XXX0 only calls 0 + additional digits 00 + additional digits 10XXX0 + additional digits  01 + additional digits per Overseas Access Switch and International Calls Switch 10XXX01 + additional digits per Overseas Access Switch and International Calls Switch	3	Allow  Allow/Deny	0 only and 00 only calls 101XXXX0 only calls 0 + additional digits 00 + additional digits 101XXXX0 + additional digits  01 + additional digits per Overseas Access Switch and International Calls Switch 101XXXX01 + additional digits per Overseas Access Switch and International Calls Switch

## Notes

- The Operator Access address applies only to DBS systems using the new (1995) NANP dialing plan (FF7 1# 17# 1#), and to TRS types 2-6 (TRS types 0 and 1 do not allow outbound dialing, TRS type 7 allows all dialing)
- If “O-only”, “OO-only”, “10XXX0-only”, or “101XXXX0-only” calls are restricted (settings 0 or 2), the system will wait 6 seconds before automatically disconnecting the call. However, if the user dials additional digits within 6 seconds, the DBS will check other switches to **determine** whether to allow or deny the call.
- For all settings (0-3), the system will check the Equal Access Code Format switch (FF7 1# 21# ) if a CIC (carrier identification code) is dialed to reach a preferred inter-exchange carrier.
- For all settings (0-3), the system will check the international calls switches (FF7 1# 1# and FF7 1# 19#) if “01”, “10XXX01”, or “10XXXX01” is dialed.
- For settings 2 and 3, the system will not consider TRS settings for the trunk.

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# Key Telephone Installation Notes

## ***Desi Strip Cover***

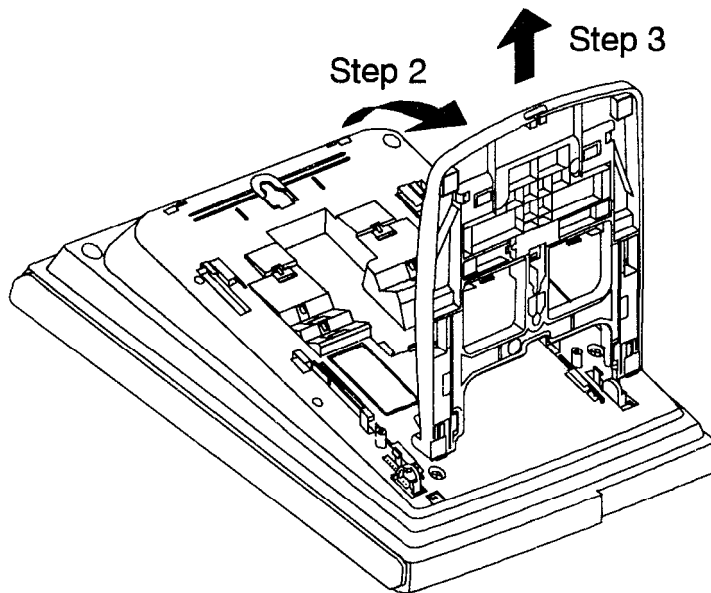
The 44-Series Key Telephones are shipped with a thin green protective film over the Desi strip cover. Be sure to remove this film from both sides of the Desi cover before placing the phone in service.

## ***Key Telephone Wall Mounting Instructions***

The following procedures apply to 44-Series Key Telephones only. Please be sure to follow these procedures exactly. Removing the desk stand incorrectly can result in damage to the telephone and/or desk stand.

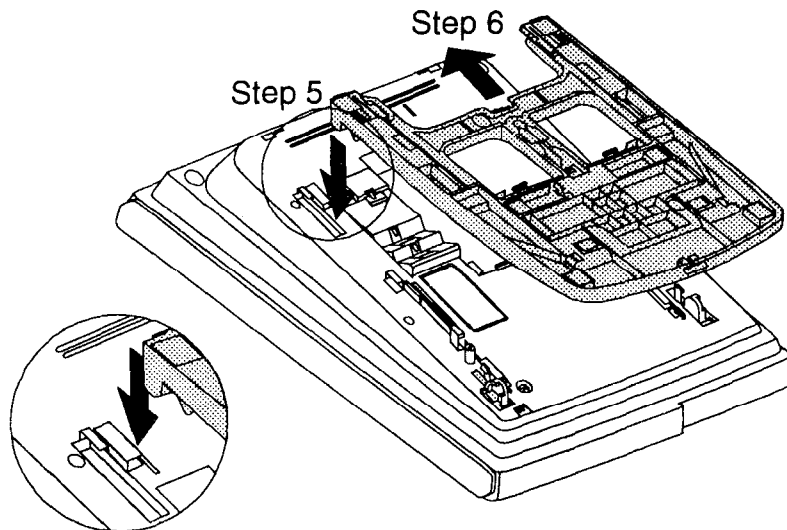
- 1 Place the telephone face down on a flat surface.
- 2 Grasp the top of the desk stand (at the **>ABS<** label) and pull up the end to 90° vertical (refer to Step 2 in Figure 6). The stand will click as it releases from the plastic securing latches.
- 3 Lift the desk stand as shown in Step 3 of Figure 6.

***Figure 6 Desk Stand Removal***



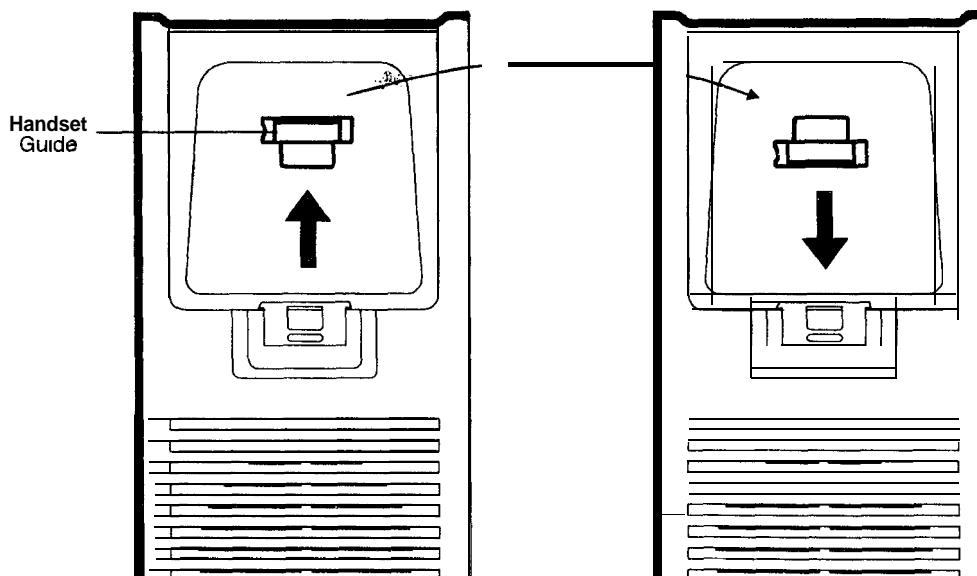
- 4 Rotate the desk stand 180° In this position it doubles as a wall mount bracket
- 5 Insert the wall mount bracket into the mounting guides as shown in Figure 7
- 6 Slide the wall mount bracket onto the telephone

**Figure 7** Inserting the wall mount bracket (rotated desk stand)



- 7 While viewing the front of the telephone, find the handset guide located just below the hookswitch (see Figure 8)
- 8 Slide the handset guide out, rotate 180° so that the holding clip is exposed, and reinsert

**Figure 8** Handset guide insertion for wall mounting, key telephone

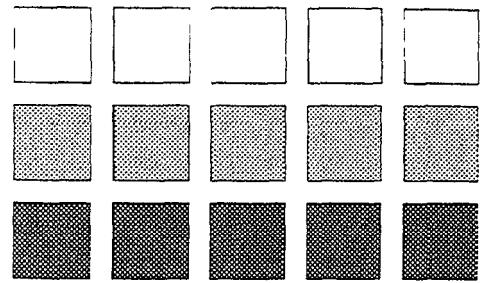
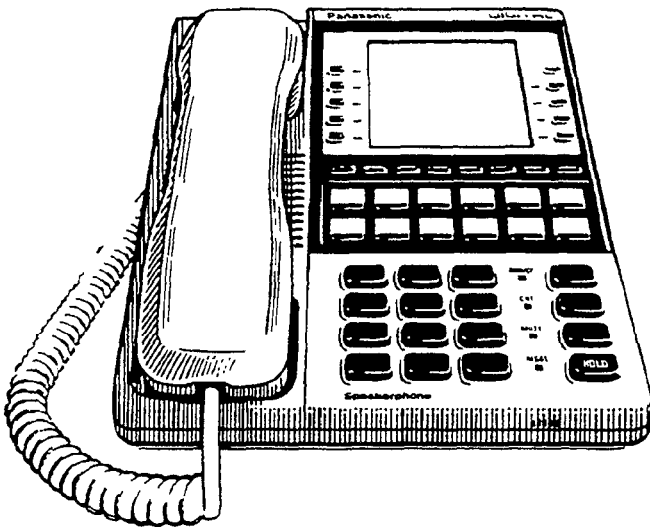


# Panasonic™

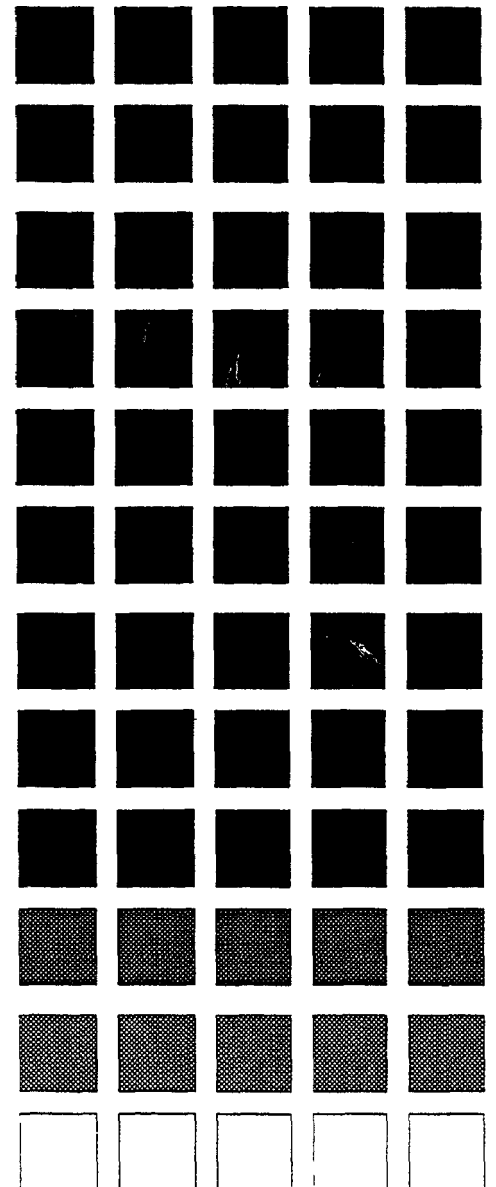
## DBS

Digital Business System

# DBS 824



## Section 300 Installation



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# Contents

FCC Warning .....	ii
Battery Recycling Statement .....	ii

---

## About This Manual

Purpose .....	x
Related Documents .....	x

---

## Chapter 1. Requirements

Model Numbers and FCC Information .....	1-2
<b>Incidence of Harm to Telephone Line</b> .....	1-2
Compatibility of the Telephone Network and Terminal <b>Equipment</b> .....	1-3
<b>REN Explanation</b> .....	1-3
<b>Environmental Requirements</b> .....	1-3
Cleaning .....	1-4

---

## Chapter 2. System Overview

Cabinet Description .....	2-3
Configurations .....	2-4
Printed Circuit Cards .....	2-5
Processor <b>Description</b> .....	2-6

---

## Chapter 3. Cabinet Installation

Wall-Mounting the Cabinet .....	3-3
<b>Guidelines</b> .....	3-3
.....	3-3

---

CPC and MFRU Options	3-7
<b>Installation</b>	3-8
Battery Backup	3-9
Guidelines	3-9
Installation	3-10
System Initialization	3-11

---

## Chapter 4. Trunks and Lines

Trunks	4-3
Trunk Connectors	4-3
Trunk Connector <b>Pinouts</b>	4-4
Loop-Start Trunks	4-5
Guidelines	4-5
Installation	4-5
Lines	4-5
Extension Connectors	4-5
Extension Connector <b>Pinouts</b>	4-6
Digital Extensions	4-8
<b>DSS/72</b>	4-8
Guidelines	4-8
Installation	4-8
EM/24	4-10
Guidelines	4-10
Installation	4-10
Analog Extensions	4-11
Guidelines	4-11
Installation	4-11

---

## Chapter 5. Telephones and Peripheral Equipment

Key Phone Wall Mounting.	5-3
DSL/T Wall Mounting	5-4
Local PCAS Terminal or SMDR Device	5-6
Guidelines	5-6
Installation	5-6
Background Music/Music-On-Hold	5-8
Guidelines	5-8
Installation	5-8
Option Port Line	5-11
Guidelines	5-11
installation	5-11



Off-Premises Adaptor (OPX)	5-13
Guidelines	5-13
Installation	5-13
Installing an OPX Station Without Going Through a Central Office	5-13
Installing an OPX Station Through a Central Office	5-15
External Paging	5-16
Guidelines	5-16
Non-Zoned Page Installation (CPC-M Only)	5-16
Zone Paging Installation	5-17
External Ringer (UNA Device)	5-19
Guidelines	5-19
<b>Installation</b> of External Ringer Amplifier (CPC-S)	5-19
Installation of External Ringing Device (CPC-M Only)	5-19
Installation of External Ringer Amplifier (CPC-M)	5-21
Power Failure Transfer	5-22
Guidelines	5-22
Installation	5-22
Voice Announce Unit (VAU)	5-24
Guidelines	5-24
Installation	5-24
Door Box Adaptor	5-28
Guidelines	5-28
Installation	5-28

---

## Chapter 6. Specifications

Electrical Characteristics	6-3
Environmental Requirements	6-3
Resource Maximums	6-4
Cabling Specifications	6-9
Communication Parameters	6-10
Signaling Characteristics	6-10
Tone Characteristics	6-12

## List of Figures

Figure 2- 1	The DBS 824 cabinet	2-3
Figure 2-2	Trunk, line, and peripheral connections	2-4
Figure 2-3	Slot labels for printed circuit packages	2-6
Figure 3-1	Cover removal	3-3
Figure 3-2	Cabinet wall-mounting	3-4
Figure 3-3	Cabinet ground screw	3-5
Figure 3-4	CPC strap <b>J3</b>	3-7
Figure 3-5	MFRU circuit card attachment to CPC	3-7
Figure 3-6	Printed circuit card installation	3-8
Figure 3-7	Battery location	3-10
Figure 3-8	CPC memory clear switch	<b>3-11</b>
Figure 4- 1	DBS 824 trunk connections	4-3
Figure 4-2	DBS 824 <b>trunk/OPL pinouts</b>	4-4
Figure 4-3	DBS 824 extension connections	4-6
Figure 4-4	<b>DSS/72</b> connection	4-9
Figure 4-5	EM/24 connection	<b>4-10</b>
Figure 4-6	Cable punch-out plate, SLTA	4-11
Figure 4-7	SLTA installation	4-13
Figure 5- 1	Wall-mount adaptor removal	5-3
Figure 5-2	Wall-mount adaptor removal	5-3
Figure 5-3	Handset guide insertion for wall-mounting, key phone	5-4
Figure 5-4	Desk stand removal for DSLT wall mounting	5-4
Figure 5-5	Desk stand attachment for DSLT wall mounting	5-5
Figure 5-6	Handset guide insertion for wall-mounting, DSLT	5-5
Figure 5-7	sru to <b>CPC Connection</b>	5-7
Figure 5-8	<b>SIU</b> Connections to peripherals	5-7
Figure 5-9	Installation of music-on-hold and background music- single music source	5-9
Figure 5-10	Installation of music-on-hold/background music - separate music sources	5-10
Figure 5-11	OPL installation	5-12
Figure 5-12	Cable punch-out plate, OPX Adaptor	5-14
Figure 5-13	OPX installation	5-15
Figure 5-14	External single paging installation (CPC-M only)	5-17
Figure 5-15	External zone paging installation (CPC-M only)	5-18
Figure 5-16	External ringer (UNA device) installation using an external ringing device	5-20
Figure 5-17	External ringer (UNA device) installation using the External Ringer Output	5-21
Figure 5-18	Cable punch-out plate, Power Failure Unit	5-22
Figure 5-19	Power Failure Unit ( <b>PFU</b> ) installation	5-23
Figure 5-20	Cable punch-out plate, Voice Announce Unit	5-26
Figure 5-21	Extension cord connection to the VAU	5-26

---

Figure 5-22 Voice Announce Unit (VAU) installation	5-27
Figure 5-23 Cable punch-out plate, Door Box Adaptor	5-28
Figure 5-24 Installation of the door box door opener	5-29
Figure 5-25 Connections to the Door Box Adaptor	5-30

## List of Tables

Table 1 1	DBS 824 model number	1-2
Table 1-2	FCC information	1-2
Table 2-1	Printed circuit card descriptions and maximums	2-5
Table 2-2	Major CPC-S and CPC-M feature differences	2-7
Table 4-1	Total number of extension ports	4-5
Table 4-2	<b>Pinouts</b> for Extension Port Connector CN6	4-7
Table 4-3	Maximum distances for SLTA installation	4-12
Figure 5-1	RS-232C pin designations used for CN1 and CN2	5-6
Table 5-2	CPC variable resistors	5-9
Table 5-3	Maximum distances for direct connection to OPX stations	5-13
Table 5-4	Maximum distances for OPX Adaptor installation	5-14
Table 5-5	Switch settings for SW 1, VAU	5-24
Table 5-6	Switch settings for delay answer timing, VAU	5-25
Table 5-7	Switch settings for DTMF detection timing, VAU	5-25
Table 5-8	Switch settings for wait timing between dialed digits, VAU	5-25
Table 5-9	Switch settings for abbreviated dialing digit length, VAU	5-25
Figure 6-1	Input power	6-3
Table 6-2	Power consumption and heat generation	6-3
Table 6-3	Battery backup capacity	6-3
Table 6-4	Temperature and humidity requirements	6-3
Table 6-5	Dimensions and weight, cabinet and phones	6-4
Table 6-6	Trunk and line capacities	6-4
Table 6-7	Feature-related capacities	6-5
Table 6-8	Hardware maximums	6-7
Table 6-9	Maximum cabling distances	6-9
Table 6-10	Voice path from <b>KTELS</b> to DBS 824	6-10
Table 6-11	Data communications ports	6-10
Table 6-12	Signaling to CO	6-10
Table 6-13	Signaling levels	6-10
Table 6-14	Transmission specifications	6-11
Table 6-15	Tone Plan	6-12
Table 6-16	DTMF frequencies	6-13

# About This Manual

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## *Purpose*

This manual provides installation instructions for the Digital Business System 824 (DBS 824) The following table summarizes the purpose of each chapter

<b>Chapter No</b>	<b>Title</b>	<b>Purpose</b>
<b><i>1</i></b>	<b><i>Requirements</i></b>	<b><i>Includes DBS 824 model number and FCC information that may be required during installation In addition environmental requirements are included to ensure proper operation</i></b>
<b><i>2</i></b>	<b><i>System Overview</i></b>	<b><i>Provides an overview of the DBS 824 The overview includes descriptions of the cabinet system configurations printed circuit cards, and the call processor</i></b>
<b><i>3</i></b>	<b><i>Cabinet Installation</i></b>	<b><i>Explains how to install and power up the cabinet Before you begin installation, be sure to read the “Requirements chapter</i></b>
<b><i>4</i></b>	<b><i>Trunks and Lines</i></b>	<b><i>Describes trunk and line installation See the ‘Peripheral Equipment’ chapter for instructions on connecting peripheral equipment through trunks or Lines</i></b>
<b><i>5</i></b>	<b><i>Peripheral Equipment</i></b>	<b><i>Describes peripheral equipment installation Some peripheral equipment also requires trunk and/or line interfaces (door phones or power failure units for example) For information on trunk and line connections, see 4</i></b>
<b><i>6</i></b>	<b><i>Specifications</i></b>	<b><i>Contains frequently referenced DBS 824 specifications</i></b>

## *Related Documents*

For instructions on DBS 824 programming, ***see Programming Guidance (Section 400)***

For detailed descriptions of DBS 824 features, ***see Feature Operation (Section 700)***

---

# Chapter 1. Requirements

This chapter includes the DBS 824 model number and FCC information that may be required during installation. In addition, environmental requirements are included to ensure proper operation.

---

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# Model Numbers and FCC Information

*Table 1 I DBS 824 model number*

DBS 824	VB- 42050
---------	-----------

**Table 2 FCC information**

<i>Item</i>	<i>Specification</i>
Type of Service	The DBS 824 is designed for use with standard telephone lines Direct connection to party lines or coin-operated phones is prohibited
FCC Registration Number	(Not available at time of printing, see KSU label)
Ringer Equivalence	0 5B
Network address signaling code	E
Service Order Code	9 0F
Facility Interface Code	02LS2
Required Network Interface Code	RJ21C

Note: When cabling automatic line selection, contact telephone installer or Panasonic service center In this case, please inform your telephone company of the FCC Registration number The FCC registration number will be found on your key service unit

## ***Incidence of Harm to Telephone Line***

Should the Terminal Equipment cause harm to the Telephone Network, the Telephone Company shall, where practical notify the customer that temporary discontinuance of service may be required However, where prior notice is not practical, the Telephone Company may temporarily discontinue service forthwith, if such action is reasonable in the circumstances **In** case of such **unnotified** temporary discontinuance of service, the Telephone Company shall

- e Promptly notify the customer of such temporary discontinuance of service
- f Afford the customer the opportunity to correct the situation which gave rise to the temporary discontinuance
- g Inform the **customer** of the right to bring a complaint to the Commission pursuant to procedures set out in Subpart E of Part 68 of F C C Rules and Regulations

## ***Compatibility of the Telephone Network and Terminal Equipment***

The Telephone Company shall make changes in its communication facilities equipment, operations or procedures, where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations in FCC Part 68. If such changes can be reasonably expected to render any customer Terminal Equipment incompatible with Telephone Company communications Facilities, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing, to allow the customer an opportunity to maintain uninterrupted service.

### ***REN Explanation***

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices that you may connect to our line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

### ***Environmental Requirements***

**Temperature:** The environment should be free from excessive temperatures in order to avoid component damage. Room temperatures should be 32 to 104° F (0 to 40° C).

**Humidity:** The environment should be free from excessive humidity, which may rust metallic parts and degrade performance. Do not install the system where humidity could condense on its surfaces. Relative humidity ranges should be between 30 and 90 percent.

**Ventilation:** Adequate ventilation must be provided to allow upward air circulation through the cabinet grille.

**Gas and airborne particles:** To avoid corrosion or oxidation of electrical contacts, the environment should be free from airborne particles and corrosive gas.

**Electrical noise:** The environment should be free from excessive electrical noise, which could disturb the operation of digital circuits. The system should be located at least 10 ft. (3 m) away from welders, dimmers, or other high-current machines. Phones connected to the system should not be located near fluorescent lamps, air conditioners, washing machines, TVs, or radios.

**Vibration:** The environment should be free from excessive vibration, which could loosen components.

**Water Exposure:** Because the DBS 824 is an electric device, exposure to water is dangerous. Do not place anything containing water on the system. Do



not install under overhead plumbing, sprinkler system valves, or in areas that are susceptible to flooding

**Lighting:** Sufficient lighting is required for testing and maintenance

**Lightning Protection/Grounding:** The system must be properly grounded to protect from lightning damage. The following **UL** conditions must be met to ensure proper grounding (For grounding instructions, see page 3-5 )

- Supplemental and independent equipment grounding conductors are to be installed between the system and the wiring system ground
- One of the equipment grounding conductors must be a conductor that is as large or larger than the ungrounded branch-circuit supply conductors. The equipment grounding conductor is to be installed as part of the circuit that supplies the system and is to be connected to ground at the service equipment. Bare, covered or insulated grounding conductors are acceptable. **Individually** covered or insulated grounding conductors should have a continuous outer finish that is either green or green with one or more yellow stripes. The equipment grounding conductor should be connected to ground at the service equipment.
- The other equipment grounding conductor shall comply with the general rules for grounding contained in **Article 250** of **the National Electric Code, NFPA 70**, but its connection to ground shall not depend on the cord and plug of the system
- The attachment-plug receptacles of the same type as that used by the systems that are in the vicinity of the DBS 824 are all to be of a grounding type, and the equipment grounding conductors serving these receptacles are to be connected to earth ground at the service equipment
- A marking adjacent to the telecommunications jacks must instruct the user to connect a supplementary equipment grounding conductor before any telecommunication lines are connected to the product or system

---

## Cleaning

- Use a **slightly** damp cloth to clean the phones. The phones should never be cleaned with benzene, paint thinner, or other solvents

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# Chapter 2. System Overview

This chapter provides an overview of the DBS 824. This overview includes descriptions of the DBS 824 cabinet, system configurations, printed circuit cards, and the call processor.

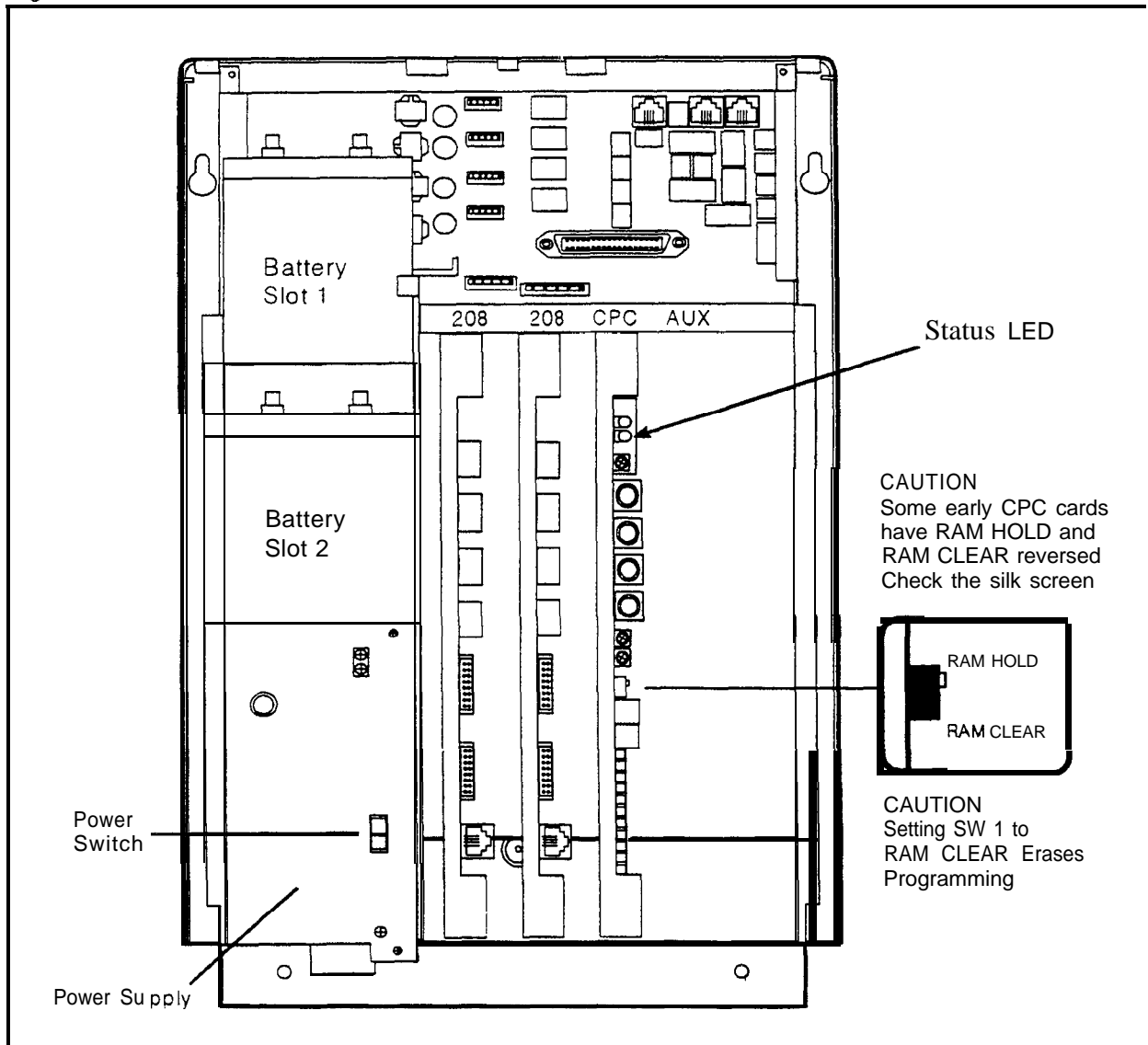


# Cabinet Description

Panasonic's DBS 824 is a hybrid telephone system that can be used as a key service unit (KSU) or a private branch exchange (PBX).

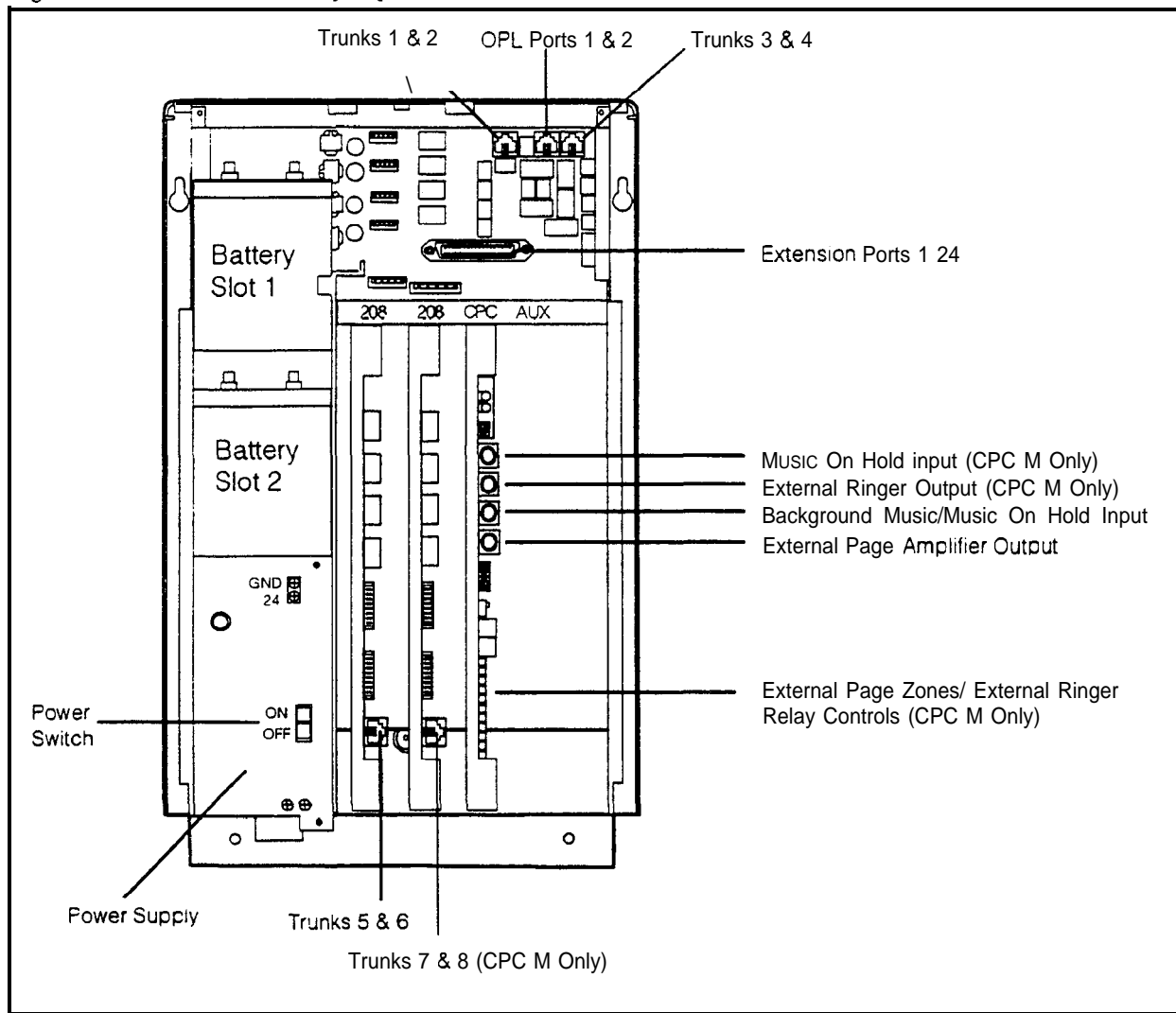
The DBS 824 cabinet includes an AC power supply, dedicated card slots, and backplane connectors with line and trunk connections. Backup batteries are optional.

**Figure 2-1 The DBS 824 cabinet**



The CPC card has front connectors for connecting to peripheral equipment, such as paging amplifiers, external ringers, and music-on-hold/background music sources. Figure 2-2 on page 2-4 shows trunk and line connections, as well as some peripheral connections. Peripheral connections are covered in detail in Chapter 5.

**Figure 2 2 Trunk, line, and peripheral connections**



## Configurations

The basic DBS 824 supports 4 trunks and 8 extensions. Systems may be expanded up to a total of 8 trunks and 24 extensions by adding 208 EXP expansion circuit cards as follows:

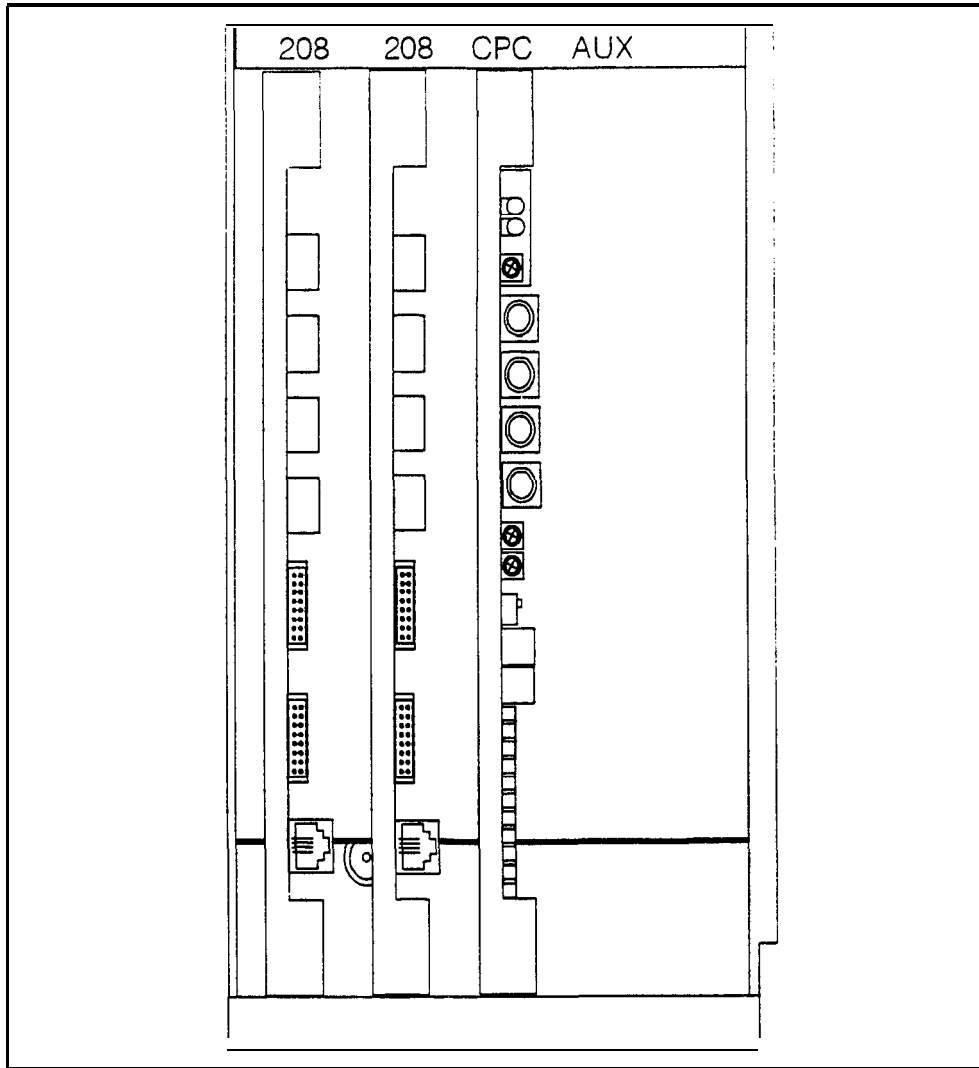
Number of 208 EXP (VB 42050) Cards	Total Trunks	Total Extensions	Notes
0	4	8	
1	6	16	Must be in first slot
2	8	24	Requires CPC M

# Printed Circuit Cards

The following table describes the printed circuit cards that can be used with the DBS 824. Also included are brief descriptions of each card and the maximum number that can be installed in each cabinet.

**Table 2.1 Printed circuit card descriptions and maximums**

<b>Card Type</b>	<b>Card Designation</b>	<b>Card Description</b>	<b>Mounting Position</b>	<b>Comments</b>
Expansion Card	208 EXP (VB 4265 1)	2 loop trunks 8 port extension	208 Slot	1 max with CPC S 2 max with CPC M
Processor Cards	CPC S (VB-42450)	Supports small configuration (up to 6 trunks and 16 extensions) Supports one 208 EXP Card	CPC slot	1 per system
	CPC M (VB-42451)	Supports up to two 208 EXP cards Adds additional features over CPC S	CPC slot	1 per system
Serial Interface	SIU (VB-42712)	2 RS232C Serial Ports	Top shelf	1 per system
DTMF Circuits	MFRU (VB-42431)	2 circuit DTMF receiver	Attaches to CPC card	1 per system
	MFR (VB-43431)	8 circuit DTMF receiver	AUX slot	1 max
Interface Cards	API (VB-43940)	Applications processor interface	AUX slot	1 max; CPC M required
Door Phone Adaptor	DPHA (VB-43711)	1 Door Phone Adaptor circuit	External	4 max per system Each DPHA requires one digital extension port The door box and the door opener are not provided
Single Line Telephone Adaptor	SLTA (VB-43709)	4 SLT circuits	External	Each SLTA circuit requires one digital extension port
Caller ID Cards	CID-A (VB-42551)	Caller ID card for first 4 trunks	Top shelf	1 max; CPC M required
	CID B (VB-42552)	Caller ID expansion card for second 4 trunks	Top shelf	1 max; CPC M required

**Figure 2-3 Slot Labels for printed circuit packages**

### **Processor Description**

The Call Processor Card (CPC) controls the DBS 824 call-processing with two versions available. The CPC-S (Small) (VB-42450) supports a limited set of features. The CPC-M (Medium) (VB-42451) supports a larger set of features.

The following table shows some of the major CPC-S and CPC-M differences.

**Table 2 2 Major CPC S and CPC M feature differences**

<b>CPC</b>	<b>Features</b>
<b>CPC s</b>	90 System Speed Dials
	10 Personal Speed Dials per phone
	Common Music On Hold <b>and</b> Background Music Inputs
	External Page Audio Output
	External Ringer Audio Output
	Auto Busy Redial
	8 Circuit <b>MFR</b> Card (VB-43431) Support
<b>CPC M</b>	All CPC S Features
	Up to 200 System Speed Dials
	Up to 40 Personal Speed Dials per phone
	2 <b>Circuit</b> MFR Card (VB 42431) Support with <b>Internal</b> Music On Hold
	Separate Background-Music and Music On Hold Inputs
	External Page Zone Control
	<b>Separate</b> External Page and External Ringer Control Relays
	<b>API Card</b> Support
	Caller ID Card Support



---

# Chapter 3. Cabinet Installation

This chapter explains how to install and power up the cabinet Before you begin installation, be sure to read the “Requirements” chapter which begins on page 1-1



---

# Wall-Mounting the Cabinet

## Guidelines

**CAUTION:**

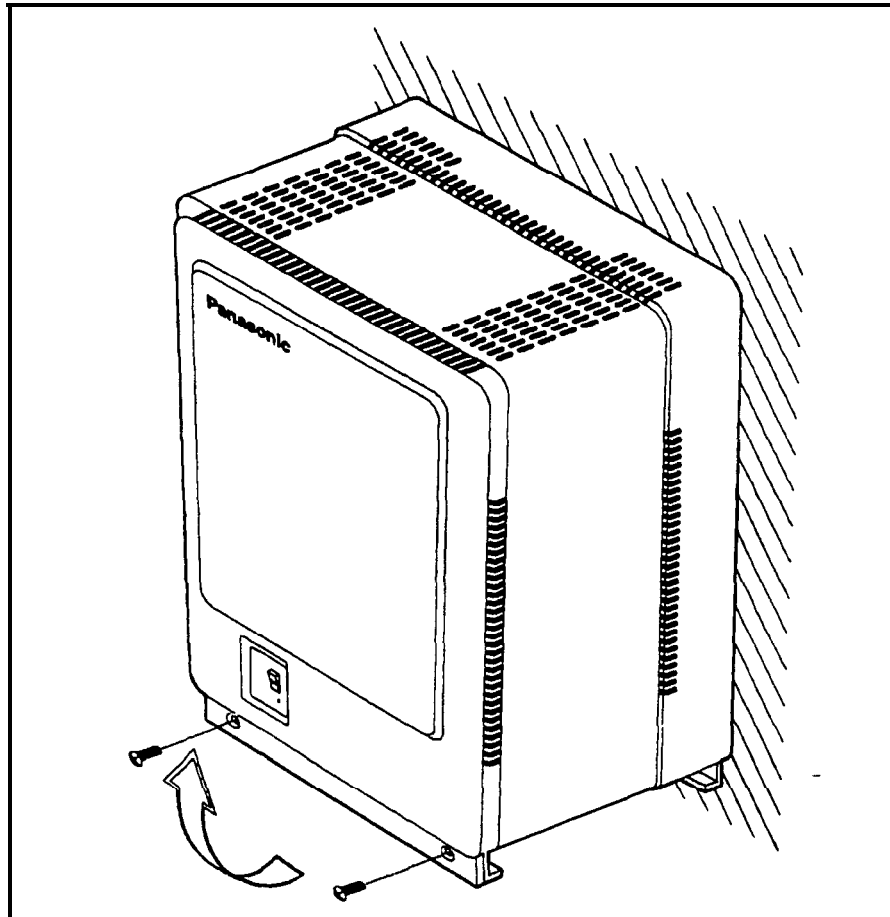
Always turn the power switch OFF before beginning installation

- The DBS 824 is shipped with the cover installed to protect components. Before wall-mounting the cabinet, remove the cover.
- Handle the cabinet carefully to avoid damage.

## Installation

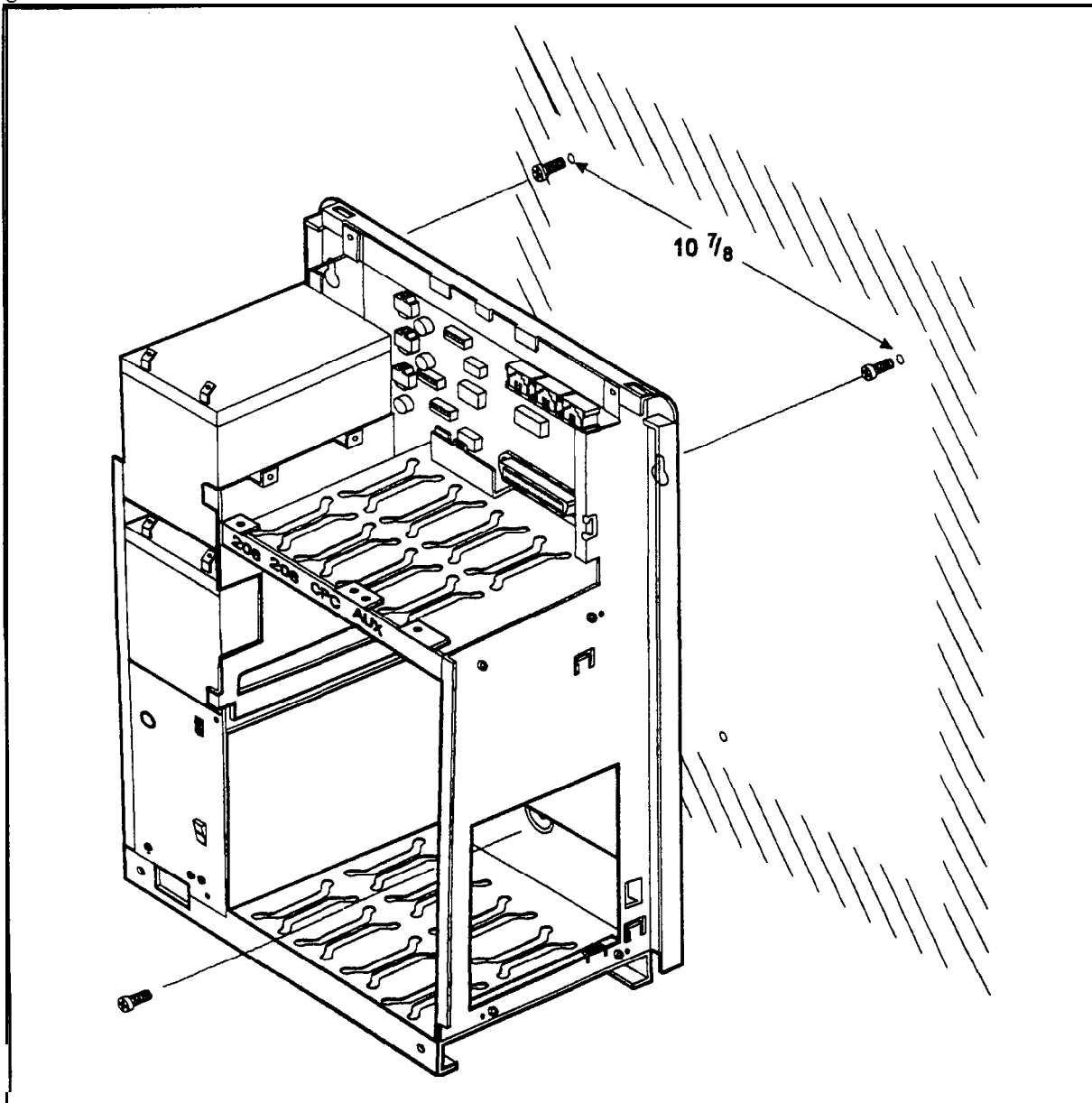
- 1 Remove the two screws from the front cover (see Figure 3-1)
- 2 Take the front cover off by pulling it from the bottom and lifting it up

Figure 3-1 Cover removal



- 3 Install two screws in the wall studs  $10\frac{7}{8}$ ' apart as shown in Figure 3 2 The screws are used to attach the mounting slots to the wall The screws should protrude from the wall  $\frac{5}{16}$  in

Figure 3 2 Cabinet wall-mounting



- 4 Hang the cabinet on the wall by placing the mounting openings over the screws
- 5 Tighten the screws to secure the cabinet.
- 6 **Install** a mounting screw through the lower slot in the cabinet as shown in Figure 3-2

# Grounding

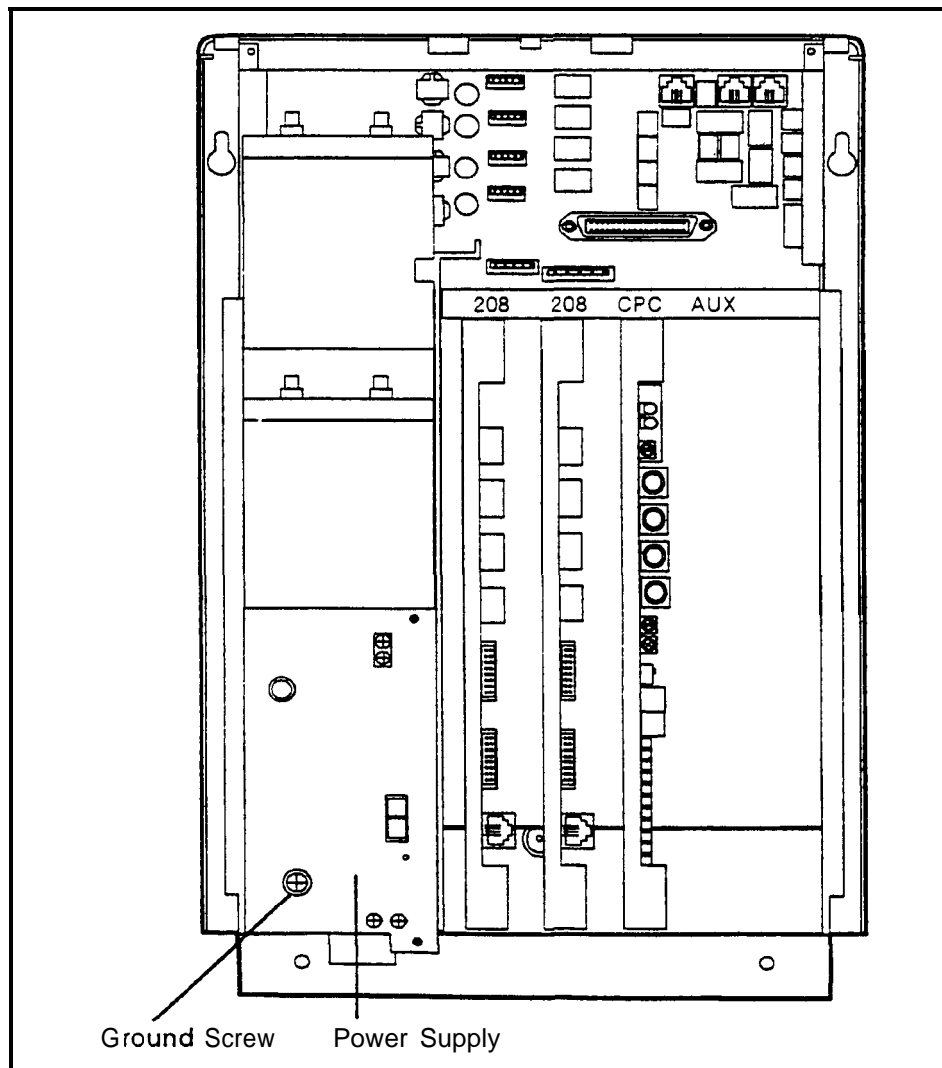
## Guidelines

- Before grounding the DBS 824 read the “Lightning Protection/ Grounding requirements beginning on page I-4
- The ground cable must be at least 18 AWG
- Resistance to ground must be 10 Ohms or less

## Installation

- 1 Attach the ground cable to the ground screw on the front of the power supply
- 2 Connect the ground cable to the building ground

Figure 3-3 Cabinet mound screw



---

# Card Installation

## Guidelines

**CAUTION:**

Before handling printed circuit cards, discharge static electricity by grounding yourself Static electricity can damage components

Turn off the power before installing cards Installing cards with the power on can damage components

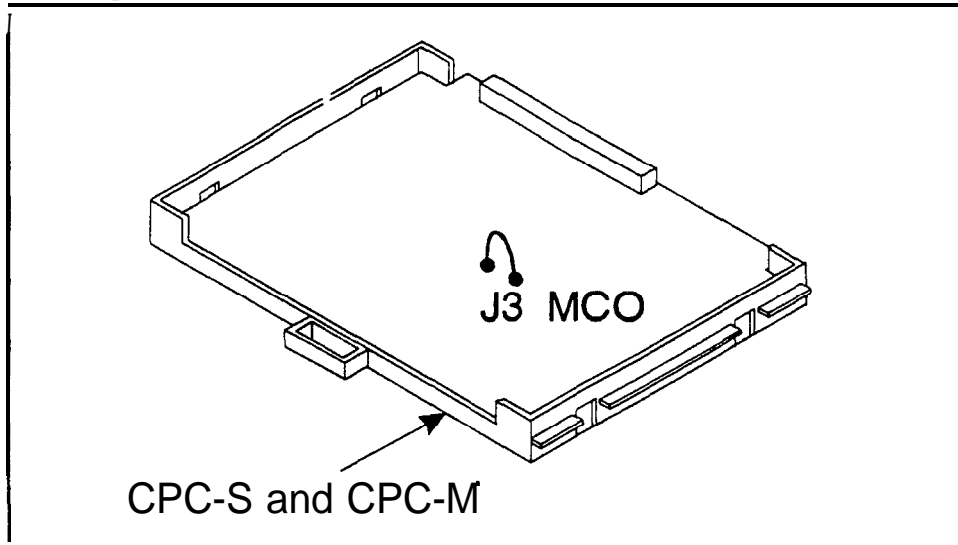
**1**

- Install the cards in the following order
  - 208 EXP in left slot for trunks 5 and 6 and extension ports 9 to 16
  - 208 EXP in 2nd slot from left for trunks 7 and 8 and extension ports 17 to 24 (The second 208 EXP card can only be used with the CPC-M card )
  - CPC (**See additional information following**)
  - MFR (8 DTMF circuits) in AUX slot
- Install cards only in their dedicated slots The slot type is marked on the cabinet directly above each slot

## CPC and MFRU Options

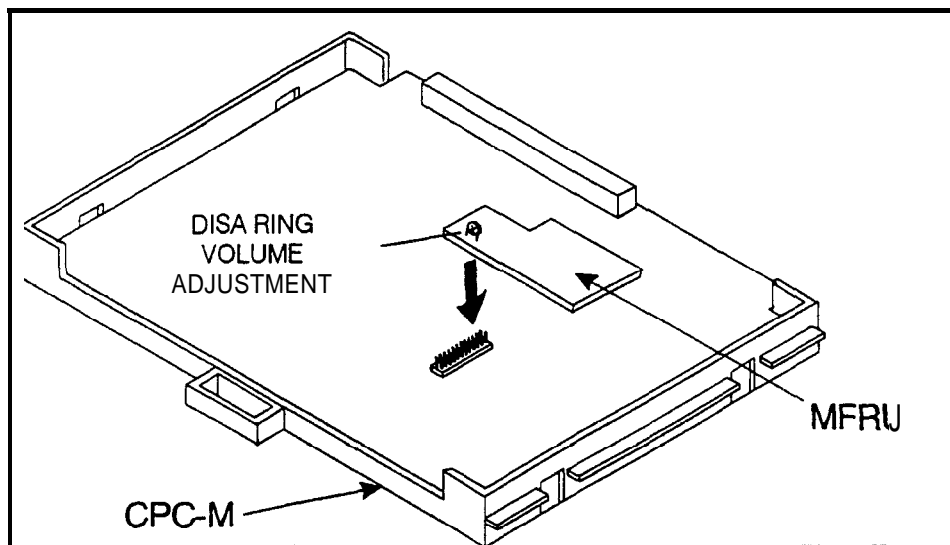
- Before installing the CPC card determine if the DBS 824 will be used as a KSU or PBX To use as a PBX cut Strap J3 on the CPC Cutting this strap allows use of pooled trunks as opposed to line appearances

**Figure 3-4 CPC strap J3**



- Before installing a CPC-M card, determine if the optional MFRU (2 DTMF) Circuit Card is to be installed (VB-4243 1) If used, attach the MFRU' to the CPC Circuit Card as shown below

**Figure 3-5 MFRU circuit card attachment to CPC**

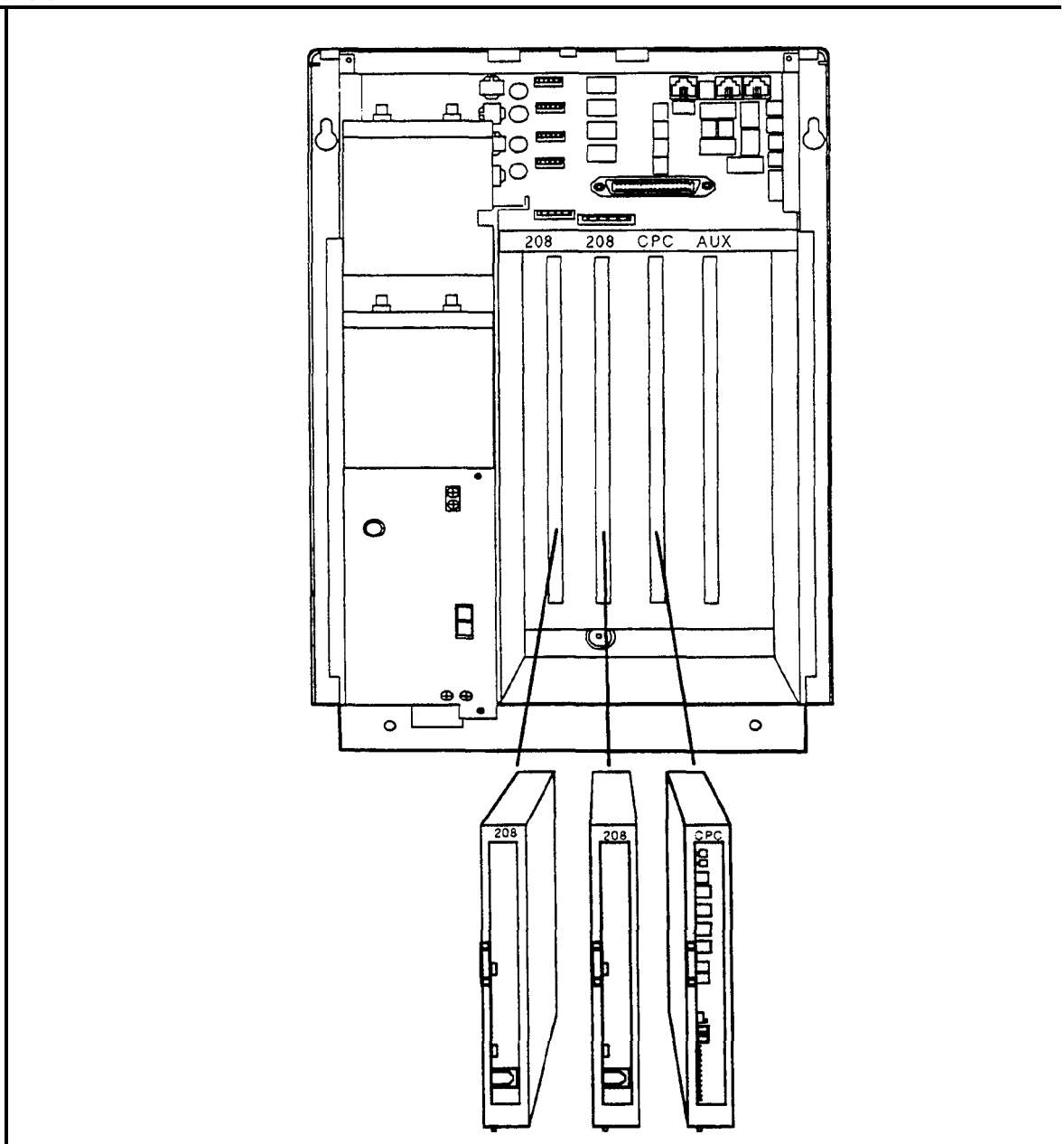


Note: Use **VR1** (also labeled DRT for DISA Ring Tone) to adjust the volume for DISA internal ringing

## Installation

- 1 With the lettering on the card pointed up, position the card within the slot guides (See Figure 3-6 )
- 2 Hold the card on the top and bottom edges with both hands and carefully push the card into the slot
- 3 When the connector at the far end of the card touches the corresponding connector on the backplane, press the card in until it is firmly seated

**Figure 3-6 Printed circuit card installation**





# Battery Backup

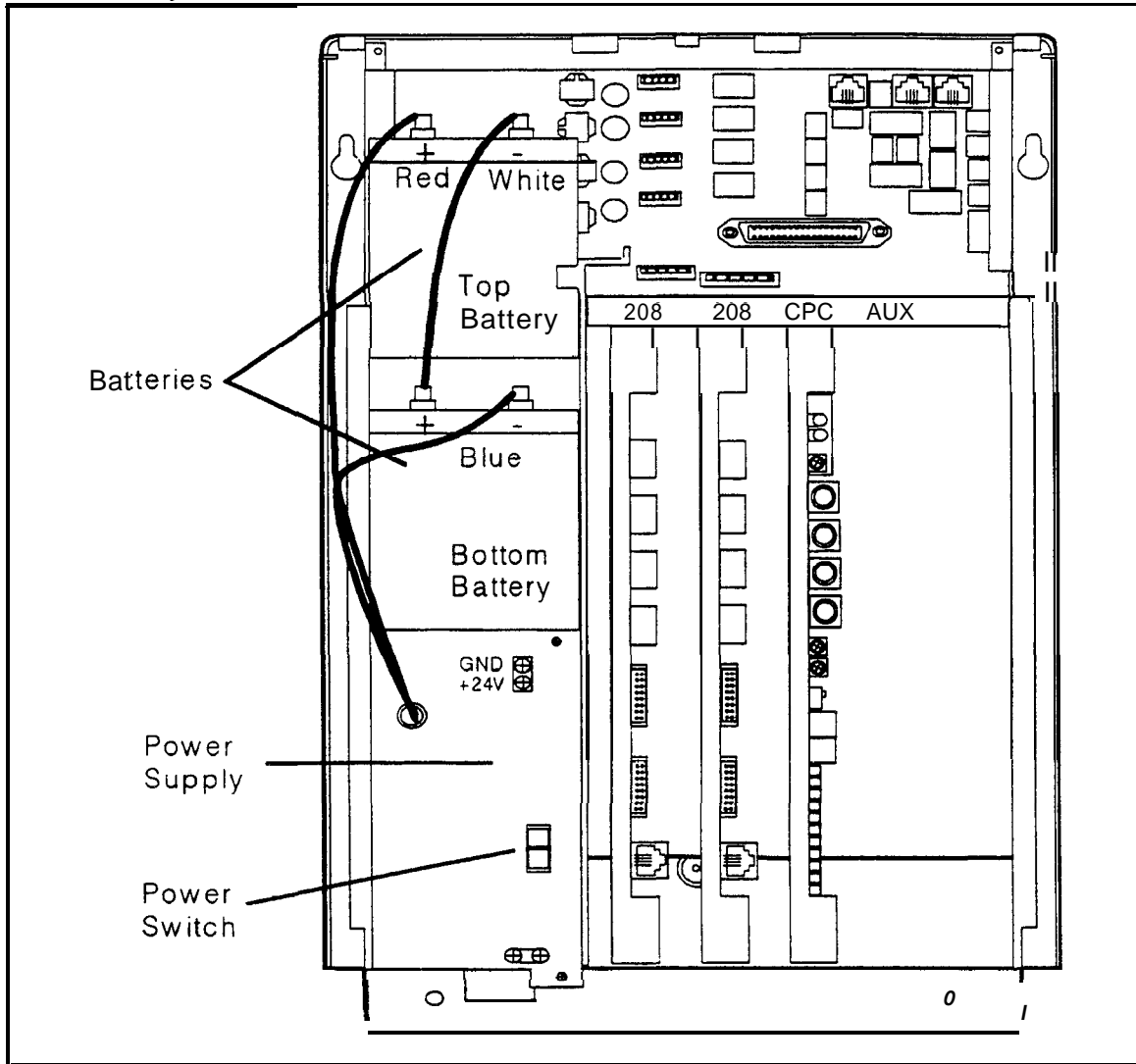
## *Guidelines*

- The DBS 824 uses two **12-volt** batteries to maintain system operation during power failures or outages. The battery backup package for the DBS 824 is VB-43 130.
- The backup batteries are connected in a series circuit, using cables provided with the **KSU**.
- With maximum traffic the backup batteries will last up to 40 minutes for a fully equipped DBS 824.
- The backup batteries should be replaced about every 3 years.

## Installation

- 1 Place one battery in the top tray of the battery compartment, the other battery in the bottom tray-

Figure 3-7 Battery location



- 2 Connect the positive cable (red) to the + terminal of the top battery
- 3 Connect the connecting cable (white) to the - terminal of the top battery
- 4 Connect the connecting cable (white) from the top battery to the + terminal on the bottom battery
- 5 Connect the negative cable (blue) to the - terminal of the bottom battery

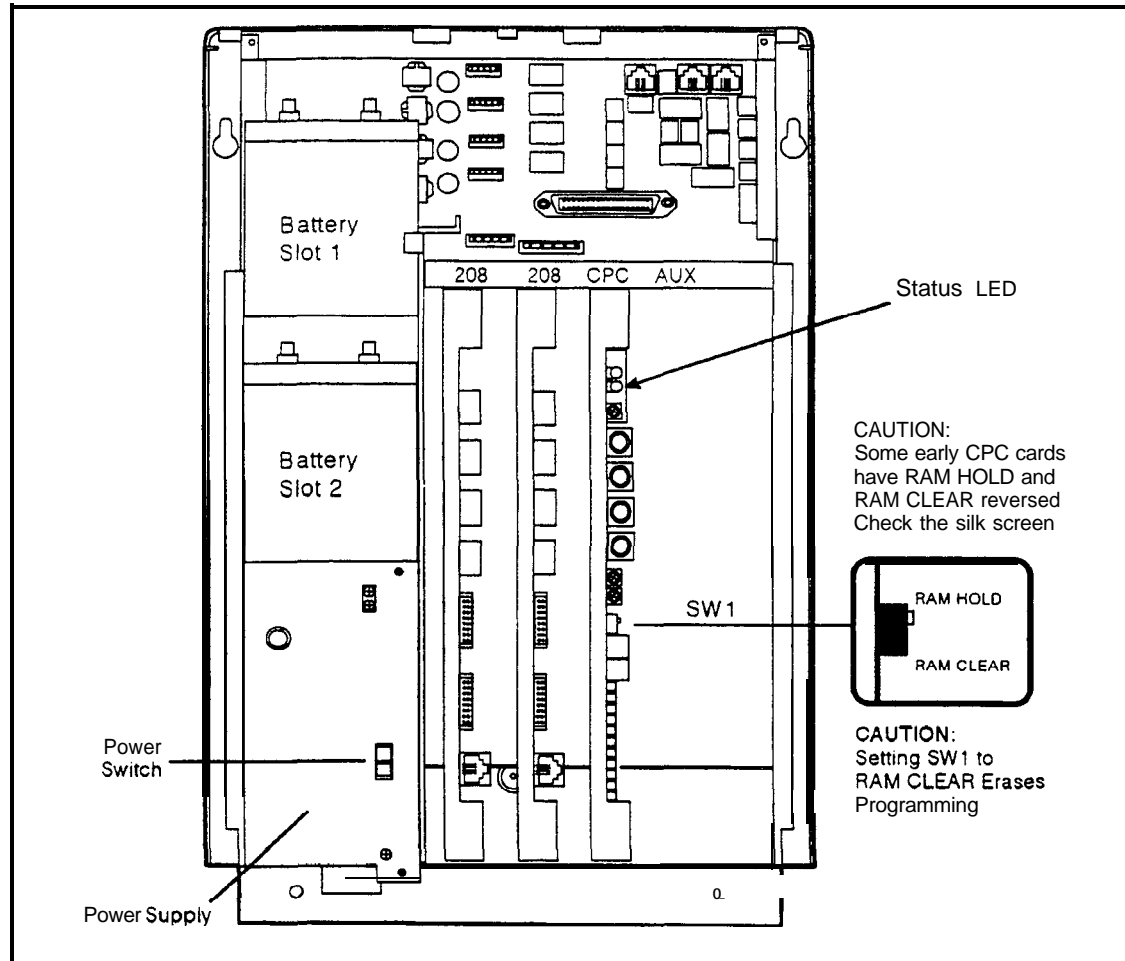
# System Initialization

- 1 Confirm that the DBS 824 power switch is OFF
- 2 Plug the power cord into a dedicated 120V 15 amp AC wall outlet.

Note: A surge protector should be installed on the power cord

- 3 Set SW1 on the CPC card to RAM CLEAR

Figure-3.8 *CPC memory clear switch*



- 4 Turn the power switch on

As the system loads, the Status LED lamp on the **CPC** card flashes

- 5 Once the Status LED lamp on the CPC card stops flashing, set **SW1** on the CPC to **HOLD**

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# Chapter 4. Trunks and Lines

This chapter describes trunk and line installation. Some peripheral equipment also requires trunk and/or line interfaces (door phones or power failure units for example). See Chapter 5 for instructions on connecting peripheral equipment through trunks or lines.



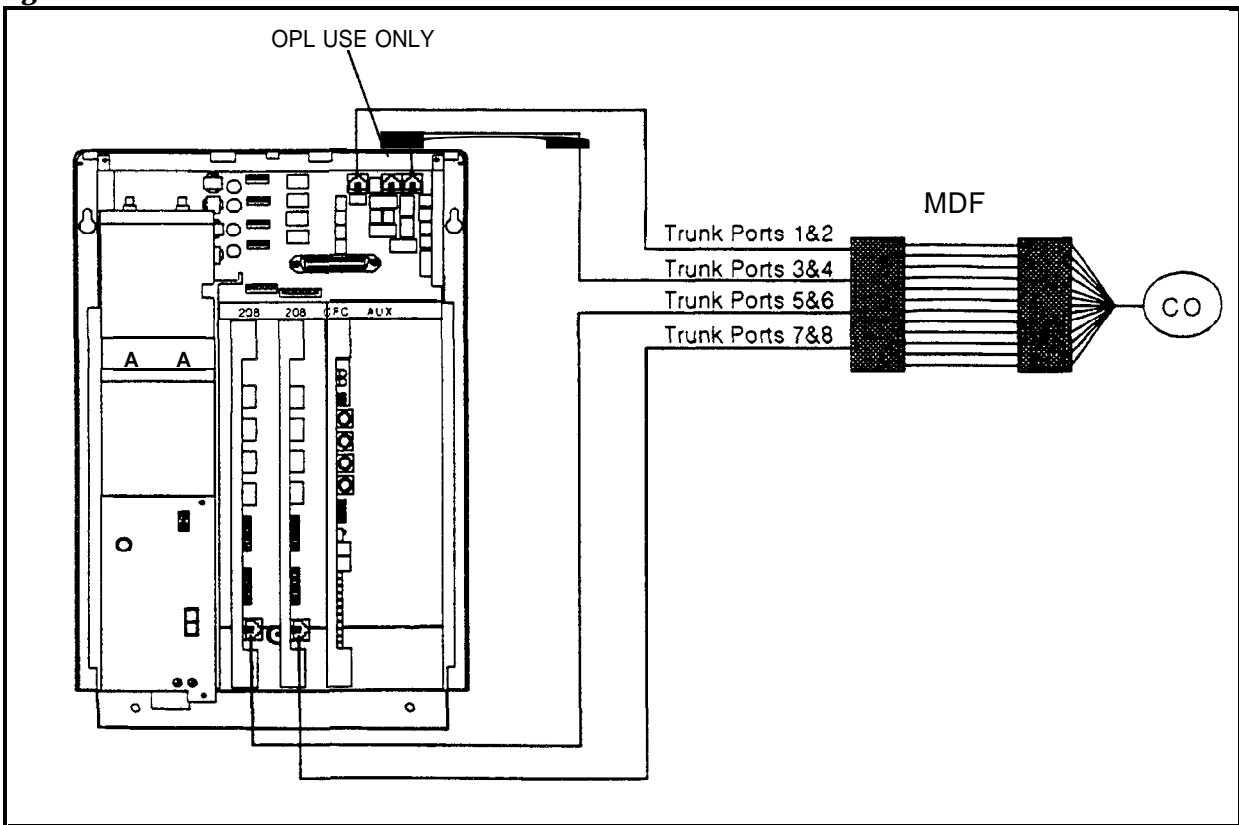
# Trunks

## Trunk Connectors

Each DBS 824 backplane supports four loop start trunks using two RJ14 trunk connectors, labeled CN7 and CN9 (CN8 is used for Option Port Lines ) In addition, each installed 208 EXP (VB-42651) card supports two loop start trunks using an RJ14 trunk connector, labeled CN2

Figure 4-1 shows the maximum number of trunks that can be used with a DBS 824

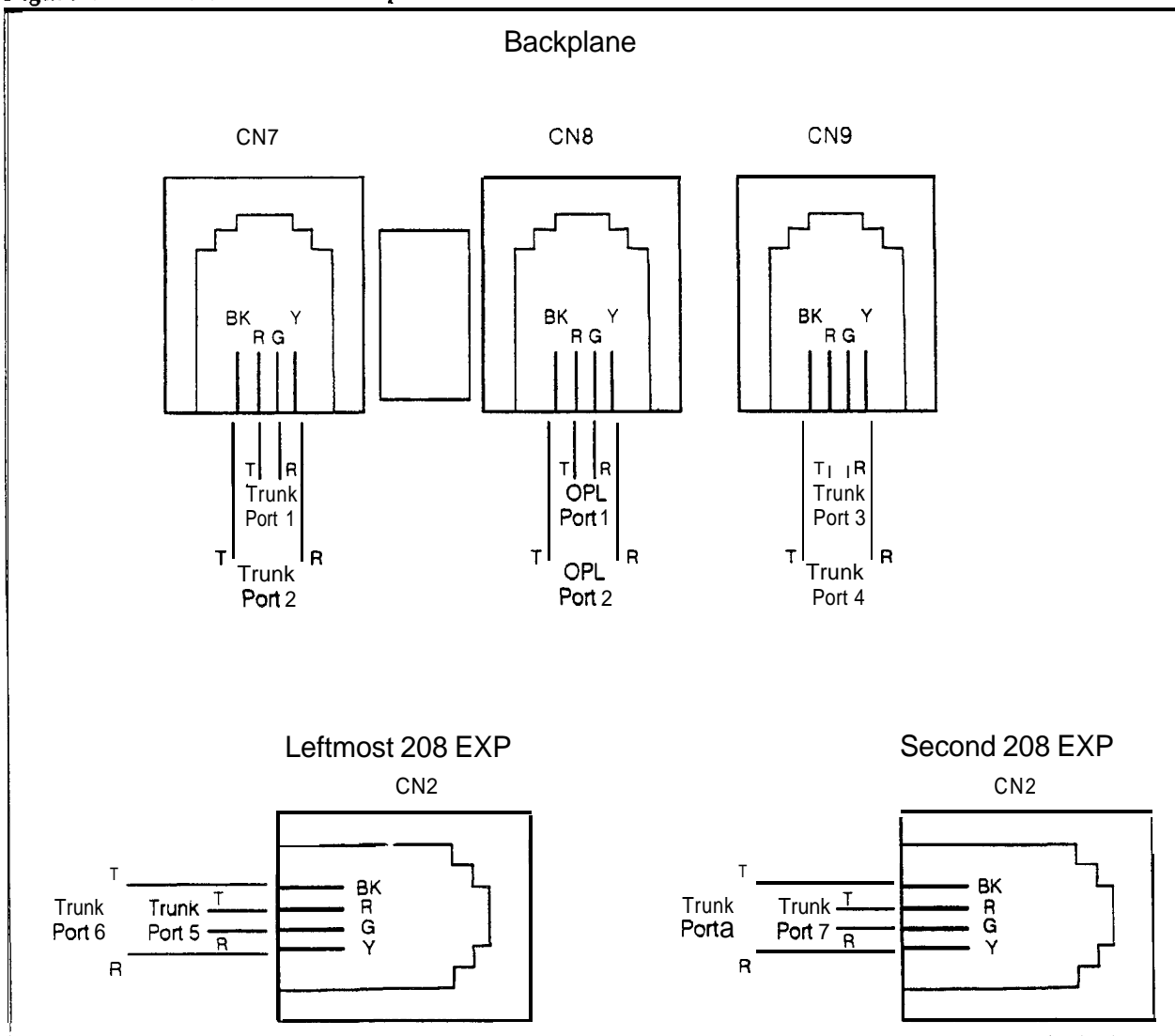
**Figure 4-1 DBS 824 trunk connections**



### Trunk Connector Pinouts

Figure 4-2 includes pinouts and color codes for the RJ14 trunk connectors CN7 and CN9 on the main backplane and CN2 trunk expansion connector on the two optional 208 EXP circuit cards

Figure 4 2 DBS 824 trunk/OPL pinouts



# Loop-Start Trunks

## Guidelines

- The following procedure covers loop-start trunk installation using the main and expansion RJ14 trunk connectors
- For pinouts and color codes for the trunk connectors, see Figure 4-2

## Installation

- 1 If using trunks 5 and 6, ensure that a 208 EXP card is in the leftmost 208 slot. If using trunks 7 and 8, ensure that a 208 EXP card is installed in the second 208 slot (**Note** A CPC-M card is required when using the second 208 EXP card. See Chapter 3 for circuit card installation.)
- 2 Connect the trunks from the MDF to the RJ14 trunk connectors CN7 and CN9 on the backplane and the RJ14 trunk connector CN2 on any 208 EXP card installed as shown in Figure 4-1 and Figure 4-2.

# Lines

## Extension Connectors

The number of extension ports on your system depends on the number of 208 EXP cards installed in the DBS 824.

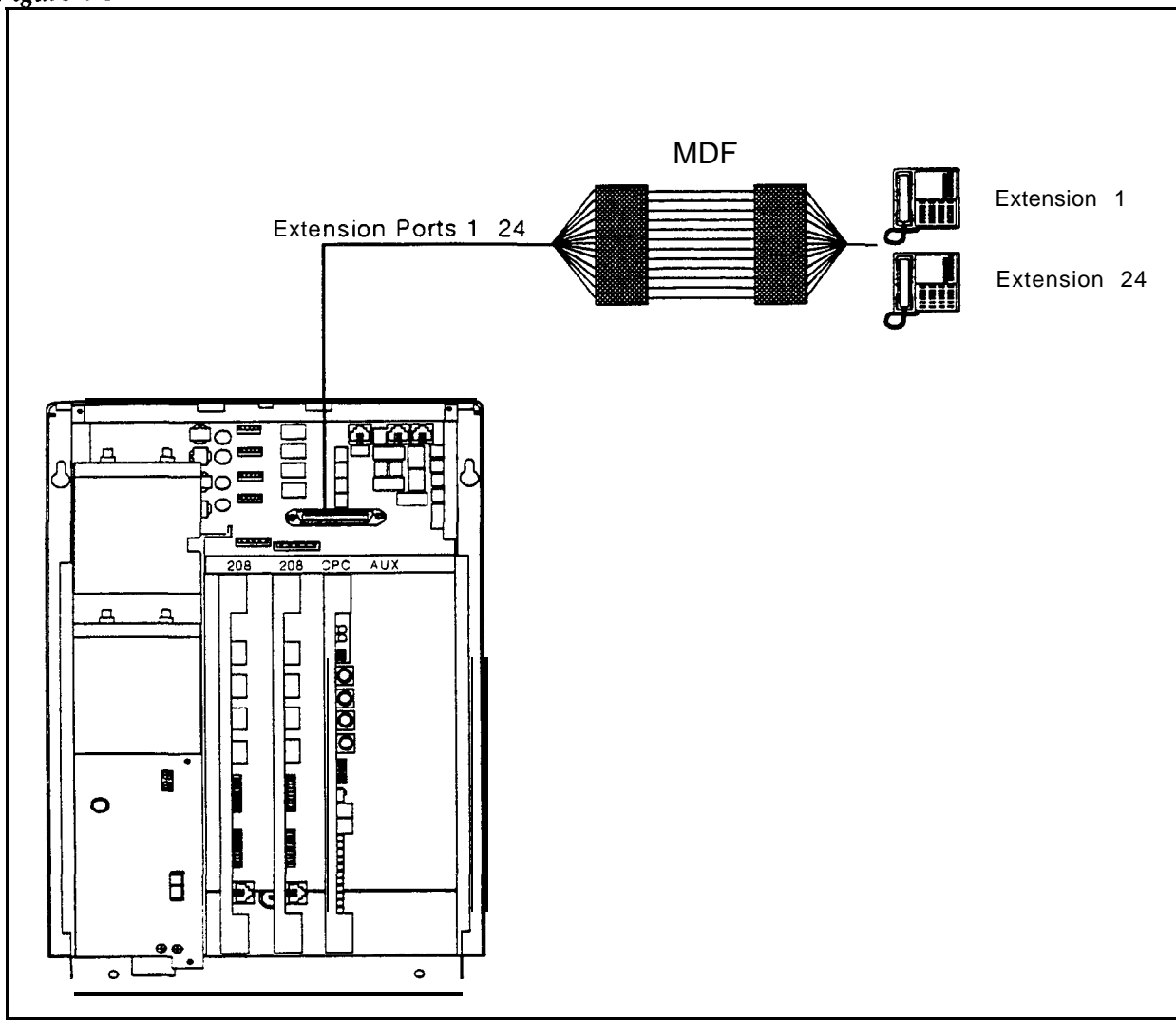
Table 4-1 summarizes the **number** of extension ports for each configuration.

**Table 4-1 Total number of extension ports**

Number of 208 EXP (VB-42050) Cards	Total Extension Ports	Notes
0	<b>8</b>	
1	<b>16</b>	Install in leftmost 208 slot"
<b>2</b>	<b>24</b>	Requires CPC-M



**Figure 4-3 DBS 824 extension connections**



**Extension Connector Pinouts**

Table 4-2 provides pinouts and color codes for extension slots

**Table 4 2 Pinouts for Extension Port Connector CN6**

<b>Circuit Location</b>	<b>Extension Port Number</b>	<b>Color Code</b>	<b>Pin No</b>	<b>Desig</b>	<b>Default 3 Digit Extension #</b>	<b>Default 2 Digit Extension #</b>
DBS 824 KSU	Port 1	WH BL BL WH	26 1	1T 1R	100	10
	Port 2	WH OR OR WH	27 2	2T 2R	101	11
	Port 3	WH GN GN WH	28 3	3T 3R	102	12
	Port 4	WH BR BR WH	29 4	4T 4R	103	13
	Port 5	WH SL SL WH	30 5	5T 5R	104	14
	Port 6	RD BL BL RD	31 6	6T 6R	105	15
	Port 7	RD OR OR RD	32 7	7T 7R	106	16
	Port 8	RD GN GN RD	33 8	8T 8R	107	17
First (Leftmost) 208 EXP Circuit Card	Port 9	RD BR BR RD	34 9	9T 9R	108	18
	Port 10	RD SL SL RD	35 10	10T 10R	109	19
	Port 11	BK BL BL BK	36 11	11T 11R	110	20
	Port 12	BK OR OR BK	37 12	12T 12R	111	21
	Port 13	BK GN GN BK	38 13	13T 13R	112	22
	Port 14	BK BR BR BK	39 14	14T 14R	113	23
	Port 15	BK SL SL BK	40 15	15T 15R	114	24
	Port 16	YL BL BL YL	41 16	16T 16R	115	25
Second 208 EXP Circuit Card	Port 17	YL-OR OR YL	42 17	17T 17R	116	26
	Port 18	YL GN GN YL	43 18	18T 18R	117	27
	Port 19	YL BR BR YL	44 19	19T 19R	118	28
	Port 20	YL SL SL YL	45 20	20T 20R	119	29
	Port 21	VI BL BL VI	46 21	21T 21R	120	30
	Port 22	VI OR OR VI	47 22	22T 22R	121	31
	Port 23	VI GN GN VI	48 23	23T 23R	122	32
	Port 24	VI BR BR VI	49 24	24T 24R	123	33
No Connection	VI SL SL VI	50 25	Not used			

---

# Digital Extensions

The following instructions explain how to connect digital extensions. These instructions apply for key phones and Digital Single-Line Telephones (DSLTS).

Separate instructions are provided for installing the DSS/72 and EM24 terminals, which connect to digital phones.

- 1 Use a standard 50-pin cable to connect the extensions from the MDF to the CN6 connector on the DBS 824 KSU backplane, as shown in Figure 4-3 on page 4-6. (Refer to Table 4-2 for extension pinouts.)

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## DSS/72

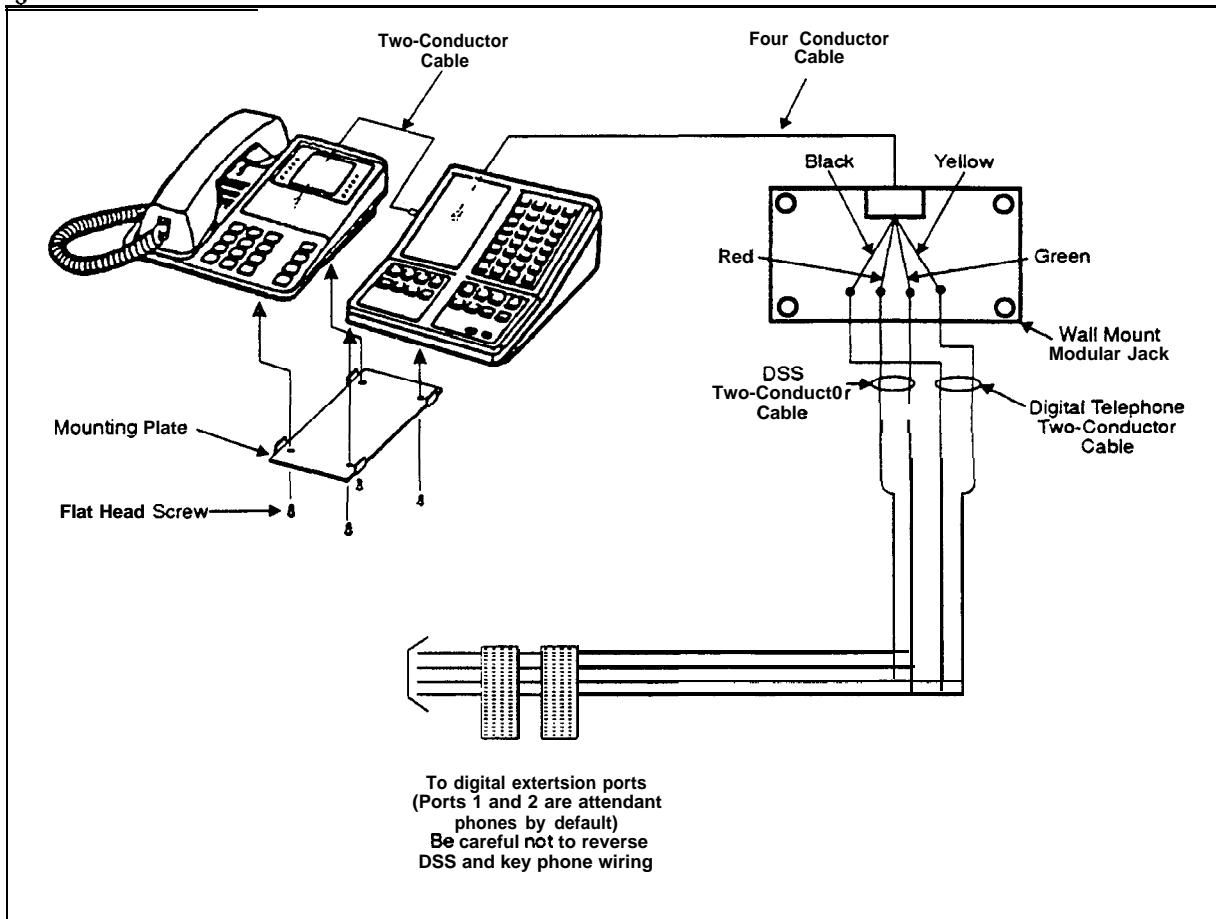
### *Guidelines*

- The DSS/72 (VB-43320) is a 72-key console that can be attached to the attendant phone. It provides direct station selection and busy lamp fields for internal lines. The DSS/72 can also be used for text assignment.
- Up to two DSS/72s can be assigned to attendant phones 1 and 2.
- If more than one DSS/72 is assigned to an attendant phone, only one of the DSS/72s can be wired from the same wall jack as the attendant phone as shown in Figure 4-4. Additional DSS/72s must be wired from a separate wall jack.
- The DSS/72 includes a mounting bracket, screws, and a two-conductor cable for attaching the DSS to the key phone.

### *Installation*

- 1 Attach the DSS/72 to the key phone using the mounting plate and the four screws.
- 2 Connect the DSS to the key phone using the two-conductor cable.
- 3 Connect the DSS to the wall jack using a four-conductor cable.
- 4 Connect the four wires from the key phone and DSS to the MDF.

**Figure 4-4 DSS/72 connection**



# EM/24

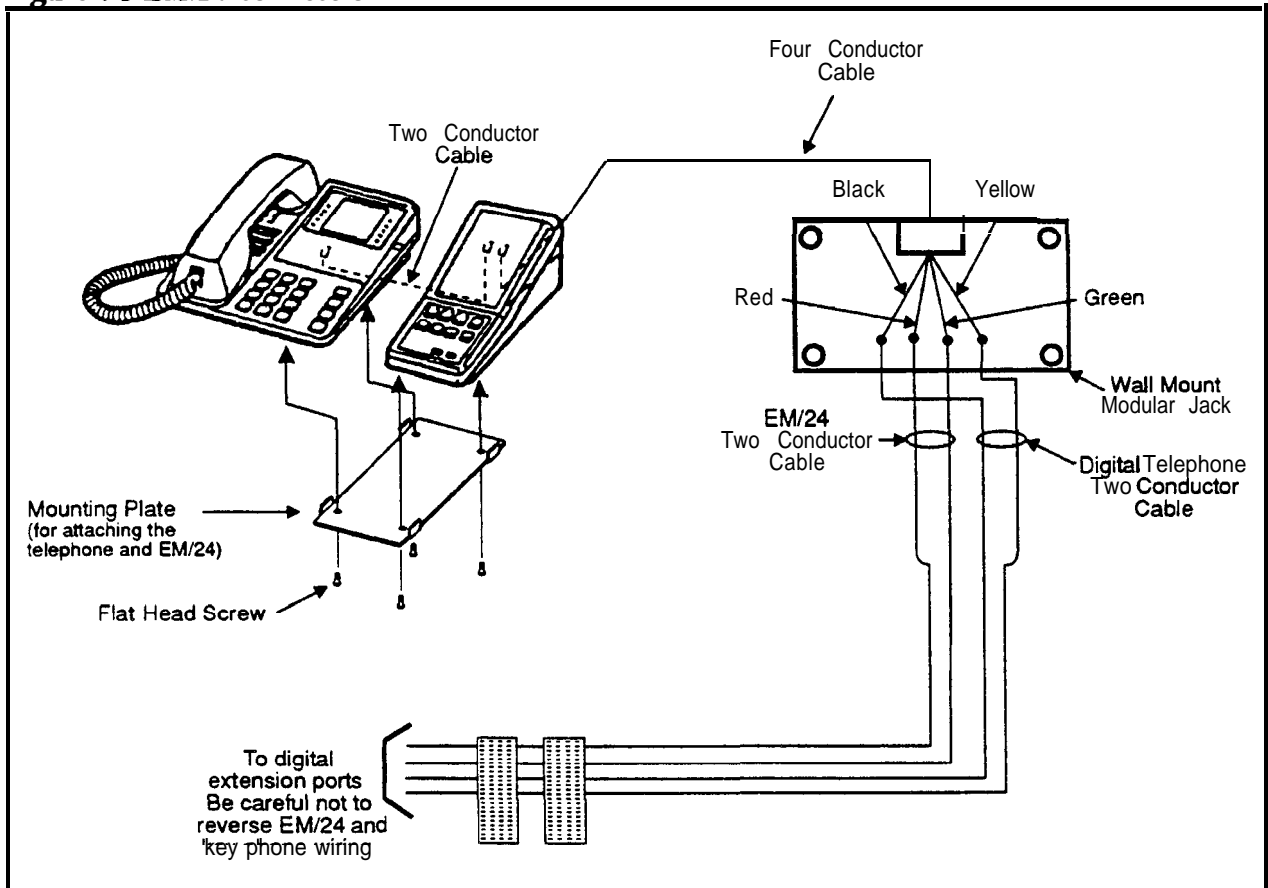
## Guidelines

- The EM/24 (VB-433 10) provides 24 flexible function (FF) keys it can be attached to any key phone
- The EM/24 includes with a mounting bracket, screws, and a two-conductor cable for attaching it to a key phone

## Installation

- 1 Attach the EM/24 to the key phone using the mounting plate and the four screws as shown in Figure 4-5
- 2 Connect the EM/24 to the key phone using the two-conductor cable
- 3 Connect the EM/24 to the wall jack using a four-conductor cable
- 4 Connect the four wires from the key phone and EM/24 to the MDF connector

**Figure 4-5 EM/24 connection**



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# Analog Extensions

## Guidelines

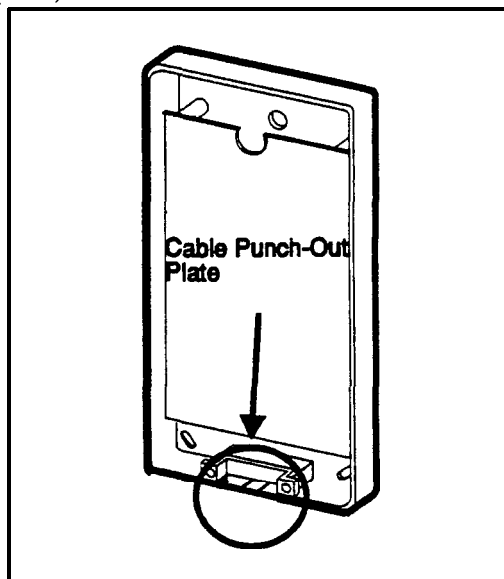
- Analog extensions require the Single Line Telephone Adaptor (SLTA) (VB-43709) One SLTA supports up to 4 Single Line Telephones
- Each SLT extension requires a digital extension port connection to the SLTA

## Installation

- 1 Remove the cover from the SLTA
- 2 Remove the cable punch-out plate (Figure 4-6) to make an opening for the cables coming into the SLTA

To remove the plate cut the grooves on either side with diagonal cutters Then bend the plate back and forth with needle-nose pliers to remove it

**Figure 4-6 Cable punch-out plate, SLTA**



- 3 Mount the SLTA to the wall (see Figure 4-7)

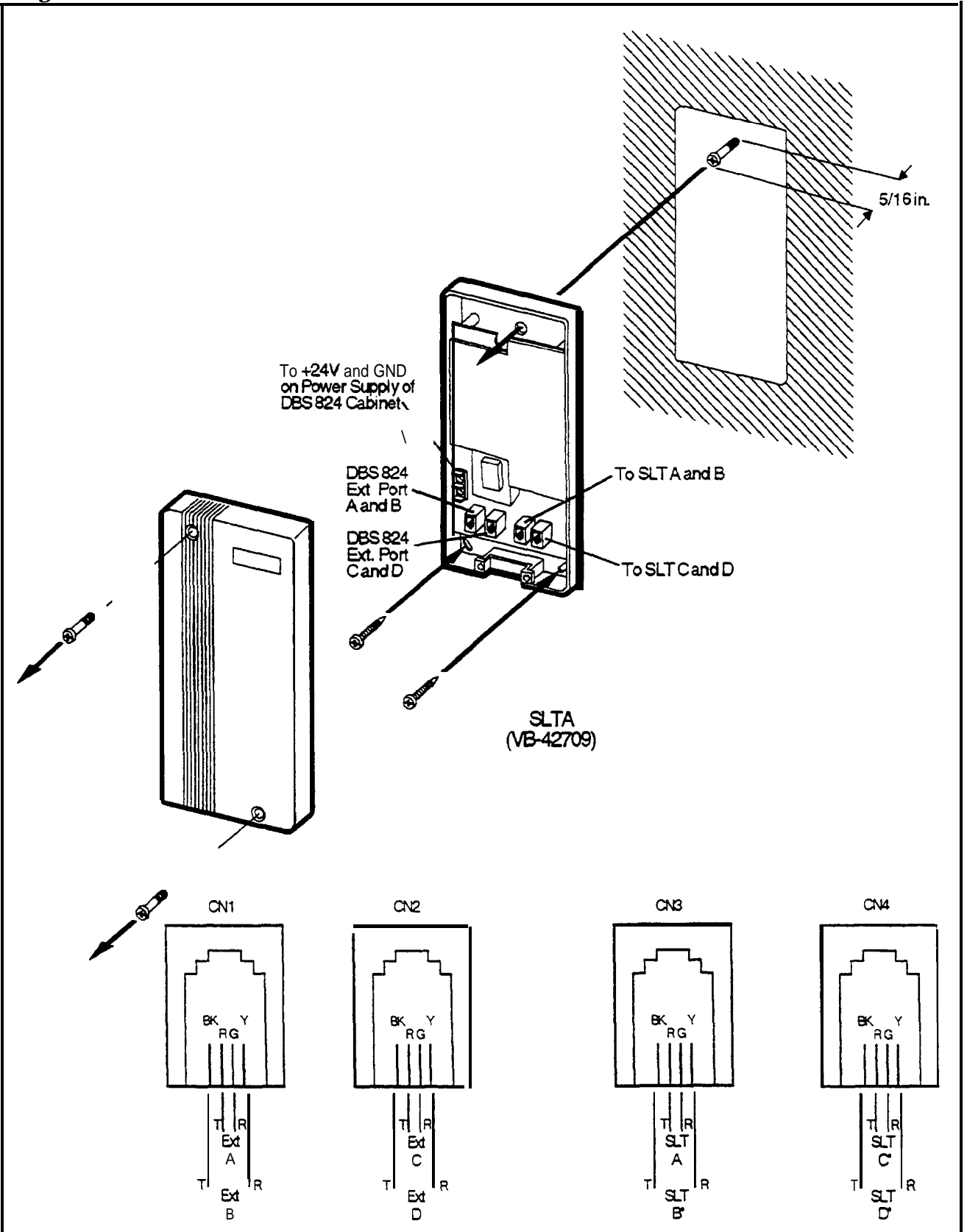
Note: Table 4-3 shows the maximum distance the SLTA can be located from the DBS 824

**Table4-3 Maximum distances for SLTA installation**

<b>Wiring gauge</b>	<b>Max distance (in feet) between the DBS 824 and SLTA</b>	<b>Max distance (in feet ) between the SLTA and the SLT</b>
AWG 22	300' or 10 $\Omega$	3000' or 100 $\Omega$
AWG 24	190' or 10 $\Omega$	1900' or 100 $\Omega$
AWG 26	120' or 10 $\Omega$	1200' or 100 $\Omega$

- 4 If the DBS 824 is powered up turn off the power
- 5 Connect the GND and +24V leads on the SLTA to the DBS 824 power supply **Be sure the wires do not touch each other or touch the metal frame housing**
- 6 If desired, turn on the DBS 824 power
- 7 Connect the “T” and “R” leads to the digital extension ports on the DBS 824 as per Figure 4-7 One digital extension port is required for each SLT
- 8 Connect the SLT “T” and “R” leads to the **SLTs**
- 9 Install the cover on the SLTA

**Figure 4-7 SLTA installation**





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# Chapter 5. Telephones and Peripheral Equipment

This chapter describes telephone peripheral equipment installation. Some peripheral equipment requires trunk and/or line interfaces (door phones or power failure units, for example). For information on **trunk** and line connections, see Chapter 4.



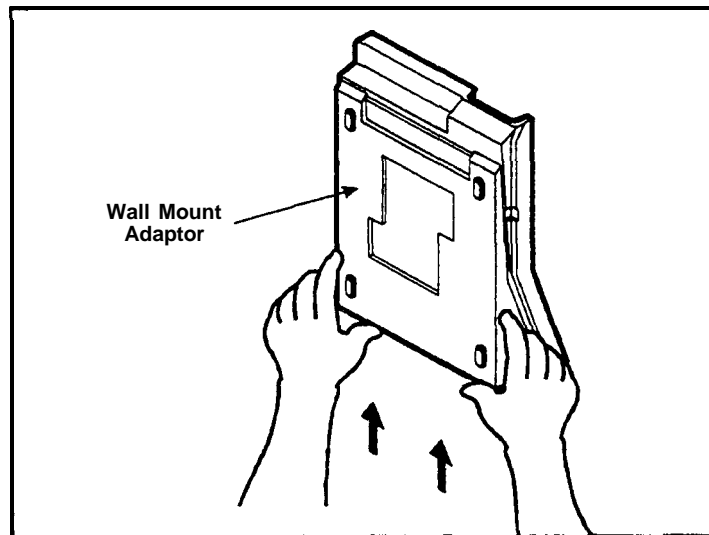
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# Key Phone Wall Mounting

DBS 824 key phones can be modified for wall mounting by reversing the wall-mount adaptor on the bottom of the phone. The wall-mount adaptor includes a small hole for attaching the phone to a screw inserted in the wall.

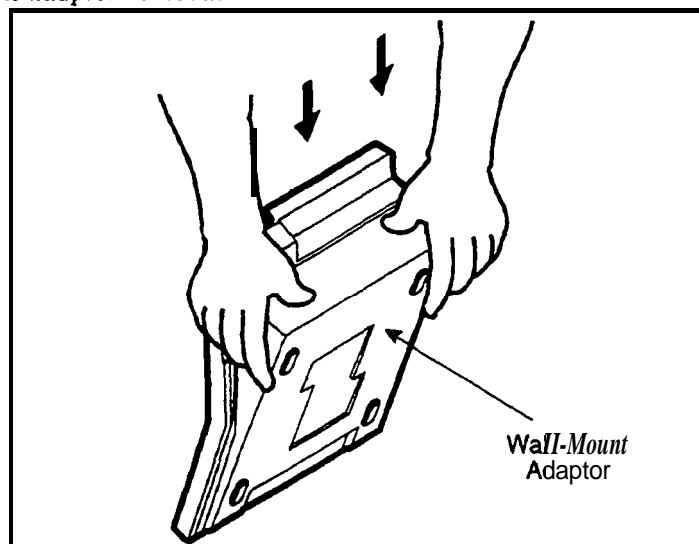
- 1 Place the bottom edge of the telephone on a desk or other hard surface.
- 2 Press the wall-mount adaptor down until it detaches from the phone (Figure 5-1).

*Figure 5-1 Wall-mount adaptor removal*



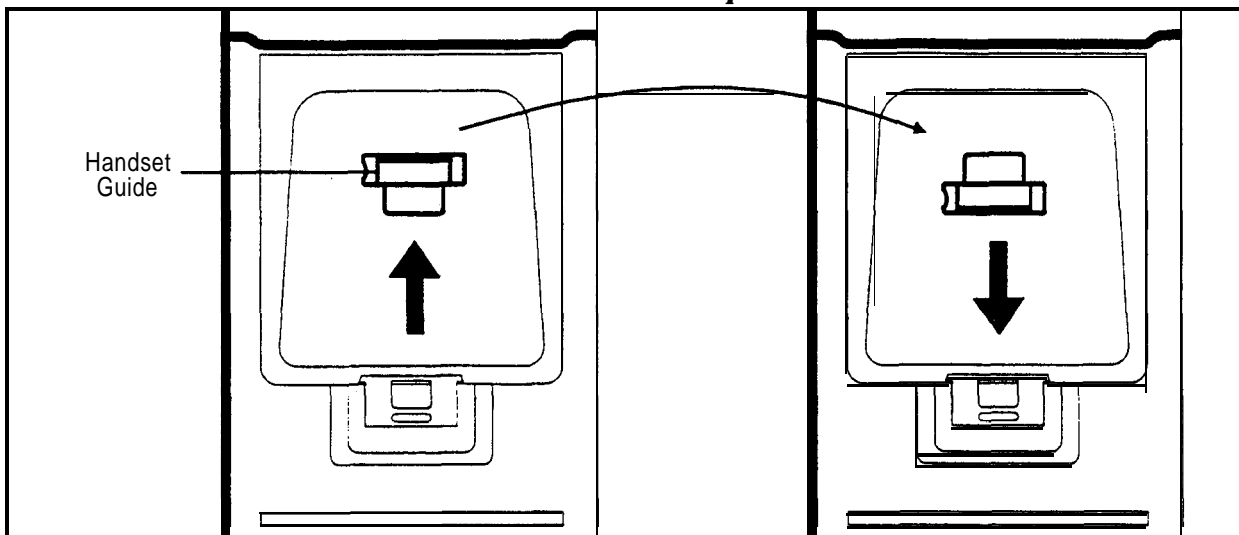
- 3 Turn the wall-mount adaptor around and re-attach it to the phone.

*Figure 5-2 Wall-mount adaptor removal*



- 4 Remove the handset guide with a small screwdriver, turn it over, and reinsert it into the phone.

**Figure 5-3 Handset guide insertion for wall-mounting, key phone**

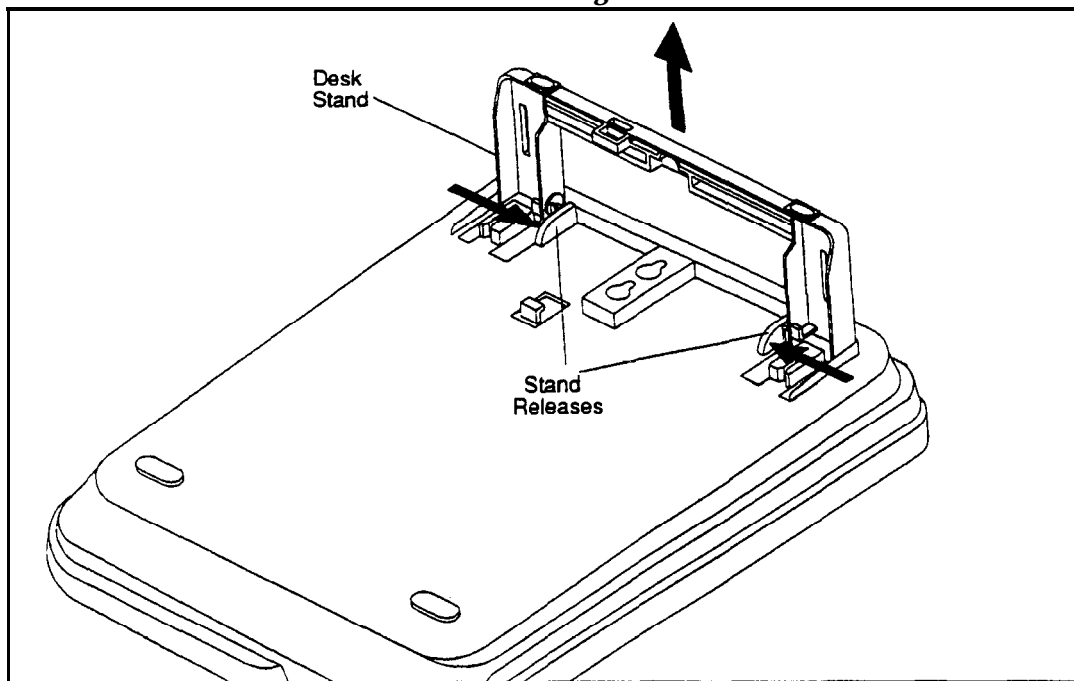


## DSL T Wall Mounting

Digital Single-Line Telephones (DSL T s) can be modified for wall mounting by removing the desk stand and mounting it on the bottom of the phone. The back of the DSL T and the desk stand include slots for attaching the phone to a screw inserted in the wall.

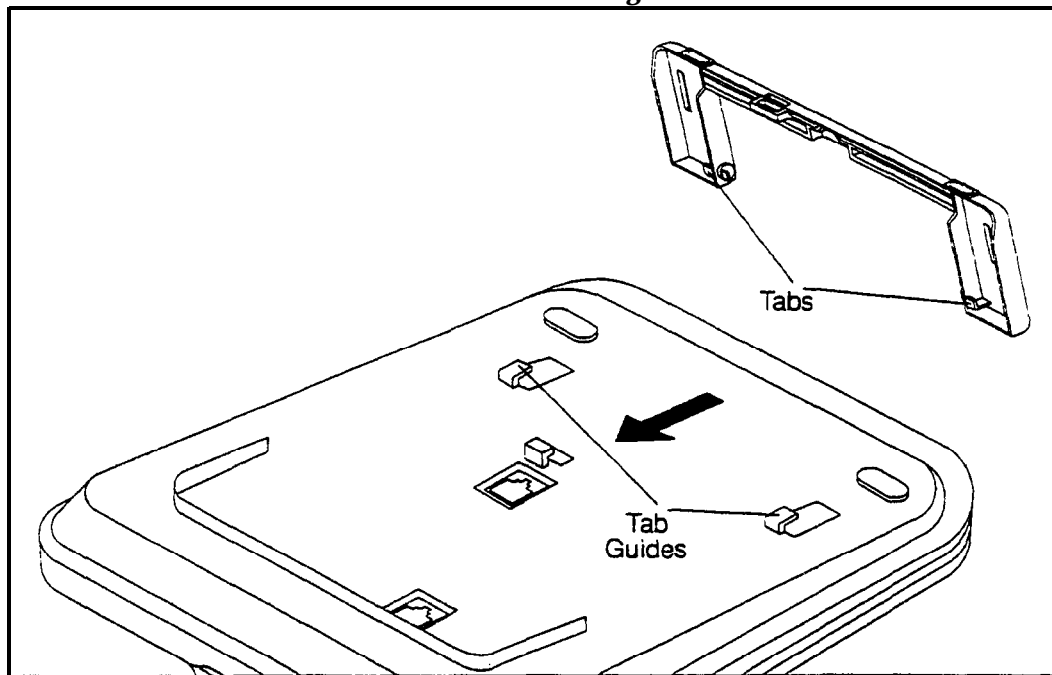
- 1 Press the stand releases in toward the middle of the phone to release the desk stand (Figure 5-4)

**Figure 5-4 Desk stand removal for DSL T wall mounting**



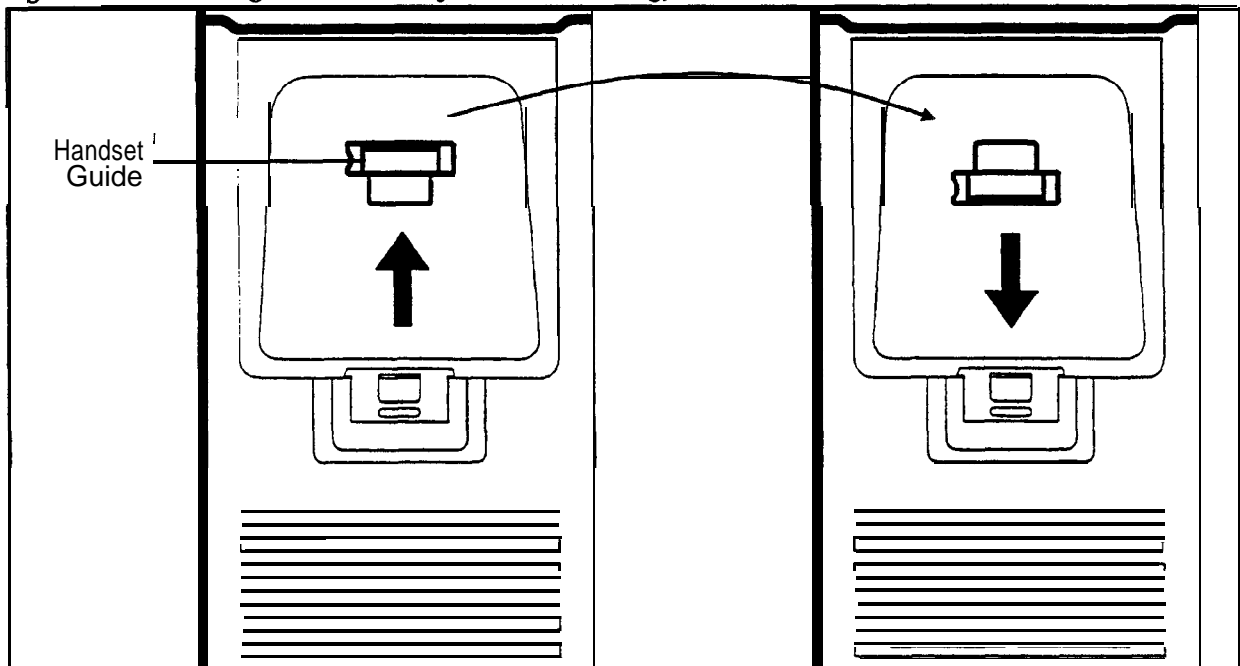
- 2 Attach the desk stand to the bottom of the phone by aligning the tabs and tab guides and sliding it into place (Figure 5-5)

**Figure 5-5 Desk stand attachment for DSLIT wall mounting**



- 3 Remove the handset guide with a small screwdriver, turn it over, and reinsert it into the phone

**Figure 5-6 Handset guide insertion for wall-mounting, DSLIT**



# Local PCAS Terminal or SMDR Device

## Guidelines

- The Serial Interface Unit (SIU) (VB-42712) provides two RS232C 9-pin serial ports CN1 and CN2 CN1 connects to a Station Message Detail Recording (SMDR) device such as a printer or call accounting machine CN2 connects to a modem or PCAS terminal or other programming device
- The following table contains RS-232C designations

**Table 5-1 RS-232C pin designations used for CN1 and CN2**

<b>Signal Name</b>	<b>Description</b>
1	No Connection
2-TD	Transmitted Data
3-RD	Received Data
4-CTS	Clear to Send
5 - GND	Ground
6	No Connection
7	No Connection
8 - RTS	Request to Send
9	NO connection

## Installation

- 1 If the system is powered up, power down the system
- 2 Install the **SIU** on the top right shelf Position the SIU with the serial interface connectors up and slide the notched end of the circuit board into the notch opening in the frame
- 3 Attach the SIU to the frame using the two supplied screws
- 4 Connect the supplied 26-wire ribbon cable from CN3 on the CPC to CN3 connector on the SIU (VB-42712) as shown in Figure 5-7
- 5 Connect **CN1** to the SMDR device if used Normally, a straight-through 9-pin to 9-pin or 25-pin cable is needed Connect as shown in Figure 5-8

Figure 5-7 SIU to CPC Connection

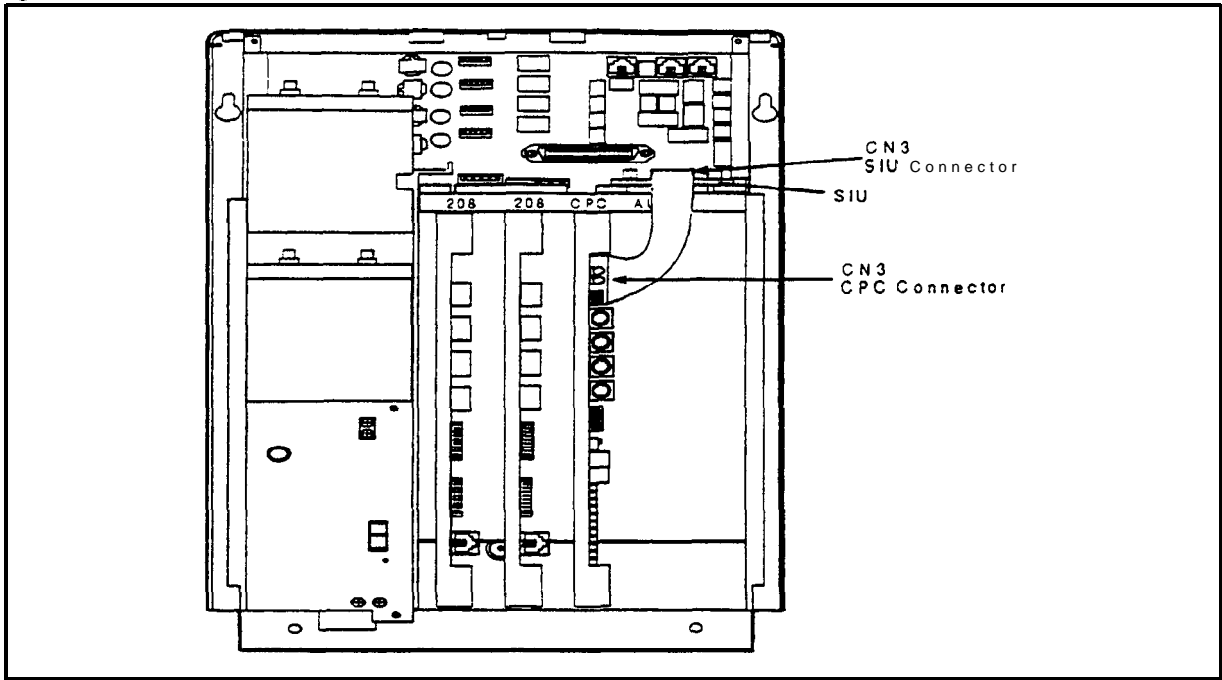
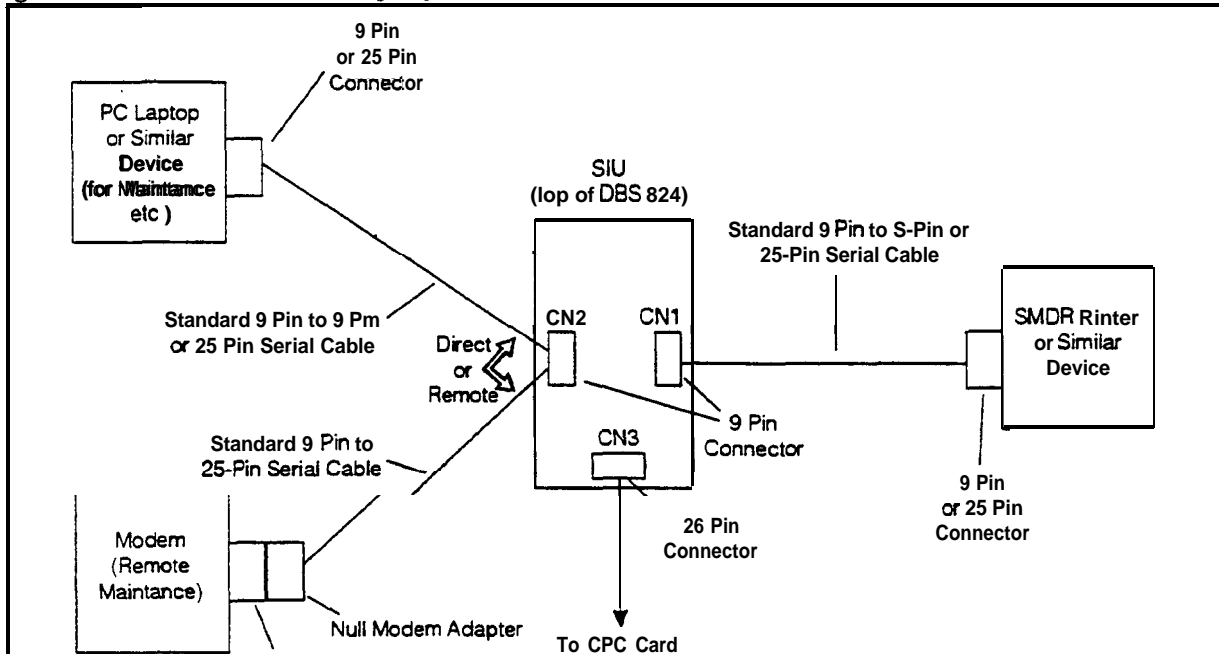


Figure 5-8 SIU Connections to peripherals



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# Background Music/Music-On-Hold

## Guidelines

- All configurations may use a single external music source for both background music (BGM) and music-on-hold (MOH) The music source connects to CN6 on the CPC
- With the CPC-M, separate external music sources may be used for BGM and MOH The MOH source connects to CN8 and the BGM source connects to **CN6**
- An internal MOH source may be used when the optional DTMF receiver NOTE MFRU circuit card (VB-4243 1) is installed
- If an FM radio is connected to the BGM connector on the CPC, install it at least 16.5 ft (5m) away from the main cabinet If it is too close, the receiver may not function properly
- The maximum input impedance of both terminals is 10k ohms The maximum signal level is -10 dB

## Installation

- 1 If you're using a single external source for both BGM and MOH connect the source to CN6 on the CPC as shown in Figure 5-9 If you're using separate sources, connect the MOH source to CN8 and the BGM source to CN6 on the CPC-M as shown in Figure 5-10
- 2 If using an internal music source, ensure that an MFRU circuit card is installed
- 3 If using an internal music source, adjust the MOH volume using VR1 (also labeled MOH) on the MFRU Note VR1 also adjusts DISA inbound ringing volume for calls using the MFRU

The DBS 824 must also be programmed to select the appropriate music **source See the DBS 824 Programming Guide (Section 400)** for more information



Note: To change the volume levels of the **external** music sources adjust the variable resistors on the CPC card

**Table 5-2 CPC variable resistors**

Variable Resistor	Purpose
VR1 (CT1)	Adjusts CO ringing tone volume
VR2 (BGM)	Adjusts BGM or combined BGM/MOH volume
VR3 (MOH) (CPC-M only)	Adjusts external source MOH volume

**Figure S-9 Installation of music-on-hold and background music- single music source**

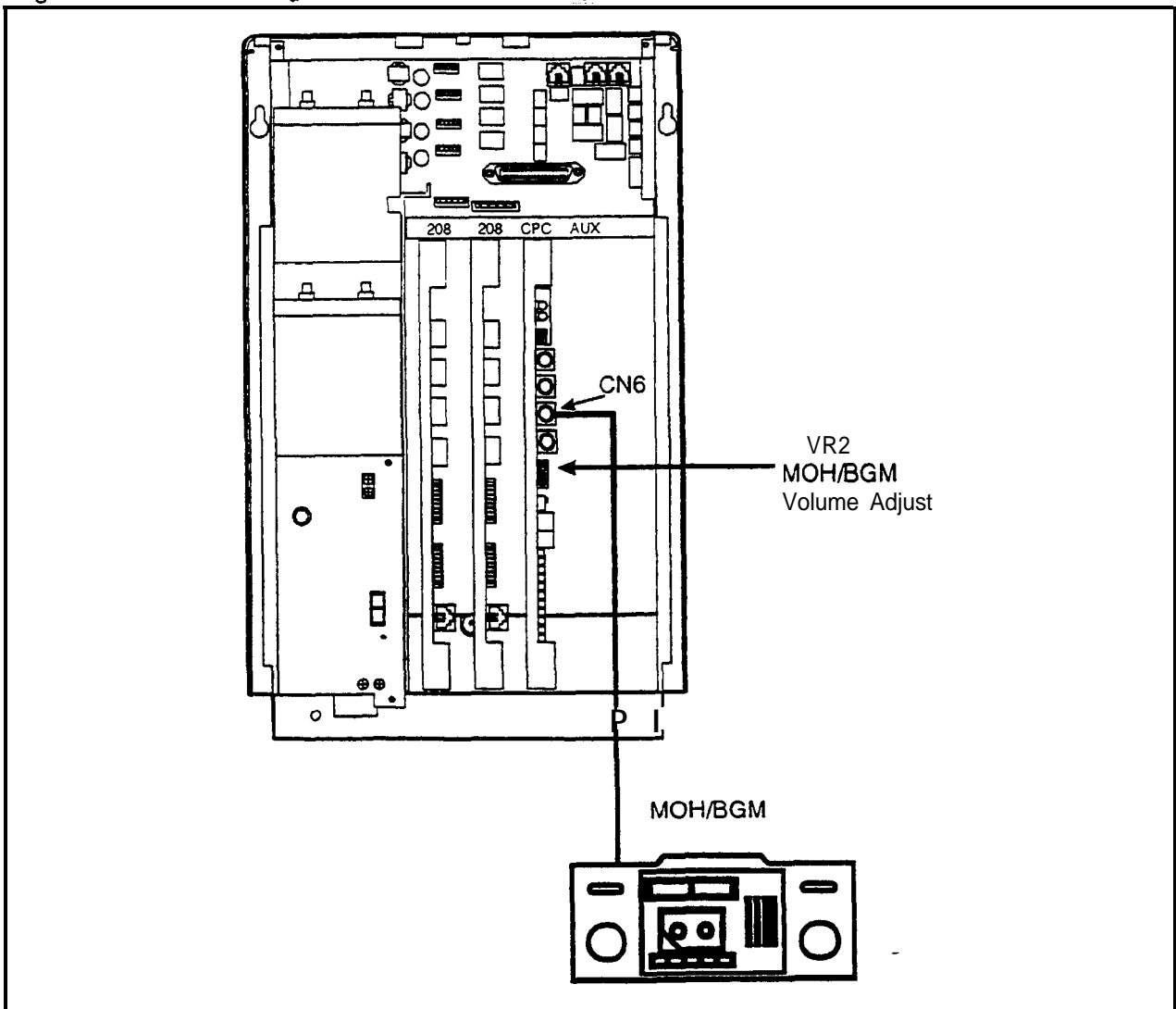
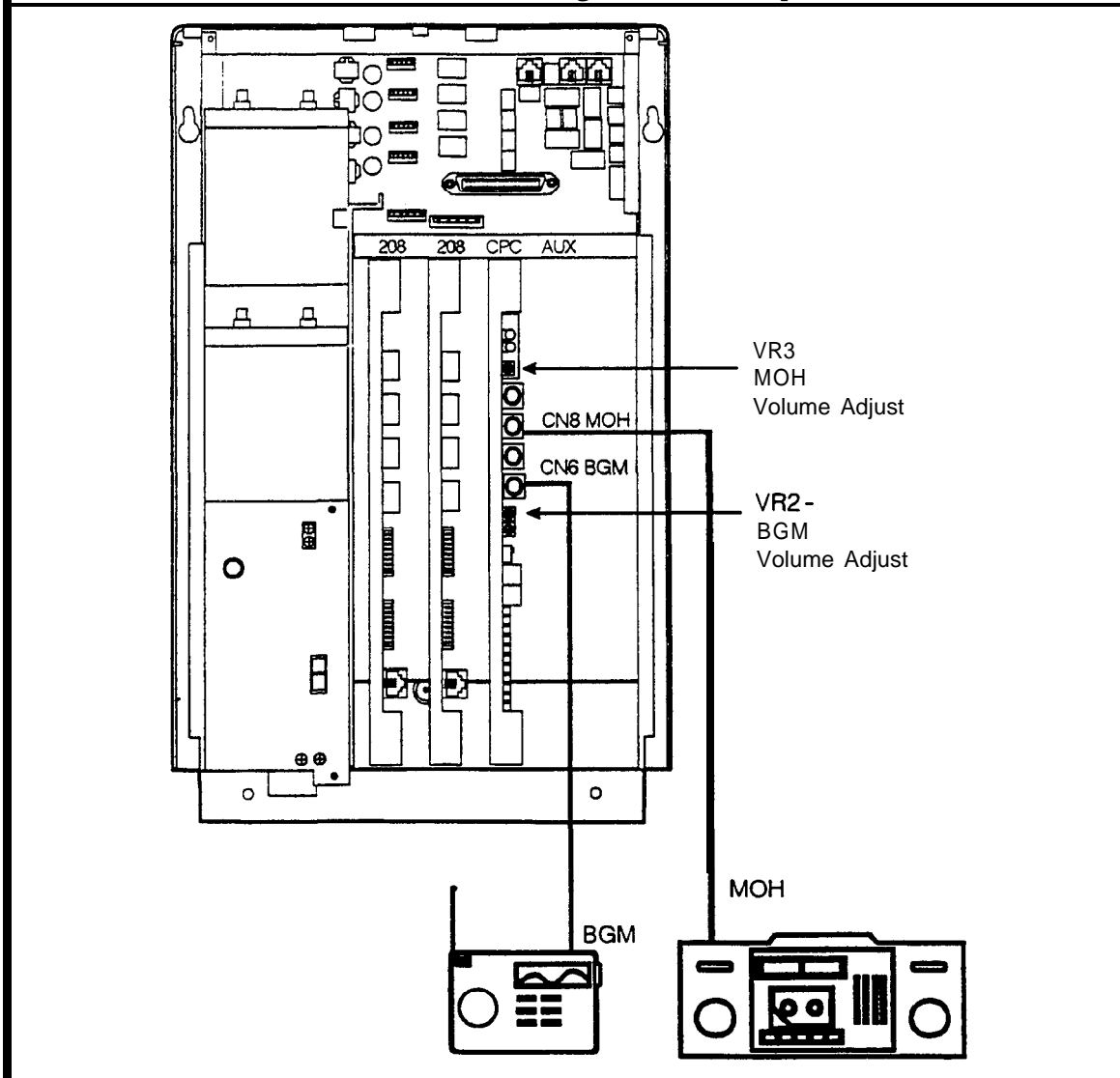


Figure 5-10 Installation of music-on-hold and background music separate music sources



# Option Port Line

## *Guidelines*

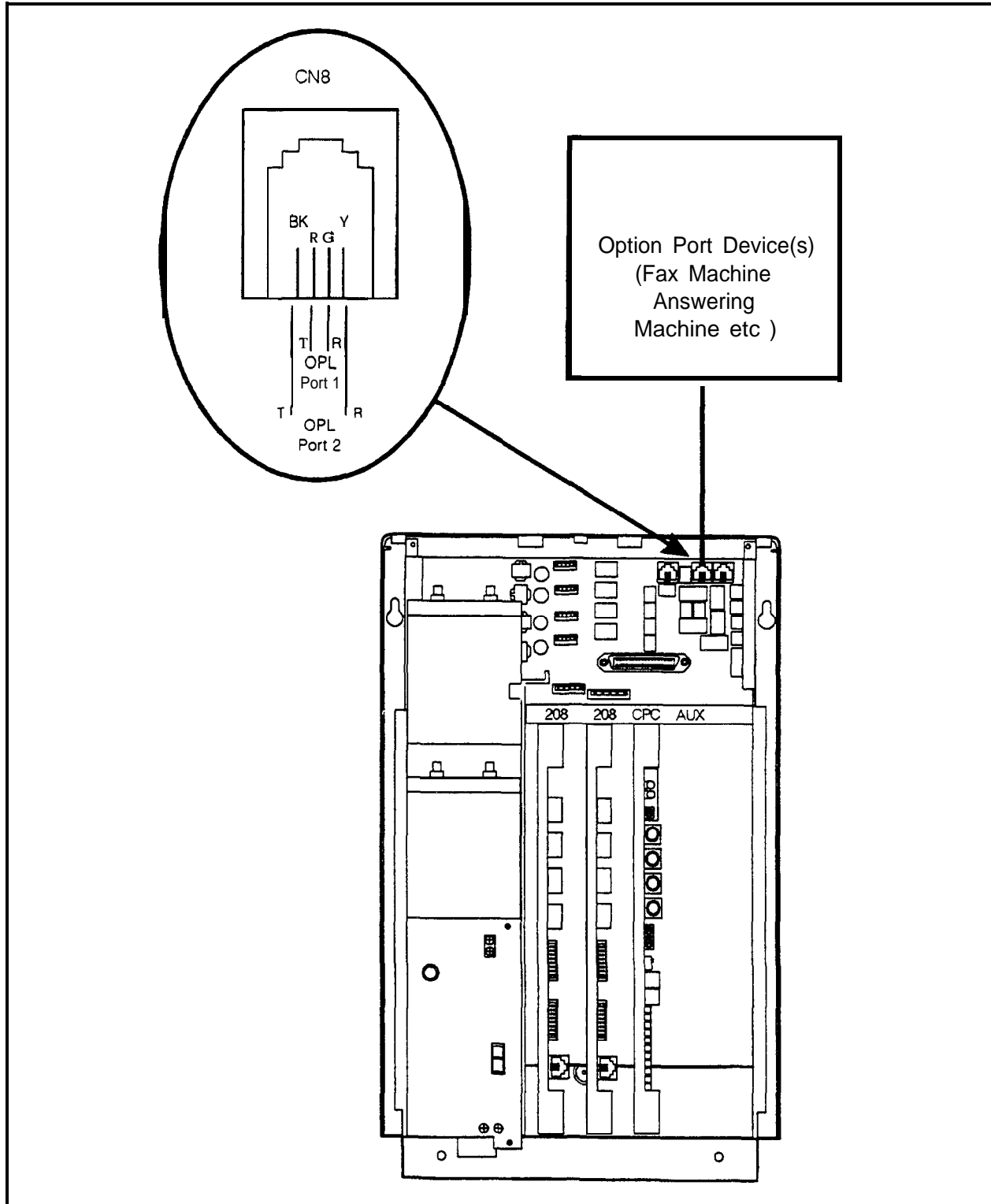
- CO trunks may be shared between the DBS 824 and external devices such as fax machines, answering machines, etc
- The ports are shared in parallel with the system The **first** one to answer or originate a call has access to the CO trunk
- OPL Port 1 corresponds to CO trunk 1 and OPL port 2 corresponds to CO trunk 2

## *Installation*

- 1 Connect the first device to OPL Port 1 on **CN8** as shown in Figure 5-11
- 2 If used, connect the second device to OPL Port 2 on **CN8** as shown in Figure 5-11

The DBS 824 must also be programmed to enable the OPL Ports See the ***DBS 824 Programming Guide (Section 400)*** for more information

Figure 5-11 OPL installation



# Off-Premises Adaptor (OPX)

## Guidelines

- Analog phones can be connected as off-premise stations through a direct line to the DBS or through the central office, depending on how far the stations are **from** the OPX Adaptor

Table 5-3 shows how far the OPX stations can be from the adaptor

**Table 5-3** *Maximum distances for direct connection to OPX stations*

<i>Wiring gauge</i>	<i>Max distance (in feet) between the OPX Adaptor and the OPX station</i>
AWG 22	27877
AWG 24	17532
AWG 26	11025

- One OPX Adaptor (VB-43702) is required for each OPX station
- The ringing output of the OPX Adaptor is 225 Vp-p (peak-to-peak) at 20 Hz
- When OPX stations are connected through **the** central office, an external ringer supply may be required. If required, the ringing supply is connected to the OPX Adaptor

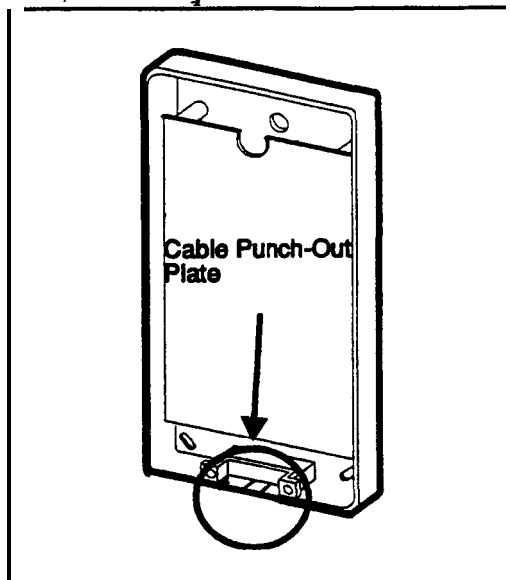
## Installation

The following procedures describe direct OPX connection and OPX connection through a CO. Refer to Figure 5-13 when installing the OPX

### Installing an OPX Station Without Going Through a Central Office

- 1 Remove the cover from the OPX Adaptor
- 2 Remove the cable punch-out plate (Figure 5-12) to make an opening for the cables coming into the OPX Adaptor

To remove the plate, cut the grooves on either side with diagonal cutters. Then bend the plate back and forth with needle-nose pliers to remove it.

**Figure 5-12 Cable punch-out plate, OPX Adaptor**

- 3 Mount the OPX Adaptor to the wall

Note: Table 5-4 shows the maximum distance the Adaptor can be located from the DBS 824

**Table 5-4 Maximum distances for OPX Adaptor installation**

<b>Wiring gauge</b>	<b>Max distance (in feet) between the DBS 824 and OPX Adaptor</b>
AWG 22	309
AWG 24	194
AWG 26	122

- 4 Connect the “T” and “R” leads to a digital extension port on the DBS 824
- 5 Connect the “GND” lead on the OPX Adaptor to the DBS 824 Frame Ground screw
- 6 Connect the “TT” and “TR” leads to the OPX station
- 7 Install the cover on the OPX Adaptor
- 8 Power the system down then back up

## Installing an OPX Station Through a Central Office

1 Perform Steps 1 through 5 which begin on page 5-13

2 Connect the "T" and "TR" leads to the central office

Note: If the central office requests a ground on the tip side of the OPX strap Pins 1 to 2 on CN3

3 Connect the OPX station to the **central** office

4 If the ringing level at the OPX station is not sufficient, connect a ringing supply to the "E-RG+" and "E-RG-" terminals on the OPX Adaptor

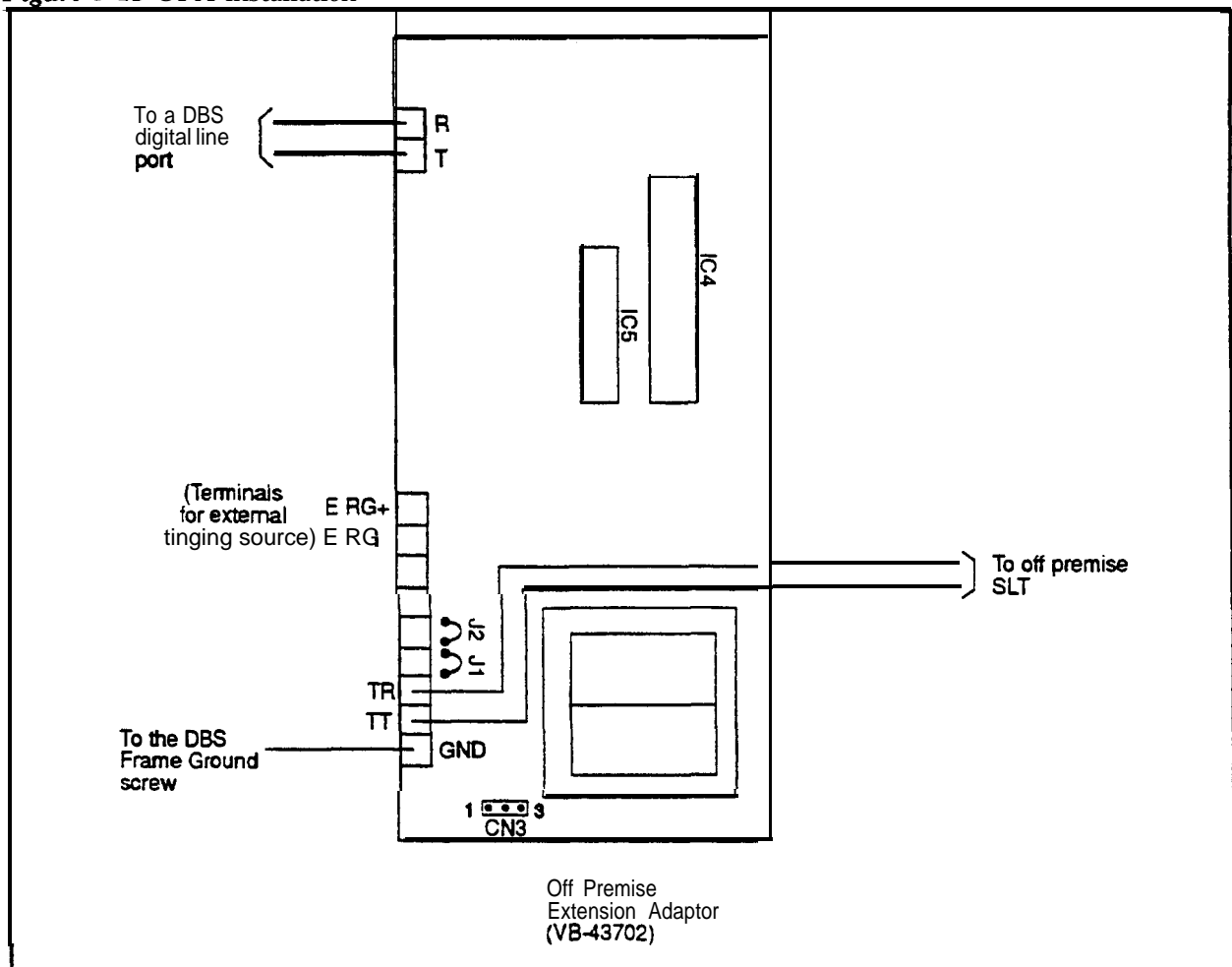
Note: Signals to the external ringer should not exceed 300 Vp-p

5 **If** a ringing supply is used, cut Straps **J1** and **J2** on the OPX Adaptor

6 Install the cover on the OPX Adaptor

7 Power the system down then back up

**Figure 5-13** OPX installation



# External Paging

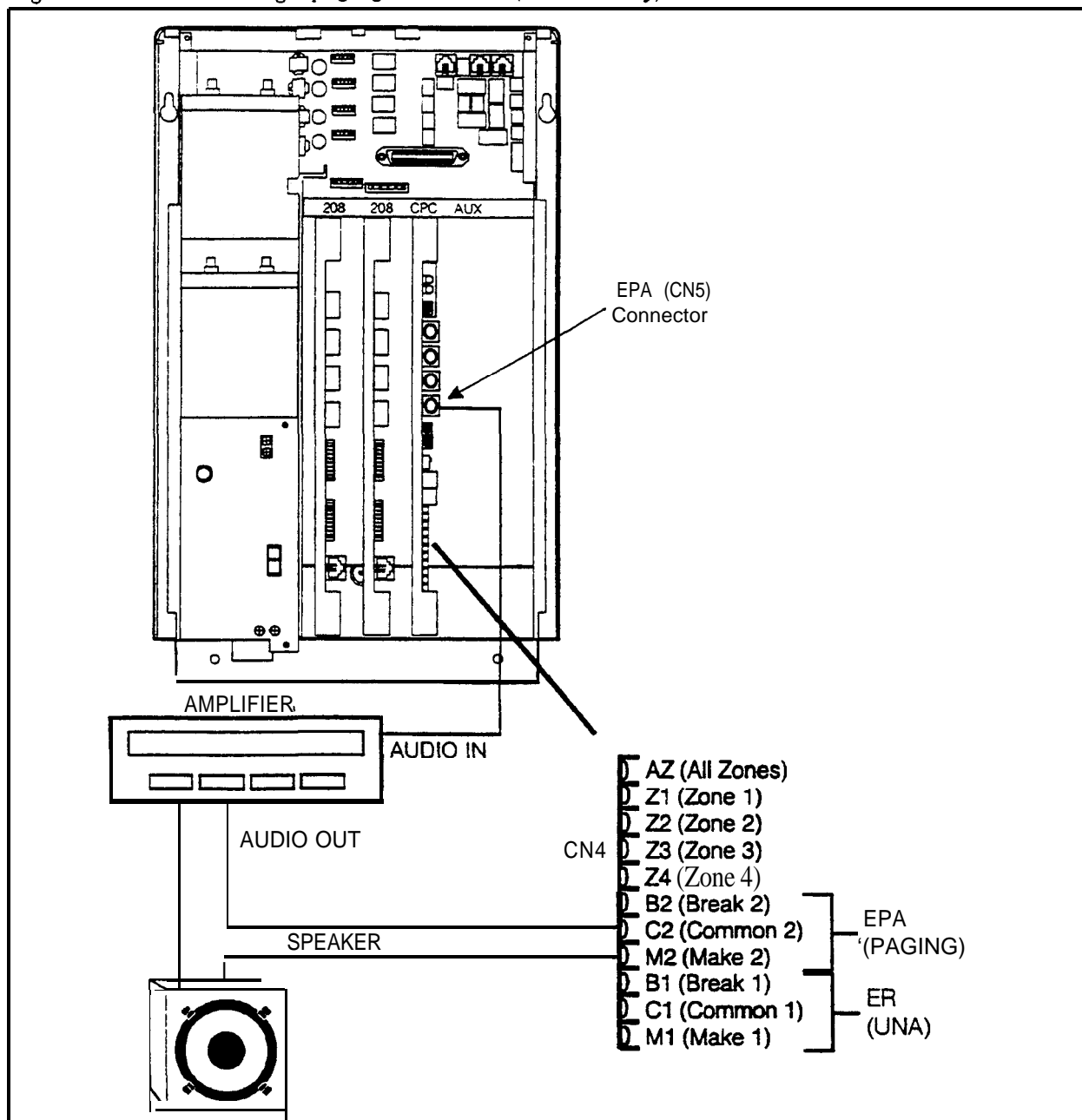
## *Guidelines*

- CPC-S does not provide any page relay controls Paging Audio output is provided at the EPA connector for external pages It is recommended that the EPA output be connected to a voice-activated amplifier to eliminate background “white” noise
- CPC-M provides a paging audio output (EPA), page zone relay terminals (AZ, Z1-Z4) and external page relay terminals (B2, C2 and M2) Since the relays are not provided with the CPC-S card, external **Zone** Paging is only available with the CPC-M Circuit Card
- The maximum current for each zone paging terminal on the CN4 Connector Panel (Terminals AZ, Z1-Z4) is 50 mA, the resistance of the relay used for each zone paging terminal must be 2600 to 2800 Ohms
- The paging amplifier relays and speakers are not provided with the DBS 824 They must be purchased separately
- The EPA connector (CN5) is used to connect the paging amplifier The output impedance of CN5 is 600 Ohms
- B2 (Break 2), C2 (Common 2) and M2 (Make 2) may be used to activate a non-zoned external Paging Installation Any page defined as external activates these relay contacts

## ***Non-Zoned Page Installation (CPC-M Only)***

- 1 Connect the amplifier speaker output in series with the “C2” and “M2” terminals on the CN4 Connector Panel as shown in Figure 5-14
- 2 Connect the CN5 “EPA” connector to the amplifier

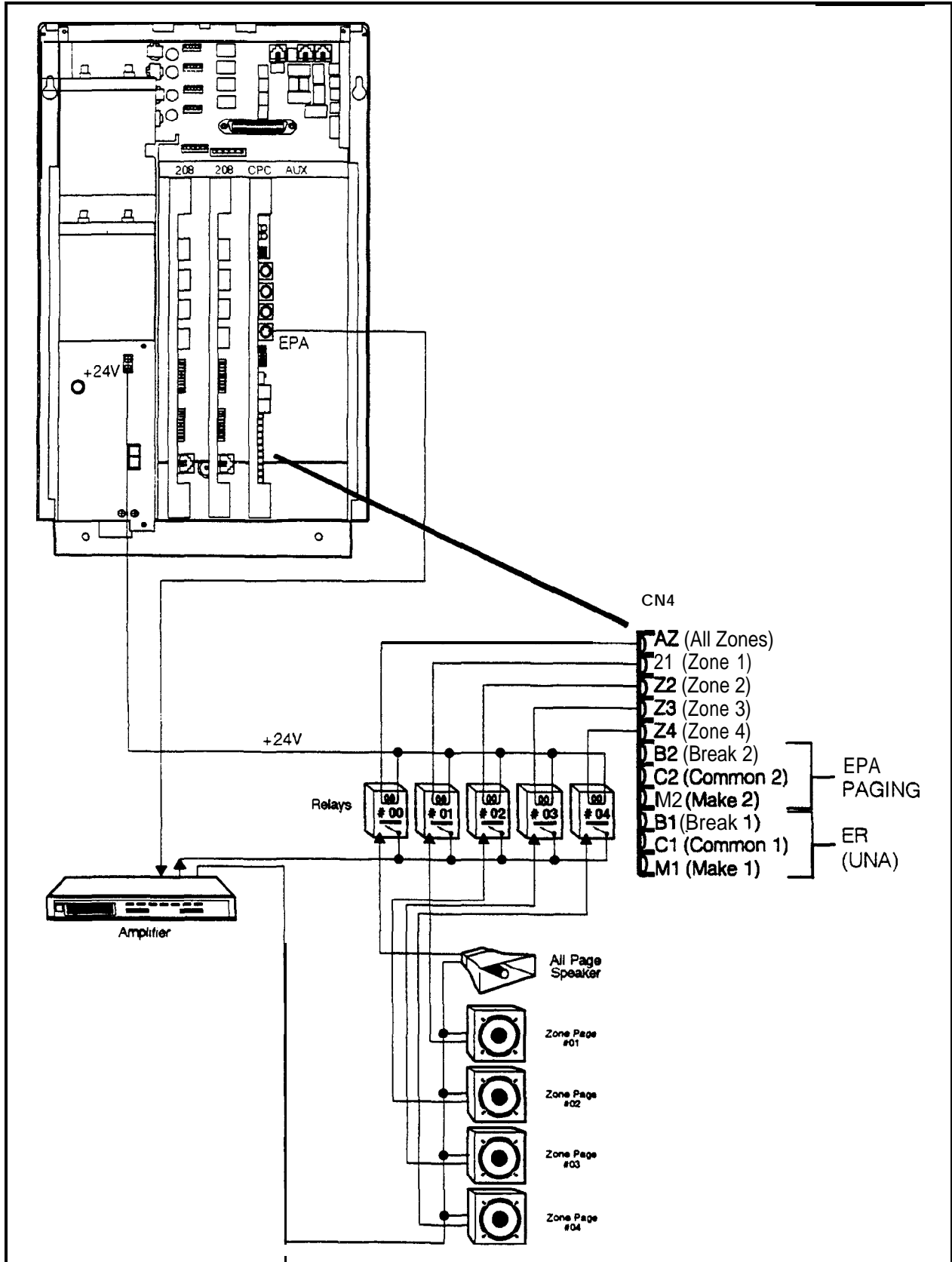


**Figure 5-14 External single paging installation (CPC M only)**

### Zone Paging Installation

- 1 Connect the paging amplifier to **CN5** on the DBS 824 CPC-M Circuit Card as shown in Figure 5-15
- 2 Connect the paging speakers to the amplifier
- 3 Connect the relays to the amplifier
- 4 Connect the relays to the **+24V** and zone paging terminals (**AZ, Z1-Z4**) on the Connector Panel

**Figure 5-15 External tone paging installation (CPC M only)**



---

# External Ringer (UNA Device)

## **Guidelines**

- An external ringer (either audible ringing or a bell, buzzer, etc ) can be used to alert users when Universal Night Answer (UNA) calls come in
- The CPC-M supplies a relay that activates when UNA calls are present This relay can be used to activate an external device (bell buzzer, etc ) Alternatively, this relay can be used to activate the audio output of an amplifier when a UNA call is present.
- The CPC-S does not have a UNA relay or separate ER audio **output**. If UNA is used with a CPC-S, the UNA external ringer audio output must be directed out at the EPA connector It is recommended that the EPA output be connected to a voice-activated amplifier to eliminate background “white” noise
- The contact rating for the “C1” (Common 1) and “M1”(Make 1) terminals is 30V DC, 1 amp (maximum) (CPC-M only)
- An external ringer device (bell, buzzer, etc ) is not provided with the DBS 824 It must be purchased separately

## ***/Installation of External Ringer Amplifier (CPC-S)***

- 1 Connect the EPA connector to the audio in connector of the amplifier device (Note This output is shared with the paging **output**.)

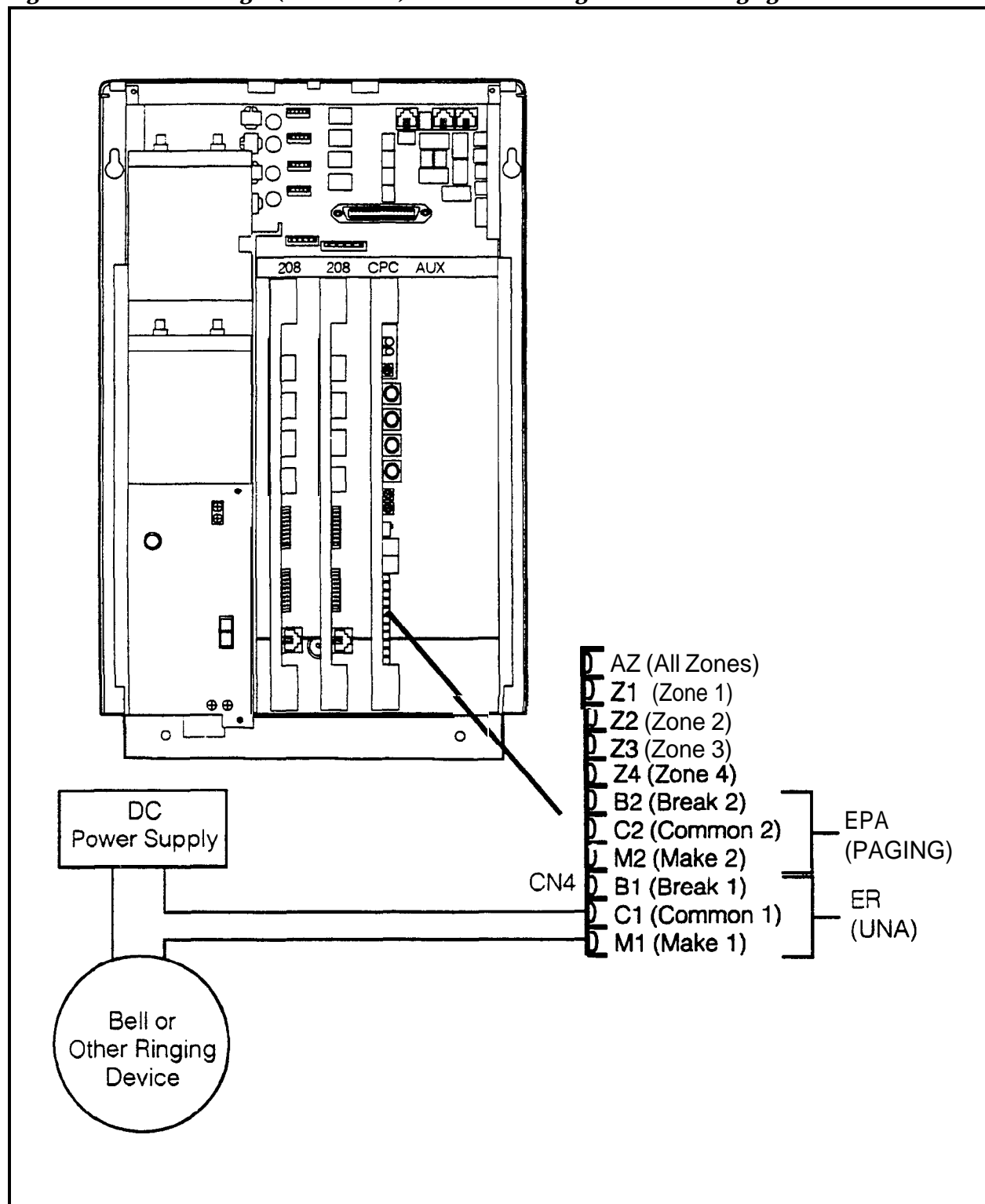
## ***Installation of External Ringing Device (CPC-M Only)***

- 1 Connect the external ringer to the “C1” and “M1” terminals on the Connector Panel (See Figure 5-16 )

Note: Connecting the ringer to the “C1” and “M1” terminals provides a “1 second on/3 seconds off” ringing pattern Connecting to “C1” and “B 1”(Break 1) terminals provides a “1 second off/3 seconds on” ringing pattern

- 2 Connect the external ringer to its DC power source

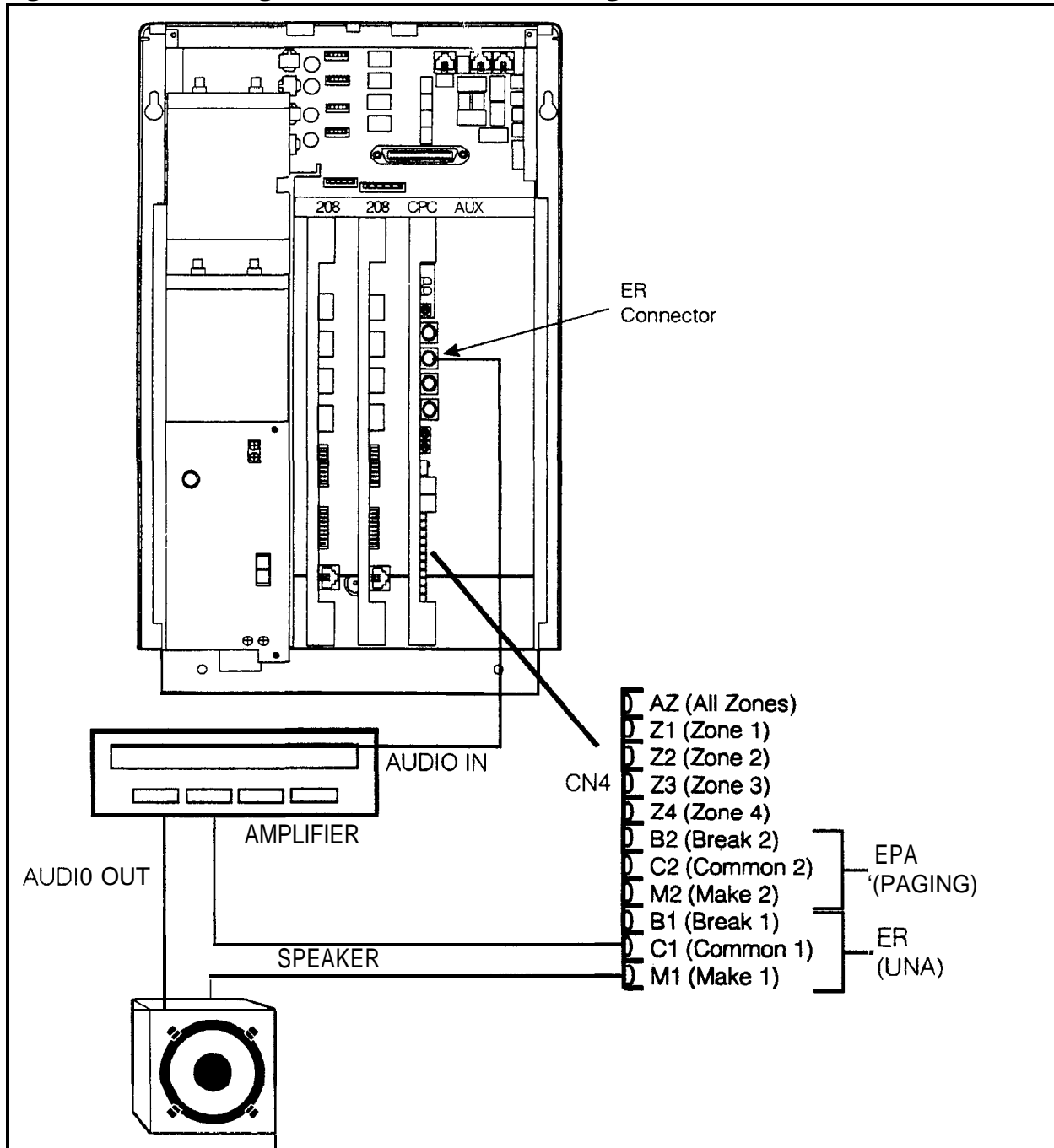
**Figure 5-16 External ringer (UNA device) installation using an external ringing device**



### Installation of External Ringer Amplifier (CPGM)

- 1 Connect the amplifier speaker output in series with the “C 1 and M1 terminals on the CN4 Connector Panel as shown in Figure 5-17
- 2 If using a separate amplifier device from the paging system, connect CN7 “ER” connector to the amplifier. If using the same amplifier device as the paging system connect to the EPA connector

**Figure 5 17 External ringer(UNA device) installation using the External Ringer Output**



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# Power Failure Transfer

## Guidelines

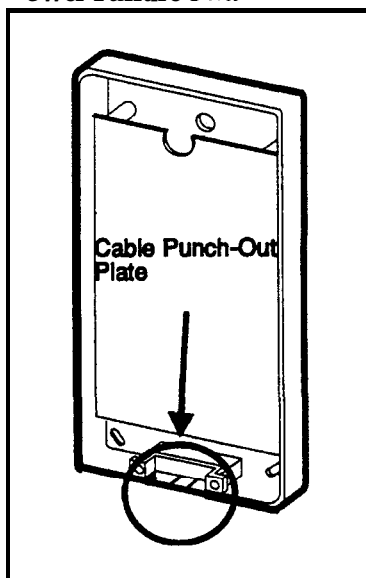
- Up to four SLTs can be connected to the Power Failure Unit (PFU) (VA-43703) if a power failure occurs, the SLTs will automatically receive dial tone from the central office DBS 824 features and restrictions do not apply during a power failure when the SLTs are connected to the CO through the PFU
- If a call is in progress through the PFU when the power is restored, the call will be disconnected

## Installation

- 1 Remove the cover from the Power Failure Unit (PFU)
- 2 Remove the cable punch-out plate (Figure 5-18) to make a opening for the cables coming into the PFU

To remove the plate, cut the grooves on either side with diagonal cutters. Then bend the plate back and forth with needle-nose pliers to remove it.

**Figure 5-18 Cable punch-out plate Power Failure Unit**



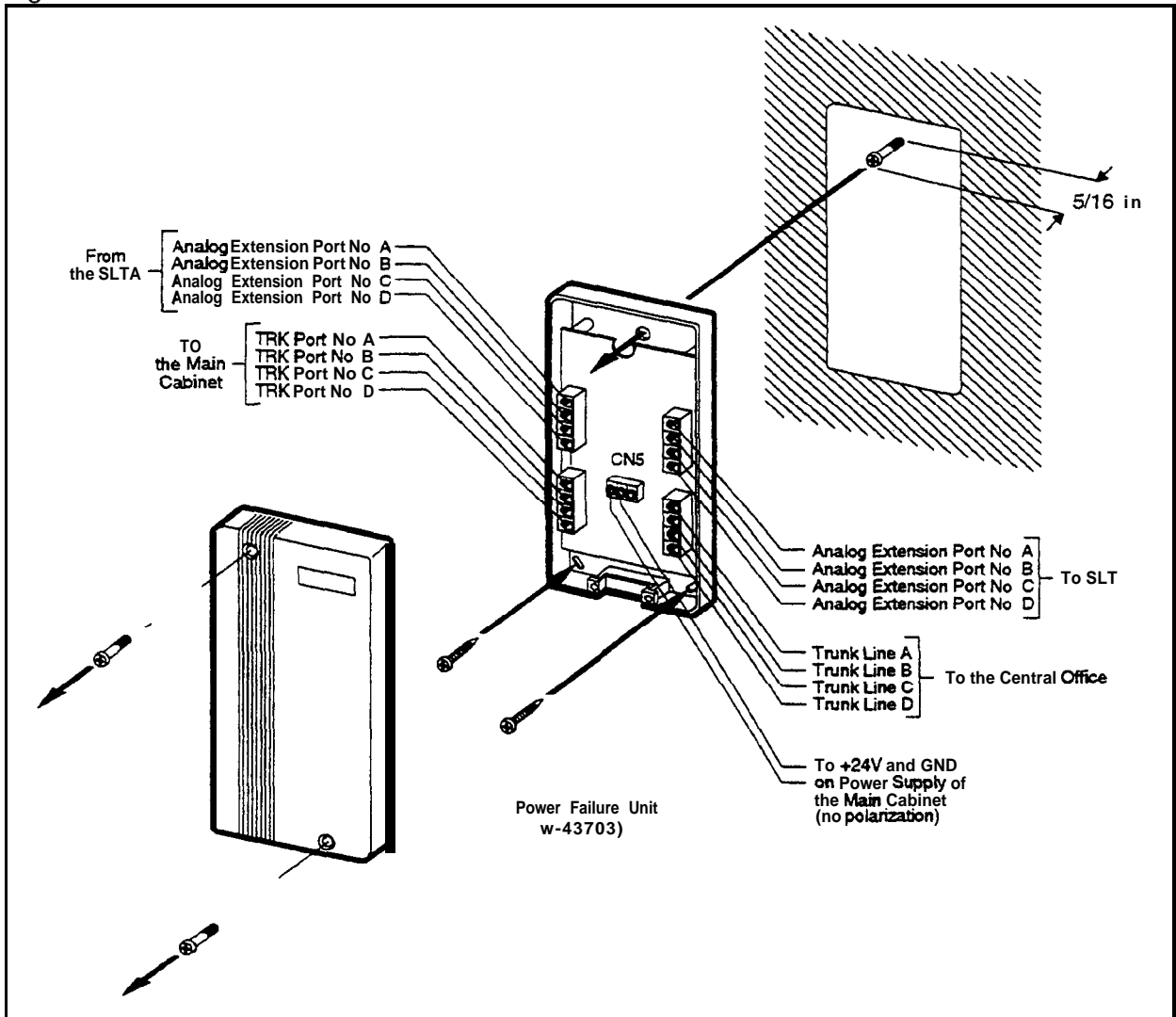
- 3 Mount the PFU on the wall using the three screws provided with the unit (See Figure 5-19)
- 4 Connect the trunks from the central office to the PFU
- 5 Connect the SLTs to the Analog extension ports on the PFU
- 6 Connect the trunks from the DBS 824 to the PFU

- 7 Connect the analog ports from the SLTA to the PFU

When a power failure occurs Analog 'A' is switched to Trunk 'A'  
 Analog 'B' is switched to Trunk 'B,' and so on

- 8 Connect a 24 volt external power source to the +24V and GND terminals on the PFU
- 9 Install the cover on the PFU

Figure 5-19 Power Failure Unit (PFU) installation



# Voice Announce Unit (VAU)

## Guidelines

- Operating temperatures for the Voice Announce Unit (VB-43708) should be between 35 and 105° F
- Maximum loop resistance for the VAU is 10 Ohms
- The VAU contains a rechargeable lead-acid battery Recharging circuitry for the battery is included on the VAU
- The ports used for the VAU must have all FF key assignments cleared before voice messages and abbreviated dial numbers are programmed

## Installation

- 1 Remove the cover from the Voice Announce Unit
- 2 Set SW 1 and SW2 according to the following tables (Default settings are italicized )

See Figure 5-22 for the location of the DIP switches

**Table 5 5** Switch settings for SW1, VAU

<i>Dip Switch 1 (SW1)</i>	
Switch	Function
1	<i>ON=Enable blind transfer</i> OFF=Disable blind transfer (VAU chip 1 1 or later is required for blind transfer )
2	ON=Small DBS <b><i>OFF=DBS / DBS 824</i></b>
3	ON=Two messages up to 16 seconds each <b><i>OFF=One message up to 32 seconds</i></b>



Table 5-6 Switch settings for delay answer timing, VAU

<i>Switch Block 2 (SW2)</i>								
<i>Delay Answer Timer (Switches 1-3)</i>								
<b>Switch</b>	<b>Timer (in seconds)</b>							
	<b>4</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>20</b>	<b>24</b>	<b>28</b>	<b>No Answer</b>
1	OFF	OFF	OFF	OFF	ON	ON	ON	ON
2	OFF	OFF	ON	ON	OFF	OFF	ON	ON
3	OFF	ON	OFF	ON	OFF	ON	OFF	ON

Table 5-7 Switch settings for DTMF detection timing, VAU

<i>Dip Switch 1 (SW1)</i>	
<i>DTMF Detection Timer</i>	
<b>Switch</b>	<b>Function</b>
4	ON=80 ms OFF=40 ms

Table 5-8 Switch settings for wait timing between dialed digits, VAU

<i>Dip Switch 2 (SW2)</i>				
<i>Wait Time Between Dialed Digits (Switches 5-6)</i>				
<b>Switch</b>	<b>Time (in seconds)</b>			
	<b>2</b>	<b>6</b>	<b>10</b>	<b>14</b>
5	OFF	OFF	ON	ON
6	OFF	ON	OFF	ON

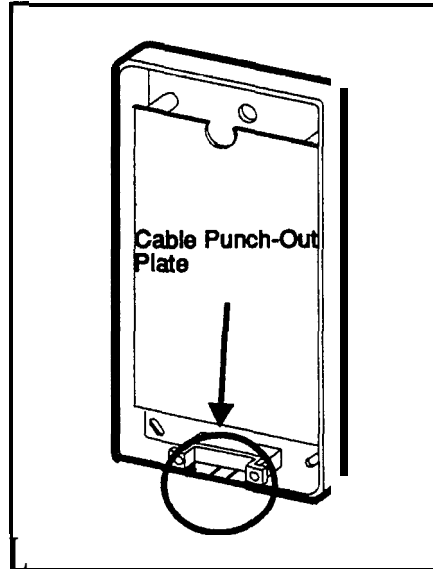
Table 5-9 Switch settings for abbreviated dialing digit length, VAU

<i>DIP Switch 2 (SW2)</i>			
<i>Abbreviated Dialing Digit Length (Switches 7-8)</i>			
<b>Switch</b>	<b>Number of Digits</b>		
	<b>1 Digit</b>	<b>2 Digits</b>	<b>3 Digits</b>
7	OFF	OFF	ON
8	OFF	ON	OFF

- 3 Remove the cable punch-out plate (Figure 5 20) to make an opening for the cable coming into the VAU

To remove the plate, cut the grooves on either side with diagonal cutters Then bend the plate back and forth with needle-nose pliers to remove it

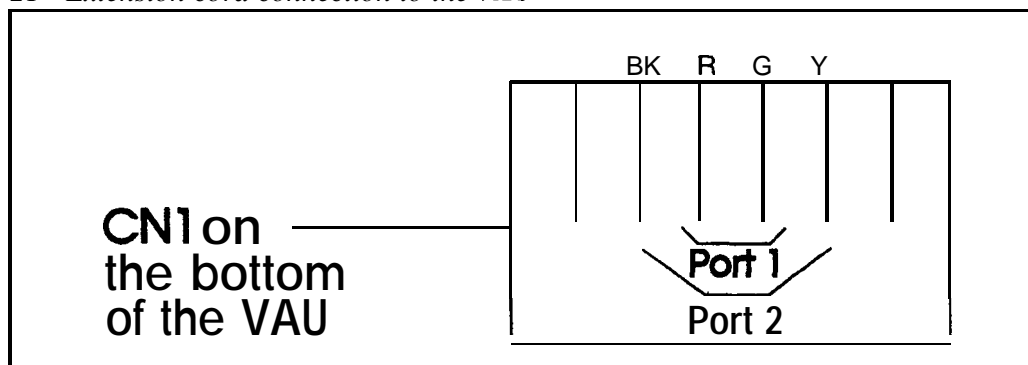
**Figure 5 20 Cable punch-out plate, Voice Announce Unit**



- 4 Mount the VAU on the wall using the three screws provided with the unit (See Figure 5-22 )
- 5 Connect the extension cable from the DBS 824 to CN1 on the VAU

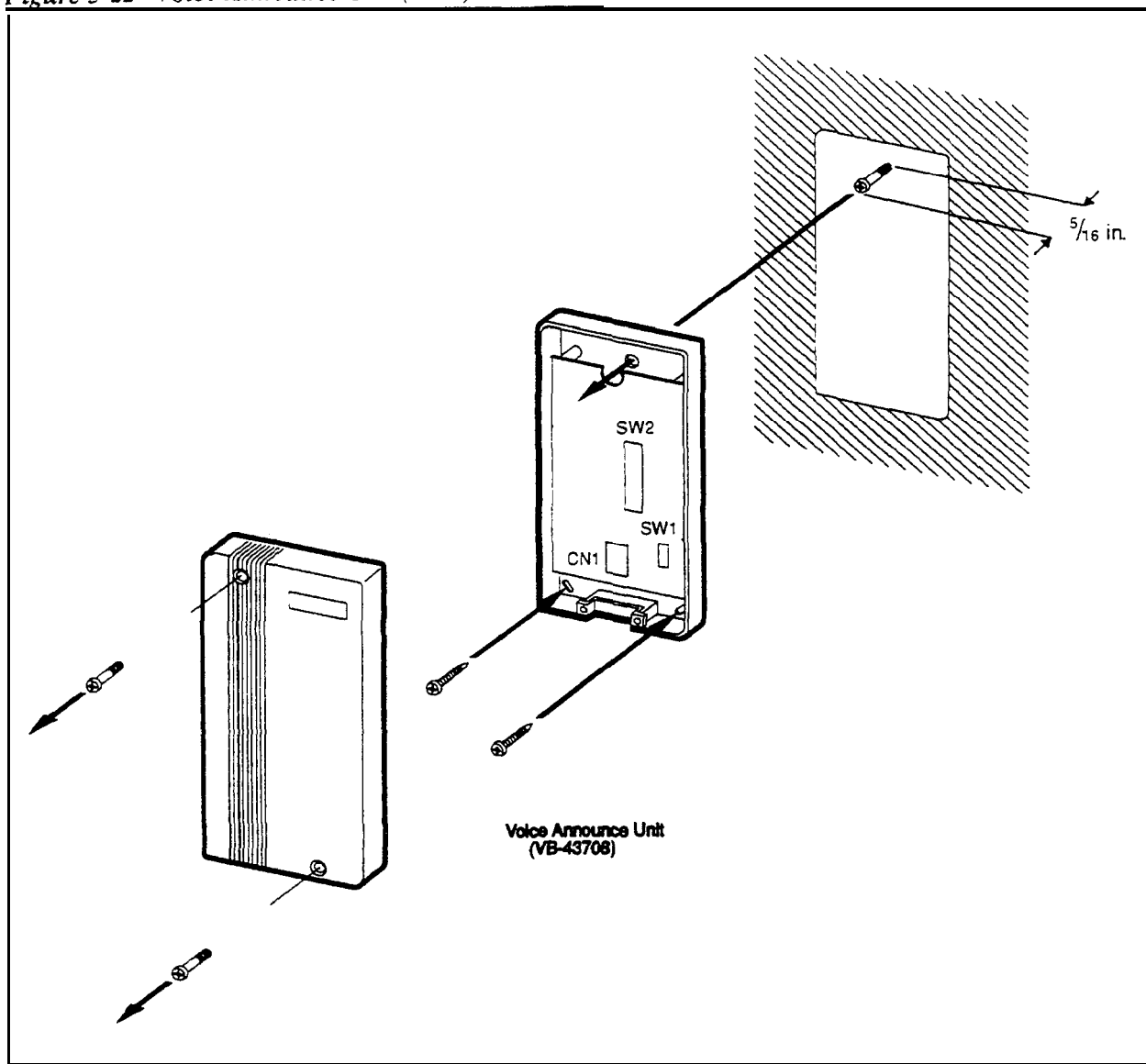
Note that two inside pins on CN1 are port 1 The two pins on either side are port 2, as shown in Figure 5-21

**Figure 5 21 Extension cord connection to the VAU**



- 6 Install the cover on the VAU

**Figure 5 22** *Voice Announce Unit (VAU) installation*



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# Door Box Adaptor

## **Guidelines**

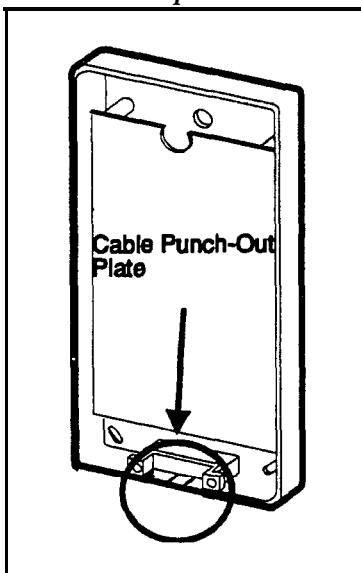
- The Door Box Adaptor (VB-437 11) requires a door opener **In** addition, a Door Box (door phone) (VA-43705) is normally used with the Door Box Adaptor The door opener is not sold by Panasonic it can be purchased separately from an electronics dealer
- Each Door Box and opener use one extension port
- The following tools are required to install the Door Box Adaptor
  - Phillips screwdriver
  - Needle-nose pliers
  - Diagonal cutters

## **installation**

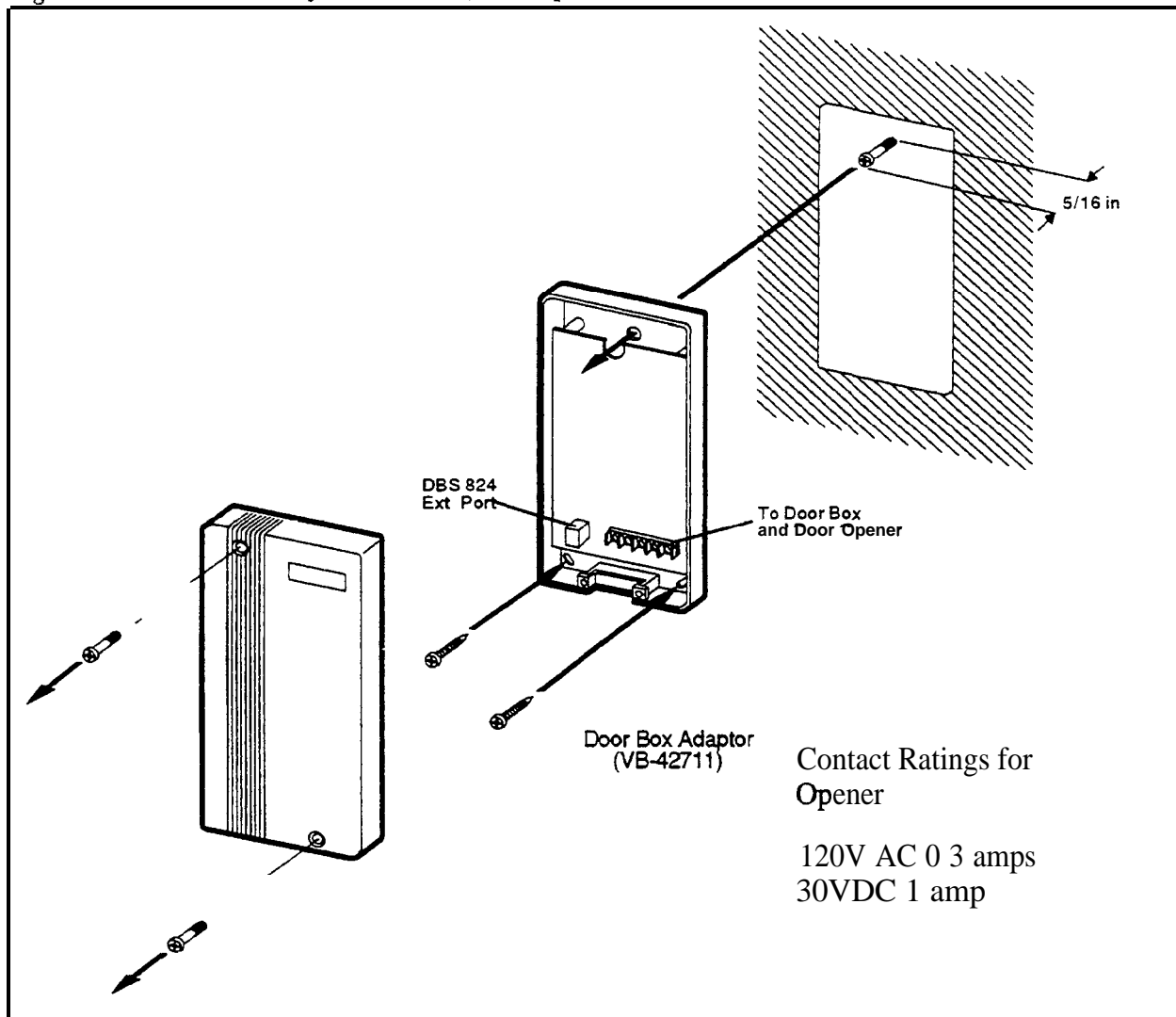
- 1 Remove the cover from the Door Box Adaptor
- 2 Remove the cable punch-out plate (Figure 5-20) in order to make an opening for the cables coming into the Door Box Adaptor

To remove the plate, cut the grooves on either side with diagonal cutters Then bend the plate back and forth with needle-nose pliers to remove it

**Figure 5-23 Cable punch-out plate, Door Box Adaptor**

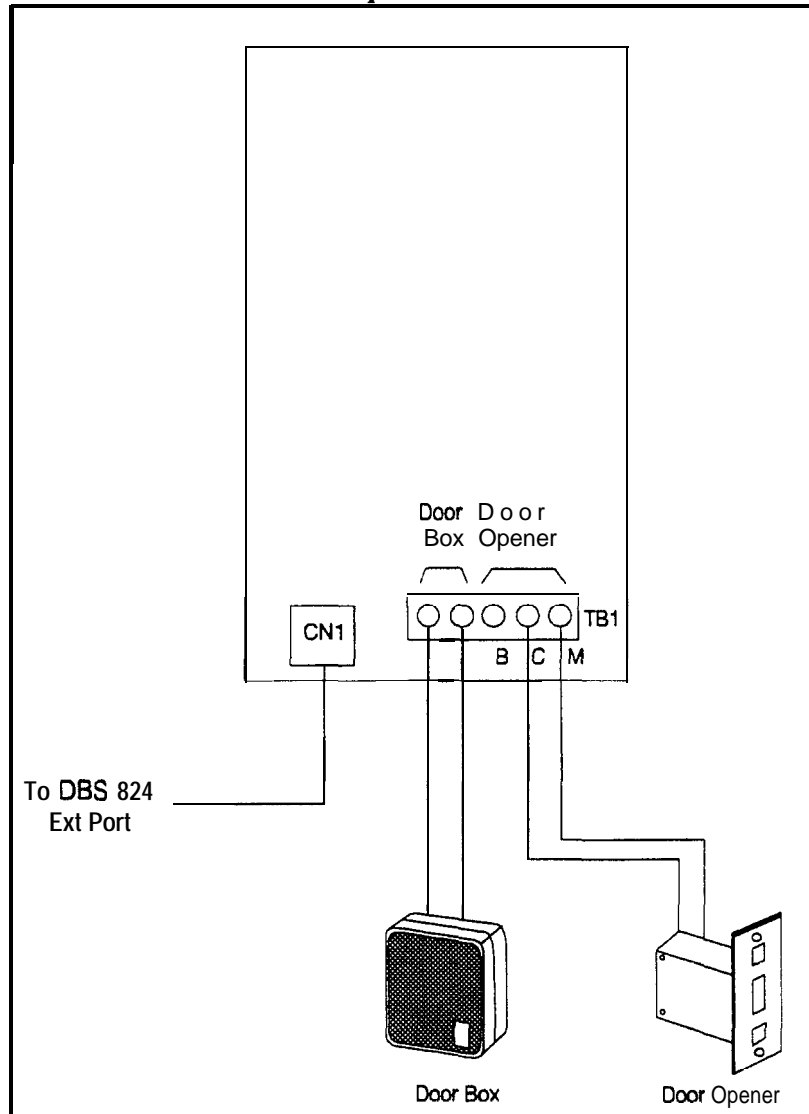


- 3 Mount the Door Box Adaptor on the wall using the three screws provided with the unit

**Figure 5 24 Installation of the door box, door opener**

- 4 Connect the extension line to the Door Box Adaptor, as shown in Figure 5-25

**Figure 5-25 Connections to the Door Box Adaptor**



5 Connect the Door Box and door opener to the Door Box Adaptor

---

# Chapter 6. Specifications

This chapter contains frequently referenced DBS 824 specifications

Note that all maximums may not be attainable simultaneously Also, attainment of some maximums depends on levels of feature usage and optional hardware requirements

Though every effort was made to ensure the accuracy of these specifications, Panasonic does NOT warrant them in regard to merchantability or fitness for a particular purpose Specifications are subject to change without notice





## Electrical Characteristics

**Table 6-1 Input power**

<i>Equipment</i>	<i>Power Requirements</i>
DBS 824 cabinet	120V AC $\pm$ 10 %, 60 Hz
DBS 824 key phones	3 watts maximum (powered from the DBS 824)

**Table 6-2 Power consumption and heat generation**

<i>System Status</i>	<i>DBS 824</i>
<b>Power Consumption</b>	
With max traffic	130 Watts
<b>Heat Generation</b>	
With max traffic	408 BTUs per Hour

**Table 6-3 Battery backup capacity**

<i>System</i>	<i>Battery Pack</i>	<i>Capacity (with maximum traffic)</i>
DBS 824	IQ-43130	40 minutes

## Environmental Requirements

**Table 6-4 Temperature and humidity requirements**

<i>Environmental Conditions</i>	<i>Requirements</i>
Temperature	32 to 104° F (0 to 40° C)
Relative Humidity	30 to 90%

**Table 6 5 Dimensions and weight, cabinet and phones**

<b>Physical Characteristics</b>	<b>DBS 824</b>
<b>Dimensions (H x W x D in inches)</b>	
Cabinet	12 1/8 x 16 1/8 x 7 7/8
VB-43225	4 1/8 x 7 3/8 x 9
Other key phones	3 3/4 x 7 3/8 x 9
DSLTL	3 1/8 x 7 3/8 x 9 1/8
DSS/72	3 1/2 x 7 1/2 x 9
EM/24	3 3/13 x 3 1/8 x 8 3/8
<b>Weight (lbs)</b>	
Cabinet	Approx 24 (varies with options)
VB-43225	23
Other key phones	22
DSLTL	16
DSS/72	16
EM/24	9

## Resource Maximums

**Table 6 6 Trunk and line capacities**

<b>DBS 824 System Resources</b>	<b>O-208 Expansion Cards Installed</b>	<b>1-208 Expansion Cards Installed</b>	<b>2-208 Expansion Cards Installed</b>
Trunk ports	4	6	8
Extension ports	8	16	24
Trunk/Extension speech path switching	nonblocking		

**Table 6-7 Feature-related capacities**

<b>Resource</b>	<b>Maximums</b>
<b>Attendants</b>	
No of attendants	4
No of attendants that can be assigned DSS/72s	2 (ATTs 1 and 2 only)
<b>Callback requests</b>	
No of requests that can be received by a single station	4
<b>Cal I coverage</b>	
No of groups	4
No of stations in a group	6 covered stations, 2 covering stations
<b>Call forwarding</b>	
No of simultaneous call forwarding registrations	No of stations in the system
<b>Conference circuits</b>	
CPC-S and M	3 four-party circuits
<b>DISA</b>	
No of incoming authorization codes	1
No of outgoing authorization codes	2
No of digits in each authorization code	4
<b>Hunting</b>	
No of groups	4
No of stations in a group	16
<b>Least cost routing</b>	
No of routing tables	1 Area Code table 1 Office Code table 4 Special Area Code tables 4 Special Office Code tables
No of entries in each routing table	1000
No of digit <b>addition</b> tables	4
No of digits that can be added	16
No of digit deletion tables	4
No of digits that can be deleted	16
No of time priority tables	6
No of LCR trunk groups	4

<i>Resource</i>	<i>Maximums</i>	
<b>Toll Restrictions</b>		
No of Toll Restriction types	8	
No of 7-digit restrictions	50	
No of area code restriction tables	4	
No of entries in each area code restriction table	1000 (4000 total)	
No of office code restriction tables	4	
No of entries in each office code restriction table	1000 (4000 total)	
<b>Paging</b>		
No of groups	8	
No of stations in a group	No of stations in the system	
<b>Speed dial</b>		
No of personal speed dial numbers	<b>Standard Mode</b>	<b>Add-On Mode (CPC-M Only)</b>
	10 per extension (90 ~ 99)	40 per extension (900 - 939)
No of system speed dial numbers	90 (00 ~ 89)	200 (0 - 199)
No of digits per speed dial number (personal and system)	16	16
<b>Trunk Queuing</b>		
No of trunk queuing registrations	1 per station	

**Table 6-8 Hardware maximums**

Part No	Description	Quantity		
		<i>DBS 824 0-208EXP</i>	<i>DBS 824 1-208EXP</i>	<i>DBS 824 2-208EXP</i>
<b>Phones</b>				
VB-432 10	16-key standard telephone with handsfree answerback	8	16	24
VB-43220	22-key standard telephone with handsfree answerback			
VB-4322 1	22-key speakerphone			
VB-43223	22-key speakerphone with LCD display			
VB-43225	22-key speakerphone with large LCD display			
VB-43230	34-key telephone with handsfree answerback			
VB-4323 1	34-key speakerphone			
VB-43233	34-key speakerphone with LCD display			
<b>Phone Options</b>				
VB-433 10	24-key expansion module (EM24)	4	8	12
VB-43320	72-key DSS/BLF module (DSS/72)	2	4	4
VB-43884	7 ft handset cord	8	16	24
VB-43885	15 ft handset cord			
VB-43886	25 ft handset cord			
VB-43890	K-type handset			
<b>Printed Circuit Cards</b>				
VB-42450	Call processor card (CPC-S)	1	1	1 (CPC-M only)
VB-4245 1	Call processor card (CPC-M)			
VB-4343 1	8 DTMF signal receivers (MFR/8)	1	1	1
VB-4243 1	2 DTMF receiver (MFRU) (CPC-M only)	1	1	1
VB-4265 1	2-port loop-start trunk card and 8 port digital extension card (208EXP)	0	1	2
VB 42712	Serial Interface Unit (SIU)	1	1	1

Part No	Description	Quantity		
		<i>DBS824 0-208EXP</i>	<i>DBS824 I-208EXP</i>	<i>DBS824 2-208EXP</i>
VB-4255 1	Caller ID Unit (first 4 trunks) (CID) (CPC-M only)	1	1	1
VB-42552	Caller ID Unit (second 4 trunks) (CPC-M only)	0	1	1
<b>Doorbox Equipment</b>				
VB-43711	Door box adaptor	4	4	4
VB-43705	Door box	4	4	4
<b>Optional Equipment</b>				
-VB-43 130	Built-in system backup battery sets	1	1	1
VB-43709	Single Line Telephone Adaptor (SLTA) (4 ckts per SLTA)	2	4	6
VA-43703	4-line power failure unit	1	2	2
VB-43702	Off-premise extension adaptor	8	16	24
VB-43940	Application processor interface (API) (CPC-M only)	1	1	1

## Cabling Specifications

**Table 6 9** Maximum cabling distances

<b>Loop Type and Resistance</b>	<b>Resistance</b>	<b>Cable Gauge (AWG)</b>	<b>Maximum Cabling Length in Feet (Distance from the DBS 824)</b>
Key phone, EM/24	40 Ohms	22	1239
		24	<b>779</b>
		26	490
DSS/72	20 Ohms	22	619
		24	390
		26	245
SLT	100 Ohms	22	3097
		24	1948
		26	1225
OPX (Loop between the DBS 824 and the OPX Adaptor)	10 Ohms	22	309
		24	194
		26	122
OPX (Loop between the OPX Adaptor and an SLT)	900 Ohms (excluding end impedance)	22	27877
		24	17532
		26	11025
Doorphone (Loop between the DBS 824 and the Door-phone Adaptor)	10 Ohms	22	309
		24	194
		26	122
Door-phone (Loop between the Doorphone Adaptor and the Door-phone)	40 Ohms	22	1239
		24	779
		26	490
Voice Announce Unit	10 Ohms	22	309
		24	194
		26	122

## Communication Parameters

**Table 6-10 Voice path from KTELS to DBS 824**

<i>Channel</i>	<i>Speed</i>
Overall communications path	256 kbps
D-channel data	16 kbps
B-channel data	64 kbps

**Table 6-11 Data communications ports**

<i>Port</i>	<i>Parameters</i>	
SMDR	Interface	RS232-C
	Baud rate	300, 1200 4800 or 9600 kbps
	Parity	Even, odd, or none
	Stop bit length	1, 1.5, or 2
	Data bit length	5, 6, 7, or 8

## Signaling Characteristics

**Table 6-12 Signaling to CO**

<i>Ztem</i>	<i>Specification</i>
Dial pulse	8 to 11 pulses per second (PPS)
Break ratio	58 to 64%
Minimum pause	0.7 to 1.0 seconds
Trunk start	Loop

**Table 6-13 Signaling levels**

<i>Item</i>	<i>Level</i>	<i>Distortion</i>
Trunk input (DISA)	-40 dBm (minimum)	Less than 10%



**Table 6 14 Transmission specifications**

<b>Item</b>	<b>Specification</b>
Impedance	600 Ohms
Overload level	600 Ohms
Insertion Loss	
CO trunk to analog station	0 dB
Analog station to CO trunk	0 dB
CO trunk to digital station	0 dB
Digital station to CO trunk	0 dB
Digital station to digital station	6dB
Digital station to analog station	6dB
Analog station to digital station	6dB
Analog station to analog station	6dB

## Tone Characteristics

Table 6-15 Tone Plan

<b>Tone Name</b>	<b>Frequency</b>	<b>Timing (seconds)</b>
<b>CO Call Tones</b>		
CO incoming call	550/400 Hz at 16 Hz	Programmable
Hold recall	550/400 Hz at 16 Hz	0 5 on/3 5 off
Transfer recall	550/400 Hz at 16 Hz	0 5 on/3 5 off
Trunk queuing	550/400 Hz at 16 Hz	0 5 on/O 5 off/O 5 on/2 5 off
CO offhook signal	550 Hz	1 on/7 off
<b>Internal Tones (Key Phones)</b>		
Dial tone	350/440 Hz	Continuous
CO incoming call	550/400 Hz	Programmable
Callback	400 Hz	1 on/3 off
Busy	480/620 Hz	0 5 on/O 5 off
Busy override	400 Hz	0 25 on/O 25 off/O 25 on
Splash	550 Hz	0 5 on
Error	400 Hz	0 5 on/O 5 off
Reminder call	550 Hz	4 on/1 off/4 on/1 off/4 on 1 off/4 on/silence
Call waiting	550 Hz	0 25 on/O 25 off/O 25 on/7 25 off
Key press	1 kHz	Duration of the key press
<b>Internal Tones (SLTs)</b>		
CO/Station ringing	20 Hz	1 on/3 off
Hold recall		
Callback		
Transfer	20 Hz	Programmable
Dial tone	350/440 Hz	Continuous
Ringing	350/440 Hz	1 on/3 off
Busy	480/620 Hz	0 5 on/O 5 off

**Table 6 16 DTMF frequencies**

<b>Digit</b>	<b>Frequency (Hz)</b>
1	697 + 1209
2	697 + 1336
3	697 + 1477
4	770 + 1209
5	770 + 1336
6	770 + 1477
7	852 + 1209
8	852 + 1336
9	852 + 1477
*	941 + 1209
0	941 + 1336
#	941 + 1477

**A**

Analog Extensions 4-11

**B**

Background music 5-8

Battery backup

capacities 6-3

installation 3-9

**C**

Cabinet Installation 3- 1

Cabinet installation

batteries 3-9

cards 3-6

DSL/T wall mounting 5-4

grounding 3-5

initialization 3-1 1

key phone wall mounting 5-3

system initialization 3- 11

wall mounting 3-3

Cabling distances 6-9

Card installation 3-6

Configurations 2-4

Connector locations 2 3

Cover removal 3-3

CPC

description 2-6

RAMCLEAR 3-11

RAMHOLD3- 11

strap J3 3-7

SW1 3-11

variable resistors 5-9

**D**

Digital Extensions 4-8

Door box adaptor 5-28

Door phone 5-28

DSL/Ts

wall mounting 5-4

DSS 4-8

DSS/72 4-8

DTMF frequencies 6- 13

**E**

EM/24 4- 10

Environmental requirements 6 3

Extensions

analog 4- 11

connectors 4-5

digital 4-8

pinouts 4-6

External ringer 5- 19

**F**

Facility interface code 1-2

FCC registration number 1-2

Frequencies

DTMF 6- 13

**G**

Grounding 1-4, 3-5

**H**

Heat generation 6-3

**I**

Initialization

system 3-1 1

Input power 6-3

Installation

cabinet 3- 1

**L**

Lightning protection 1-4

Loop-start trunks 4-5

**M**

Model number 1-2

Music on-hold 5-8

**N**

Network interface code 1-2

**O**

Option Port Line 5- 11

OPX 5-13

## P

Paging 5- 16

Part Numbers

VB-43320 4-8

Part numbers

VA-43703 5-22

VB-42050 1- 2

VB-42450 2- 6

VB-4245 1 2- 6

VB-4265 1 4- 3

VB-427 12 5- 6

VB-43 130 3-9

VB-43702 5- 13

VB-43703 5-22

VB-43705 5-28

VB-43708 5-24

VB-437 11 5-28

PCAS 5-6

PFU 5-22

Power consumption 6-3

Power failure unit 5-22

Printed circuit cards

card installation 3- 6

descriptions 2 5

maximums 2-5

## R

Registration number 1-2

Requirements 1- 1

Ringer equivalence number 1-2

## S

Serial Interface Unit 5-6

Service order code 1-2

Single Line Telephone Adaptor 4- 11

Single Line Telephones 4- 11

SLTA 4- 11

SLTs 4-11

SMDR 5- 6

Specifications

backup batteries 6-3

cabling distances 6-9

communications parameters 6- 10

dimensions and weight 6- 4

DTMF frequencies 6- 13

environmental requirements 6-3

feature-related capacities 6-5

hardware maximums 6-7

heat generation 6- 3

input power 6-3

power consumption 6- 3

signaling 6- 10

tone plan 6- 12

trunk and line capacities 6- 4

## T

Tone plan 6- 12

Trunks

maximums 6-4

Trunks and lines 4- 1

## U

UNA device 5-19

## V

VA-43703 5- 22

VAU 5-24

VB-42450 2-6

VB-4245 1 2-6

VB-4265 14-3

VB-42712 5- 6

VB-43 130 3-9

VB-43320 4- 8

VB-43702 5- 13

VB-43703 5-22

VB-43705 5-28

VB-43708 5-24

VB -437 11 5-28

Voice Announce Unit 5-24

## W

Wall mounting

cabinets 3-3

DSLTS 5-4

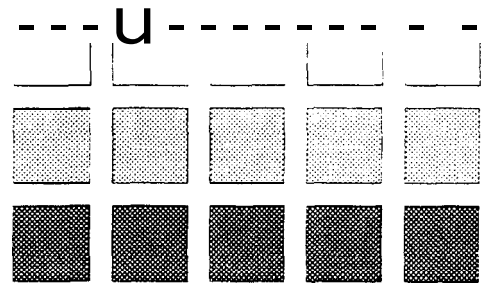
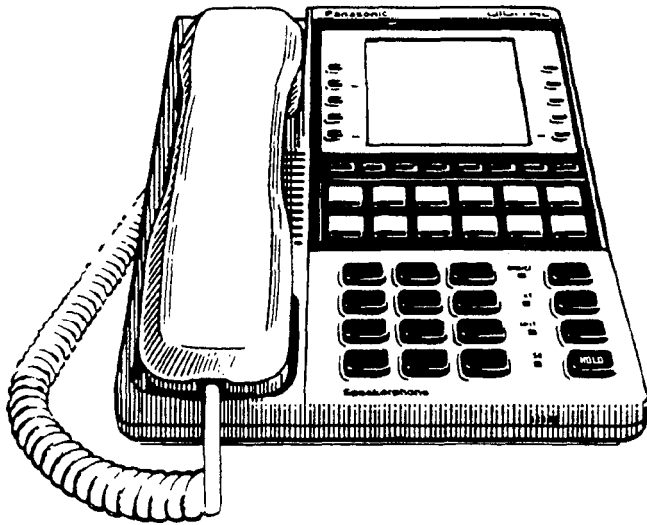
key phones 5-3

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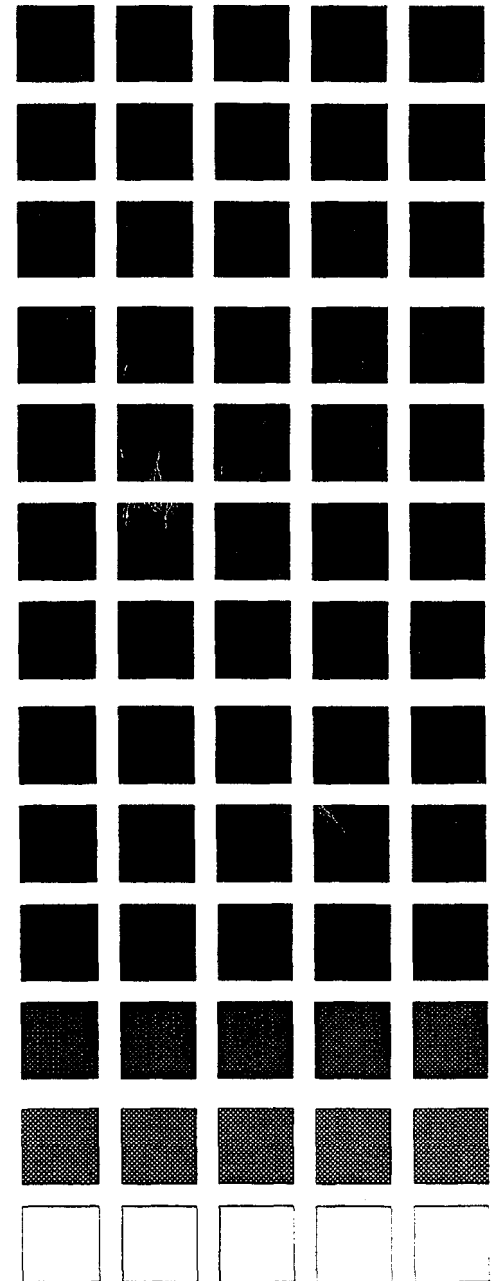
## DBS

Digital Business System

# DBS 824



## Section 400 Programming



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## Introduction to DBS 824 Programming

<b>Before You Begin</b>	<b>Intro-3</b>
Preparations for Programming	Intro-3
Initializing New Systems	Intro-4
<b>Understanding FF Key Programming</b>	<b>Intro-5</b>
Program Structure	<b>Intro 5</b>
How to Enter the Programming Mode	Intro-6
Example Programming Entry	Intro-7
<b>Default Program Settings</b>	<b>Intro-8</b>

---

## Chapter 1. System Programming (FF1)

<b>Date and Time Settings</b>	<b>1-3</b>
Day/Date Setting	1-3
Time Setting	1-4
<b>General System Settings</b>	<b>1-5</b>
Call Duration Display	1-5
SMDR Start Timer for CO Calls	1-6
Least Cost Routing (LCR) Access	1-7
Override Toll Restriction With SSD Numbers	1-8
SSD Display Restriction	1-9
Auto Flash Redial	1-10
One Touch Dial	1-11
Onhook Transfer	1-12
Key Bank Hold	1-13
Non-Appearing Trunk Hold	1-14
SLT Flash Control	1-15
Extension Number Digits	1-17
Attendant Intercom Calling	1-18
Extension Intercom Calling	1-19
Alert Tone for Voice Calls	1-20
Alert Tone for Busy Override & OHVA	1-21
System Installation Area Code	1-22
SSD Name Display	1-23
API/SLT Assignment	1-24
Voice Mail Busy Tone	1-25
Delayed Ring	1-26
Second Attendant Position	1-27



Third Attendant Position	1 28
Fourth Attendant Position	1 29
Attendant Transfer Extension	1-30
Attendant Override	1 31
Extension (ELF) Delayed Ring	1-32
Transfer Ring Pattern	1-33
Page Duration	1-34
SLT DISA Ring Pattern	1-35
SLT Disconnect Duration	1-36
Call Duration Timer	1-37
Speed Dial Mode	1-38
Auto-Repeat Dialing Count	1-39
Install OPL Port	1-40
Music-On-Hold Sound Source	1-41
EPI Audio Control	1-42
CO-to-CO Talk Mode Control	1-43
<b>SMDR Data (Serial Port CN1)</b>	<b>1-44</b>
Parity Check (SMDR)	1 44
Odd/Even Parity (SMDR)	1-45
Baud Rate (SMDR)	1 46
Stop Bit Length (SMDR)	1-47
Data Length (SMDR)	1 48
SMDR Serial Port Flow Control (X-ON / X-OFF)	1-49
SMDR Printing Mode 1 Outbound and Inbound	1 50
SMDR Printing Mode 2 Long-Distance and Local Calls	1-51
SMDR Printing Mode 3 Header Title	1-52
<b>PBX Settings</b>	<b>1-53</b>
PBX Access Code(s)	1-53
Automatic Pause Position For PBX Access Codes	1-54
<b>External (UNA) Relay Control</b>	<b>1-56</b>
Ring Patterns For UNA Terminals (M1, C1, & B1)	1-56
External Page Interface Control For Paging Groups	1-57
<b>Class of Service</b>	<b>1-58</b>
Extension Class Of Service	1-58
<b>Account Codes</b>	<b>1-60</b>
Verified Forced Account Codes	1-60
Toll Restriction For Verified Forced Account Codes	1-62
<b>Custom Screens</b>	<b>1-63</b>
Custom Screen Soft-Key Assignment	1-63
Custom Screen Text	1 67
Custom Screen Default	1-68
Custom Screens Default (All)	1 69

Caller ID Automatic DISA	<b>1 70</b>
Automatic DISA Callers	1-70
Maintenance Data (Serial Port CN2)	<b>1-71</b>
Parity Check (Maintenance Port)	1 71
Odd/Even Parity (Maintenance Port)	1-72
Baud Rate (Maintenance Port)	1-73
Stop Bit Length (Maintenance Port)	1-74
Data Length (Maintenance Port)	1-75
Maintenance Serial Port Flow Control (X-ON / X-OFF)	1 76
<b>System Timers</b>	<b>1-77</b>
Automatic Night 1 Mode Start Time	1 77
Attendant Hold Recall Timer for CO Calls	1 78
Extension Hold Recall Timer for CO Calls	1-79
Attendant Transfer Recall Timer for CO Calls	1 80
Extension Transfer Recall Timer for CO Calls	1 81
Attendant Park Hold Recall Timer	1 82
Extension Park Hold Recall Timer	1-83
Attendant Call Reversion Timer	1-84
Unsupervised Conference Timer	1 86
Automatic Pause Timer	1-88
CO Flash Timer	1 90
SLT Onhook Flash Timer	1 92
CO Ring Cycle Detection Timer	1-93
Inbound Ring Cycle Expansion Timer	1-95
Dial Pause Timer	1-97
PBX Flash Timer	1 98
Call Forward--No Answer Timer	1-99
Attendant Hold Recall Timer for Intercom Calls	1-100
Extension Hold Recall Timer for Intercom Calls	1-101
Attendant Transfer Recall Timer for Intercom Calls	1-102
Extension Transfer Recall Timer for Intercom Calls	1-103
CO Delayed Ring Timer	1-104
Extension Delayed Ring Timer	1-106
Hunt Group No Answer Timer	1-108
Automatic Day Mode Start Time	1-109
Wait Timer For Auto-Repeat Dialing	1 111
Busy Tone (BT) Detection Timer	1-114
Dial Tone (DT) Detection Timer	1-115
Automatic Night 2 Mode Start Time	1-116
<b>Remote Programming and DISA Codes</b>	<b>1-117</b>
Remote Programming ID Code	1-117
DISA Inbound Call ID Code	1-118
DISA Outbound Call ID Code 1	1-119
DISA Outbound Call ID Code 2	1-120

<b>Programming Authorization Code</b>	<b>1-121</b>
ID Code For System Programming	1 121
<b>New Function Reset</b>	<b>1-122</b>
New Function Reset	1 122
New Function Reset Confirmation	1 122
<b>Door Phones</b>	<b>1-123</b>
Door Phone Extensions	1 123
Door Phone Ring Assignments	1-124
Door Opener Access Code	1-125
Door Phone Tone Type	1-126
Door Phone Ring Timer	1 127
Door Phone Ring Pattern	1-128
Door Opener Relay Timer	1 129

---

## Chapter 2. Trunk Programming (FF2)

Trunk Port Operation	2-3
DTMF/Pulse Dialing for Trunks	2-4
Pooled Trunk Access for Group "9"	2-5
Pooled Trunk Access for Groups "8 1-86"	2-6
Trunk Port Type	2-7
DISA Auto Answer	2-8
Private Trunk Line	2 9
Automatic Pause for PBX Line	2-10
Dial Tone Detection	2-11
Outbound DTMF Signal Duration for Auto-Dialed Digits	2-12
Unsupervised Trunk Conference	2-13
Inbound Ring Pattern	2-14
Trunk Disconnect Detection Timer	2-15
DISA Start Time	2-16
DISA End Time	2-17
Trunk Circuit Type	2-18
CO Busy Tone Detection	2-19

---

## Chapter 3. Extension Programming (FF3)

Extension Numbers	3-3
Terminal Type	3-5
EM/24 Port Assignment	3-6
Forced Least Cost Routing	3-7
Forced Account Codes	3-8
Extension Lockout Code	3-9
Offhook Signal (CO)	3-10

Call Waiting/OHVA	3-11
Busy Override Send	3-12
Busy Override Receive	3-13
Prime Line Pickup	3-14
Auto Pickup (Ringing Line)	3-15
Unsupervised Conference	3-16
Station Message Detail Recorder (SMDR) Report	3-17
Offhook Signal Volume	3-18
Offhook Signal Pattern	3-19
PSD Name Display on Large-Sized LCD Phones	3-20
Page Group Extensions	3-21
Display When Idle	3-22
Display During Intercom Dial Tone	3-24
Display When Calling an Extension	3-26
Display When Accessing CO Dial Tone	3-28
Display When Conversing on a CO Trunk	3-30
Display When Receiving a Page	3-32
Display After Receiving a Call Waiting Tone	3-34
Display When Dialing a Busy Extension	3-36
Extension Directory Display	3-38
Extension Class of Service Assignment	3-39
Ringback Tone From ML Keys	3-40
SLT Hookflash	3-41
Extension Ring Pattern	3-42
Digital SLT Receiving Volume	3-44
Auto Set Relocation Code	3-45
Permanent Call Forward Type	3-47
Permanent Call Forward Extension	3-48
ML/MCO Separation	3-49
VAU Hunting Priority	3-50
SLT Disconnect Signal	3-51
VAU Port Assignment	3-52
Hot Dial Pad	3-53
Auto-Redial on Extensions .	3-54

---

## Chapter 4. Ringing and Hunt Groups (FF4)

CO Day Ring Assignments	4-3
CO Day Ring Assignments for Hunt Groups	4-4
CO Night 1 Ring Assignments	4-5
CO Night 1 Ring Assignments for Hunt Groups	4-6
Hunt Group Pilot Numbers	4-7
Hunt Group Type	4-9
Transfer Extension	4-10
Hunt Group Transfer Timer	4-11
Hunt Group Members	4-12

Call Coverage Group Members	4-13
CO Delayed Day Ring Assignments	4-14
CO Delayed Day Ring Assignments for Hunt Groups	4-15
CO Delayed Night 1 Ring Assignments	4-16
CO Delayed Night 1 Ring Assignments for Hunt Groups	4-17
Extension Ring Table	4-18
Extension Delayed Ring Table	4-19
CO Night 2 Ring Assignments	4-20
CO Night 2 Ring Assignments for Hunt Groups	4-21
CO Delayed Night 2 Ring Assignments	4-22
CO Delayed Night 2 Ring Assignments for Hunt Groups	4-23

---

## Chapter 5. FF Key Programming (FF5)

FF Key Assignments for Extensions	5-3
FF Key Assignments for DSS or EM/24 Consoles	5-6

---

## Chapter 6. Name and Message Assignments (FF6)

Extension Name	6-3
System Speed Dial Names	6-5
Personal Speed Dial Names	6-6
Absence Messages	6-7
Trunk Name Assignment	6-9
Hunt Group Name Assignment	6-10
Call Waiting/OHVA Text Reply	6-11

---

## Chapter 7. Toll Restrictions (FF7)

An Overview of Toll Restrictions	7-3
International Calling For TRS Types 3-6	7-5
Dialing Restriction During Inbound Trunk Calls for TRS Types 3-6	7-7
Maximum Dialed Digits For TRS Types 3-6	7-8
3-Digit Toll Restriction For TRS Types 2-6	7-9
7-Digit Toll Restriction For TRS Types 2-6	7-10
Dialing Plan Switch	7-11
Operator Access	7-12
International Calling on Extensions	7-13
Country Code Table	7-14
Equal Access Code Format	7-15
Office Code Restriction Table For TRS Types 2-6	7-16
Area Code Table For TRS Types 3-6	7-17
Office Code Table For TRS Types 3-6	7-18

Special Area Code Table For TRS Types 3-6	7-19
Special Office Code Table For TRS Types 3 6	7-20
Special 7-Digit Table For TRS Types 2-6	7-21
Day TRS Types O-7 for Trunks	7-22
Night TRS Types O-7 for Trunks	7-23
Area Code Table For TRS Types 3-6 (Global Copy)	7-24
Office Code Table For TRS Types 3-6 (Global Copy)	7-25
Area & Office Code Table for TRS Types 3-6 (Global Copy)	7-26
Special Office Code Table For TRS Types 3 6 (Global Copy)	7-27

---

## Chapter 8. Least Cost Routing (FF8)

An Overview of Least Cost Routing	8-3
Least Cost Routing (LCR) Area Codes	8-7
Least Cost Routing (LCR) Office Codes	8-8
Special LCR Area Codes	8-9
Special LCR Office Code Tables	8 10
Time Priority Route Tables	8-11
LCR Trunk Groups	8-13
LCR Delete Tables	8-15
LCR Add Tables	8-16

---

## Chapter 9. Copy Program Settings (FF9)

Trunk Copy	9-3
Extension Copy	9-4
FF Key Copy	9-5

---

## Chapter 10. Speed Dial Programming (FF10)

System Speed Dial Numbers	10-3
Personal Speed Dial Numbers	10-5

---

## Appendix A. Large-Screen Displays

---

## Appendix B. Terminal Programming

---

# List of Figures

Figure 1 CPC memory clear switch	Intro-4
Figure 2 Phone keys used in programming mode	Intro-6
Figure 1-1 Soft key numbering on large-display phones	1-63
Figure 1-2 Example CO ring cycle detection timing	1-93
Figure 5-1 DSS/72 key layout	5-6
Figure 6-1 DSS/72 key usage for name assignment	6-3

---

# List of Tables

Table 1 DBS 824 program structure	Intro-5
Table 2 Default program settings	Intro-8
Table 1-1 SLT hookflash control	1 15
Table 1-2 Transfer ring patterns	1 33
Table 1-3 Disconnect signal duration values	1-36
Table 1-4 Speed-dial number ranges in Standard and Add-On modes	1-38
Table 1-5 Class of Service features	1 58
Table 1-6 Feature codes that can be assigned to soft keys on custom screens	1 64
Table 1-7 Recall timer values for attendant-held CO calls	1-78
Table 1-8 Recall timer values for extension-held CO calls	1-79
Table 1-9 Recall timer values for attendant-transferred CO calls	1 80
Table 1-10 Recall timer values for extension-transferred CO calls	1-81
Table 1-11 Attendant park hold recall timer values	1-82
Table 1-12 Extension park hold recall timer values	1-83
Table 1-13 Attendant call reversion timer values	1-84
Table 1-14 Unsupervised conference timer values	1-86
Table 1-15 Automatic pause timer values	1-88
Table 1-16 CO flash timer values	1-90
Table 1-17 SLT flash timer values	1-92
Table 1-18 Inbound ring cycle expansion timer values	1-95
Table 1-19 Dial pause timer values	1-96
Table 1-20 PBX flash timer values	1-98
Table 1-21 Call forward--no answer timer values	1 99
Table 1-22 Recall timer values for attendant-held intercom calls	1-100
Table 1-23 Recall timer values for extension-held intercom calls	1-101
Table 1-24 Recall timer values for attendant-transferred intercom calls	1-102
Table 1-25 Recall timer values for extension-transferred intercom calls	1-103
Table 1-26 Timer values for CO delayed ringing	1-104
Table 1-27 Timer values for extension delayed ringing	1-106
Table 1-28 Hunt group no answer timer values	1-108
Table 1-29 Auto-Repeat dialing wait timer values	1-111
Table 1-30 BT detection timer values	1-113
Table 1-31 DT detection timer values	1-115
Table 1-32 Door phone ring timer values	1-127
Table 2-1 Inbound ring patterns	2-14
Table 2-2 Trunk disconnect detection timer	2-15
Table 3-1 Terminal types	3-5
Table 3-2 Available menus for idle display	3-22
Table 3-3 Available menus during intercom dial tone	3-24
Table 3-4 Available menus when calling an extension	3-26
Table 3-5 Available menus when accessing CO dial tone	3-28



Table 3-6	Available menus when conversing on a CO trunk	3-30
Table 3-7	Available menus when receiving a page	3-32
Table 3-8	Available menus after receiving a call waiting tone	3 34
Table 3-9	Available menus when dialing a busy extension	3 36
Table 3- 10	Extension ring patterns	3-42
Table 5-1	Feature codes for FF key assignment	5-4
Table 6- 1	Preset Absence Messages O-4	6-7
Table 6-2	Default call waiting/OHVA text reply messages	6-11
Table 7- 1	Toll restriction types	7-3
Table 7-2	Maximum number of dialed digits for TRS types 3-6	7-8
Table 7-3	Differences between old and new dialing plans	7-11
Table 8- 1	Time priority route table	8-4
Table 8-2	LCR table descriptions	8-4
Table 8-3	LCR table	8-5
Table 8-4	LCR time periods and positions used	8-11
Table 8-5	LCR trunk selection	8-13
Table 10-1	System Speed Dial ranges	10-3
Table 10-2	DSS key functions in System Speed Dial programming;	10-4
Table 10-3	Personal Speed Dial ranges	10-5
Table 10-4	DSS key functions in Personal Speed Dial programming	10-6
Table B- 1	Terminal programming commands	B-2
Table B-2	Codes for switching SMDR/Bus Monitor modes	B-3

---

# Introduction to DBS 824 Programming

This introduction provides an overview of DBS 824 programming from the phone. For descriptions of other DBS 824 programming methods see Appendix B of this manual.

The following table summarizes the topics contained in this introduction.

Topic	Page
Before You Begin	Intro-3
Preparations for Programming	Intro 3
Initializing New Systems	Intro-4
Understanding FF Key Programming	Intro 5
Program Structure	Intro-5
How to Enter the Programming Mode	Intro 6
Example Programming Entry	Intro-7
Default Program Settings	Intro-8



---

# Before You Begin

This section describes preparations that should be completed **before you start programming**. If you are familiar with FF key programming for DBS systems, you may begin programming as soon as these preparations have been made.

If you are new to DBS programming, be sure to read “**Understanding FF Key Programming**” on page Intro-5 before you begin.

## Preparations for Programming

Prior to programming the DBS 824 system, make sure you have completed the following steps:

- 1 Confirm that the DBS 824’s features meet customer requirements. DBS 824 feature descriptions **are** contained in **Feature Operation (Section 700)** of this manual.
- 2 Confirm that you have the DBS 824 hardware required for the end user.
- 3 Use **Forms and Tables (Section 4.50)** to record the customer’s site data. Use the following guidelines when completing **Forms and Tables**:
  - Be sure to record **all** program entries.
  - Leave the default values for equipment that is not connected.
  - Pay careful attention to program items that require a power-down to take effect. Be sure to complete the necessary programming in these areas before you make the system operational.
- 4 To program a new DBS 824 system, you must first initialize the software to default values (see “**Initializing New Systems**”, next page).

Once these steps are completed, use the site data in **Forms and Tables** to program the system.

## Initializing New Systems

Before programming a newly installed DBS 824 system, set its programs to the default values by performing the following procedure

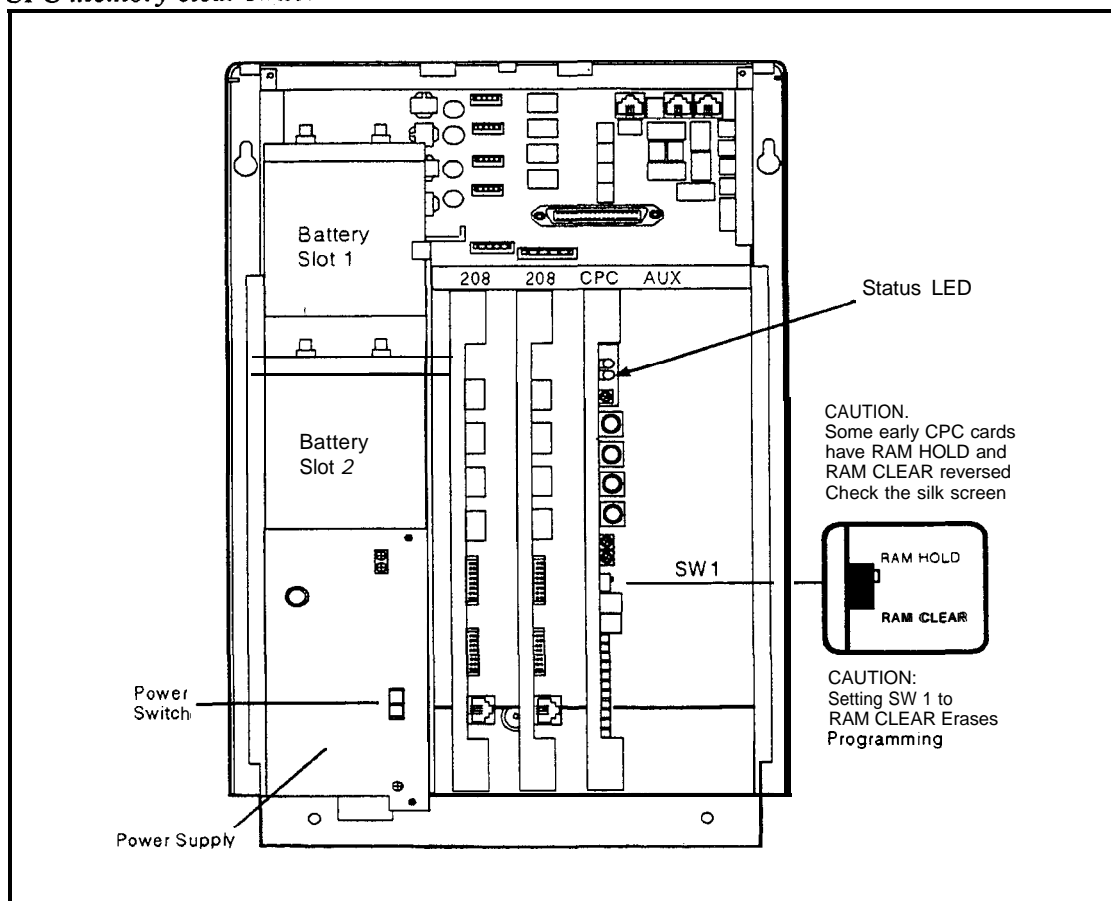


**Important:** This procedure **must** be performed prior to programming the DBS 824 for the first time. Failure to initialize the CPC (Central Processing Card) may cause operational problems

This initialization procedure can also be used when you want to return all changed programs to the default values

- 1 Power-off the DBS 824 (set power switch to OFF)
- 2 Slide the CPC's SW1 switch to **RAMCLEAR**

**Figure 1** CPC memory clear switch



- 3 Power-on the DBS 824, then wait until the bottom status LED on the CPC card stops flashing (approximately 10 seconds)
- 4 Slide SW1 to the **RAMHOLD** position

# Understanding FF Key Programming

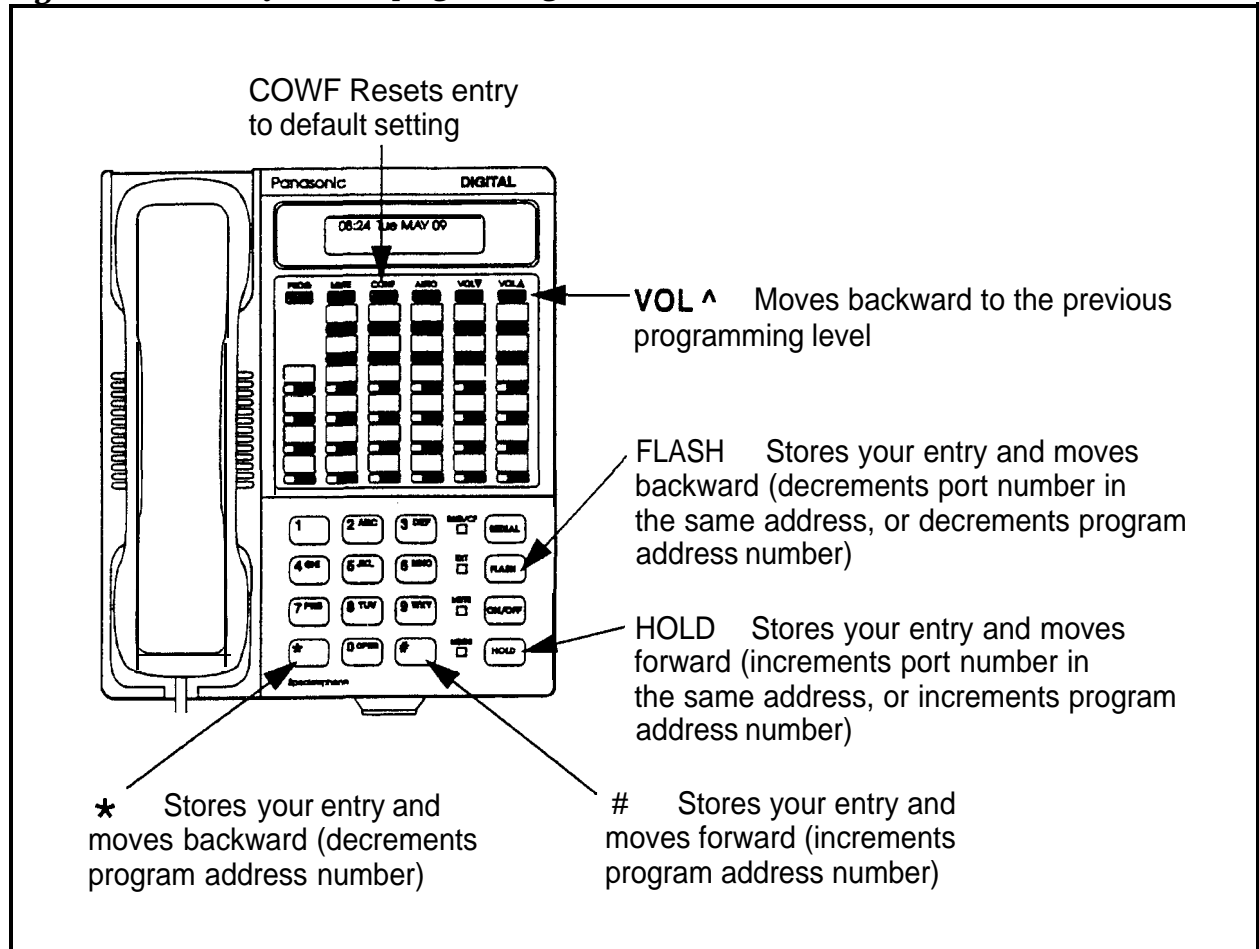
## Program Structure

Program entries for the DBS 824 are divided into 10 primary groups (listed in Table 1 below). Each programming group has its own Flexible Function (FF) key on the phone. (The FF keys can be identified by their LEDs on the left side of the key.) After you enter the programming mode (see “**How to Enter the Programming Mode**”, next page), press the FF key of the desired group to start programming the entries (called “addresses”) of the group.

*Table 1 DBS 824 program structure*

<b>FF Key</b>	<b>Programming Group</b>
FF1	System settings
FF2	CO Trunk settings
FF3	Extension settings
FF4	Ring Assignments and Hunt Groups
FF5	FF Key Assignments
FF6	Names and Messages on LCD Display
FF7	Toll Restrictions (TRS)
FF8	Least Cost Routing (LCR)
FF9	Copy Program Settings
FF10	Speed-Dialing (system and personal)

in the programming mode, several of the phone keys can be used to store your settings and move forward or backward through the program addresses. Figure 2 (next page) identifies these keys and what they do in the programming mode.

**Figure 2 Phone keys used in programming mode**

## How to Enter the Programming Mode

### ***From the Attendant Port***

Programming can be performed from the attendant display phone. A phone that is connected to extension port 1 with an extension number of 100 is automatically an attendant phone. By default, extension port 2 (extension number 101) is the second attendant phone, although this extension can be reprogrammed. Up to two other phones (four total) can also be programmed to be the third and fourth attendant phone. Programming is also possible from other extensions (see **'From a Non-Attendant Port'** on page Intro-7).

To enter the programming mode from the attendant phone

- 1 Press ON/OFF
- 2 Press PROG
- 3 Press the pound sign twice (##)

4 Press the desired FF key

### Notes

- . Name settings can only be programmed from the attendant telephone or a DSS console connected to it
- . When you enter the programming mode through an attendant phone, the system will automatically change to the “Night” mode. After exiting the programming mode, the system will return to the appropriate Day/Night/Night 2 mode according to the system clock and the mode’s start time

### *From a Non-Attendant Port*

When programming from a display telephone other than an attendant, follow these steps

- 1 Press ON/OFF
- 2 Dial #98
- 3 Enter the programming authorization code (9999 by default)
- 4 Press PROG
- 5 Press the pound sign twice (##)
- 6 Press the desired FF key, and proceed with programming

## Example Programming Entry

If you’re unfamiliar with DBS programming, use the following example to guide you through a simple programming change

This example explains how to set the DBS time and date from an attendant phone

- 1 Press [ON/OFF], [PROG] ( F is displayed), # ( F# is displayed), # ( Program Mode is displayed on line 1, “MAIN MODE is displayed on line 2)



- 2 Press [FF1] ( **System Program** is displayed on line 1, **SELECT SUB MODE** is displayed on line 2)
- 3 Press 1, # ( **SELECT TIME MODE** is displayed on line 1, **DATE 2 TIME** is displayed on line 2)
- 4 Press 1 # ( **DATE SET MODE** is displayed on line 1, **MONTH/DAY/ YEAR** is displayed on line 2)
- 5 From the keypad, enter the new date in the following format
  - Enter month as MM
  - Enter date as DD
  - Enter year as YY
- 6 Press # to store the program change. Then press the [ON/OFF] key to exit programming mode, the new date is displayed on all phones with an LCD

## Default Program Settings

The following table shows the default settings for all DBS 824 program addresses. Some of these addresses contain number ranges which are shown in parentheses. These are the acceptable ranges for **trunk** numbers, extension ports, etc in a CPC-M configuration with two 208 Expansion Cards. In the following chapters of this Programming section, the address explanations will also show the acceptable number ranges for the CPC-S configuration with one 208 Expansion Card.

**Table 2** *Default program settings*

Address	Program	Default
<b>FF1: System Settings</b>		
<i>FF1 1# and FF1 2# 1# General Parameters</i>		
FF1 1# 1# (MMDDYY)#	Day/Date Setting	Sun JAN 1
FF1 1# 2# (HHMM)#	Time Setting	12 00
FF1 2# 1# 1# (Oor 1)#	Call Duration Display	Displayed
FF1 2# 1# 2# (0-2)#	SMDR Start Timer for CO Calls	Begins after 5 sec
FF1 2# 1# 3# (Oor 1)#	Least Cost Routing(LCR) Access	Pooled trunk
FF1 2# 1# 4# (SSD)#	Override Toll Restriction With SSD Numbers	No TRS override
FF1 2# 1# 5# (0 or 1)#	SSD Display Restriction	SSD digits are displayed

Address	Program	Default
FF1 2# 1# 6# (0 or 1)#	Auto Flash Redial	REDIAL sends flash
FF1 2# 1# 7# (0 or 1)#	One Touch Dial	Enabled
FF1 2# 1# 8# (0 or 1)#	Onhook Transfer	Enabled
FF1 2# 1# 9# (0 or 1)#	Key Bank Hold	Disabled
FF1 2# 1# 10# (0 or 1)#	Non-Appearing Trunk Hold	Systemhold
FF1 2# 1# 11# (0 or 1)#	SLT Flash Control	Retrieves held call
FF1 2# 1# 12# (0 or 1)##	Extension Number Digits	3 digits
FF1 2# 1# 13# (0 or 1)#	Attendant Intercom Calling	Voice calling
FF1 2# 1# 14# (0 or 1)#	Extension Intercom Calling	Voice calling
FF1 2# 1# 15# (0 or 1)#	Alert Tone for Voice Calls	Enabled
FF1 2# 1# 16# (0 or 1)#	Alert Tone for <b>Busy</b> Override & OHVA	Disabled
FF1 2# 1# 17# (0 or 1)#	System Installation Area Code	1 + Area
FF1 2# 1# 18# (0 or 1)#	SSD Name Display	5 names
FF1 2# 1# 19# (ExtPort)#	API/SLT Assignment	No assignment
FF1 2# 1# 20# (0 or 1)#	Voice Mail Busy Tone	Silence
FF1 2# 1# 21# (0 or 1)#	Delayed Ring	Disabled
FF1 2# 1# 22# (101-699)#	Second Attendant Position	Ext 101
FF1 2# 1# 23# (101-699)#	Third Attendant Position	<b>None</b>
FF1 2# 1# 24# (101-699)#	Fourth Attendant Position	None
FF1 2# 1# 25# (101-699)#	Attendant Transfer Extension	<b>None</b>
FF1 2# 1# 26# (0 or 1)#	Attendant Override	Enabled
FF1 2# 1# 27# (0 or 1)#	Extension( <b>BLF</b> )Delayed Ring	No delayed ring
FF1 2# 1# 28# (0 6)#	Transfer Ring Pattern	25 sec ON / 25 sec OFF / 25 sec ON / 3 25 sec OFF
FF1 2# 1# 29# (0 or 1)#	Page Duration	Unlimited
FF1 2# 1# 30# (0 or 1)#	SLT DISA Ring Pattern	1 sec on/3 sec off
FF1 2# 1# 31# (0-15)#	SLT Disconnect Duration	No signal sent
FF1 2# 1# 32# (0 2)#	Call Duration Timer	After 5 sec
FF1 2# 1# 33# (0 or 1)#	Speed Dial Mode	CPC-S Standard CPC-M Add-On
FF1 2# 1# 34# (0-15)#	Auto-Repeat Dialing Count	15 digits
FF1 2# 1# 35# (0 2)#	Install OPL Port	None
FF1 2# 1# 36# (0-2)#	Music-On-Hold Sound Source	CN8 phono jack
FF1 2# 1# 37# (0 or 1)#	EPI Audio Control	External Paging
FF1 2# 1# 38# (0 or 1)#	CO-to-CO Talk Mode Control	Connect trunks directly

Address	Program	Default
<b>FF1 2# 2# SMDR Data (Serial Port CNI)</b>		
FF1 2# 2# 1# (0 or 1)#	Parity Check (SMDR)	On
FF1 2# 2# 2# (0 or 1)#	Odd/Even Parity (SMDR)	Even
FF1 2# 2# 3# (1-4)#	Baud Rate (SMDR)	9600 bps
FF1 2# 2# 4# (1-3)#	Stop Bit Length (SMDR)	1 bit
FF1 2# 2# 5# (3 or 4)#	Data Length (SMDR)	8 bits
FF1 2# 2# 6# (0 or 1)#	SMDR Serial Port Flow Control (X-ON/X-OFF)	No flow control
FF1 2# 2# 7# (0 or 1)#	SMDR Printing Mode 1 Outbound and Inbound	In&Outbound
FF1 2# 2# 8# (0 or 1)#	SMDR Printing Mode 2 Long-Distance and Local Calls	Long-Distance and Local Calls
FF1 2# 2# 9# (0 or 1)#	SMDR Printing Mode 3 Header Title	No header titles
<b>FF1 2# 3# PBX Settings</b>		
FF1 2# 3# (1-8)# (O-999 or 0* 99*)	PBX Access Code(s)	None
FF1 2# 3# (9-18)# (1-3)#	Automatic Pause Position for PBX Access Codes	None
<b>FF1 2# 4# External (UNA) Relay Control</b>		
FF1 2# 4# 1# (0 or 1)#	Ring Patterns for UNA Terminals (M C & B)	1 sec on/3 sec off
FF1 2# 4# (2-9)# (0 or 1)#	External Page Interface Control for Paging Groups	Internal paging
<b>FF1 2# 5# Class of Service</b>		
FF1 2# 5# (1-8)# (1-21)# (0 or 1)#	Extension Class of Service	Classes 1-8 Restrict all features
<b>FF1 2# 6# Account Codes</b>		
FF1 2# 6# (1-100)# 1# (0001-9999)#	Verified Forced Account Codes	None set
FF1 2# 6# (1-100)# 2# (0-7)#	Toll Restriction for Verified Forced Account Codes	TRS Type 0
<b>FF1 2# 7# Custom Screens for Large-Display Phones</b>		
FF1 2# 7# 1# (25-39)# (1-10)# (Code)#	Custom Screen Soft Key Assignment	None
FF1 2# 7# 2# (25-39)# (1-10)# (Text)#	Custom Screen Text	None
FF1 2# 7# 3# (25-39)# (0 or 1)#	Custom Screen Default	None
FF1 2# 7# 4# (0 or 1)#	Custom Screens Default (All)	None
<b>FF1 2# 8# Caller ID Automatic DISA</b>		
FF1 2# 8# (1-10)# (PhoneNo)#	Automatic DISA Callers	None

Address	Program	Default
<b>FF1 2# 9# Maintenance Data (Serial Port CN2)</b>		
FF1 2# 9# 1# (0 or 1)#	Parity Check (Maintenance Port)	On
FF1 2# 9# 2# (0 or 1)#	Odd/Even Parity (Maintenance Port)	Even
FF1 2# 9# 3# (1-4)#	Baud Rate (Maintenance Port)	9600 bps
FF1 2# 9# 4# (1-3)#	Stop Bit Length (Maintenance Port)	1 bit
FF1 2# 9# 5# (3 or 4)#	Data Length (Maintenance Port)	8 bits
FF1 2# 9# 6# (0 or 1)#	Maint. Serial Port Flow Control (X ON/X OFF)	No flow control
<b>FF1 3# System Timers</b>		
FF1 3# 1# (0000-2359)#	Automatic Night 1 Mode Start Time	Not set
FF1 3# 2# (0-12)#	Attendant Hold Recall Timer for CO Calls	20 sec
FF1 3# 3# (0-12)#	Extension Hold Recall Timer for CO Calls	140 sec
FF1 3# 4# (0-12)#	Attendant Transfer Recall Timer for CO Calls	20 sec
FF1 3# 5# (0-12)#	Extension Transfer Recall Timer for CO Calls	140 sec
FF1 3# 6# (0-12)#	Attendant Park Hold Recall Timer	20 sec
FF1 3# 7# (0-12)#	Extension Park Hold Recall Timer	140 sec
FF1 3# 8# (0-12)#	Attendant Call Reversion Timer	180 sec
FF1 3# 9# (0-15)#	Unsupervised Conference Timer	10 min
FF1 3# 10# (0-15)#	Automatic Pause Timer	35 sec
FF1 3# 11# (0-15)#	CO Flash Timer	1 sec
FF1 3# 12# (0-6)#	SLT Onhook Flash Tier	200 to 1500 ms
FF1 3# 13# (0-3)#	CO Ring Cycle Detection Tier	6 sec
FF1 3# 14# (0-15)#	Inbound Ring Cycle Expansion Timer	350 ms
FF1 3# 15# (0-15)#	Dial Pause Timer	15 sec
FF1 3# 16# (0-10)#	PBX Flash Timer	8 sec
FF1 3# 17# (0-15)#	Call Forward--No Answer Timer	After 12 sec
FF1 3# 18# (0-12)#	Attendant Hold Recall Timer for Intercom Calls	40 sec
FF1 3# 19# (0-12)#	Extension Hold Recall Timer for Intercom Calls	140 sec
FF1 3# 20# (0-12)#	Attendant Transfer Recall Timer for Intercom Calls	20 sec
FF1 3# 21# (0-12)#	Extension Transfer Recall Timer for Intercom Calls	140 sec
FF1 3# 22# (0-15)#	CO Delayed Ring Timer	After 12 sec
FF1 3# 23# (0-15)#	Extension Delayed Ring Tier	After 12 sec
FF1 3# 24# (0-15)#	Hunt Group No Answer Timer	After 12 sec
FF1 3# 25# (HHMM)#	Automatic Day Mode Start Time	No setting
FF1 3# 26# (0-15)#	Wait Timer for Auto-Repeat Dialing	40 sec
FF1 3# 27# (0-15)#	Busy Tone (BT) Detection Timer	2 sec

Address	Program	Default
FF1 3# 28# (0 255)#	Dial Tone (DT) Detection Timer	150
FF1 3# 29# (HHMM)#	Automatic Night 2 Mode Start Time	No setting
<b>FF1 4# Remote Programming and DISA Codes</b>		
FF1 4# (0000-9999)#	Remote Programming ID Code	9999
<b>FF1 5# and FF1 6#: DISA ID Codes</b>		
FF1 5# (0000-9999)#	DISA Inbound Call ID Code	Not set
FF1 6# 1# (0000-9999)#	DISA Outbound Call ID Code 1	1111
FF1 6# 2# (0000-9999)#	DISA Outbound Call ID Code 2	9999
<b>FF1 7# Programming Authorization Code</b>		
FF1 7# (0000-9999)#	ID Code for System Programming	9999
<b>FF1 8# 1# and FF1 8# 2# New Function Reset</b>		
FF1 8# 1# (0 or 1)#	- Reserved for future use -	
FF1 8# 2# (0 or 1)#	- Reserved for future use --	
<b>FF1 - 8# - 3# Door Phones</b>		
FF1 8# 3# (1-4)# 1# (3-24)#	Door Phone Extensions	None
FF1 8# 3# (1 4)# 2# (1 24)# (0 or 1)#	Door Phone Ring Assignments	Do not ring ext
FF1 8# 3# (1-4)# 3# (0000-9999)#	Door Opener Access Code	9999
FF1 8# 3# (1 4)# 4# (0 or 1)#	Door Phone Tone Type	Door chime
FF1 8# 3# (1 4)# 5# (0-15)#	Door Phone Ring Timer	20 sec
FF1 8# 3# (1-4)# 6# (0-5)#	Door Phone Ring Pattern	4 sec between rings
FF1 8# 3# (1-4)# 7# (0-5)#	Door Opener Relay Timer	Open for 4 sec
<b>FF2: Trunk Programming</b>		
FF2 (1-8)# 1# (0 or 1)#	Trunk Port Operation	All trunks in servc
FF2 (1-8)# 2# (0 or 1)#	DTMF/Pulse Dialing for Trunks	DTMF
FF2 (1-8)# 3# (0 or 1)#	Pooled Trunk Access for Group 9	All lines access
FF2 (1-8)# 4# (0 or 1)#	Pooled Trunk Access for Group 81"	No lines access
FF2 (1-8)# 5# (0 or 1)#	Pooled Trunk Access for Group 82	No lines access
FF2 (1-8)# 6# (0 or 1)#	Pooled Trunk Access for Group "83'	No lines access
FF2 (1-8)# 7# (0 or 1)#	Pooled Trunk Access for Group ' 84	No lines access
FF2 (1-8)# 8# (0 or 1)#	Pooled Trunk Access for Group "85"	No lines access
FF2 (1-8)# 9# (0 or 1)#	Pooled Trunk Access for Group 86"	No lines access
FF2 (1-8)# 10# (1 or 2)#	Trunk Port Type	CO trunk
FF2 (1-8)# 11# (0 or 1)#	DISA Auto Answer	Disabled

Address	Program	Default
FF2 (1-8)# 12# (1-24)#	Private Trunk Line	No private lines
FF2 (1-8)# 13# (0 or 1)#	Automatic Pause for PBX Line	No auto pause
FF2 (1-8)# 14# (0 or 1)#	Dial Tone Detection	Dial pause timer
FF2 (1-8)# 15# (1-3)#	Outbound DTMF Signal Duration for Auto-Dialed Digits	75ms ON / 50ms OFF
FF2 (1-8)# 16# (0 or 1)#	Unsupervised Trunk Conference	Disabled
FF2 (1-8)# 17# (0-9)#	Inbound Ring Signal Pattern	Synchronized
FF2 (1-8)# 18# (0-15)#	Trunk Disconnect Detection Timer	Over 350ms
FF2 (1-8)# 19# (HHMM)#	DISA Start Time	Disabled
FF2 (1-8)# 20# (HHMM)#	DISA End Time	Disabled
FF2 (1-8)# 21# (0 or 1)#	Trunk Circuit Type	Loop start
FF2 (1-8)# 22# (0 or 1)#	CO Busy Tone Detection	Off
<b>FF3: Extension Programming</b>		
FF3 (1-24)# 1# (10-69 or 100-699)#	Extension Numbers	10-23 or 100 123
FF3 (1-24)# 2# (1-15)#	Terminal Type	Automatically set
FF3 (1-24)# 3# (1-24)#	EM/24 Port Assignment	None
FF3 (1-24)# 4# (0 or 1)#	Forced Least Cost Routing	No forced LCR
FF3 (1-24)# 5# (0-2)#	Forced Account Codes	No code set
FF3 (1-24)# 6# (0000-9999)#	Extension Lockout Code	No code set
FF3 (1-24)# 7# (0 or 1)#	Offhook Signal (CO)	Ext 100 Enabled 101-124: Disabled
FF3 (1-24)# 8# (0 or 1)#	Call Waiting/OHVA	Enabled
FF3 (1-24)# 9# (0 or 1)#	Busy Override Send	Disabled
FF3 (1-24)# 10# (0 or 1)#	Busy Override Receive	Enabled
FF3 (1-24)# 11# (0 or 1)#	Prime Line Pickup	Disabled
FF3 (1-24)# 12# (0 or 1)#	Auto Pickup (Ringing Line)	Enabled
FF3 (1-24)# 13# (0 or 1)#	Unsupervised Conference	Disabled
FF3 (1-24)# 14# (0 or 1)#	SMDR Report	Include ext on report
FF3 (1-24)# 15# (0-4)#	Offhook Signal Volume	2nd highest level
FF3 (1-24)# 16# (0 or 1)#	Offhook Signal Pattern	Repeated tone burst
FF3 (1-24)# 17# (0 or 1)#	PSD Name Display on Large-Sized LCDs	5 names
FF3 (1-24)# 18# (0 or 1)#	Page Group '0' Extensions	None
FF3 (1-24)# 19# (0 or 1)#	Page Group '1' Extensions	None
FF3 (1-24)# 20# (0 or 1)#	Page Group '2' Extensions	None
FF3 (1-24)# 21# (0 or 1)#	Page Group 3 Extensions	None

Address	Program	Default
FF3 (1 24)# 22# (Oor 1)#	Page Group '4' Extensions	None
FF3 (1 24)# 23# (0 or 1)#	Page Group 5 Extensions	None
FF3 (1-24)# 24# (0 or 1)#	Page Group 6 Extensions	None
FF3 (1-24)# 25# (0 or 1)#	Page Group 7 Extensions	None
FF3 (1 24)# 26# (0 39)#	Display When Idle	Previous menu
FF3 (1 24)# 27# (0 39)#	Display During Intercom Dial Tone	Previous menu
FF3 (1 24)# 28# (0-39)#	Display When Calling an Extension	Previous menu
FF3 (1 24)# 29# (0-39)#	Display When Accessing CO Dial Tone	Previous menu
FF3 (1 24)# 30# (0-39)#	Display When Conversing on a CO Trunk	Previous menu
FF3 (1 24)# 31# (0-39)#	Display When Receiving a Page	Previous menu
FF3 (1-24)# 32# (0-39)#	Display After Receiving a Call Waiting Tone	Previous menu
FF3 (1 24)# 33# (0-39)#	Display When Dialing a Busy Extension	Previous menu
FF3 (1-24)# 34# (0 or 1)#	Extension Directory Display	5 names
FF3 (1-24)# 35# (0-8)#	Extension Class of Service Assignment	Class 0
FF3 (1-24)# 36# (0-2)#	Ringback Tone from ML Keys	Ringback then busy tone
FF3 (1-24)# 37# (Oor 1)#	SLT Hookflash	Broker s hold
FF3 (1 24)# 38# (0-9)#	Extension Ring Pattern	Determined by CO
FF3 (1-24)# 39# (0 or 1)#	Digital SLT Receiving Volume	Normal
FF3 (1-24)# 40# (0001-9999)#	Auto Set Relocation Code	None set
FF3 (1-24)# 41# (0-3)#	Permanent Call Forward Type	Not set
FF3 (1 24)# 42# (10-69 or 100-699)#	Permanent Call Forward Extension	None set
FF3 (1 24)# 43# (0 or 1)#	ML/MCO Separation	ML keys
FF3 (1-24)# 44# (0 or 1)#	VAU Hunting Priority	No priority
FF3 (1-24)# 45# (0 or 1)#	SLT Disconnect Signal	No signal sent
FF3 (1-24)# 46# (Oor 1)#	VAU Port Assignment	No assignment
FF3 (1-24)# 47# (Oor 1)#	Hot Dial Pad	Disabled
FF3 (1 24)# 48# (0 or 1)#	Auto-Redial on Extensions	Disabled
<b>FF4: Ringing and Hunt Groups</b>		
<b>FF4 1# and FF4 2# CO Trunk Ring Assignments</b>		
FF4 1# (1-25)# (1-8)# (0 or 1)#	CO Day Ring Assignments	No ringing
FF4 1# (3 1-34)# (1-8)# (0 or 1)#	CO Day Ring Assignments for Hunt Groups	No ringing
FF4 2# (1-25)# (1-8)# (0 or 1)#	CO Night 1 Ring Assignments	No ringing
FF4 2# (3 1-34)# (1-8)# (0 or 1)#	CO Night 1 Ring Assignments for Hunt Groups	No ringing

Address	Program	Default
<b><i>FF4 3# Hunt Group Settings</i></b>		
FF4 3# (1-4)# 1# (11-69 or 101-699)#	Hunt Group Pilot Numbers	None
FF4 3# (1-4)# 2# (0-2)#	Hunt Group Type	Terminal hunting
FF4 3# (1-4)# 3# (10-69 or 100-699)#	Transfer Extension	000
FF4 3# (1-4)# 4# (0-32)#	Hunt Group Transfer Timer	2 sec
FF4 3# (1-4)# 5# (10-69 or 100-699)#	Hunt Group Member (Position 1)	None
FF4 3# (1-4)# 6# (10-69 or 100-699)#	Hunt Group Member (Position 2)	None
FF4 3# (1-4)# 7# (10-69 or 100-699)#	Hunt Group Member (Position 3)	None
FF4 3# (1-4)# 8# (10-69 or 100-699)#	Hunt Group Member (Position 4)	None
FF4 3# (1-4)# 9# (10-69 or 100-699)#	Hunt Group Member (Position 5)	None
FF4 3# (1-4)# 10# (10-69 or 100-699)#	Hunt Group Member (Position 6)	None
FF4 3# (1-4)# 11# (10-69 or 100-699)#	Hunt Group Member (Position 7)	None
FF4 3# (1-4)# 12# (10-69 or 100-699)#	Hunt Group Member (Position 8)	None
FF4 3# (1-4)# 13# (10-69 or 100-699)#	Hunt Group Member (Position 9)	None
FF4 3# (1-4)# 14# (10-69 or 100-699)#	Hunt Group Member (Position 10)	None
FF4 3# (1-4)# 15# (10-69 or 100-699)#	Hunt Group Member (Position 11)	None
FF4 3# (1-4)# 16# (10-69 or 100-699)#	Hunt Group Member (Position 12)	None
FF4 3# (1-4)# 17# (10-69 or 100-699)#	Hunt Group Member (Position 13)	None
FF4 3# (1-4)# 18# (10-69 or 100-699)#	Hunt Group Member (Position 14)	None
FF4 3# (1-4)# 19# (10-69 or 100-699)#	Hunt Group Member (Position 15)	None
FF4 3# (1-4)# 20# (10-69 or 100-699)#	Hunt Group Member (Position 16)	None
<b><i>FF4 4# Call Coverage Group Settings</i></b>		
FF4 4# (1-4)# 1# (10-69 or 100-699)#	Call Coverage Group Member (Position 1)	None



Address	Program	Default
FF4 4# (1 4)# 2# (10-69 or 100 699)#	Call Coverage Group Member (Position 2)	None
FF4 4# (1-4)# 3# (10-69 or 100 699)#	Call Coverage Group Member (Position 3)	None
FF4 4# (1-4)# 4# (10-69 or 100- 699)#	Call Coverage Group Member (Position 4)	None
FF4 4# (1-4)# 5# (10-69 or 100- 699)#	Call Coverage Group Member (Position 5)	None
FF4 4# (1-4)# 6# (10-69 or 100 699)#	Call Coverage Group Member (Position 6)	None
FF4 4# (1-4)# 7# (10-69 or 100 699)#	Call Coverage Group Member (Position 7)	None
FF4 4# (1-4)# 8# (10-69 or 100- 699)#	Call Coverage Group Member (Position 8)	None
<i>FF4 5# and FF4 6# CO Trunk Delayed Ring Assignments</i>		
FF4 5# (1-25)# (1-8)# (0 or 1)#	CO Delayed Day Ring Assignments	No delayed ringing
FF4 5# (31-34)# (1 8)# (0 or 1)#	CO Delayed Day Ring Assignments for Hunt Groups	No delayed ringing
FF4 6# (1-25)# (1-8)# (0 or 1)#	CO Delayed Night 1 Ring Assignments	No delayed ringing
FF4 6# (31-34)# (1-8)# (0 or 1)#	CO Delayed Night 1 Ring Assignments for Hunt Groups	No delayed ringing
<i>FF4 7# Extension Ring Assignments</i>		
FF4 7# (1-24)# (1-24)# (0 or 1)#	Extension Ring Table	No ringing
<i>FF4 8# Extension Delayed Ring Assignments</i>		
FF4 8# (1-24)# (1-24)# (0 or 1)#	Extension Delayed Ring Table	No delayed ringing
<i>FF4 9# Ring Assignments in "Night 2" Mode</i>		
FF4 9# 1# (1-25)# (1-8)# (0 or 1)#	CO Night 2 Ring Assignments	No ringing
FF4 9# 1# (31-34)# (1-8)# (0 or 1)#	CO Night 2 Ring Assignments for Hunt Groups	No ringing
FF4 9# 2# (1 25)# (1-8)# (0 or 1)#	CO Delayed Night 2 Ring Assignments	No delayed ringing
FF4 9# 2# (31-34)# (1-8)# (0 or 1)#	CO Delayed Night 2 Ring Assignments for Hunt Groups	No delayed ringing
<b>FF5: FF Key Programming</b>		
FF5 (1-24)# (1-24)# (Code)#	FF Key Assignments for Extensions	Keys 1-8=CO line
FF5 (25-28)# (1-72)# (Code)#	FF Key Assignments for DSS Consoles	DSS 1 and 3=MCO DSS 2 and 4=none

Address	Program	Default
<b>FF6: Name and Message Assignments</b>		
FF6 1# (1-24)# CONF (Name)#	Extension Name	Ext (number)
FF6 2# (SSD)# CONF (Name)#	System Speed Dial Names	SSD (number)
FF6 3# (1-24)# (PSD)# CONF (Name)#	Personal Speed Dial Names	PSD (number)
FF6 4# (5-9)# CONF (Message)#	Absence Messages	Absence No (Msg number)
FF6 5# (1-8)# CONF (Name)#	Trunk Name Assignment	TRK# (number)
FF6 6# (1-4)# CONF (Name)#	Hunt Group Name Assignment	Hunt G (number)
FF6 7# (1-5)# CONF (Message)#	Call Waiting/OHVA Text Reply	Default messages
<b>FF7: Toll Restriction Service (TRS)</b>		
FF7 1# 1# (0 or 1)#	International Calling for TRS Types 3-6	Restricted
FF7 1# 2# (0 or 1)#	Dialing Restriction During Inbound Trunk Calls for TRS Types 3-6	FLASH can originate outgoing call
FF7 1# 3# (1-15)#	Maximum Dialed Digits for TRS Types 3 6	No limit
FF7 1# 4# (0 or 1)#	211 Toll Restriction for TRS Types 2-6	Not restricted
FF7 1# 5# (0 or 1)#	3 11 Toll Restriction for TRS Types 2-6	Not restricted
FF7 1# 6# (0 or 1)#	411 Toll Restriction for TRS Types 2-6	Not restricted
FF7 1# 7# (0 or 1)#	5 11 Toll Restriction for TRS Types 2-6	Not restricted
FF7 1# 8# (0 or 1)#	611 Toll Restriction for TRS Types 2 6	Not restricted
FF7 1# 9# (0 or 1)#	7 11 Toll Restriction for TRS Types 2-6	Not restricted
FF7 1# 10# (0 or 1)#	811 Toll Restriction for TRS Types 2-6	Not restricted
FF7 1# 11# (0 or 1)#	7 Digit Toll Restriction for TRS Type 2	Not restricted
FF7 1# 12# (0 or 1)#	7-Digit Toll Restriction for TRS Type 3	Not restricted
FF7 1# 13# (0 or 1)#	7-Digit Toll Restriction for TRS Type 4	Not restricted
FF7 1# 14# (0 or 1)#	7-Digit Toll Restriction for TRS Type 5	Not restricted
FF7 1# 15# (0 or 1)#	7-Digit Toll Restriction for TRS Type 6	Not restricted
FF7 1# 16# (0 or 1)#	Dialina Plan Switch	Old plan
FF7 1# 17# (1-24)# (0 or 1)#	Operator Access	Restricted
FF7 1# 18# (1-24)# (0 or 1)#	International Calling on Extensions	Restricted
FF7 1# 19# (1-10)# (0-999)#	Country Code Table	None
FF7 1# 20# (0 or 1)#	Equal Access Code Format	10xXx
FF7 1# 21# (1-10)# (000 999)#	Office Code Restriction Table for TRS Types 2-6	None
FF7 2# (3-6)# (000-999)# (0 or 1)#	Area Code Table for TRS Types 3-6	3, 4 Restricted 5 6 Permitted

Address	Program	Default
FF7 3# (3-6)# (000 999)# (0 or 1)#	Office Code Table for TRS Types 3 6	3 Restricted 4-6 Permitted
FF7 4# (1-4)# (000 999)#	Special Area Code Table for TRS Types 3 6	None
FF7 5# (1-4)# (000 999)# (0 or 1)#	Special Office Code Table for TRS Types 3-6	1 2 Restricted 3 4 Permitted
FF7 6# (1-50)# (0000000 9999999)#	Special 7 Digit Table for TRS Types 2-6	None
FF7 7# (1-24)# (1-9)# (0-7)#	Day TRS Types 0-7 for Trunk Lines	TRS Type 7
FF7 8# (1-24)# (1-9)# (0-7)#	Night TRS Types 0-7 for Trunk Lines	TRS Type 7
FF7 9# 1# (0 or 1)#	Area Code Table for TRS Type 3 (Global Copy)	Restricted
FF7 9# 2# (0 or 1)#	Area Code Table for TRS Type 4 (Global Copy)	Restricted
FF7 9# 3# (0 or 1)#	Area Code Table for TRS Type 5 (Global Copy)	Permitted
FF7 9# 4# (0 or 1)#	Area Code Table for TRS Type 6 (Global Copy)	Permitted
FF7 9# 5# (0 or 1)#	Office Code Table for TRS Type 3 (Global COPY)	Restricted
FF7 9# 6# (0 or 1)#	Office Code Table for TRS Type 4 (Global COPY)	Restricted
FF7 9# 7# (0 or 1)#	Office Code Table for TRS Type 5 (Global COPY)	Permitted
FF7 9# 8# (0 or 1)#	Office Code Table for TRS Type 6 (Global COPY)	Permitted
FF7 9# 9# (0 or 1)#	Area & Office Code Table for TRS Type 3 (Global Copy)	Restricted
FF7 9# 10# (0 or 1)#	Area & Office Code Table for TRS Type 4 (Global Copy)	Restricted
FF7 9# 11# (0 or 1)#	Area & Office Code Table for TRS Type 5 (Global Copy)	Permitted
FF7 9# 12# (0 or 1)#	Area & Office Code Table for TRS Type 6 (Global Copy)	Permitted
FF7 9# 13# (0 or 1)#	Special Office Code Table for TRS Types 3-6 (Global Copy) - Special Area Code 1	Restricted
FF7 9# 14# (0 or 1)#	Special Office Code Table for TRS Types 3-6 (Global Copy) - Special Area Code 2	Restricted
FF7 9# 15# (0 or 1)#	Special Office Code Table for TRS Types 3-6 (Global Copy) - Special Area Code 3	Permitted
FF7 9# 16# (0 or 1)#	Special Office Code Table for TRS Types 3-6 (Global Copy) - Special Area Code 4	Permitted
<b>FF8: Least Cost Routing (LCR)</b>		
FF8 1# (1-6)# (000-999)# (0 or 1)#	LCR Area Codes	No setting

Address	Program	Default
FF8 2# (1 6)# (000-999)# (0 or 1)#	LCR Office Codes	No setting
FF8 3# (1-4)# (000 999)#	Special LCR Area Codes	No setting
FF8 4# (1-4)# (1 6)# (000-999)# (0 or 1)#	Special LCR Office Code Tables	No setting
FF8 5# (1 6)# (1 24)# (1-4)#	Time Priority Route Tables	No setting
FF8 6# (1-4)# (1-4)# (1-8)#	LCR Trunk Groups	No setting
FF8 7# (1-4)# (Delete Digits)#	LCR Delete Tables	No setting
FF8 8# (1-4)# (Add Digits)	LCR Add Tables	No setting
<b>FF9: Copy Program Settings</b>		
FF9 1# (1-8)# (1-8)##	Trunk Copy	No setting
FF9 2# (1-24)# (1-24)##	Extension Copy	No setting
FF9 3# (1-24)# (1-24)##	FF Key Copy	No setting
<b>FF10: Speed-Dialing</b>		
FF10 1# (SSD)# (PhoneNo )#	System Speed Dial (SSD) Numbers	No setting
FF10 2# (1-24)# (PSD)# (PhoneNo )#	Personal Speed Dial (PSD) Numbers	No setting

---

# 1. System Programming (FF1)

This chapter describes system settings using programming key FF1

This chapter covers the following topics

Topic	Page
Date and Time Settings	1-3
General System Settings	1-5
SMDR Data (Serial Port CN1)	1-44
PBX Settings	1-53
External (UNA) Relay Control	1-56
Class of Service	1-58
Account Codes	1-60
Custom Screens	1-63
Caller ID Automatic DISA	1-70
Maintenance Data (Serial Port CN2)	1-71
System Timers	1-77
Remote Programming and DISA Codes	1-117
Programming Authorization Code	1-121
New Function Reset	1-122
Door Phones	1-123



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# Date and Time Settings

## Day/Date Setting

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 1# 1# (MMDDYY)#

**Description** This program sets the date in the DBS 824 system clock

The day and date are printed on the Station Message Detail Recording (SMDR) printout. Proper LCR (Least Cost Routing) operation depends on correct date settings. Proper operation of peripheral equipment may also depend on correct date settings.

### Programming

**FF1 1# 1# (MMDDYY)#**

Month, day, and year in numeric format  
(for example, January 1, 1995 would be  
entered as 010195)

## Time Setting

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 1# 2# (HHMM)#

**Description** This program sets the time in the DBS 824 system clock. The time appears on key phones that have LCDs and is also included in SMDR call records.

Note: Correct time settings are necessary for proper LCR (Least Cost Routing) operation.

## Programming

**FF1 1# 2# HHMM#**



Time setting in 24-hour format  
(for example 3 00 pm would be  
entered as 1500)



---

# General System Settings

## Call Duration Display

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 1# (0 or 1)#

**Description** The duration timing for outgoing CO calls is normally displayed on telephones with LCDs. The DBS 824 can be programmed so that the call duration time is not displayed.

NOTE: This setting does not affect SMDR recording of the call.

### Programming

FF1 2# 1# 1# (0 or 1)#



0=Call duration is not displayed

1=Call duration is displayed

### Related Programming

Call Duration Timer FF1 2# 1# 32# (0, 1 or 2)#

## SMDR Start Timer for CO Calls

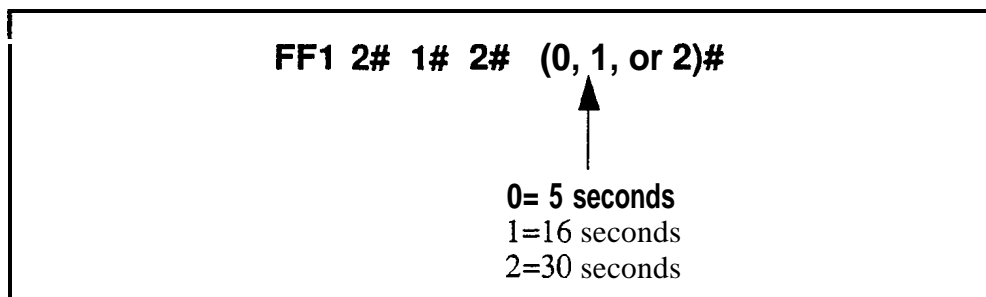
Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 2# (0, 1, or 2)#**

**Description** This timer determines how long the system waits before starting an SMDR record for the call (both outgoing and incoming) For example, if the timer is set to 5 seconds, SMDR recording of call data will begin 5 seconds after an outgoing number is dialed or 5 seconds after an incoming call is answered

For outgoing calls, the purpose of this timer is to allow the CO to connect the call, or the called party to answer, before beginning SMDR timing For incoming calls, the purpose of this timer is to limit the number of SMDR records for incoming calls (e g , if an incoming call lasts for less than 30 seconds, and this SMDR Start Timer is set for 30 seconds, an SMDR record will not be generated for that call)

### Programming



### Related Programming

SMDR Printing Mode 1 -- Outbound and Inbound **FF1 2# 2# 6#**

SMDR Printing Mode 2 -- Long-Distance and Local Calls **FF1 2# 2# 7#**

SMDR Report **FF3 (ExtPort)# 14#**

## Least Cost Routing (LCR) Access


Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 3# (0 or 1)#

**Description** This program specifies whether Least Cost Routing (LCR) is used when “9” is dialed before making an outside call

### Programming

**FF1 2# 1# 3# (0 or 1)#**



0=“9” indicates a pooled-trunk call  
1=“9” indicates an LCR call

### Related Programming

Forced Least Cost Routing FF3 (ExtPort)# 4#

LCR Program Settings FF8 (all)

### Notes

**Restriction With Call Forward-Outside Feature** LCR will not work with the Call Forward-Outside feature. If LCR is activated (the above address is set to “1”), extensions set to Call Forward-Outside must use trunk groups 1-6 (trunk group “9” cannot be used). See *Section 700-Feature Operation* for more information.

**Required Hardware Setting** To use LCR, Strap J3 on the CPC card must be cut. See *Section 300-Installation* for instructions.

**FCC Registration** Different FCC registration numbers are used for the DBS 824, depending on whether LCR is activated. See *Section 300-Installation* for more information.

## Override Toll Restriction With SSD Numbers

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF1 2# 1# 4# (SSD)#

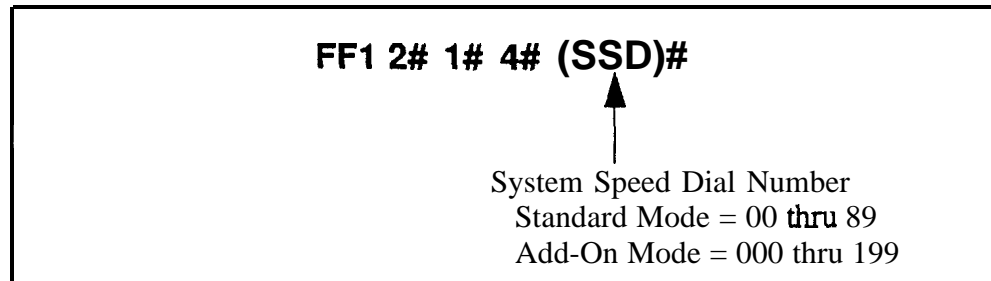
**Description** This program allows you to set a range of system speed dial (SSD) numbers that will override Toll Restriction Service (TRS) types 2-6

The number entered in this address is the lower boundary for speed dial numbers that will override toll restrictions. In other words, all SSD numbers higher than the one entered will also override TRS types 2-6

### Programming

#### To set SSD numbers to override TRS settings

Enter the SSD number that you want to override TRS types 2-6. All SSD numbers *higher than* this number will also override TRS types 2-6



#### To reset to the default value

By default, SSD numbers do not override TRS types 2-6. The following command resets this program to the default value

<b>FF1 2# 1# 4# CONF ON/OFF</b>
---------------------------------

## SSD Display Restriction

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 5# (0 or 1)#**

**Description** This address determines whether the telephone's LCD will display the actual dialed digits for a certain range of SSD codes (80-89 for Standard mode, 160-199 for Add-On mode) The default setting displays the dialed digits for these SSD codes If the display is disabled with this programming address, the text assigned to the SSD code will display, but the dialed digits will not

This address also determines whether the LCD shows the dialed digits when the SSD codes are accessed using the **REDIAL** key

Telephone numbers associated with SSD codes 00-79 (Standard mode) or 000-159 (Add-On mode) will always display during dialing, regardless of the setting here

### Programming

**FF1 2# 1# 5# (0 or 1)#**

↑

**0=SSD dialed digits are displayed**  
**1=SSD dialed digits are not displayed**

SSD Ranges  
 Standard mode = 80-89  
 Add-On mode = 160-199

### Related Programming

Override TRS with SSD Numbers **FF1 2# 1# 4# (SSD)#**

S S D Name Display **FF1 2# 1# 18#**

SSD Names **FF 6 2# (SSD)#**

SSD Numbers **FF10 1# (SSD)#**

Speed-Dial Mode **FF1 2# 1# 33#**

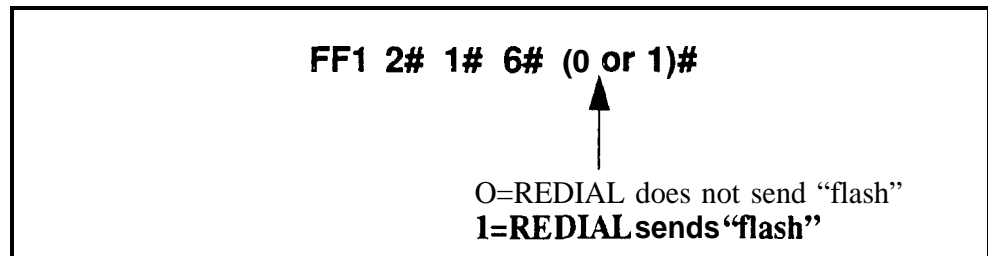
## Auto Flash Redial

**Software Version** CPC-S and CPC-M, Version 1 0 and higher

**Address** FF1 2# 1# 6# (0 or 1)#

**Description** By default, the REDIAL key sends a “flash” before redialing a number. When the DBS 824 is connected to a PBX sending a “flash” may place the line to the PBX on hold, in this case, Auto Flash Redial should be disabled.

### Programming



### Related Programming

PBX Flash Timer FF1 3# 16#

Trunk Port Type FF2 (Trunk)# 10#

### Notes

*Timing* The CO Line Flash and the Redial Flash features are controlled by the same timer.

## One Touch Dial

**Software Version** CPCS and CPC-M, Version 1.0 and higher

**Address** FF1 2# 1# 7# (0 or 1)#

**Description** The One-Touch Dial feature enables users to dial an extension by pressing a single programmable key. This feature is enabled regardless of the program setting (One-Touch Dial cannot be deactivated).

## Onhook Transfer

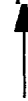
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 8# (0 or 1)#

**Description** Onhook Transfer allows a user to transfer a call by placing the call on hold, dialing the extension number, and then hanging up. If Onhook Transfer is disabled, the user transfers the call by placing it on hold, dialing the extension number, then pressing PROG, and hanging up.

### Programming

FF1 2# 1# 8# (0 or 1)#



0=Onhook Transfer is disabled  
1=Onhook Transfer is enabled

### Related Programming

Attendant Transfer Recall Timer for CO Calls FF1 3# 4#

Extension Transfer Recall Timer for CO Calls FF1 3# 5#

Attendant Transfer Recall Timer for Intercom Calls FF1 3# 20#

Extension Transfer Recall Timer for Intercom Calls FF1 3# 2 1#

### Notes

**Call Transfers** Both intercom calls and trunk calls can be onhook-transferred.

**Transfer Recalls** If a transferred call recalls to an extension and is not answered, it will automatically transfer to the attendant. The timing for the transfer to the attendant is controlled by the Attendant Call Reversion Timer (FF1 3# 8#).

**Onhook Transfer Setting With The VAU** If a Voice Announce Unit (VAU) is used, Onhook Transfer must be enabled.



## Key Bank Hold

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 9# (0 or 1)#**

**Description** Use this program address to enable or disable the Key Bank Hold feature in the DBS 824 system

If Key Bank Hold is enabled, a phone user can switch back and forth **between** trunk calls (by pressing the FF key for each trunk) without placing the current trunk on hold. Also, an attendant phone can press a **DSS/BLF** key to automatically transfer a trunk call to an extension without pressing **HOLD first**. In both of these scenarios, the DBS 824 will automatically place the current trunk call on system hold when the phone user presses the **FF** key or **DSS/BLF** key.

If Key Bank Hold is disabled (default setting), the phone user must press **HOLD** before accessing a second trunk or transferring a call.

## Programming

**FF1 2# 1# 9# (0 or 1)#**



**0=Key Bank Hold is disabled**

**1=Key Bank Hold is enabled**

## Non-Appearing Trunk Hold

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 10# (0 or 1)#

### Description

Use this program to determine who can pick up trunk calls that are on hold. This program applies to DBS 824 telephones that don't have dedicated key appearances for trunk calls (the phone user can't tell which trunk is being used for incoming or outgoing calls).

If a trunk call on one of these phones is placed on hold, this program determines whether it is System Hold (default setting, any other extension phone can pick up the call) or Exclusive Hold (the call can be retrieved only on the extension where it was placed on hold).

### Programming

FF1 2# 1# 10# (Oor 1)#



O=Exclusive Hold is used for non-appearing trunk calls  
**1=System Hold is used for non-appearing trunk calls**

### Notes

**Applicable Phone Types** This feature applies to both single-line and digital telephones.

**Number of Trunks That Can Be Held Without Key Appearances** Phones that do not have a key appearance for trunk calls can only hold one trunk at a time.

## SLT Flash Control

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 11# (0 or 1)#**

**Description** To transfer a call, a Single Line Telephone (SLT) user **hookflashes** to place the call on hold, dials an extension number, and then hangs up

This program address determines how the DBS 824 system responds to a second **hookflash** once the extension number is dialed. If this program is set to "0," a second hookflash results in dial tone. If set to "1" (default), a second hookflash retrieves the held call.

The following table summarizes how these settings effect hookflash operation.

**Table I-i SLT hookflash control**

<i>If SLT Flash Control Is Set to "0"</i>	<i>If SLT Flush Control Is Set to "1"</i>
<p><b>1</b> The user hookflashes to place a call on hold</p> <p><b>2</b> The user dials another number in order to transfer the call. The dialed number is busy or does not answer so the user needs to return to dial tone in order to <b>dial</b> another number</p> <p><b>3</b> <i>The user hookflashes a second time to receive dial tone</i></p> <p><b>4</b> The user dials another number. When the dialed number rings, the user hangs up to transfer the held <b>call</b></p> <p>Note: Using this setting, the phone user can hookflash a third <b>time</b> to retrieve the held call, if he/she decides not to perform the transfer.</p>	<p><b>1</b> The user hookflashes to place a call on hold</p> <p><b>2</b> The user dials another number in order to transfer the call. The dialed number is busy, so the user needs to get dial tone again in order to dial another number</p> <p><b>3</b> <i>The user hookflashes a second time to retrieve the held call, then hookflashes again to place the call back on hold and receive dial tone</i></p> <p><b>4</b> The user dials another number. When the dialed number rings, the user hangs up to transfer the held <b>call</b></p>

This program address does not affect how the **hookflash** functions when the SLT user is listening to dial tone.

## Programming

**FF1 2# 1# 11# (0 or 1)#**



**0=A second SLT hookflash results in dial tone**

**1=A second SLT hookflash retrieves a held call**

## Extension Number Digits

Software Version CPC-S and CPC-M, Version 1.0 and higher

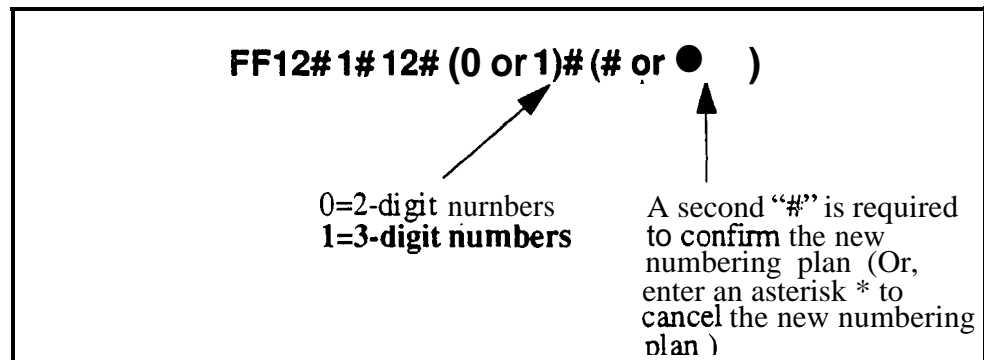
Address FF1 2# 1# 12# (0 or 1)##

**Description** This address determines whether the DBS 824 system will use 2-digit or 3-digit extension numbers

If 2-digit numbers are used, a maximum of 60 extension numbers are available for assignment (number range=10 thru 69). If 3-digit numbers are used, a maximum of 600 extension numbers are available (number range=100 thru 699). **However**, the number of extensions that can be **assigned** is limited by the number of available extension *ports* in your DBS 824 system. This depends on your system's configuration.

- CPC-S (or CPC M) with one 208 EXP Card supports 16 extensions
- CPC-M with two 208 EXP Cards supports 24 extensions

## Programming



## Related Programming

Extension Numbers FF3 (ExtPort)# 1# (10-69 or 100-699)##

## Notes

*Precaution for Changing Extension Number Digits* This setting can adversely affect other DBS 824 settings that are based on extension numbers, such as entries for DSS/BLF keys and Call Forwarding.

*Interaction With Voice Mail* If your system uses Voice Mail, set this program address to “3digit numbers” to match extensions with Voice Mail boxes.

## Attendant Intercom Calling

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 13# (0 or 1)#

**Description** Use this program address to determine how intercom calls from an attendant telephone will be announced at extension phones. The extension phone will either ring, or it will establish a voice path on the phone's loudspeaker so the attendant can talk to (and hear) the extension phone user.

### Programming

FF1 2# 1# 13# (0 or 1)#

0=Ring tone calling  
1=Voice Calling

### Related Programming

Alert Tone for Voice Calls FF1 2# 1# 15#

### Notes

**Interaction With VAU** If this address is set to 'Voice calling' and a VAU is used, the VAU will not answer a call from an attendant unless the attendant dials a "1" after dialing the VAU.

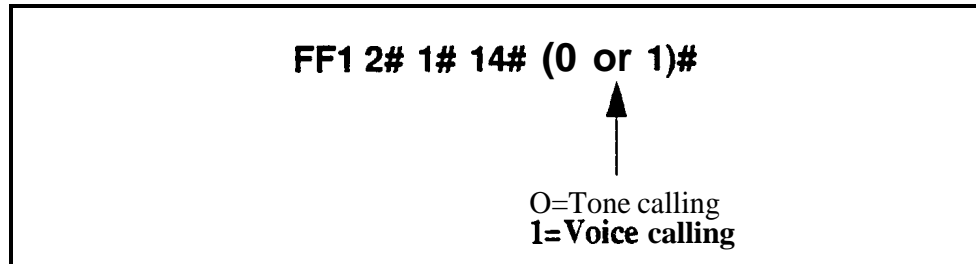
## Extension Intercom Calling

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 1# 14# (0 or 1)#

**Description** Use this program address to determine how intercom calls from another extension will be announced. The extension phone being called will either ring, or it will establish a voice path over the phone's loudspeaker so the extension caller can talk to (and hear) the person being called.

### Programming



### Related Programming

Alert Tone for Voice Calls FF1 2# 1# 15#

### Notes

**Interaction With VAU** If this address is set to "Voice calling" and a VAU is used, the VAU will not answer a call from an extension unless the extension dials a "1" after dialing the VAU.

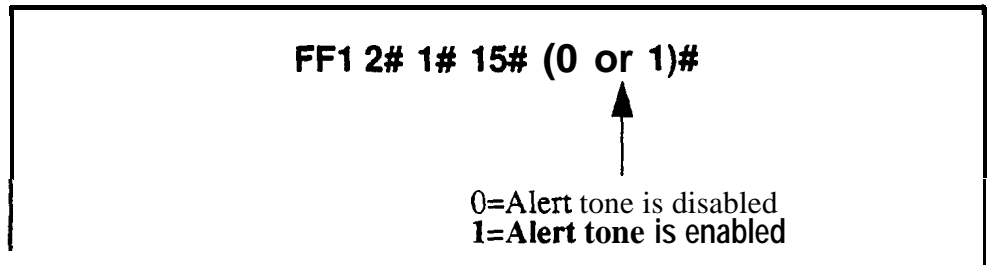
---

## Alert Tone for Voice Calls

Software Version CPC-S and CPC-M, Version 1.0 and higher  
Address **FF1 2# 1# 15# (0 or 1)#**

**Description** An initial “splash” tone for voice intercom calls can be sounded for 0.5 seconds before the caller’s audio path is connected

### Programming





## Alert Tone for Busy Override & OHVA

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 16# (0 or 1)#

**Description** This address determines if Attendant Override, Busy Override, and Offhook Voice Announce (OHVA) calls are preceded by an alert tone

This feature is governed by state law -- some states require the alert tone

### Programming

FF1 2# 1# 16# (0 or 1)#

0=Alert tone is disabled  
1=Alert tone is enabled

### Related Programming

Busy Override Send FF3 (ExtPort)# 9#

Busy Override Receive FF3 (ExtPort)# 10#

Page Group Extensions FF3 (ExtPort)# 18# thru 25# (0 or 1)#

## System Installation Area Code

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 17# (0 or 1)#**

**Description** This program determines if the DBS 824 system's location requires a "1" to be dialed before the area code to make long-distance calls. This setting will affect the way the 824 system handles Toll Restriction (TRS) and Least Cost Routing (LCR) for long-distance calls.

In almost all cases, the default setting ("1" must be dialed) should not be changed.

### Programming

**FF1 2# 1# 17# (0 or 1)#**



0="1" is not required before a long-distance call  
1="1" must be dialed before a long-distance call

### Notes

**Interaction With TRS and LCR** If "0" is selected above ("1" is *not* required before a long-distance call), the system will look at the first three digits of the number dialed, whether it's a "1" or not. This would severely limit the capability of TRS and LCR, which are based on 3-digit area codes.

If "1" is selected ("1" *is* required before dialing a long-distance call), the system will ignore the first dialed digit (could be "0" or "1") and look at the next three digits dialed as the area code.

### Related Programming

Toll Restrictions FF7

Least Cost Routing FF8

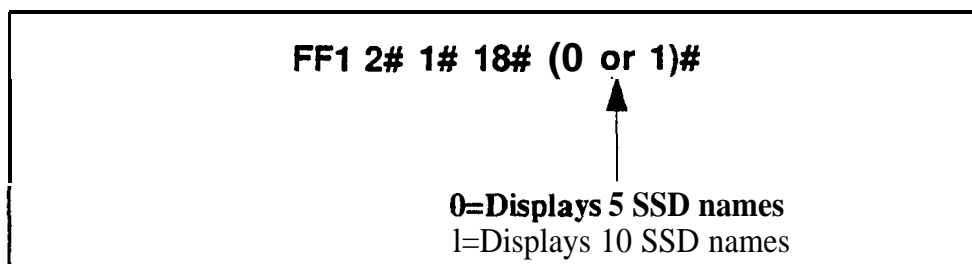
## SSD Name Display

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 18# (0 or 1)#**

**Description** Use this address to determine how many SSD names (5 or 10) can be displayed at a time on large-display phones. When 5 names are displayed (default setting), the maximum length for each name is 16 characters. When 10 names are displayed, the maximum length for each name is 7 characters.

### Programming



### Related Programming

Override TRS with SSD Numbers **FF1 2# 1# 4#**

SSD Display Restriction **FF1 2# 1# 5#**

System Speed Dial Names **FF6 2# (SSD)#**

System Speed Dial Numbers **FF10 1# (SSD)#**

## **API/SLT Assignment**

**Software Version** CPC-S and CPC-M, Version 1 0 and higher CPC-M Only (future)  
**Address** FF1 2# 1# 19# (ExtPort)#

**Description** This program is reserved for future 3rd-party applications with the CPC-M card, and currently has no effect on the DBS 824 system, regardless of its setting

## Voice Mail Busy Tone

Software Version CPC-S and CPC-M, Version 10 and higher

Address FF1 2# 1# 20# (0 or 1)#

**Description** The DBS 824 can be set to send either silence (default) or a busy tone to a voice-mail port at the conclusion of a call

### Programming

**FF1 2# 1# 20# (0 or 1)#**



**0=Silence.**

**1=Busy tone**

## Delayed Ring

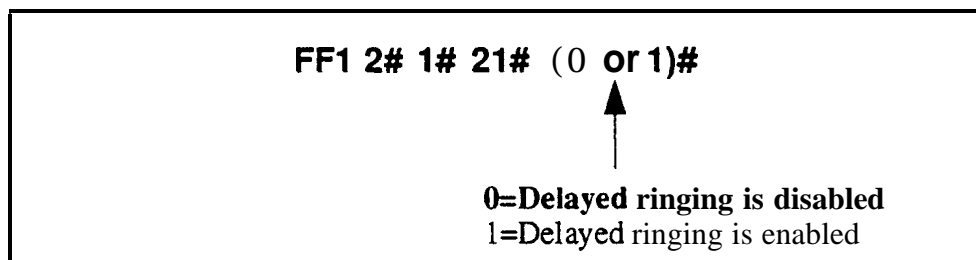
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 21# (0 or 1)#

### Description

This address determines if delayed ringing is allowed for CO trunks. Delayed ringing is an automatic transfer of unanswered calls -- if an incoming call is not answered at one extension, the system will send the call to another extension (the first extension will cease ringing)

### Programming



### Related Programming

CO Delayed Ring Timer FF1 3# 22# (0- 15)#

CO Delayed Day Ring Assignments FF4 5# (ExtPort)# (Trunk)#

CO Delayed Day Ring Assignments for Hunt Groups FF4 5# (HuntGrp)#  
(Trunk)#

CO Delayed Night 1 Ring Assignments FF4 6# (ExtPort)# (Trunk)#

CO Delayed Night 1 Ring Assignments for Hunt Groups FF4 6#  
(HuntGrp)# (Trunk)#

CO Delayed Night 2 Ring Assignments FF4 9# 2# (ExtPort)# (Trunk)#

CO Delayed Night 2 Ring Assignments for Hunt Groups FF4 9# 2#  
(HuntGrp)# (Trunk)#

## Second Attendant Position

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 22# (101-699)#**

**Description** This address assigns a key phone as the second attendant position. The next two addresses (**FF1 2# 1# 23#** and **FF1 2# 1# 24#**) can be used to assign third and fourth attendant positions.

When all line appearances at the first attendant are busy, calls will transfer in sequence to the second, third, and fourth attendants. If all line appearances are busy on all attendants, calls will transfer to the Attendant Transfer Extension (if assigned).

### Programming

To assign a second attendant

<p><b>FF1 2# 1# 22# (101 to 699)#</b></p> <p style="text-align: center;">↑</p> <p>Extension Number (101-699) (Default=101)</p>
--

To clear the second attendant position

<p><b>FF1 2# 1# 22# CONF ON/OFF</b></p>
---

### Related Programming

Third Attendant Position **FF1 2# 1# 23# (101-699)#**

Fourth Attendant Position **FF1 2# 1# 24# (101-699)#**

Attendant Transfer Extension **FF1 2# 1# 25# (101-699)#**

### Notes

*Programming Restrictions When Extensions Are Not **Installed**.* An **extension** must be installed at the port assigned as the second attendant before the **second** attendant can be cleared. Likewise, an extension cannot be programmed as a second attendant unless it is physically assigned.

## Third Attendant Position

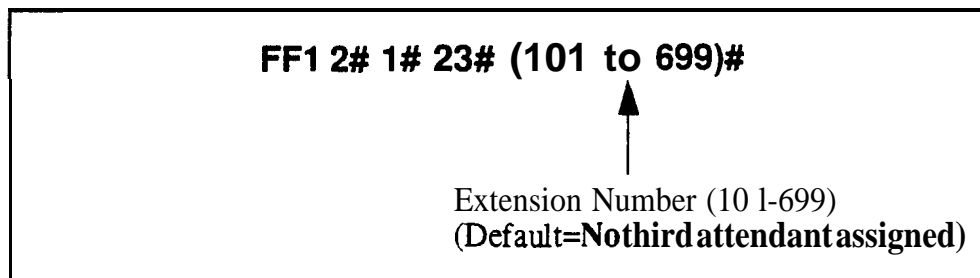
Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF1 2# 1# 23# (101-699)#

**Description** This address assigns a DBS 824 key phone as the third attendant position. The previous and following addresses (FF1 2# 1# 22# and FF1 2# 1# 24#) can be used to assign second and fourth attendant positions.

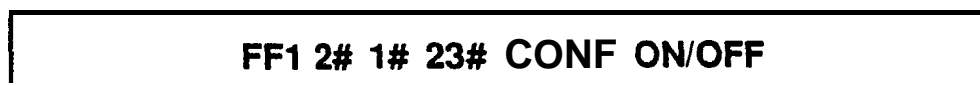
When all line appearances at the first attendant are busy, calls will transfer in sequence to the second, third, and fourth attendants. If all line appearances are busy on all attendants, calls will transfer to the Attendant Transfer Extension (if assigned).

### Programming

To assign a third attendant



To reset the third attendant position to the default value



### Related Programming

Second Attendant Position FF 1 2# 1# 22# (101-699)#

Fourth Attendant Position FF1 2# 1# 24# (101-699)#

Attendant Transfer Extension FF1 2# 1# 25# (101-699)#

### Notes

**Programming Restrictions When Extensions Are Not Installed.** An extension must be installed at the port assigned as the **third** attendant before the third attendant can be cleared. Likewise, an extension cannot be programmed as a third attendant unless it is physically assigned.



## Fourth Attendant Position

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 24# (101-699)#**

**Description** This address assigns a DBS 824 key phone as the fourth attendant position. The previous two addresses (**FF1 2# 1# 22#** and **FF1 2# 1# 23#**) can be used to assign second and third attendant positions.

When **all** line appearances at the **first** attendant are busy, calls will transfer in sequence to the second, third, and fourth attendants. If all line appearances are busy on all attendants, calls will transfer to the Attendant Transfer Extension (if assigned).

### Programming

To assign a fourth attendant

<p><b>FF1 2# 1# 24# (101 to 699)#</b></p> <p style="text-align: center;">↑</p> <p>Extension Number (101-699) (Default=<del>No</del>fourth attendant assigned)</p>
---

To reset the fourth attendant position to the default value

<p><b>FF1 2# 1# 24# CONF ON/OFF</b></p>
---

### Related Programming

Second Attendant Position **FF1 2# 1# 22# (101-699)#**

Third Attendant Position **FF1 2# 1# 23# (101-699)#**

Attendant Transfer Extension **FF1 2# 1# 25# (101-699)#**

### Notes

*Programming Restrictions When Extensions Are Not Installed* An extension must be installed at the port **assigned** as the fourth attendant before the fourth attendant can be cleared. Likewise, an extension cannot be programmed as a fourth attendant unless it is physically assigned.

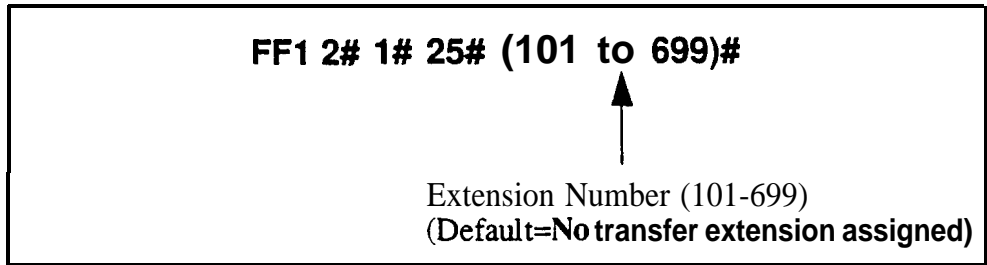
# Attendant Transfer Extension

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF1 2# 1# 25# (101-699)#

**Description** Addresses FF1 2# 1# 24# through FF1 2# 1# 26# can be used to assign second, third, and fourth attendants. When all line appearances at the first attendant are busy calls will transfer to the second, third, and fourth attendants in sequence. If all line appearances are busy on all attendants, calls will transfer to the extension assigned in this address.

## Programming

To assign an attendant transfer extension



To reset the attendant transfer extension to the default value



**Notes** *Pilot Number Restriction* The overflow position must be an installed extension, it cannot be a hunt group pilot number

## Attendant Override

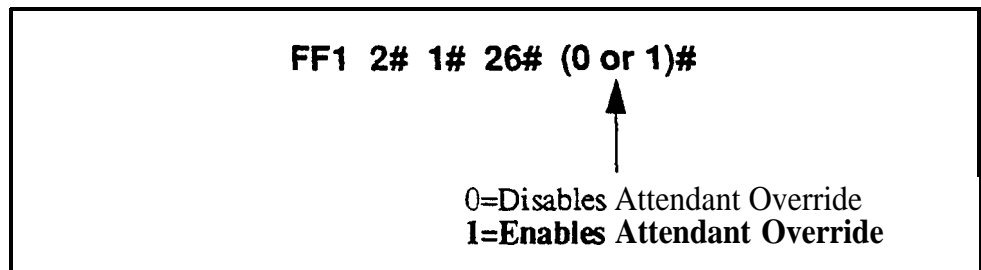
Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 26# (0 or 1)#**

**Description** The Attendant **Override** feature allows an attendant phone to “barge into” a call on a busy extension, whether the extension is engaged in an intercom call or a CO call. When a barge-in occurs all three parties can hear and talk to each other.

if the Attendant Override feature is enabled (default setting) the attendant can barge into an extension, even if the extension has been programmed to block barge-ins.

### Programming



### Related Programming

Alert Tone for Busy Override & OHVA FF1 2# 1# 16#

## Extension (BLF) Delayed Ring

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 1# 27# (0 or 1)#

**Description** This program determines if delayed ringing is allowed for intercom calls. Delayed ringing is a call-forwarding feature for unanswered calls -- if an incoming call is not answered at one extension, the system will send the call to another extension.

**NOTE:** The extension to which the call is forwarded must have a DSS/BLF key.

### Programming

**FF1 2# 1# 27# (0 or 1)#**



**0=Delayed ringing is off**  
**1=Delayed ringing is on**

### Related Programming

Extension Delayed Ring Table FF4 8# (TargetExtPort)# (SourceExtPort)#  
(0 or 1)#

Extension Delayed Ring Timer FF1 3# 23# (0-15)#

Call Forward-No Answer Timer FF1 3# 17# (0-15)#

## Transfer Ring Pattern

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

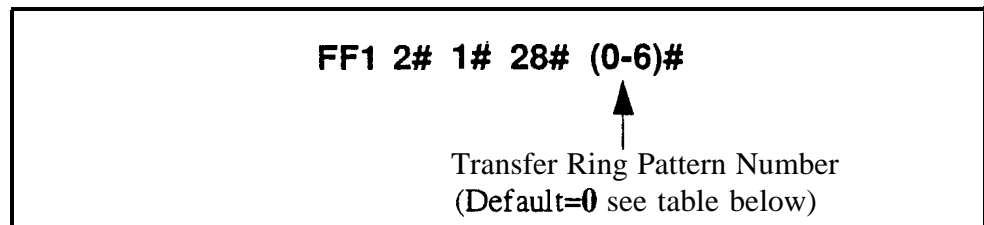
Address **FF1 2# 1# 28# (0-6)#**

### Description

This program address allows you to choose a distinctive ringing pattern for transferred calls on all DBS 824 phones. This setting will override the Extension Ring Pattern (set in address FF3 ExtPort# 38#) when calls are transferred to the extension.

The ring pattern selected in this address will vary according to the type of phone (Digital or Analog) connected to the extension port, see table below for these ring patterns.

### Programming



**Table 1-2 Transfer ring patterns**

Address Number	Transfer Ring Pattern (in seconds) For	
	Digital Phones	Analog Phones (SLT-A)
<b>0</b>	<b>5 on / 3 5 off</b>	<b>25 on / 25 off / 25 on / 3 25 off</b>
1	3 on / 1 off	25 on / 3 25 off
2	2 on / 2 off	1 on / 3 off
3	1 on / 2 off	5 on / 3 5 off
4	1 on / 3 off	1 on / 7 off
5	1 on / 5 off	5 on / 7 5 off
6	1 on / 7 off	25 on / 25 off / 25 on / 7 25 off

### Related Programming

Terminal Type FF3 (ExtPort)# 2#

Extension Ring Pattern FF3 (ExtPort)# 38#

### Notes

**Adapter Requirement For Analog Phones** Since the DBS 824 has only digital extension ports a Single-Line Telephone Adapter (SLT-A) is required if analog phones are used. Each SLT-A can support up to four analog phones (and four corresponding extension ports), see *Section 300-Installation* for more information.

## Page Duration

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 1# 29# (0 or 1)#

**Description** This address determines whether the DBS 824 system will automatically close the paging circuit 60 seconds after a page is initiated. If this address is set to leave the paging circuit open indefinitely, the system will not automatically close it (the paging person will close the circuit when he/she hangs up).

### Programming

FF1 2# 1# 29# (0 or 1)#



**0=The page circuit remains open indefinitely**

**1=The paging circuit remains open for 60 seconds before the system closes it**

## SLT DISA Ring Pattern

Software Version **CPC-S** and **CPC-M**, Version 1 0 and higher

Address **FF1 2# 1# 30# (0 or 1)#**

**Description** Differing ring patterns can be set for devices connected to SLTA ports that receive inbound DISA calls. The pattern can be set to a one-second-on / three-second-off ring burst, or it can follow any of the patterns found in the normal Central Office transfer ring patterns (see "Transfer Ring Pattern" program address **FF12#1# 28#**)

### Programming

**FF1 2# 1# 30# (0 or 1)#**



**0=1 second on / 3 0 seconds off**

**1=Same as the CO transfer ring pattern**

### Related Programming

Transfer Ring Pattern **FF1 2# 1# 28# (0-6)#**

## SLT Disconnect Duration

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

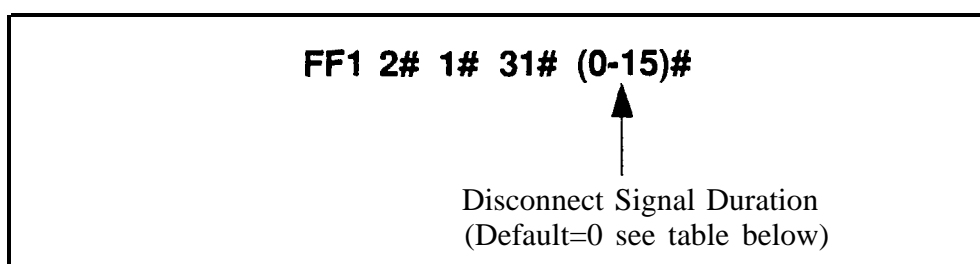
Address **FF1 2# 1# 31# (0-15)#**

### Description

This program address determines the duration of the disconnect signal (open loop) to the CO by an SLT extension port upon hangup. Sending this signal allows quick disconnect from third-party voice mail systems.

The sending of the SLT disconnect signal can be enabled or disabled on an extension-by-extension basis, using program address FF3 (ExtPort)# 45#

### Programming



**Table 1-3** *Disconnect signal duration values*

Code	Disconnect Signal Duration
<b>0</b>	<b>No disconnect signal sent</b>
1	100 ms
<b>2</b>	<b>200 ms</b>
<b>3</b>	<b>300 ms</b>
<b>4</b>	<b>400 ms</b>
5	500 ms
<b>6</b>	<b>600 ms</b>
<b>7</b>	<b>700 ms</b>
8	800 ms
<b>9</b>	<b>900 ms</b>
10	1 second
11	15 seconds



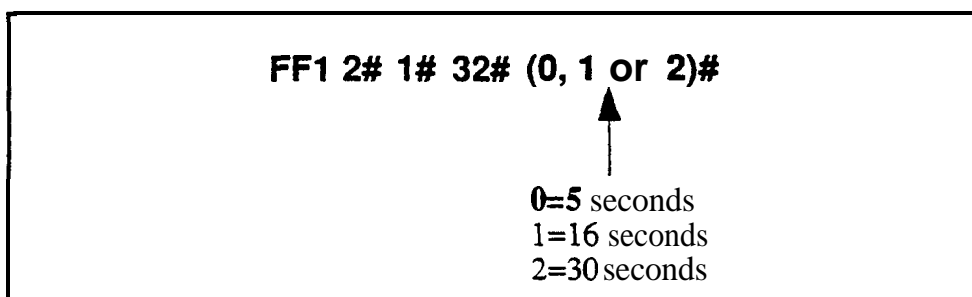
## Call Duration Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 32# (0, 1 or 2)#**

**Description** This timer determines how long the system waits before displaying call duration timing on the phone's LCD. For example, if the timer is set to 5 seconds, the call duration timer will appear 5 seconds after an outgoing number is dialed, or 5 seconds after an incoming call is answered. This timer allows Caller ID information (if available) to appear before the call duration timing is displayed.

### Programming



### Related Programming

Call Duration Display **FF1 2# 1# 1# (0 or 1)#**

SMDR Start Timer for CO Calls **FF1 2# 1# 2# (0, 1 or 2)#**

### Notes

**Interaction With SMDR** This Call Duration **Timer** only affects the *display* of call duration. The system begins *the actual timing* of the call according to the SMDR Start **Timer** address (**FF1 2# 1# 2#**). In order for call duration to be displayed, SMDR timing must start before call duration display begins (the Call Duration **Timer** must be equal to or greater than the SMDR Start **Timer**).

**Interaction With Caller ID** The setting for this Call Duration **Timer** will be the actual length of time that Caller ID information is displayed before the LCD changes to call duration timing.

# Speed Dial Mode

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 33# (0 or 1)#**

**Description** This program determines the mode for speed-dialing (both Personal and System) This speed-dial mode setting affects the **range** of speed-dial numbers that can be created, **as** well as the **number of digits in** the speed-dial numbers, as shown in the following table

**Table I-4 Speed-dial number ranges in Standard and Add-On modes**

CPC-s:	Standard Mode	Add-On Mode
SSD Number Range	00-89	N/A
PSD Number Range	90-99	N/A
CPC-M:	Standard Mode	Add-On Mode
SSD Number Range	00-89	000-199
PSD Number Range	90-99	900-939

## Programming

**FF1 2# 1# 33# (0 or 1)#**

↑

0=Standard Mode  
1=Add-On Mode

NOTE Default is 0 for CPC-S,  
default is 1 for CPC-M

## Related Programming

System Speed Dial Numbers **FF10 1#**

Personal Speed Dial Numbers **FF10 2#**

## Notes

**Standard Mode for CPC-S** The CPC-S model supports only **Standard** mode, the Add-On mode setting is disabled

**Changing Speed-Dial Modes** If changing from Standard mode to Add-On mode, or vice versa, the system should be powered-off then back on to enable the new mode setting The speed-dial number ranges will also change as a result of the mode change, see Chapter 10, **Speed Dial Programming (FF10)** for more information about these changes

## Auto-Repeat Dialing Count


Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 34# (0-15)#

**Description** This program determines the number of times the DBS 824 will automatically redial a number (when Auto-Repeat Dialing is activated)

### Programming

**FF1 2# 1# 34# (0-1 5)#**



0=System will not redial  
 1=System will redial one time  
 2 15 = System will redial this number of times  
 (Default=15)

### Related Programming

Wait Time for Auto-Repeat Dialing FF1 3# 26#

Busy Tone (BT) Detection Timer FF1 3# 27#

Dial Tone (DT) Detection Timer FF1 3# 28#

CO Busy Tone (BT) Detection for Auto-Repeat Dialing FF2 (Trk)# 22#

### Notes

**Setting the DBS 824 to detect BT** The system must be set to monitor the CO for busy tone (FF2 Trunk# 22#), in order to enable the Auto-Repeat Dialing feature. The system can monitor up to 2 trunk lines at the same time for busy tone, if a 3rd trunk has a busy tone at the same time Auto-Repeat Dialing will not work.

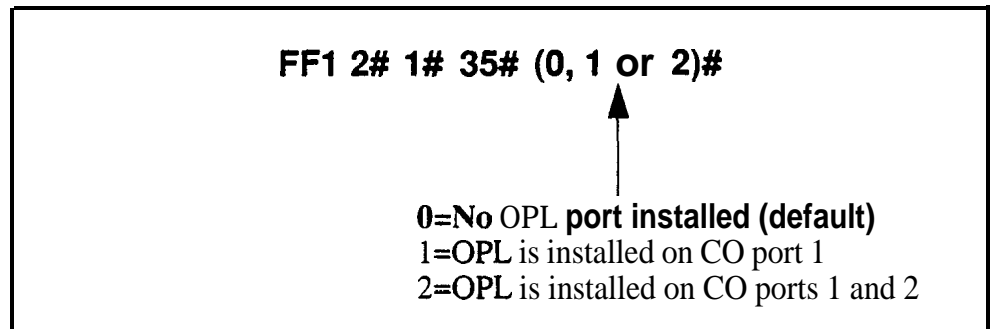
## Install OPL Port

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 1# 35# (0-2)#

**Description** This program enables or disables an OPL (Option Port Line) on CO ports 1 and 2. OPL can connect to external devices such as a fax or answering machine in parallel to the DBS 824 system, sharing the CO ports with the system.

### Programming



### Notes

**Power-Down Requirement** After enabling an OPL port (selecting “1” or “2” in this address), reset the system by powering it off, then back on. Otherwise, the OPL extension will constantly ring.

**Port Operation with OPL** While OPL is using the CO port, the system will not be able to access that port. When OPL is not using the CO port, the system can access that port for trunk calls, while the system is using the port, the OPL will not be able to access it. When the CO port receives an incoming call, either the system or the OPL device can answer it, the one which answers more quickly (system or OPL) will be connected to the incoming call.

## Music-On-Hold Sound Source

**Software Version** CPC-M Only, Version 1.0 and higher

**Address** FF1 2# 1# 36# (0, 1 or 2)#

**Description** This program address determines the sound source for Music-On-Hold (the music or recording heard by a caller who is on hold)

The sound source for Music-On-Hold can be the same as the source for Background Music (the device plugged into CN6 phono-jack on the CPC M card) Or it can be the internal sound source (from the tone generator on the CPC M card) Or it can have its own sound source (plugged into the CN8 phono-jack on the CPC-M card)

The CPC-S card only has one sound source -- the "BGM/MOH" phono jack on CN6 Therefore, this program address does not apply to CPC-S models

### Programming

**FF1 2# 1# 36# (0, 1, or 2)#**



Sound Source for Music-On-Hold  
0=Use Background Music source (CN6)  
1=Use internal sound source (tone generator)  
2=Use separate source (CN8)

## EPI Audio Control

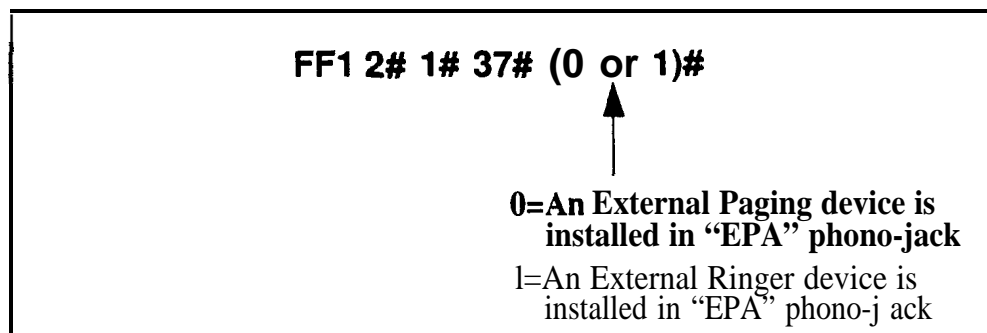
Software Version **CPC-S Only (Version 1 0 and above)**

Address **FF1 2# 1# 37# (0 or 1)#**

**Description** If an external device is installed in the “EPA” phono-jack on the CPC-S card, use this address to tell the system whether the device is an External Pager or External Ringer

This address does not apply to the CPC-M card, which has two phono-jacks (one specifically for each external device)

### Programming



### Related Programming

External Page Interface Control For Paging Groups **FF1 2# 4# (2-9)# (0 or 1)#**

## CO-to-CO Talk Mode Control

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 1# 38# (0 or 1)#**

**Description** Use this address to determine whether the DBS 824 system will use an internal conference circuit for trunk-to-trunk conference calls or whether it will connect the trunks directly

The CO-to-CO Talk mode is entered via the Call Forward-Outside feature or the DISA Outgoing function. If an audio loop-back problem occurs when trunks are connected directly, reset this program address to "Use a conference circuit"

### Programming

<p><b>FF1 2# 1# 38# (0 or 1)#</b></p> <p style="margin-left: 150px;">↑</p> <p><b>0=Connect the trunks directly (Default)</b> 1 =Use a conference circuit.</p>
---

### Related Programming

Automatic DISA Callers FF1 2# 8# (1-10)# (PhoneNo )#

Unsupervised Conference Timer FF1 3# 9# (0-15)#

Unsupervised Trunk Conference FF2 (Trunk)# 16# (0 or 1)#

Unsupervised Conference FF3 (ExtPort)# 13# (0 or 1)#

### Notes

**Limitation On Availability Of Conference Circuits** The system can support up to three conference circuits at a time. If this programming address is set to "1" (use a conference circuit), and a fourth CO-to-CO call is attempted while three other conference calls are currently in progress, the system will connect the trunks in the fourth call directly to each other.

# SMDR Data (Serial Port CN1)

## Parity Check (SMDR)

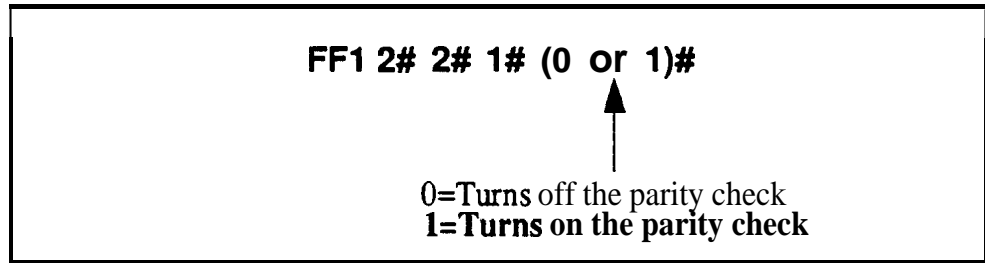
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 2# 1# (0 or 1)#

**Description** This program determines whether the DBS 824 uses parity checking over serial port CN1, which is normally dedicated for SMDR

If this address is set to “on,” use FF1 2# 2# 2# (0 or 1)# to select even or odd parity

## Programming



## Related Programming

Odd/Even Parity (SMDR) FF1 2# 2# 2# (0 or 1)#

## Notes

*Checking Communications Parameters* Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for SMDR are set with addresses FF1 2# 2# 1 through 9#



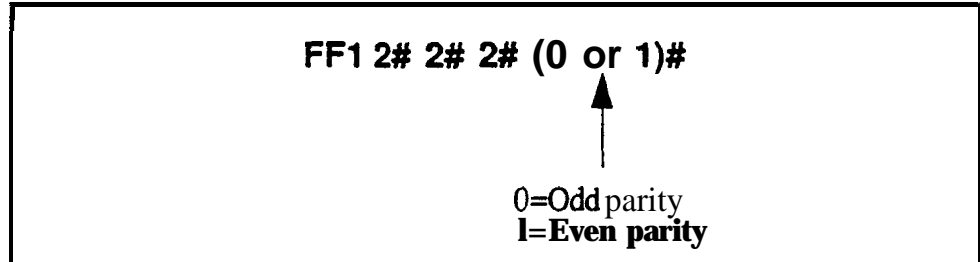
## Odd/Even Parity (SMDR)

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 2# 2# (0 or 1)#

**Description** If the parity check for SMDR serial port CN1 has been set (FF1 2# 2# 1#), this option determines whether the check is based on an even count or an odd count.

### Programming



### Notes

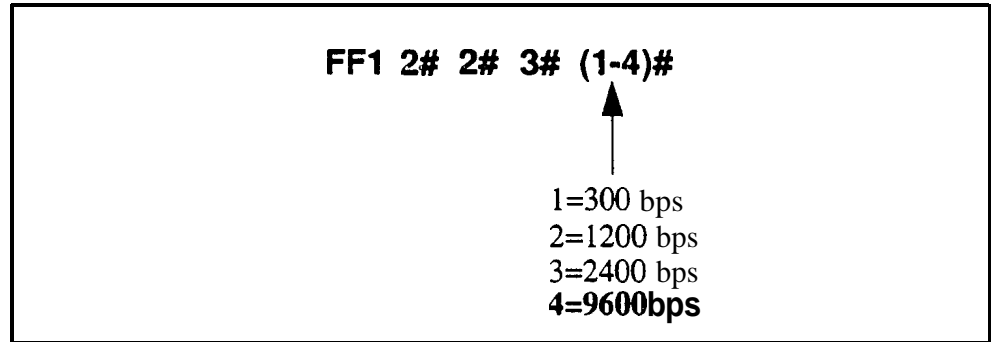
**Checking Communications Parameters** Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for SMDR are set with addresses FF1 2# 2# 1 through 9#.

## Baud Rate (SMDR)

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF1 2# 2# 3# (1-4)#

**Description** The data transmission speeds between SMDR serial port CN1 and peripheral equipment can be set from 300 bits per second to 9600 bits per second

### Programming



**Notes** *Checking Communications Parameters* Be sure to properly set all communication programming addresses when modifying any **single** address value. Communication parameters for SMDR are set with addresses FF1 2# 2# 1 through 9#

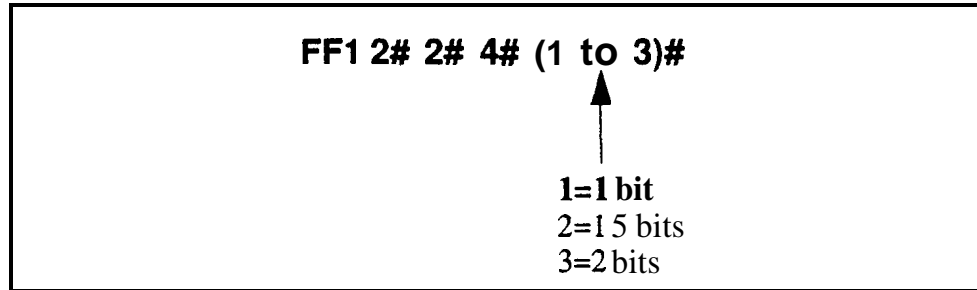
## Stop Bit Length (SMDR)

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 2# 4# (1-3)#

**Description** This program sets the length of the stop-bit parameter for transmitted data over SMDR serial port CN1

### Programming



### Notes

**Checking Communications Parameters** Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for SMDR are set with addresses FF1 2# 2# 1 through 9#

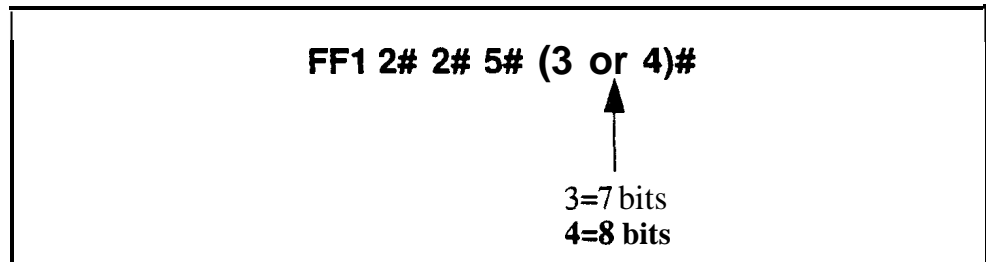
## Data Length (SMDR)

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 2# 5# (3 or 4)#

**Description** This program sets the length of the transmitted data string at 7 or 8 bits, over SMDR serial port CN1

### Programming



### Notes

**Checking Communications Parameters** Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for SMDR are set with addresses FF1 2# 2# 1 through 9#

## SMDR Serial Port Flow Control (XON / XOFF)

Software Version CPC-S and CPC-M, Version 1.0 and higher

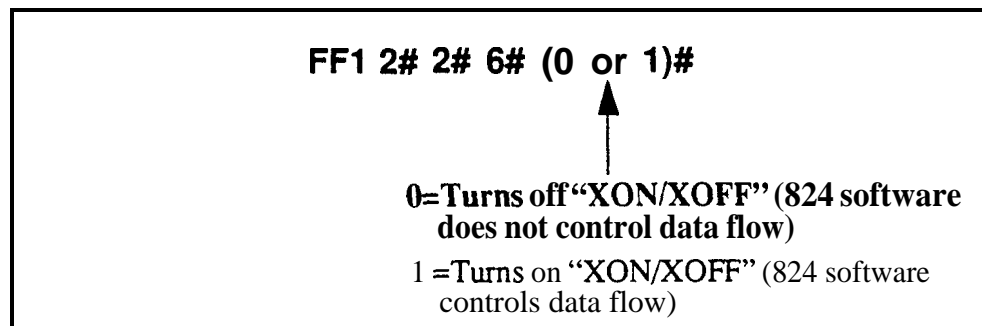
Address FF1 2# 2# 6# (0 or 1)#

**Description** Use this address to determine whether the DBS 824 system will control the flow of data to the SMDR device connected to serial port CN1

If “XON/XOFF” is activated in this address, the DBS 824’s software will stop the flow of data when the SMDR device’s memory buffer becomes full and resume the flow when the buffer empties

‘XON/XOFF’ should be deactivated (default setting) if a flow control mechanism is present elsewhere in the interface (i.e. in the printer or RTS and CTS lines). A flow control mechanism should always be present in order to prevent data from being lost during transmission

### Programming



### Notes

**DBS 824 Buffer Size** The size of the DBS 824 buffer for SMDR is 1,000 bytes. This is the maximum amount of data that the system can hold while the SMDR device is emptying its buffer

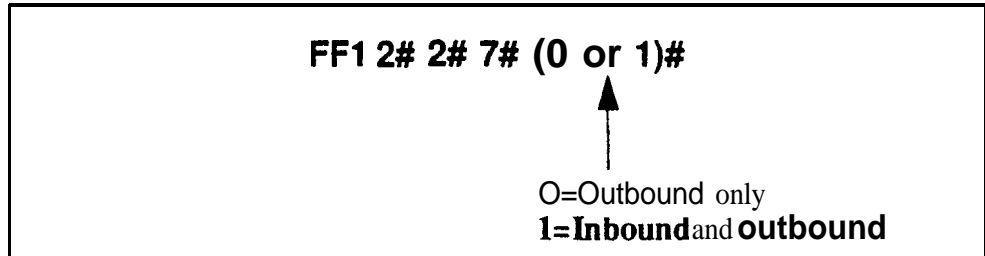
## SMDR Printing Mode 1: Outbound and Inbound

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 2# 7# (0 or 1)#

**Description** The SMDR printer can record data for only outgoing calls or for both outbound and inbound calls

### Progiamming



### Notes

**Activating SMDR Mode after Using the Bus Monitor Mode** If the DBS 824 is in Bus Monitor Mode, the SMDR Mode must be reactivated to resume SMDR output. To reactivate SMDR mode from any extension press

ON/OFF **#90** ON/OFF (to empty buffer), then

ON/OFF **#93** ON/OFF (to activate SMDR mode)

## SMDR Printing Mode 2: Long-Distance and Local Calls

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 2# 8# (0 or 1)#

**Description** The SMDR printer can record data on only long-distance calls or on all types of outbound calls

### Programming

FF1 2# 2# 8# (0 or 1)#



0=Long-distance only

1=Local and long-distance

## SMDR Printing Mode 3: Header Title

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 2# 9# (0 or 1)#

**Description** Titles such as “Time,” “Duration,” and “COW are printed every 60 lines on the SMDR report if this feature is enabled

### Programming

**FF1 2# 2# 9# (0 or 1)#**



**0=Turns off the header**

**1=Turns on the header**



# PBX Settings

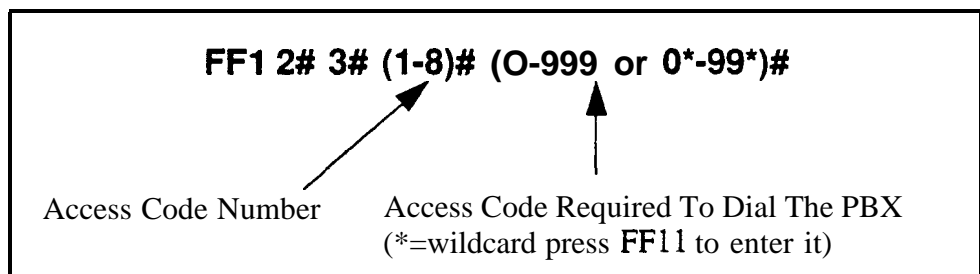
## PBX Access Code(s)

Software Version CPC-S and CPC-M, Version 1.0 and higher  
 Address FF1 2# 3# (1-8)# (0-999 or 0\*-99\*)#

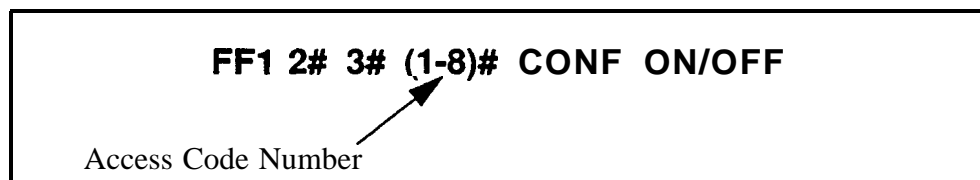
**Description** The DBS 824 can dial up to 8 different PBX access codes. These codes can be one, two or three digits long. This feature is used when the DBS 824 is installed behind a PBX and has toll restrictions enabled. The feature prevents the DBS 824 from regarding the PBX access code digit(s) as part of a dialed number.

### Programming

To program an access code



To reset access codes to default



### Related Programming

Trunk Port Type FF2 (Trunk)# 10#

# Automatic Pause Position For PBX Access Codes

Software Version **CPCS and CPC-M, Version 1 0 and higher**

Address **FF1 2# 3# (9-18)# (1-3)#**

**Description** This program inserts a pause in the PBX access code (and in SSD and PSD codes) after the output of the first, second, or third digit

The pause ensures that the PBX has time to connect to the central office before the DBS 824 sends the PBX any digits. If an adequate pause is not allowed, the DBS 824 will send digits to the PBX too quickly causing the call attempt to fail.

Different pause sequences can be assigned to each PBX access code.

## Programming

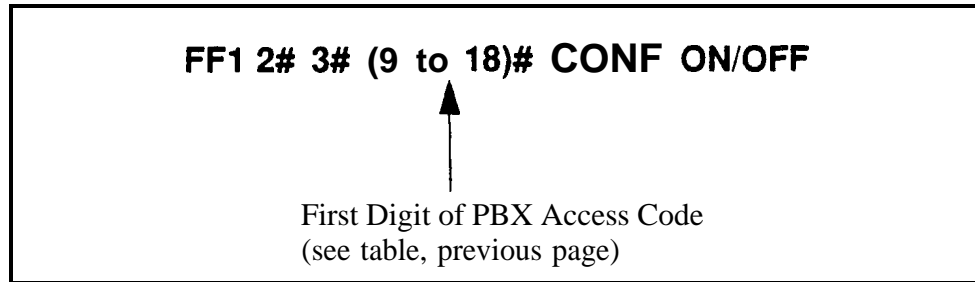
To program an automatic pause

**FF1 2# 3# (9 to 18)# (1 to 3)#**

First Digit of PBX Access Code  
(see table below)

1=Pause after 1st digit  
2=Pause after 2nd digit  
3=Pause after 3rd digit

<i>Dial Digit</i>	<i>Number</i>
1	0
2	0
11	3
12	4
13	5
14	6
15	7
16	8
17	9
18	0

**To reset an automatic pause to default****Examples****Inserting a pause after the PBX access code "9X"**

To insert a pause after the PBX access code "9X" is dialed, enter this address ('X' represents the numbers 0-9)

**FF1 2# 3# 17# 2#**

This sequence will insert a pause between the "9X" and the rest of the dialed digits For example,

**91 + PAUSE + 404-555-5793**

**Inserting a pause after the PBX access code "8"**

To insert a pause after the PBX access code "8" is dialed, enter this address

**FF1 2# 3# 16# 1#**

This sequence will insert a pause between the "8" and the rest of the dialed digits For example,

**8 + PAUSE + 404-555-5793**

**Related Programming**

Automatic Pause Timer FF1 3# 10#

Automatic Pause for PBX Line FF2 (Trunk)# 13#

## External (UNA) Relay Control

### Ring Patterns For UNA Terminals (MI, CI, & B1)

Software Version CPC-M Only (Version 1 0 and above)

Address FF1 2# 4# 1# (0 or 1)#

#### Description

Use this address to set the ring pattern for incoming trunk calls sent to Universal Night Answer (UNA). The UNA feature allows these calls to be signalled over a loudspeaker or amplifier.

This address actually controls the UNA relay terminals labeled "MI", "CI" and "B 1" (located on terminal block CN4) on the CPC-M card. A bell or tone device can be attached to these relay terminals to simulate incoming ring over the loudspeaker or the CO can be used as the ringing sound source.

This address does not apply to the CPC-S card, which is not equipped with UNA relay terminals. (However, a UNA device can be plugged into the "EPA" phono-jack on the CPC card, use address FF1 2# 1# 37# to tell the system the type of device -- UNA or External Page -- plugged into "EPA".)

The ring pattern choices in this address are *continuous* (the terminal contacts are continuously energized to receive CO ring) or *intermittent* (1 second ON / 3 seconds OFF to simulate incoming ring on the bell or tone device installed).

#### Programming

FF1 2# 4# 1# (0 or 1)#



0=Intermittent (1 second ON / 3 seconds OFF)

1=Continuous (relay contacts are continuously energized)

#### Related Programming

CO Day Ring Assignments FF4 1# (25)# (1-8)#

CO Night 1 Ring Assignments FF4 2# (25)# (1-8)#

CO Night 2 Ring Assignments FF4 9# 1# (25)# (1-8)#

CO Ring Cycle Detection Timer FF1 3# 13# (0-3)#

# External Page Interface Control For Paging Groups

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 4# (2-9)# (0 or 1)#**

**Description** This setting determines whether a page is heard over an external page device connected to the 824. This device is normally a loudspeaker installed in the ceiling and connected to the 824 via the "EPA" phono-jack (for audio path) on the CPC-S and CPC-M cards. On the CPC-M card, a device can also be connected to the CN4 relay terminals labeled "AZ", "Z1", "Z2", "Z3" and "Z4" to control page zones. Also present on CN4 are relay terminals "M2", "B2" and "C2", to which a general PA system can be connected.

In the 824 system, *internal* paging is automatically performed -- all pages are heard on the speakers of extension phones in the page group selected. External paging, however, is controlled by the setting of this address. If external paging is activated an audio path is established via the "EPA" phono-jack on the CPC card (for both CPC-S and CPC-M versions) whenever a page is initiated. The following also happens in a CPC-M configuration: 1) the "M2", "B2" and "C2" relay terminals are activated when any page group is selected for the page, and 2) the "Z" relay terminals activate when their *associated* page group is selected (see table in address below).

## Programming

**FF1 2# 4# (2-9)# (0 or 1)#**

Page Group' (see table below)      0=Internal paging only  
1 =External and Internal paging (see table below)

Address Number (2 9)	Page Group	If External <b>Paging</b> is activated ("1" stltcttd above) ...		
		CPC M Only		CPC-M and CPC S
2	0	AZ relay activated	M2" "B2" and "C2" relays are activated.	Audio path is established via EPA phmo jack on the CPC Card
3	1	Z1 relay activated		
4	2	Z2 relay activated		
5	3	Z3 relay activated		
6	4	Z4 relay activated		
7	5	Norelay control for these page zones		
8	6			
9	7			

## Related Programming

Page Group Extensions FF3 (ExtPort)# (18-25)# (0 or 1)#

EPI Audio Control (CPC-S Only) FF1 2# 1# 37# (0 or 1)#

# Class of Service

## Extension Class Of Service

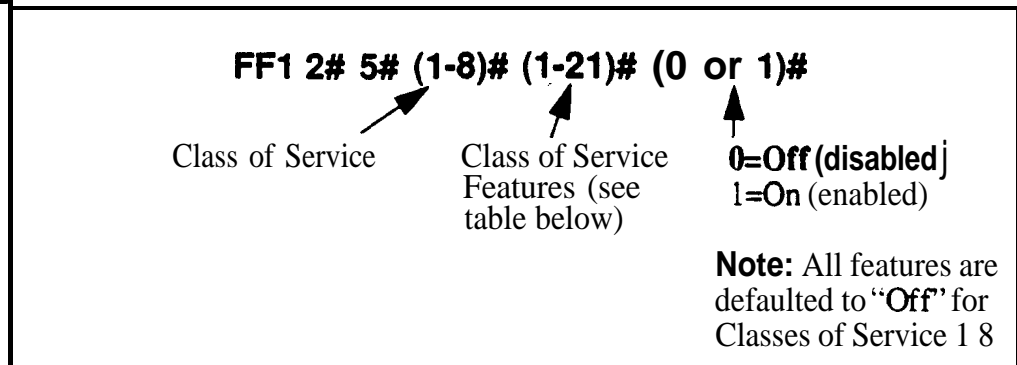
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 5# (1-8)# (1-21)# (0 or 1)#

**Description** This address allows you to assign features to a Class of Service. The Class of Service can then be assigned to individual extensions using program address FF3 (ExtPort)# 35#

A maximum of 8 different Classes of Service can be defined. Each Class of Service can contain unique combinations of on/off settings for the 21 features shown in Table 1-5 below.

### Programming



**Table 1-5** Class of Service features

COS No	Feature
1	Dial Tone On/Off (#50)
2	Head/Handset Exchange (#51)
3	BGM On/Off (#53)
4	Absence Message Set/Reset (71)
5	Call Forward Set/Reset (72)
6	Do Not Disturb (73)
7	Station Lockout (74)
8	Park Access (75)
9	Park Pick Up (76)
10	Meet Me Answer (77)
11	UNA Pickup (78)

12	Direct Pickup (79)
13	Group Pickup (70)
14	Tone/Voice Mode (1)
15	Message Waiting Set (2)
16	Busy Override (4)
17	Call Waiting (3)
18	Offhook Voice Announce (5)
19	Central Office Call Queuing (2)
20	SLT Transfer (8)
21	Call Forwarding--External <b>Note:</b> This item controls external call forwarding for internal calls

## Related Programming

Extension Class of Service Assignment FF3 (ExtPort)# 35#

## Notes

**Interaction with Extension Class of Service Assignment.** The Extension Class of Service Assignment address (FF3 ExtPort# 35#) determines which Class of Service is used by a particular extension. By default, every extension is assigned to Class of Service "0", which provides access to all 21 of the Class of Service features and cannot be modified to restrict feature usage. (Use Class of Service 1-8 to restrict feature usage.)

# Account Codes

## Verified Forced Account Codes

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF1 2# 6# (1-100)# 1# (0001-9999)#

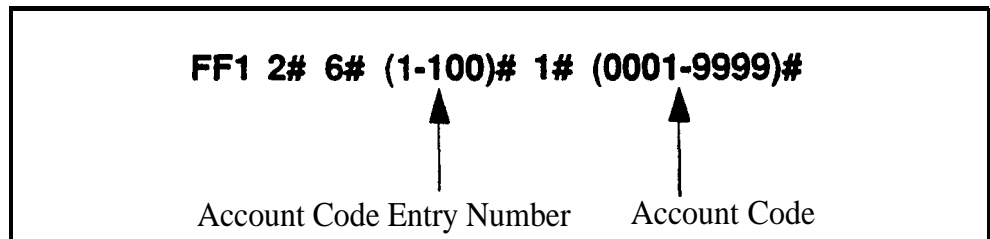
**Description** This program allows you to assign up to 100 four-digit verified account codes. Once the account codes are assigned, use address **FF12# 6# (1-100)# 2# (0-7)#** to assign a Toll Restriction Setting (TRS) value to the account code.

If an extension is set to use Verified Forced Account Codes, the system will check all dialed account codes against the codes entered in this program address. If a match is found, the system will allow the extension user to make an outgoing call based on the TRS type assigned to the account code. However, if the system does not find a match, the extension cannot make an outgoing call.

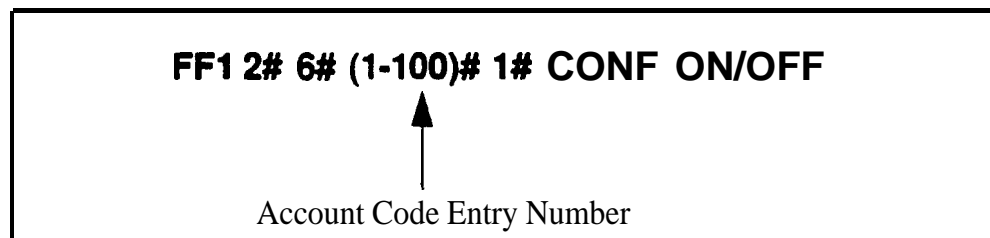
If an extension is not set to use Verified Forced Account Codes, the extension user can still enter a Verified Forced Account Code to use a different TRS.

## Programming

To assign a verified account code



To reset a verified account code to the default





## Examples

### Assigning 1234 as Account Code 1

To assign "1234" as Account Code 1, enter this address

**FF1 2# 6# 1# 1# 1234#**

### Assigning 9999 as Account Code 100

To assign "9999" as Account Code 100, enter this address

**FF1 2# 6# 100# 1# 9999#**

## Related Programming

Toll Restriction For Verified Forced Account Codes **FF1 2# 6# (1-100)# 2# (0-7)#**

Forced Account Codes **FF3 (ExtPort)# 5# (0 or 1)#**

Toll Restriction Settings **FF7**

## Notes

*Interaction With TRS* The default TRS type for Verified Forced Account Codes is "0," which generally allows intercom calling only. Therefore if you assign an account code but do not assign a TRS value to it, the code will restrict outside dialing.

*Assignment Restriction* An account code of 0000 is invalid.

**SMDR** Format. In the SMDR report, the account code that was used to access the CO trunk will appear starting in position 70 of the call record line.

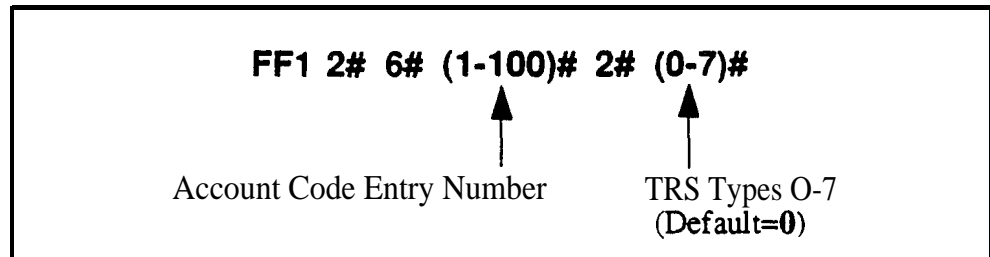
## Toll Restriction For Verified Forced Account Codes

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF12# 6# (1-1 00)# 2# (0-7)#**

**Description** Use this address to assign toll restriction (TRS) types to Verified Forced Account Codes. A caller who enters the account code will be restricted by the TRS type assigned to the *account code* (not the TRS type assigned to the *extension*).

### Programming



### Related Programming

Forced Account Codes **FF3 (ExtPort)# 5# (0 or 1)#**

Toll Restriction Settings **FF7**

### Notes

**Interaction With TRS** The default TRS type for Verified Forced Account Codes is "0" which generally allows intercom calling only. Therefore if you assign an account code but do not assign a TRS value to it, the code will restrict outside dialing.

# Custom Screens

## Custom Screen Soft-Key Assignment

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 7# 1# (Screen)# (SoftKey)## (Feature)#

**Description** Use this program to create up to 15 custom menu screens for large-display phones. Each screen can contain up to 10 feature codes (one feature code per soft key). 'Soft keys' are the 10 buttons located on the left and right sides of the LCD display window on the large-display phone (see figure below). Soft key 1 is the top left button, soft key 2 is beneath it, and so on.

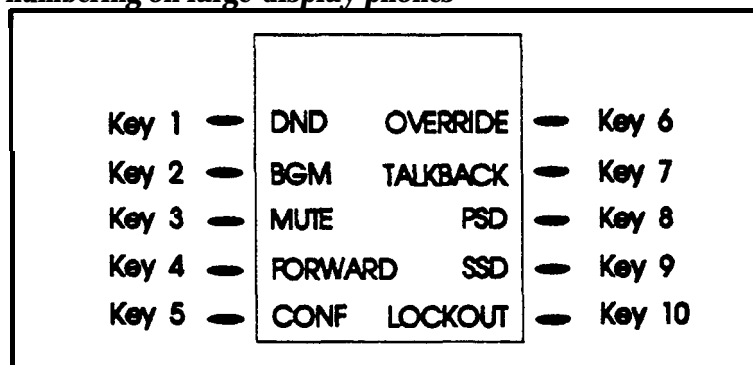
When creating custom screens you are programming the soft keys to perform one of the following special functions while the custom screen is displayed:

- **One-touch access to directories** Pressing the soft key will display a directory of extension numbers, Personal Speed-Dial numbers or System Speed-Dial numbers.
- **One-touch initiation of a specific feature** The soft keys can also execute any feature operation code except for "Conference" and "Flash", which already have their own fixed keys on the phone.

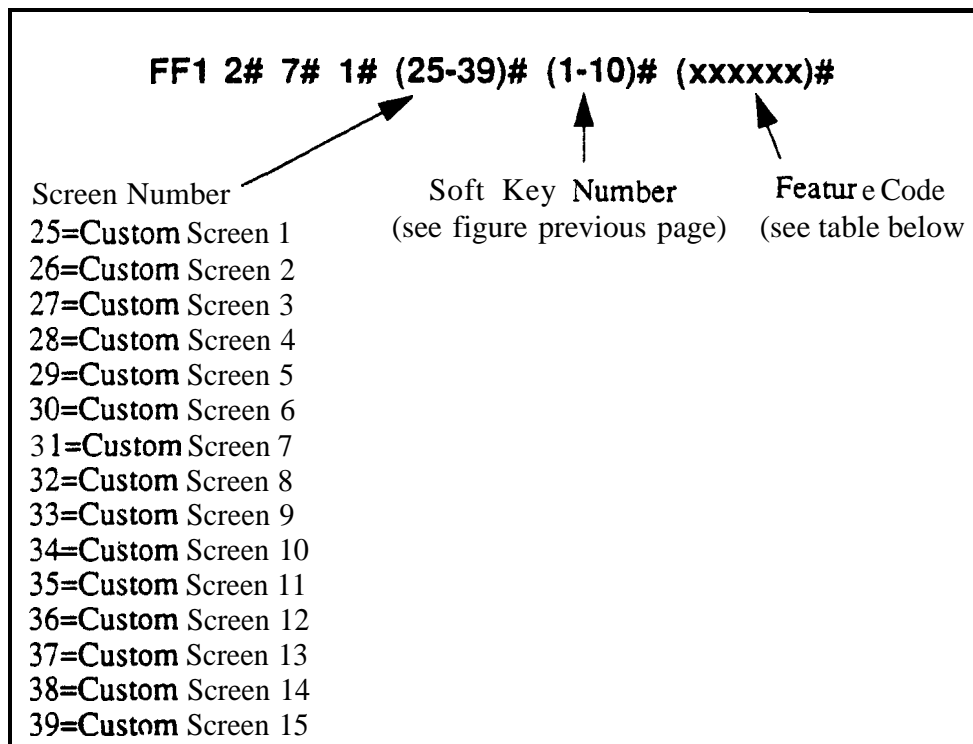
After these custom screens are built, you can assign them to display during different call states (phone idle, intercom dial tone, CO dial tone during a CO call, etc.) using another programming address, FF3 (ExtPort)# (26-33)# (Screen)#

When deciding what feature codes to assign to the soft keys on the custom screens, keep in mind that the DBS 824 system already has 24 pre-programmed menus (see Appendix A) that can also be assigned to display during different call states.

**Figure 1-1 Soft key numbering on large-display phones**



### Programming



**Table I 6** Feature codes that can be assigned to soft keys on custom screens

Feature	Code to be assigned to Soft Key
Absence	71
Account Code	FF12 7 or AUTO FF12
Answer Key	FF11 1
<b>BGM Off</b>	FF12 53
Busy Override	PROG PROG 4
Call Forward	<b>72</b>
Call Forward - All Calls	<b>720</b>
Call Forward - Busy/No Answer	<b>721</b>
Call Forward - Busy	<b>722</b>
Call Forward - No Answer	<b>724</b>
Call Park	<b>75</b>
Call Waiting	PROG PROG 3
Caller ID Log	FF11 6
Day mode	FF12 521
<b>Day/Night1/Night2 Mode Toggle</b>	<b>FF12 520</b>
Dial Tone Off	FF12 50

Feature	Code to <b>be assigned to Soft Key</b>
Direct Call Pickup	79
Direct Trunk Selection	01 02 etc
DND	73
DSS key	PROG (10-69) or (100-699)
DTMF Conversion	PROG PROG FF11 or PROG PROG FF12
Extension Directory	900002
Group Call Pickup	70
Headset	FF12 51
Lockout	74
Meet Me Answer	77
Message Callback	<b>AUTO REDIAL</b>
Message <b>Waiting/CO</b> Queuing	PROG PROG 2
Mute	<b>FF11 FF12</b>
Night 1 mode	FF12 522
Night 2 mode	<b>FF12 523</b>
<b>Offhook</b> Voice Announce	PROG PROG 5
<b>Offhook</b> Voice Announce Answer	<b>FF11 3</b>
Page (00-07)	FF12 00 thru FF12 07
Personal Speed Dial Directory	900000
Personal Speed Dial Numbers	AUTO 90-99 / 900-909 / 900-939
Release	<b>FF11 2</b>
Reminder	FF12 4
Save Number Redial Access	AUTO <b>FF11</b>
Save Number Redial Set	AUTO AUTO <b>FF11</b>
System Speed Dial Directory	900001
System Speed Dial Number	AUTO 00-89 / 000-089 / 000- 199
<b>Talkback</b>	<b>FF11 3</b>
Tone/Voice Calling	PROG PROG 1
Transfer	PROG PROG PROG
Trunk Group 8 1-86 or 89	81-86 or 89
UNA Pickup	78
Voice Mail Transfer	PROG AUTO AUTO <b>VM Pilot Number</b>

## Related Programming

Custom Screen Text FF1 2# 7# 2# (Screen)# (Key)# (Text)#

Custom Screen Default FF1 2# 7# 3# (Screen)# (0 or 1)#

Custom Screens Default (All) FF1 2# 7# 4# (0 or 1)#

Display Screens During Call States FF3 (ExtPort)# (26-33)# (Screen)#

## Notes

**FF11 and FF12 in the Feature Codes** When entering the feature codes in this FF1 2# 7# 1# address the phone will display the code numbers as you press them, except for FF 11 and FF12 (the phone will **not** display any code for these keys, although it will recognize them) This is because FF1 1 and FF12 represent an asterisk \* and a pound sign # (respectively) in the feature code And since \* and # are used for moving forward/backward in the programming mode, FF1 1 and FF12 are used instead to store \* and # entries in a feature code

**Initial Displays** The 15 custom screens are blank by default.

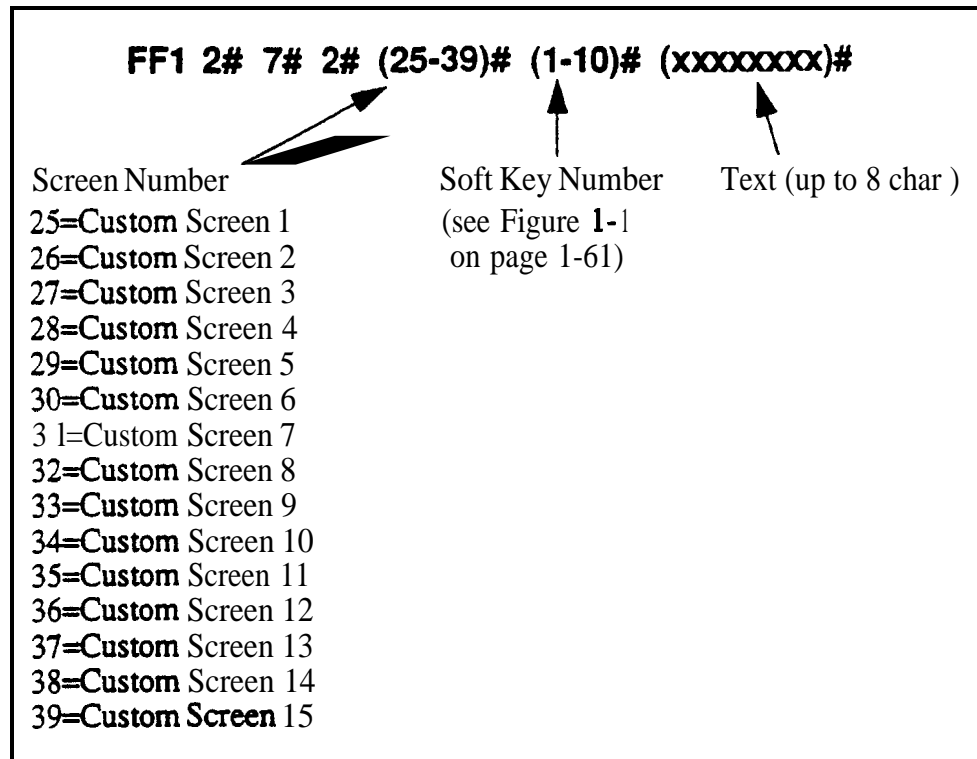
**Displaying Feature Codes** To display an existing feature code assignment for a soft key, use the same programming address for assigning the feature code to the soft key (FF1 2# 7# 1# Screen# SoftKey#)

## Custom Screen Text

Software Version **CPC-S and CPC-M, Version 1.0 and higher**  
 Address **FF1 2# 7# 2# (Screen)# (SoftKey)# (Text)#**

**Description** Use this program to create the text that identifies the soft keys on a custom menu screen for large-display phones. The text for each soft key can be up to 8 characters long. Use a **DSS/72** console (with alphabetic keys) or the remote programming mode on a large-display phone (scroll through the alphabetic characters on the digital keypad) to assign the text in this programming address.

### Programming



### Related Programming

Custom Screen for Soft Keys **FF1 2# 7# 1# (Screen)# (Key)# (Feature)#**

Custom Screen Default **FF1 2# 7# 3# (Screen)# (0 or 1)#**

Custom Screens Default (All) **FF1 2# 7# 4# (0 or 1)#**

Display Screens During Call States **FF3 (ExtPort)# (26-33)# (Screen)#**

# Custom Screen Default

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 2# 7# 3# (Screen)# (0 or 1)#**

**Description** Use this program to reinstate individual custom screens to the default value (blank no features assigned to soft keys)

## Programming

**FF1 2# 7# 3# (25-39)# (0 or 1)#**

Screen Number

- 25=Custom Screen 1
- 26=Custom Screen 2
- 27=Custom Screen 3
- 28=Custom Screen 4
- 29=Custom Screen 5
- 30=Custom Screen 6
- 31=Custom Screen 7
- 32=Custom Screen 8
- 33=Custom Screen 9
- 34=Custom Screen 10
- 35=Custom Screen 11
- 36=Custom Screen 12
- 37=Custom Screen 13
- 38=Custom Screen 14
- 39=Custom Screen 15

**0=Do not return to default setting**  
**1=Return to default setting**

## Related Programming

Custom Screen for Soft Keys **FF1 2# 7# 1# (Screen)# (Key)# (Feature)#**

Custom Screen Text **FF1 2# 7# 2# (Screen)# (Key)# (Text)#**

Custom Screens Default (All) **FF1 2# 7# 4# (0 or 1)#**

Display Screens During Call States **FF3 (ExtPort)# (26-33)# (Screen)#**



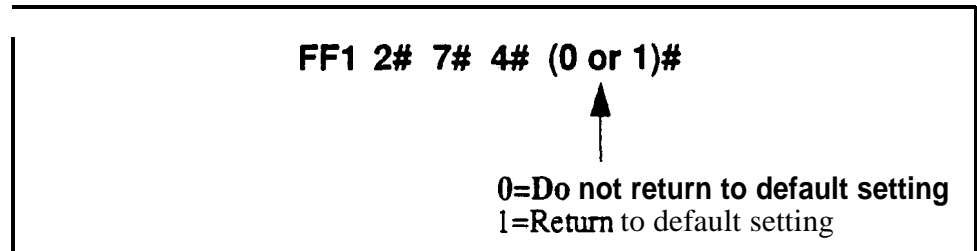
## Custom Screens Default (All)

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 7# 4# (0 or 1)#

**Description** Use this program to reinstate all 15 custom screens to the default value (blank, no features assigned to soft keys)

### Programming



### Related Programming

Custom Screen for Soft Keys FF1 2# 7# 1# (Screen)# (Key)# (Feature)#

Custom Screen Text FF1 2# 7# 2# (Screen)# (Key)# (Text)#

Custom Screen Default FF1 2# 7# 3# (Screen)# (0 or 1)#

Display Screens During Call States FF3 (ExtPort)# (26-33)# (Screen)#

# Caller ID Automatic DISA

## Automatic DISA Callers

Software Version **CPC-M Only (Version 1 0 and above)**

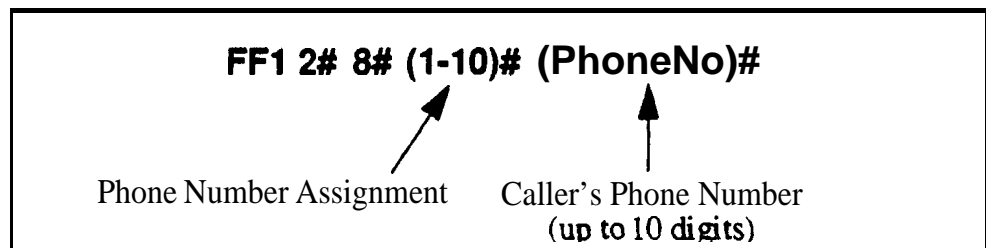
Address **FF1 2# 8# (1-10)# (PhoneNo )#**

**Description** Use this program to assign up to 10 phone numbers for the Caller ID Automatic DISA (Direct Inward System Access) feature. When a caller (e.g. company salesman) calls from one of the phone numbers assigned in this address, the trunk receiving the call will automatically switch to DISA without requiring the caller to enter an ID Code.

The DISA feature gives the caller access to inside features normally available only to another extension.

Note: In order to use the Automatic DISA feature, the DBS 824 system must have a CPC-M card and the Caller ID package installed.

## Programming



## Related Programming

DISA Auto Answer FF2 (Trunk)# 11# (0 or 1)#

Trunk Circuit Type FF2 (Trunk)# 21# (0 or 1)#

## Notes

*Matching The Caller's Phone Number* The caller's phone number entered in the above programming address must exactly match the phone number received by Caller ID (usually 10 digits).

*Assigning DISA Trunks* If the Caller ID Automatic DISA feature is used,

---

# Maintenance Data (Serial Port CN2)

## Parity Check (Maintenance Port)

Software Version CPCS and CPC-M, Version 1 0 and higher

Address FF1 2# 9# 1# (0 or 1 )#

**Description** This program **determines** whether the DBS 824 uses parity checking over serial port CN2, which is normally dedicated for remote maintenance

If this address is set to “on ’ (default setting), use FF1 2# 9# 2# (0 or 1)# to select Even or Odd parity

### Programming

FF1 2# 9# 1# (0 or 1)#



0=Turns off the parity check  
1=Turns on the parity check

### Related Programming

Odd/Even Parity (Maintenance Port) FF1 2# 9# 2# (0 or 1)#

### Notes

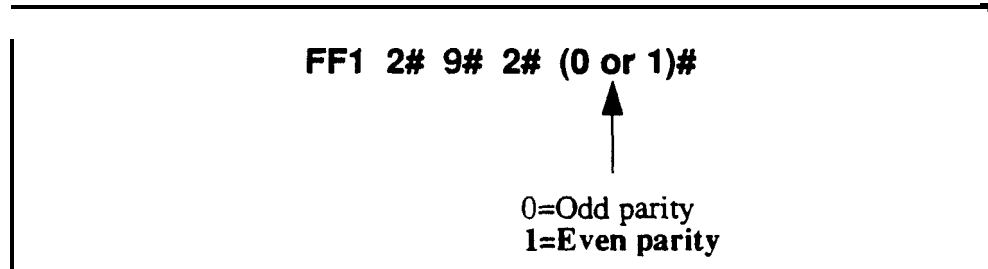
Checking **Communications Parameters** Be sure to properly set **all** communication programming addresses when modifying any single address value Communication parameters for Maintenance are set with addresses FF1 2# 9# 1# through 6#

## Odd/Even Parity (Maintenance Port)

Software Version CPC-S and CPC-M, Version 1.0 and higher  
Address FF1 2# 9# 2# (0 or 1)#

**Description** If the parity check for Maintenance port CN2 has been set (FF1 2# 9# 1#) this option determines whether the check is based on an even count or an odd count

### Programming



### Notes

**Checking Communications Parameters** Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for Maintenance are set with addresses FF1 2# 9# 1# through 6#

---

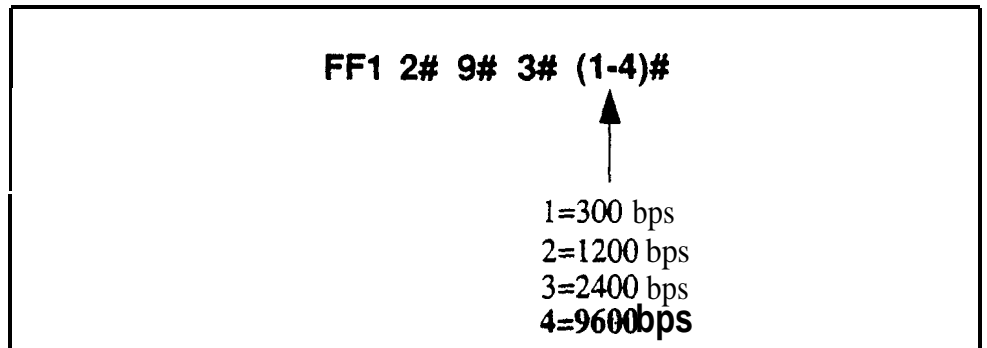
## Baud Rate (Maintenance Port)

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 2# 9# 3# (1-4)#

**Description** The data transmission speeds between Maintenance serial port CN2 and peripheral equipment can be set from 300 bits per second to 9600 bits per second

### Programming



### Notes

*Checking Communications Parameters* Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for Maintenance are set with addresses FF1 2# 9# 1# through 6#

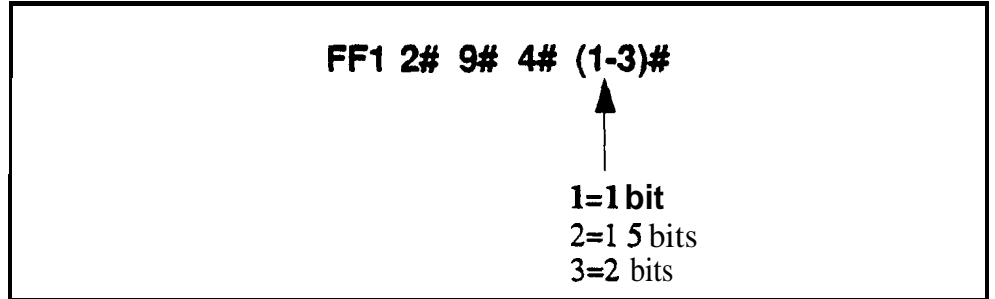
---

# Stop Bit Length (Maintenance Port)

Software Version CPCS and CPC-M, Version 1.0 and higher  
Address FF1 2# 9# 4# (1-3)#

**Description** This program sets the length of the stop-bit parameter for **transmitted** data over Maintenance serial port CN2

## Programming



## Notes

**Checking Communications Parameters** Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for Maintenance are set with addresses FF1 2# 9# 1# through 6#

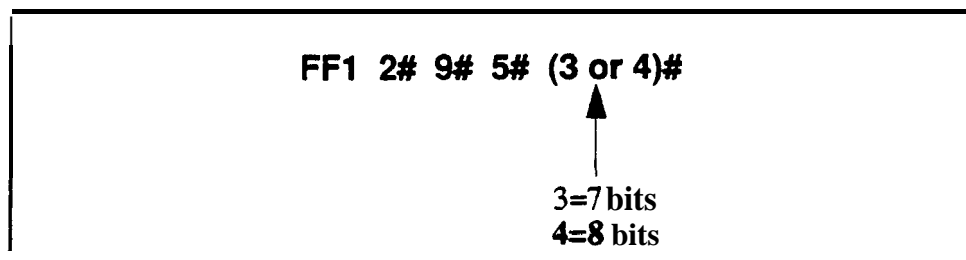
## Data Length (Maintenance Port)

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 2# 9# 5# (3 or 4)#

**Description** This program sets the length of the transmitted data using 7 or 8 bits, over Maintenance serial port CN2

### Programming



### Notes

**Checking Communications Parameters** Be sure to properly set all communication programming addresses when modifying any single address value. Communication parameters for Maintenance are set with addresses FF1 2# 9# 1# through 6#

## Maintenance Serial Port Flow Control (XON / XOFF)

Software Version CPC-S and CPC-M, Version 1 0 and higher

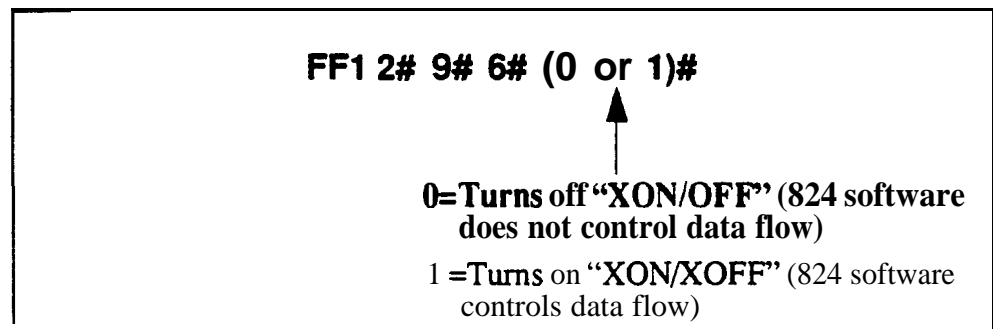
Address FF1 2# 9# 6# (0 or 1)#

### Description

Use this address to determine whether the DBS 824 system will control the flow of data between it and the device connected to the Maintenance serial port (CN2)

‘XON/XOFF’ (if activated in this address) is a software switch that will temporarily stop the flow of data when the device s memory buffer receives more data than it can process and resume the flow when the buffer empties

‘XON/XOFF’ should be deactivated (default setting) if a flow control mechanism is present elsewhere in the interface (i e , in the printer or RTS and CTS lines) A flow control mechanism should always be present in order to prevent data from being lost during transmission



### Notes

**DBS Buffer Size** The size of the DBS 824 buffer for maintenance data is 1 000 bytes This is the maximum amount of data that the system can hold while the device is emptying its buffer



# System Timers

## Automatic Night 1 Mode Start Time

Software Version CPC-S and CPC-M, Version 1.0 and higher  
Address **FF1 3# 1# (0000-2359)#**

**Description** This option sets a time for the DBS 824 to automatically switch from 'Day' to 'Night 1' mode. This program uses the **24-hour** time format.

### Programming

To set the automatic Night 1 mode start time

<p><b>FF1 3# 1# (0000-2359)#</b></p> <p style="margin-left: 100px;">↑</p> <p>Night 1 Mode Start Time (in <b>24-hour</b> format)</p>
---

To disable the automatic Night 1 mode start time

<p><b>FF1 3# 1# CONF ON/OFF</b></p>
-------------------------------------

### Related Programming

Time Setting, **FF1 1# 2# HHMM#**

Automatic Day Mode Start Time **FF1 3# 25# HHMM#**

Automatic Night 2 Mode Start Time **FF1 3# 29# HHMM#**

### Notes

**Interaction with the System Clock** Automatic Night 1 start time depends on the accuracy of the DBS 824 clock

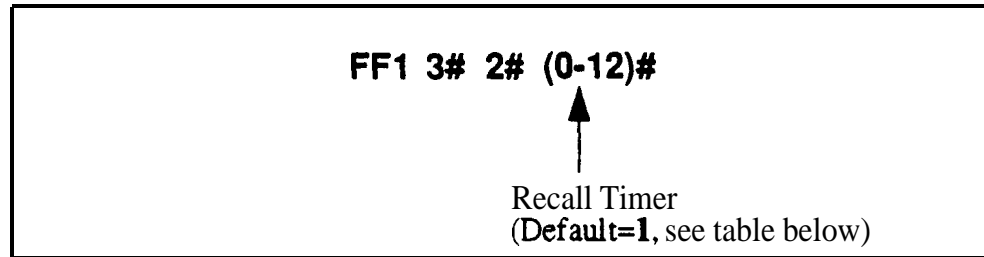
# Attendant Hold Recall Timer for CO Calls

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 3# 2# (0-12)#

**Description** This timer determines how long a trunk call can be held by the attendant(s) before it will recall

## Programming



**Table 1-7 Recall timer values for attendant-held CO calls**

Number	Value
0	No recall
1	20 seconds
2	40 seconds
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
7	140 seconds
8	160 seconds
9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

## Related Programming

Attendant Hold Recall Timer for Intercom calls **FF1 3# 18# (0-12)#**

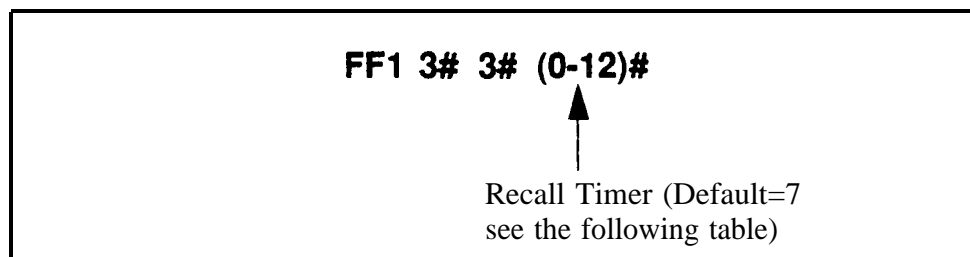
## Extension Hold Recall Timer for CO Calls

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 3# 3# (0-12)#

**Description** This timer determines how long a trunk call will be held by an extension before it will recall

### Programming



**Table I 8** Recall timer values for extension-held CO calls

Number	Value
0	No recall
1	20 seconds
2	40 seconds
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
<b>7</b>	<b>140 seconds</b>
8	160 seconds
9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

### Related Programming

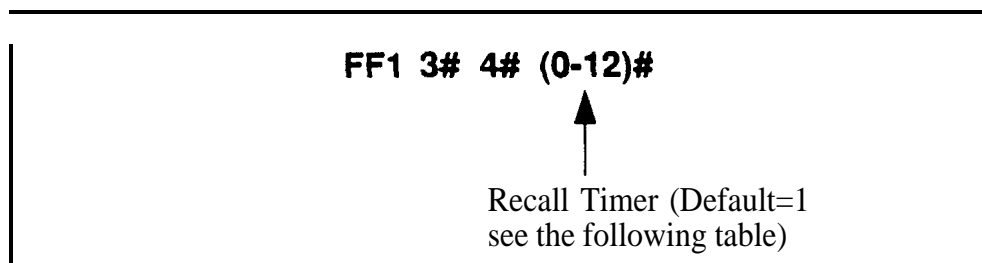
# Attendant Transfer Recall Timer for CO Calls

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 3# 4# (0-12)#

**Description** When an attendant transfers a trunk call to an extension or hunt group, the transferred call will recall to the attendant if it is not answered. This timer determines how long a transferred **trunk** call will go unanswered before it recalls.

## Programming



**Table1-9 Recall timer values for *attendant* transferred CO calls**

Number	Value
0	No recall
<b>1</b>	<b>20 seconds</b>
2	40 seconds
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
7	140 seconds
8	160 seconds
9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

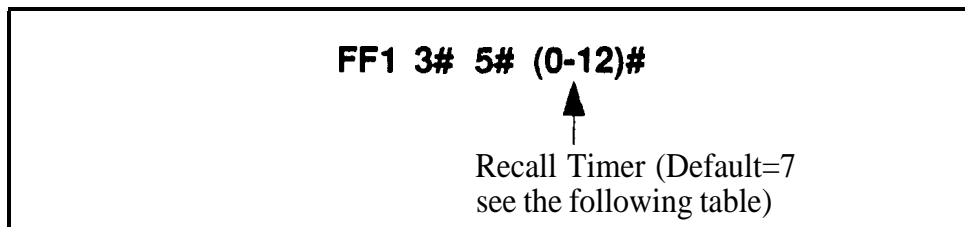
## Extension Transfer Recall Timer for CO Calls

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 3# 5# (0-12)#

**Description** When an extension transfers a trunk call to another extension or to a hunt group, the transferred call will recall to the extension if it is not answered. This timer determines how long a transferred trunk call will go unanswered before it recalls.

### Programming



**Table 1-10 Recall timer values for extension transferred CO calls**

Number	Value
0	No recall
1	20 seconds
2	40 seconds
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
7	<b>140 seconds</b>
8	160 seconds
9	<b>180 seconds</b>
10	200 seconds
11	220 seconds
12	240 seconds

### Related Programming

Extension Transfer Recall Timer for Intercom Calls **FF1 3# 21# (0-12)#**

### Notes

**Recall Treatment.** If the extension does not answer the recall, the system will transfer the call to the attendant.

# Attendant Park Hold Recall Timer

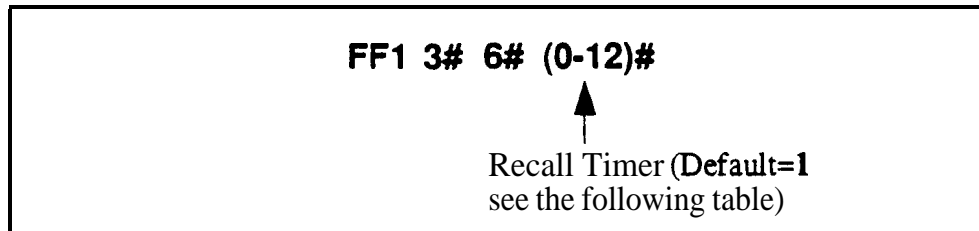
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 3# 6# (0-12)#

**Description** An attendant phone can use up to 10 Call Park Numbers (00-09) to hold trunk calls. These park numbers can be assigned to an FF key or accessed by placing a call on hold, then dialing 7501-7509.

This program determines how long a parked call will be held before it recalls.

## Programming



**Table1-11 Attendant park hold recall timer values**

Number	Value
0	No recall
1	20 seconds
2	40 seconds
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
7	140 seconds
8	160 seconds
9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

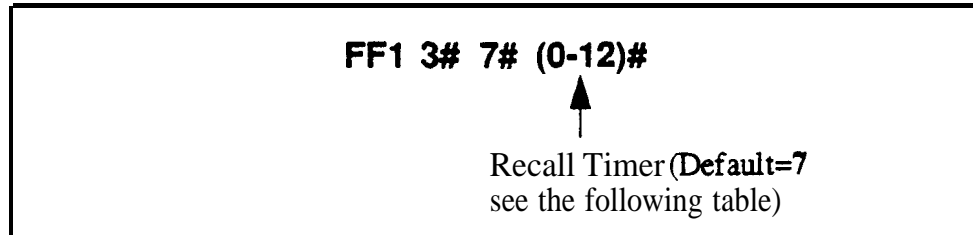
## Extension Park Hold Recall Timer

Software Version CPCS and CPC-M, Version 1.0 and higher

Address FF1 3# 7# (0-12)#

**Description** If an extension parks a call, the parked call **will** recall if it is not picked up. This program determines how long the parked call will be held before it recalls.

### Programming



**Table 1-12** Extension park hold recall timer values

Number	Value
<b>0</b>	No recall
<b>1</b>	20 seconds
<b>2</b>	<b>40</b> seconds
<b>3</b>	60 seconds
<b>4</b>	<b>80</b> seconds
<b>5</b>	100 seconds
<b>6</b>	120 seconds
<b>7</b>	<b>140</b> seconds
<b>8</b>	160 seconds
<b>9</b>	180 seconds
<b>10</b>	200 seconds
<b>11</b>	220 seconds
<b>12</b>	<b>240</b> seconds

# Attendant Call Reversion Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 8# (0-12)#**

## Description

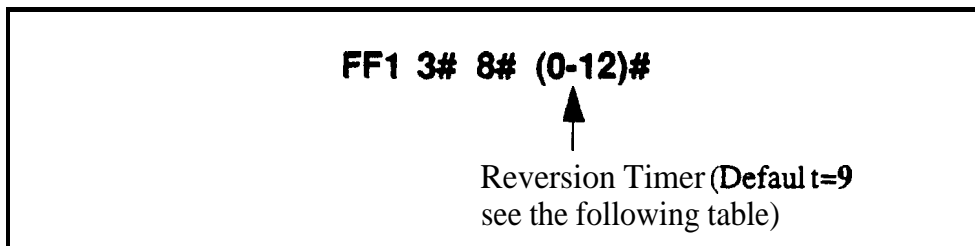
By default the DBS 824 ultimately causes unanswered calls to revert to the attendant

For example, if an extension places a call on hold and the held call recalls to the extension the recall reverts to the attendant if it is not answered. Also, if a transfer recall is not answered by the transferring extension it also reverts to the attendant.

This timer determines how long an unanswered call will ring at the last possible answering position before it reverts to the attendant

For instance if an extension parks a call, the parked call will recall if it is not answered. The Attendant Call Reversion **Timer** will determine how long the park recall will ring at the extension before it reverts to the attendant. If the Attendant Call Reversion Timer is set to default, the park recall will ring the extension for 180 seconds before reverting to the attendant.

## Programming



*Table I 13 Attendant call reversion timer values*

Number	Value
0	No recall
1	20 seconds
2	40 seconds
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
7	140 seconds
8	160 seconds



9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

**Notes**

**Night Mode Restriction** This feature is not available when the DBS 824 is in Night 1” or Night 2’ mode

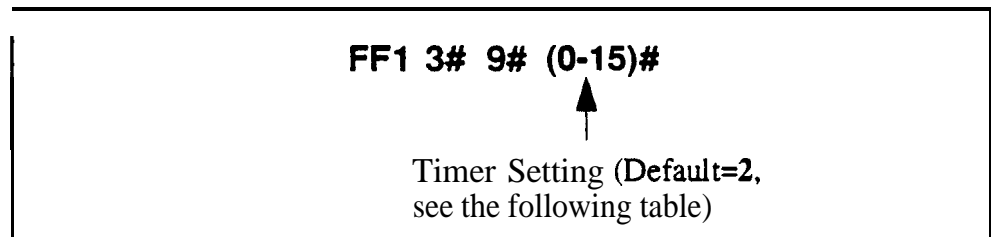
## Unsupervised Conference Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF1 3# 9# (0-15)#**

**Description** This program determines how long a conference call can continue between two trunks after a DBS 824 extension drops out of the conference. When the timer expires, the conferenced trunks automatically disconnect (there will be no warning tone to the conferenced parties).

This timer also determines how long outbound trunk calls made through DISA can last.

### Programming



**Table 1-14 Unsupervised conference timer values**

Number	Value
<b>0</b>	Unlimited (system will not disconnect the two conferenced trunks)
1	5 minutes
<b>2</b>	<b>10 minutes</b>
3	15 minutes
4	20 minutes
5	25 minutes
6	30 minutes
<b>7</b>	35 minutes
8	40 minutes
9	45 minutes
<b>10</b>	50 minutes
<b>11</b>	<b>55 minutes</b>
12	60 minutes
13	65 minutes
14	70 minutes
15	75 minutes

**Related Programming**

Unsupervised Trunk Conference FF2 (Trunk)# 16#

Unsupervised Conference FF3 (ExtPort)# 13#

# Automatic Pause Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 10# (0-15)#**

## Description

When users program their phones with PBX access codes, Personal Speed Dial numbers or System Speed Dial numbers, they can insert pause(s) in these numbers (by pressing the **REDIAL** key for each pause) so the system will dial the numbers correctly. This program address determines the length of each pause inserted by the REDIAL programming key.

## Programming

<b>FF1 3# 10# (0-15)#</b> ↑ Timer Setting (Default=7 see the following table)
--

**Table 1-15 Automatic pause timer values**

Number	Value
<b>0</b>	No pause
1	<b>5</b> seconds
2	1 seconds
3	1 5 seconds
4	2 seconds
<b>5</b>	2 5 seconds
6	3 seconds
7	3 5 seconds
<b>8</b>	4 0 seconds
9	4 5 seconds
10	5 seconds
1 1	5 5 <b>seconds</b>
12	<b>6 seconds</b>
13	6 5 seconds
14	7 seconds
15	7 5 seconds

**Related Programming**

Automatic Pause for PBX Line FF2 (Trunk)# 13# (0 or 1)#

PBX Access Codes FF1 2# 3# (1-8)# (0-999 or 0\* 9\*)#

Automatic Pause Position for PBX Access Codes FF1 2# 3# (9-18)#  
(1 3)#

# CO Flash Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 11# (0-15)#**

**Description** In the DBS 824 system a phone user can press the FLASH key to disconnect from and then reseize a CO loop-start trunk (this operation is called a 'flash') Pressing the REDIAL key also performs a flash before automatically redialing a phone number

This CO Flash **Timer** determines how long a flash to a CO will last if the FLASH key or the **REDIAL** key is depressed (pressed and then released)

Exception If the FLASH key is pressed **and held down** the flash signal will last as long as the key is pressed (The flash generated by pressing REDIAL is always controlled by the CO Flash Timer, regardless of how long REDIAL is held down )

## Programming

**FF1 3# 11# (0-15)#**

↑  
Timer Setting (Default=9,  
see the following table)

NOTE: Timer **settings** 11 to 15 require a  
208 Expansion Card (Part No VB-4265 1)

*Table 1-16 CO flash timer values*

Number	Value
0	No flash
1	2 seconds
2	3 seconds
3	4 seconds
4	5 seconds
5	6 seconds
6	7 seconds
7	8 seconds
8	9 seconds
<b>9</b>	<b>1 second</b>

10	1 1 seconds
11	1 5 seconds
12	2 seconds
13	2 5 seconds
14	3 0 seconds
15	3 5 seconds

## Related Programming

PBX Flash Timer **FF1 3# 16# (0-10)#**

Auto Flash **Redial FF1 2# 1# 6# (0 or 1)#**

Trunk Circuit Type **FF2 (Trunk)# 21# (0 or 1)#**

## Notes

Circuit **Card Requirements** Timer settings 1 1- 15 are only available with the 208 Expansion Card (Part No VB-4265 1)

**Phone Type Restriction** The **FLASH** key function applies only to digital and digital single-line telephones

**Trunk Type Restriction.** This timer only applies to loop-start **trunks**

**SLT Flash Operation.** Single-line telephones must press the hookswitch and dial "87" to activate this feature

## SLT Onhook Flash Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 12# (0-6)#**

**Description** This timer determines how long an SLT user must hold down the switchhook before the DBS 824 recognizes a hookflash. A setting is also provided to prevent users from performing a hookflash on an SLT.

### Programming

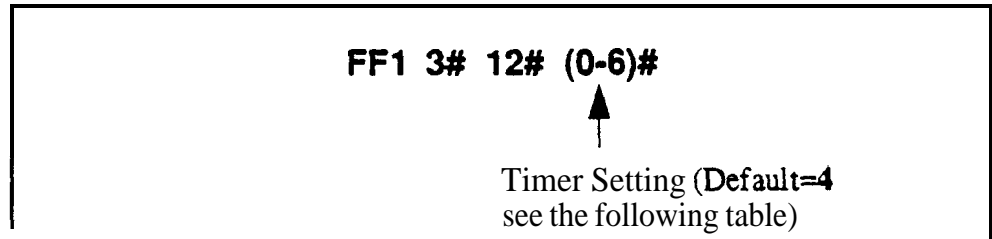


Table 1-17 SLT flush timer values

Number	Flash Treatment		
	No Detection	Valid Flash	Disconnect
<b>0</b>	Less than 200 ms	200 to 500 ms	Greater than 500 ms
1	Less than 200 ms	200 to 700 ms	Greater than 700 ms
2	Less than 200 ms	200 to 1000 ms	Greater than 1000 ms
3	Less than 200 ms	200 to 1200 ms	Greater than 1200 ms
4	<b>Less than 200 ms</b>	<b>200 to 1500 ms</b>	<b>Greater than 1500 ms</b>
<b>5</b>	Less than 200 ms	None	Greater than 200 ms
6	Less than 200ms	<b>200-500 ms</b>	Greater than 500 ms

### Notes

**Reset Requirement.** For changes to this program to take effect, the system must be turned off and then back on.



## CO Ring Cycle Detection Timer

Software Version CPC-S and CPC-M, Version 1.0 and higher  
Address FF1 3# 13# (0-3)#

### Description

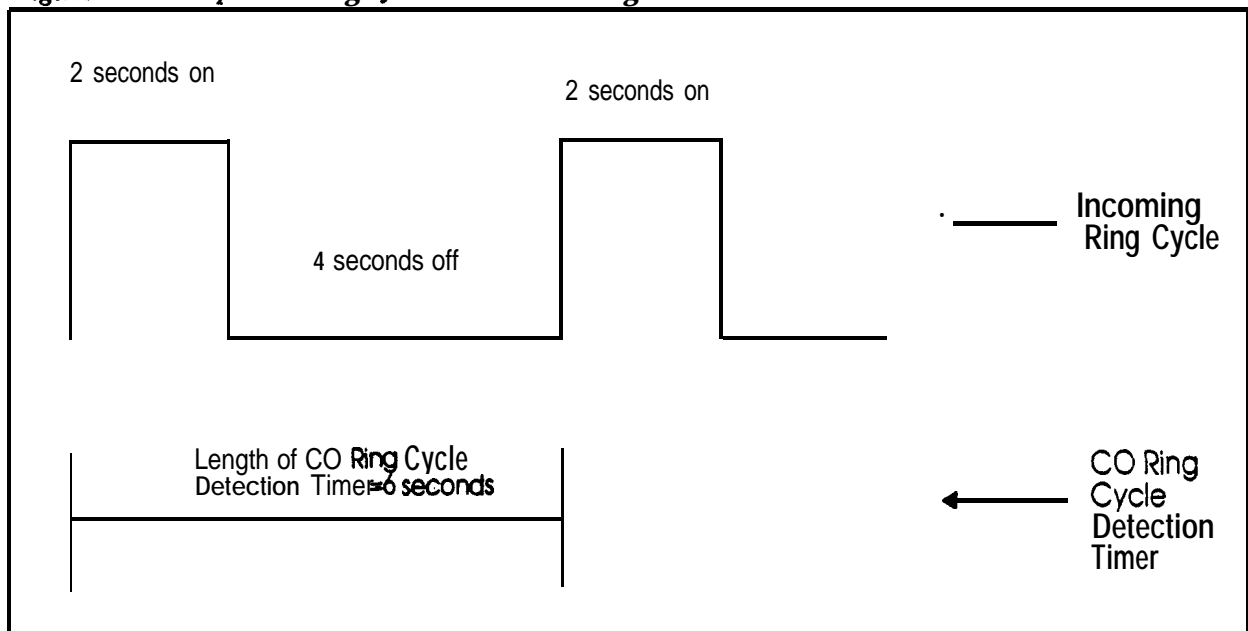
This timer determines how long the DBS 824 attempts to detect an incoming CO ring cycle. To ensure that the DBS 824 can recognize incoming trunk calls, set this timer to equal the duration of the ring cycle *including the first on period and the first off period*.

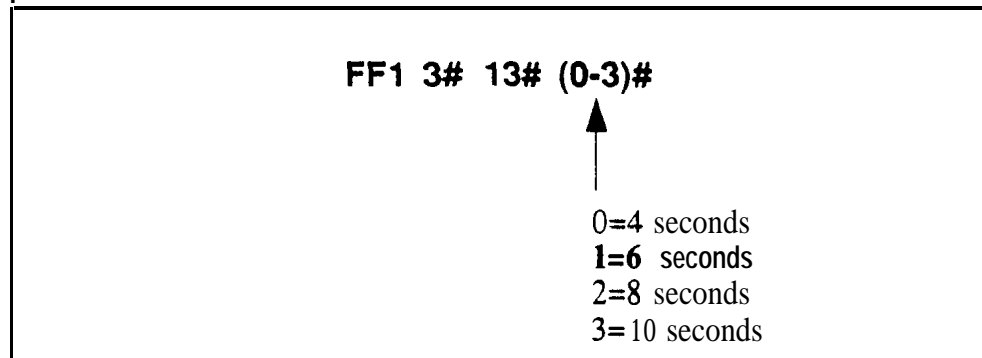
For example if the ring cycle for an incoming trunk is 2 seconds on/ 4 seconds off, this parameter should be set to at least 6 seconds to detect the full cycle.

If this timer is set too short, the system will not recognize valid central office ring signals.

See Figure 1-2 below for an example of proper CO ring cycle detection timing for an incoming pattern of 2 seconds on/4 seconds off.

**Figure 1-2 Example CO ring cycle detection timing**



**Programming****Related Programming**

Inbound Ring Cycle Expansion Timer FF1 3# 14#

## Inbound Ring Cycle Expansion Timer

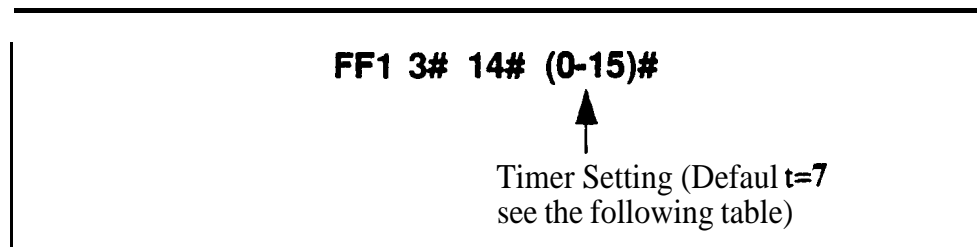
Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 3# 14# (O-1 5)#

**Description** If the incoming ring pattern for an extension (FF3 ExtPort# 38#) is set to emulate CO ringing, an extension may sometimes receive a very short ring burst when a trunk call begins ringing. This short ring burst occurs because the DBS 824 received only part of the first "on" burst (see Figure 1-2) from the trunk.

To eliminate these short rings this timer can be used to expand initial ring bursts. For example, if the timer is set to 350 ms and the first ring burst only lasts 50 ms the first ring burst sent to the extension will be 350 ms. If the first ring burst is over 350 ms the timer is ignored and the DBS 824 emulates the initial CO ring.

### Programming



**Table 1-18 Inbound ring cycle expansion timer values**

Number	Value
0	Synchronizes to the incoming call signal
1	50 ms
2	100 ms
3	150 ms
4	200 ms
5	250 ms
6	300 ms
7	<b>350 ms</b>
8	400ms
9	450 ms
10	500 ms
11	550 ms
12	600 ms

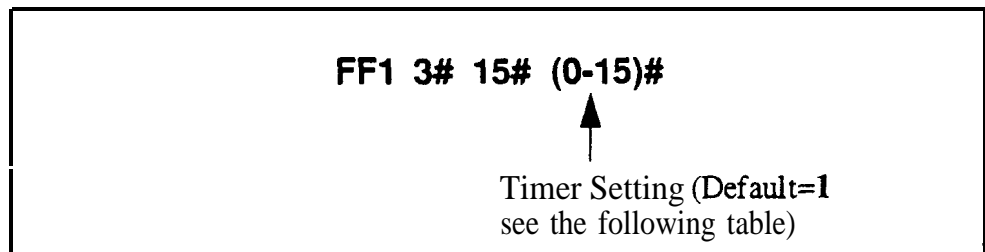
13	650 ms
14	700 ms
15	750ms

## Dial Pause Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF1 3# 15# (O-I 5)#**

**Description** This program inserts a pause before outpulsing dialed digits, once a CO trunk is accessed

### Programming



*Table I-19 Did pause timer values*

Number	Value
0	1 2 seconds
<b>1</b>	<b>1 5 seconds</b>
2	2 seconds
3	3 seconds
4	4 seconds
5	5 seconds
6	6 seconds
7	7 seconds
8	8 seconds
9	9 seconds
10	10 seconds
11	11 seconds
12	12 seconds
13	13 seconds
14	14 seconds
15	15 seconds

# PBX Flash Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 16# (0-10)#**

**Description** When the DBS 824 is behind a PBX, the FLASH key can be used to place a call on hold

This timer determines how long the flash signal will last if the FLASH key is pressed then immediately released

If the FLASH key is pressed and held down the flash signal will last as long as the key is pressed

## Programming

**FF1 3# 16# (0-10)#**

↑

Timer Setting (Default=7,  
see the following table)

**Table 1-20 PBX flash timer values**

Number	Value
0	No flash
1	2 seconds
2	3 seconds
3	4 seconds
4	5 seconds
5	6 seconds
6	7 seconds
7	8 seconds
8	9 seconds
9	1 second
10	11 seconds

## Related Programming

Auto Flash Redial **FF1 2# 1# 6# (0 or 1)#**

Trunk Port Type **FF2 (Trunk)# 10# (1 or 2)#**

## Call Forward--No Answer Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 17# (0-1 5)#**

### Description

The Call Forward--No Answer **Timer** determines how long an unanswered call will ring before it is sent to a secondary destination. For example, the timer **determines** how long an unanswered call will ring at an extension before it transfers to the Call Forward--No Answer point.

Note: Separate timers are provided for Hunt Group--No Answer, CO Delayed Ringing, and Extension Delayed Ringing

### Programming

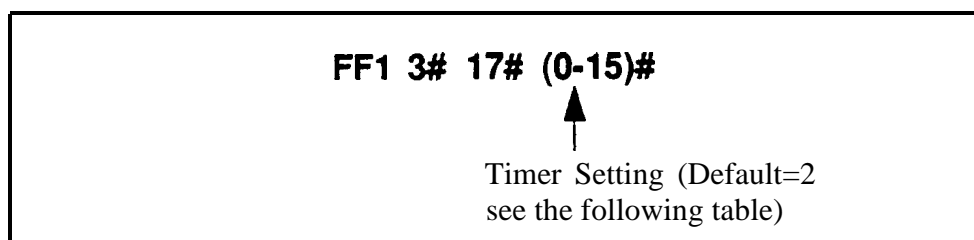


Table 1-21 Call forward--no answer timer values

Number	Value
0	After 4 seconds
1	After 8 seconds
2	<b>After 12 seconds</b>
3	After 16 seconds
4	After 20 seconds
5	After 24 seconds
6	After 28 seconds
7	After 32 seconds
8	After 36 seconds
9	After 40 seconds
10	After 44 seconds
11	After 48 seconds
12	After 52 seconds
13	After 56 seconds
14	After 60 seconds
15	After 64 seconds

# Attendant Hold Recall Timer for Intercom Calls

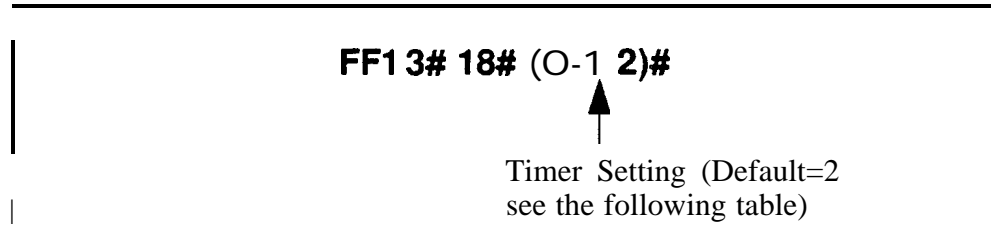
Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 18# (O-1 2)#**

**Description** If an attendant places an intercom call on hold, the held call will recall to the attendant if it is not retrieved in the time specified by this address

Recall timing for attendant-held trunk calls is controlled by another program address (**FF1 3# 2#**)

## Programming



**Table I-22 Recall timer values for *attendant-held intercom calls***

Number	Value
0	No recall
1	<b>20</b> seconds
2	40 <b>seconds</b>
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
7	<b>140</b> seconds
8	160 seconds
9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

## Related Programming

Attendant Hold Recall Timer for CO Calls **FF1 3# 2# (0- 12)#**



## Extension Hold Recall Timer for Intercom Calls

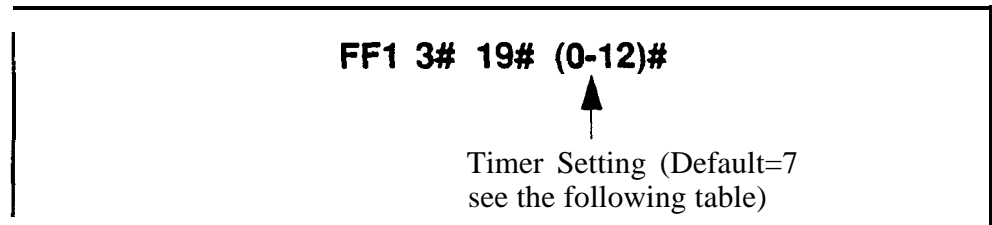
Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 3# 19# (0-12)#

**Description** If an extension places an intercom call on hold, the held call will recall to the extension if it is not retrieved in the time specified by this address

Recall **timing** for extension-held trunk calls is controlled by another program address (FF1 3# 3#)

### Programming



**Table I 23 Recall timer values for extension-held intercom calls**

Number	Value
<b>0</b>	No recall
1	20 seconds
2	40 seconds
3	60 seconds
4	80 seconds
<b>5</b>	100 seconds
6	120 seconds
7	140seconds
<b>8</b>	160 seconds
9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

### Related Programming

Extension Hold Recall Timer for CO Calls FF1 3# 3# (0-12)#

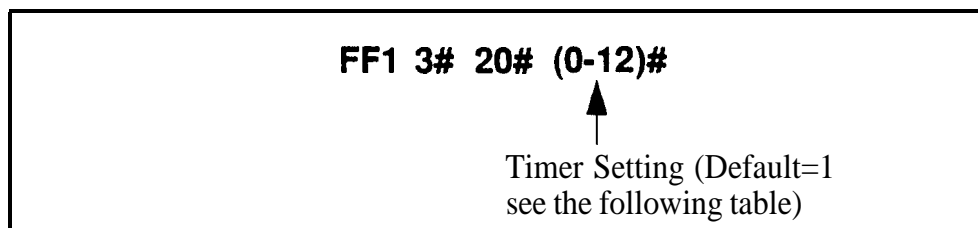
## Attendant Transfer Recall Timer for Intercom Calls

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 3# 20# (0-12)#

**Description** When an attendant transfers an intercom call to an extension the call will recall to the attendant if it is not answered. This timer determines how long the transferred call will ring the extension before it recalls.

### Programming



**Table 1 24 Recall timer values for attendant-transferred intercom calls**

Number	Value
0	No recall
1	20 seconds
2	40 seconds
3	60 seconds
4	80 seconds
5	100 seconds
6	120 seconds
7	140 seconds
8	160 seconds
9	180 seconds
10	200 seconds
11	220 seconds
12	240 seconds

### Notes

**Interaction with Call Forwarding** If a call is transferred to an extension that has Call Forwarding turned on, the call will follow the call forwarding path if the Call Forward--No Answer timer is set to a lesser value than the Recall Timer.

## Extension Transfer Recall Timer for Intercom Calls

Software Version CPCS and CPC-M, Version 1 0 and higher

Address FF1 3# 21# (0-12)#

**Description** When one extension transfers a call to another extension, the call will recall to the transferring extension if it is not answered. This timer determines how long the transferred call will ring before it recalls.

### Programming

<p><b>FF1 3# 21# (0-12)#</b></p> <p style="margin-left: 100px;">↑</p> <p>Timer Setting (Default=7 see the following table)</p>
--

**Table 1-25 Recall timer values for extension-transferred intercom calls**

Number	Value
<b>0</b>	No recall
1	<b>20</b> seconds
<b>2</b>	40 seconds
<b>3</b>	60 seconds
4	<b>80</b> seconds
5	100 seconds
<b>6</b>	<b>120</b> seconds
<b>7</b>	<b>140</b> seconds
<b>8</b>	160 seconds
9	180 seconds
10	<b>200</b> seconds
11	<b>220</b> seconds
12	<b>240</b> seconds

### Notes

**Interaction with Call Forwarding** If a call is transferred to an extension that has Call Forwarding turned on, the call will follow the call forwarding path if the Call Forward--No Answer timer is set to a lesser value than the Recall Tier.

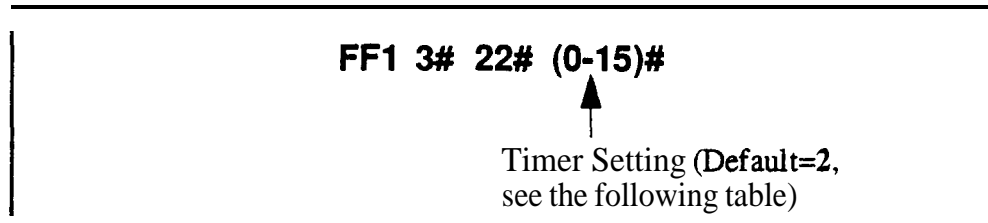
## CO Delayed Ring Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 22# (0-15)#**

**Description** CO Delayed Ringing allows a secondary phone to ring when incoming trunk calls to a primary phone are not answered. This timer determines how long the trunk call will ring at the primary phone before it begins ringing at the secondary phone. (When the secondary phone begins ringing, the primary phone will stop ringing.)

### Programming



*Table 1-26 Timer values for CO delayed ringing*

Number	Value
0	After 4 seconds
1	After 8 seconds
<b>2</b>	<b>After 12 seconds</b>
3	After 16 seconds
4	After 20 seconds
<b>5</b>	After 24 seconds
6	After 28 seconds
7	After 32 seconds
<b>8</b>	After 34 seconds
9	After 36 seconds
10	After 44 seconds
11	After 48 seconds
1 2	After 52 seconds
13	After 56 seconds
14	After 60 seconds
15	After 64 seconds

**Related Programming**

Delayed Ring FF1 2# 1# 21# (0 or 1)#

CO Delayed Day Ring Assignments FF4 5# (ExtPort)# (Trunk)#

CO Delayed Day Ring Assignments for Hunt Groups FF4 5# (HuntGrp)# (Trunk)#

CO Delayed Night 1 Ring Assignments FF4 6# (ExtPort)# (Trunk)#

CO Delayed Night 1 Ring Assignments for Hunt Groups FF4 6# (HuntGrp)# (Trunk)#

CO Delayed Night 2 Ring Assignments FF4 9# 2# (ExtPort)# (Trunk)#

CO Delayed Night 2 Ring Assignments for Hunt Groups FF4 9# 2# (HuntGrp)# (Trunk)#

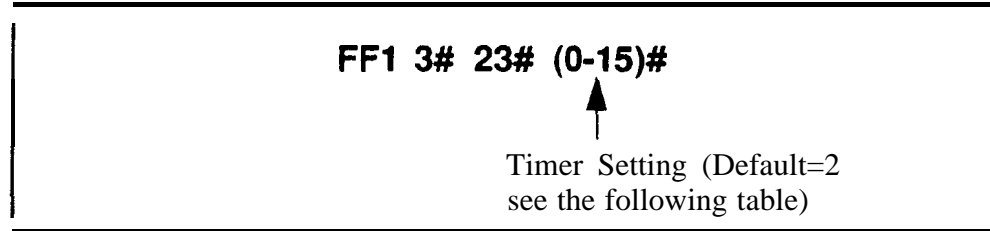
## Extension Delayed Ring Timer

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 3# 23# (0-15)#

**Description** Extension Delayed Ringing allows a secondary phone to ring when a primary phone is not answered. This timer determines how long the primary phone will ring before the call begins ringing at the secondary phone.

### Programming



**Table 1-27** Timer values for *extension delayed ringing*

Number	Value
<b>0</b>	After 4 seconds
1	After 8 seconds
<b>2</b>	<b>After 12 seconds</b>
3	After 16 seconds
4	After 20 seconds
5	After 24 seconds
<b>6</b>	After 28 seconds
7	After 32 seconds
<b>8</b>	After 34 seconds
<b>9</b>	After 36 seconds
10	After 44 seconds
11	After 48 seconds
12	After 52 seconds
13	After 56 seconds
14	After 60 seconds
15	After 64 seconds

**Related Programming**

Extension (BLF) Delayed Ring FF1 2# 1# 27# (0 or 1)#

Extension Delayed Ring Table FF4 8# (TargetExtPort)# (SourceExtPort)#

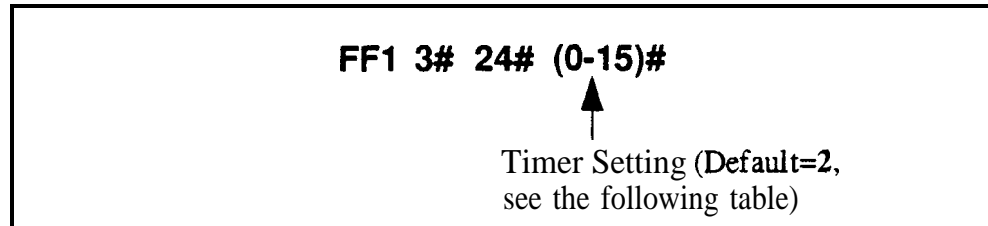
## Hunt Group No Answer Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 24# (0-15)#**

**Description** If a call has entered a hunt group and the first extension to ring is not answered, this timer determines how long the extension will ring before the next idle extension in the hunt group begins ringing

### Programming



**Table 1-28 Hunt group no answer timer values**

Number	Value
<b>0</b>	After 4 seconds
1	After 8 <b>seconds</b>
<b>2</b>	<b>After 12 seconds</b>
3	After 16 seconds
4	After 20 seconds
5	After 24 seconds
6	After 28 seconds
7	After 32 seconds
8	After 34 seconds
9	After 36 seconds
10	After 44 seconds
11	After 48 seconds
12	After 52 seconds
13	After 56 seconds
14	After 60 seconds
15	After 64 seconds



## Automatic Day Mode Start Time

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 3# 25# HHMM#**

**Description** Automatic Day Mode allows the DBS 824 to go into “Day mode automatically

Automatic Night 1 Mode (**FF1 3# 1#**) and Automatic Night 2 Mode (**FF1 3# 29#**) allow the DBS 824 to go into “Night 1” and “Night 2” mode automatically

### Programming

#### To program automatic day mode

Enter the time using the 24-hour format. The following example sets the time to 8 30 a m

<p><b>FF1 3# 25# 0830#</b></p> <p style="margin-left: 100px;">↑</p> <p style="margin-left: 100px;">Time Setting (8 30 a m ) (in 24-hour format)</p>
---

#### To turn automatic day mode off

<p><b>FF1 3# 25# CONF ON/OFF</b></p>
--------------------------------------

### Related Programming

Time Setting **FF1 1# 2#**

Automatic Night 1 Mode Start Time **FF1 3# 1#**

Automatic Night 2 Mode Start Time **FF 1 3# 29#**

### Notes

*Night Key Operation* If only one of the Auto modes is turned on, the NIGHT key is used to turn off the Auto mode. For instance, if Night mode has been activated automatically, the attendant must press the NIGHT key to go into Day mode

If both Auto Day and Auto Night modes are turned on the attendant NIGHT key cannot be used

When one Auto mode is turned on the mode cannot be reset by the NIGHT key until 3 minutes after the Auto mode is activated (When both Auto modes are set, the NIGHT key cannot be used )

***Required Intervals Between Auto Day and Night Modes*** If both Auto modes are set, the manufacturer recommends that the starting times of the modes differ by at least one hour

## Wait Timer For Auto-Repeat Dialing

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 3# 26# (0-15)#

**Description** Use this program to set the amount of time the DBS 824 will wait before automatically redialing a number

### Programming

**FF1 3# 26# (0-15)#**

↑

Timer Setting (Default=8  
see the following table)

*Table 1-29 Auto-Repeat dialing wait timer values*

Number	Value
<b>0</b>	1 second
1	5 seconds
2	10 seconds
3	15 seconds
4	20 seconds
5	25 seconds
6	30 seconds
7	35 seconds
<b>8</b>	<b>40 seconds</b>
<b>9</b>	45 seconds
10	50 seconds
<b>11</b>	55 seconds
12	60 seconds
13	65 seconds
14	70 seconds
15	75 seconds

### Related Programming

Auto-Repeat Dialing Count FF1 2# 1# 34# (0-15)#

Busy Tone (BT) Detection Timer FF1 3# 27#

Dial Tone (DT) Detection Timer FF1 3# 28#

CO Busy Tone (BT) Detection for Auto-Repeat Dialing FF2 (Trunk)# 22#

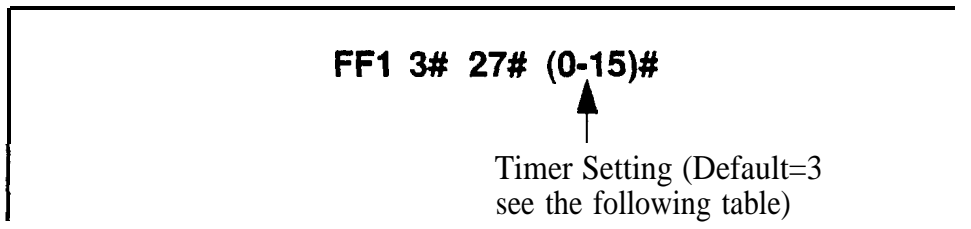
## Busy Tone (BT) Detection Timer

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 3# 27# (0-15)#

**Description** Use this program to set the amount of time the DBS 824 will wait to detect a busy tone from the CO before automatically redialing an outgoing call. If a busy tone is not detected within this amount of time, the DBS 824 will not automatically redial the number.

### Programming



**Table 1-30 BT detection timer values**

Number	Value
0	No restriction (system will wait indefinitely)
1	2 seconds
2	4 seconds
3	6 seconds
4	8 seconds
5	10 seconds
6	12 seconds
7	14 seconds
8	16 seconds
9	18 seconds
10	20 seconds
11	22 seconds
12	24 seconds
13	26 seconds
14	28 seconds
15	30 seconds

## Related Programming

Auto Repeat Dialing Count FF1 2# 1# 34# (0-15)#

Wait Timer For Auto-Repeat Dialing FF1 3# 26# (0-15)#

Dial Tone (DT) Detection Timer FF1 3# 28#

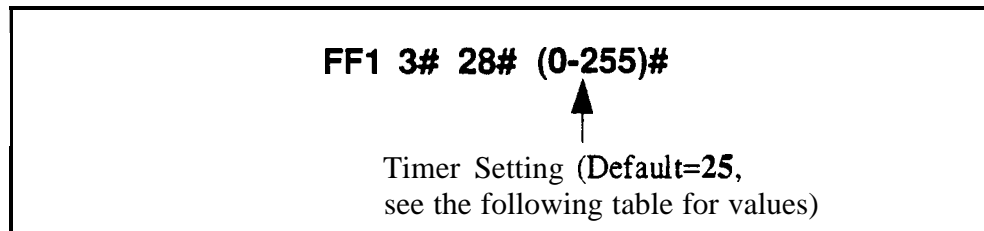
CO Busy Tone (BT) Detection for Auto-Repeat Dialing FF2 (Trunk)# 22#

## Dial Tone (DT) Detection Timer

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF1 3# 28# (0-255)#

**Description** Use this program to set the amount of time (in milliseconds) the DBS 824 will wait to detect a dial tone from the CO, before automatically redialing an outgoing call. If a dial tone is not detected within this amount of time auto-repeat dialing will not be carried out.

### Programming



**Table I-31 DT detection timer values**

Number	Value (in milliseconds)
0	1200 ms
1	40 ms
2	80 ms
3	120 ms
4 - 24	160 ms - 960 ms (increments of 40 ms)
25	<b>1,000 ms (or 1 second)</b>
26	1,040 ms
27 - 255	1,080 ms - 10,200 ms (or 10.2 seconds)

### Related Programming

Auto-Repeat Dialing Count FF1 2# 1# 34# (0-15)#

Wait Timer For Auto-Repeat Dialing FF1 3# 26# (0-15)#

Busy Tone (BT) Detection Timer FF1 3# 27# (0-15)#

CO Busy Tone (BT) Detection for Auto-Repeat Dialing FF2 (Trunk)# 22#

## Automatic Night 2 Mode Start Time

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 3# 29# HHMM#

**Description** This option sets a time for the DBS 824 to automatically switch from 'Night 1' to 'Night 2' mode. This program uses the 24-hour time format.

### Programming

To set the automatic Night 2 mode start time

<p>FF1 3# 29# (0000-2359)#</p> <p style="text-align: center;">↑</p> <p>Night 2 Mode Start Time (in 24-hour format)</p>
--

To disable the automatic Night 2 mode start time

<p>FF1 3# 29# CONF ON/OFF</p>
-------------------------------

### Related Programming

Time Setting FF1 1# 2# HHMM#

Automatic Day Mode Start Time FF1 3# 25# HHMM#

Automatic **Night 1** Mode Start Time FF1 3# 1# HHMM#

### Notes

**Interaction with the System Clock.** Automatic "Night 2" start time depends on the accuracy of the DBS 824 clock.



---

# Remote Programming and DISA Codes

## Remote Programming ID Code

**Software Version** CPC-S and CPC-M, Version 1.0 and higher  
**Address** FF1 4# (0000-9999)#

**Description** The Remote Programming ID Code allows you to enter the terminal programming mode. This programming mode is used to enter programming commands from a remote PC or a local PC connected directly to the SMDR port (CN1).

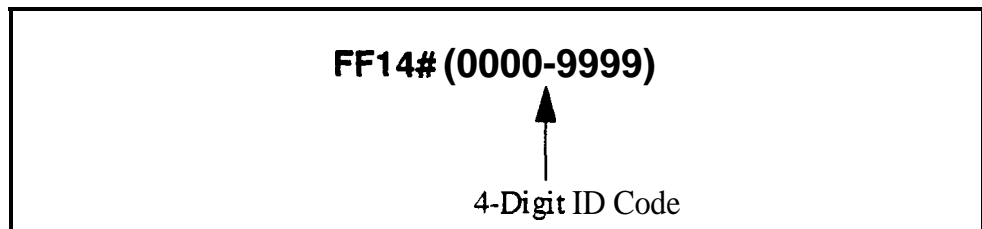
You can enter the remote programming mode through any of these three methods:

- By dialing into the system through a direct DISA trunk
- By dialing into the system through a regular CO trunk, then requesting the operator to enter the Remote Programming ID Code
- By using a local PC and communications package to connect directly to the DBS serial port

For more information on the terminal programming mode, see Appendix B.

## Programming

To set the remote programming ID code



To reset the ID code to the default (9999)



## DISA Inbound Call ID Code

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
Address **FF1 5# (0000-9999)#**

**Description** This program allows you to enter a DISA ID code. Once a caller has dialed into the DBS 824 using a DISA trunk, dialing this code provides direct access to intercom dial tone.

### Programming

To set the DISA ID code

<p><b>FF1 5# (0000-9999)#</b></p> <p style="text-align: center;">↑</p> <p>4-Digit ID Code</p>
---

To clear the DISA ID code

<p><b>FF1 5# CONF ON/OFF</b></p>
----------------------------------

### Related Programming

DISA Outbound Call ID Code 1 **FF1 6# 1# (0000-9999)#**  
DISA Outbound Call ID Code 2 **FF1 6# 2# (0000-9999)#**  
DISA Start Time **FE2 (Trunk)# 19#**  
DISA End Time **FF2 (Trunk)# 20#**  
DISA Auto Answer **FE2 (Trunk)# 11#**

### Notes

**DISA Dial Tone** The default setting of the DBS 824 supplies intercom dial tone to a CO trunk defined as a DISA trunk. If a DISA ID code is stored in place of the default setting (via remote programming), a DISA dial tone (fast busy tone) will be heard instead of intercom dial tone.

The DISA dial tone is a signal to proceed with your call until you enter the stored DISA ID code. After the DISA ID code is entered, the intercom dial tone is presented. This provides the opportunity to make an extension call. To make an outbound CO trunk call, enter **#7**, dial 9 or 8 1-86 (to access a CO trunk), then dial the 4-digit DISA ID code.

## DISA Outbound Call ID Code 1

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 6# 1# (0000-9999)#

**Description** Once a DISA caller has entered the system he/she can make an outside call after entering a valid ID code

This program sets the first of two valid DISA Outbound Call ID Codes. The system will accept either code to give the DISA caller an outside line. (The purpose of having two Outbound Call ID Codes is to be able to track two groups of DISA callers on SMDR reports.)

### Programming

To assign the DISA Outbound Call ID Code 1

<p><b>FF1 6# 1# (0000-9999)#</b></p> <p style="text-align: center;">↑</p> <p>4-Digit ID Code (Default=1111)</p>
---

To reset the ID code to the default value

<p><b>FF1 6# 1# CONF ON/OFF</b></p>
-------------------------------------

### Related Programming

DISA Auto Answer FF2 (Trunk)# 11# (0 or 1)#

DISA Inbound Call ID Code FF1 5# (0000-9999)#

DISA Outbound Call ID Code 2 FF1 6# 2# (0000-9999)#

DISA Start Time FF2 (Trunk)# 19# (HHMM)#

DISA End Time FF2 (Trunk)# 20# (HHMM)#

## DISA Outbound Call ID Code 2

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 6# 2# (0000-9999)#

**Description** Once a DISA caller has entered the system, he/she can make an outside call after entering a valid ID code

This program sets the second of two valid DISA Outbound Call ID Codes. The system will accept either code to give the DISA caller an outside line. (The purpose of having **two** Outbound Call ID Codes is to be able to track two groups of DISA callers on SMDR reports.)

### Programming

To assign the DISA Outbound Call ID Code 2

**FF1 6# 2# (0000-9999)#**

↑  
4-Digit ID Code  
(Default=9999)

To reset the ID code to the default value

**FF1 6# 2# CONF ON/OFF**

### Related Programming

DISA Auto Answer FF2 (Trunk)# 11# (0 or 1)#

DISA Inbound Call ID Code FF1 5# (0000-9999)#

DISA Outbound Call ID Code 1 FF1 6# 1# (0000-9999)#

DISA Start time FF2 (Trunk)# 19# (HHMM)#

DISA End Time FF2 (Trunk)# 20# (HHMM)#

---

# Programming Authorization Code

## ID Code For System Programming

Software Version CPC-S and CPC-M, Version 1.0 and higher

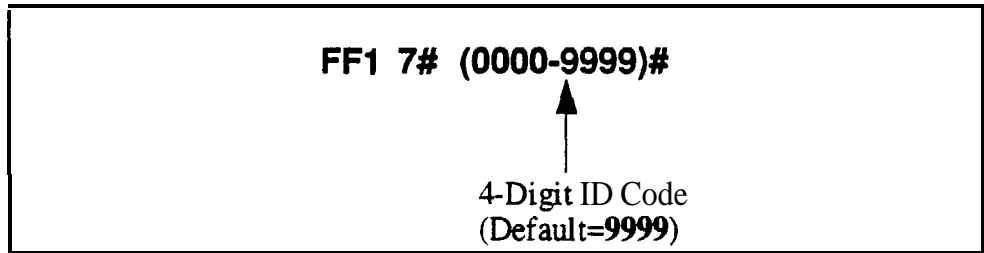
Address FF1 7# (0000-9999)#

**Description** This program assigns an ID code that can be dialed from a non-attendant phone to enter the programming mode

Non-attendant extensions enter the programming mode by dialing #98 and then the ID Code entered in this address

## Programming

To assign the ID code for system programming



To reset the ID code to the default value



## Notes

*Entering the Programming Mode* Only one non-attendant extension can be a programming extension at a particular time

---

# New Function Reset

## New Function Reset

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF1 8# 1# (0-1)#

**Description** This feature is reserved for future use

## New Function Reset Confirmation

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address: FF1 8# 2# (0-1)#

**Description** This feature is reserved for future use

# Door Phones

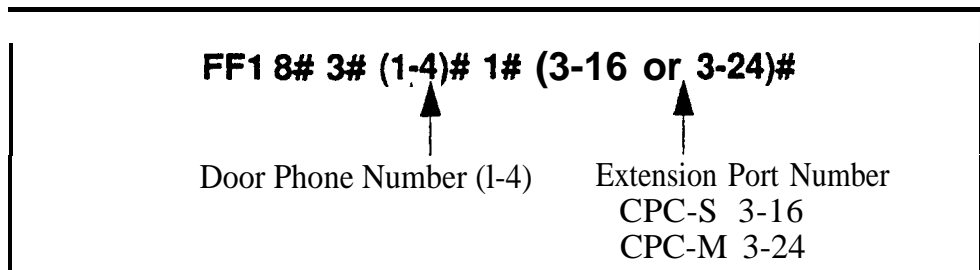
## Door Phone Extensions

Software Version CPC-S and CPC-M, Version 1 0 and higher  
 Address FF1 8# 3# (DoorPhone)# 1# (ExtPort)#

**Description** This program assigns the extension port that is connected to the door phone box. CPC-S and CPC-M can handle up to 4 door phones, so up to 4 extensions can be assigned (one extension per door phone box). However, the extension cannot be an attendant phone (ports 1 and 2).

After entering door phone ports, assign them to ring to internal extensions in the next address (FF1 8# 3# DoorPhone# 2# ExtPort#)

## Programming



## Related Programming

Door Phone Ring Assignments FF1 8# 3# (1-4)# 2# (ExtPort)# (0 or 1)#

## Notes

**Door Phone Implementation.** To activate door phones after setting the program addresses, the door phone must be unplugged from its port and then plugged back in.

**Call Forwarding Restrictions for Door Phones** Door phones cannot be set to Call Forward, also, they cannot be members of a hunt group or call coverage group.

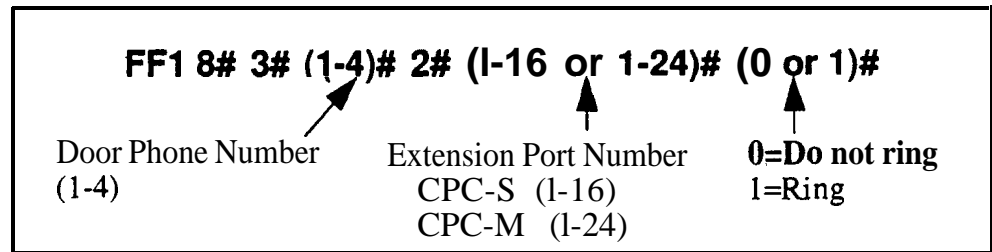
## Door Phone Ring Assignments

Software Version **CPC-S and CPC-M, Version 1.0 and higher**

Address **FF1 8# 3# (DoorPhone)# 2# (ExtPort)# (0 or 1)#**

**Description** Use this program to determine which extension(s) will ring when a door phone caller initiates a call. It is possible to assign several or all extensions to ring for a door phone call.

### Programming



### Related Programming

Door Phone Extensions **FF1 8# 3# (DoorPhone)# 1# (ExtPort)#**

Door Phone Tone Type **FF1 8# 3# (DoorPhone)# 4# (0 or 1)#**

Door Phone Ring Timer **FF1 8# 3# (DoorPhone)# 5# (0-15)#**

Door Phone Ring Pattern **FF1 8# 3# (DoorPhone)# 6# (0-5)#**

### Notes

**Interaction With SLT Phones** An SLT phone (no speaker) can receive a door phone call (same ring pattern as a normal intercom call)

**Interaction With ML Keys** If the extension is programmed as an ML key, it can receive a door phone call while the extension is on another call (the phone will “buzz”). However, the door phone call will not transfer to another extension, even if the phone is programmed to transfer (the phone will continue to buzz, until the user picks it up)

**Conference Calling Restrictions for Door Phones** Door phone calls cannot be part of a conference call, nor are they subject to Busy Override



## Door Opener Access Code

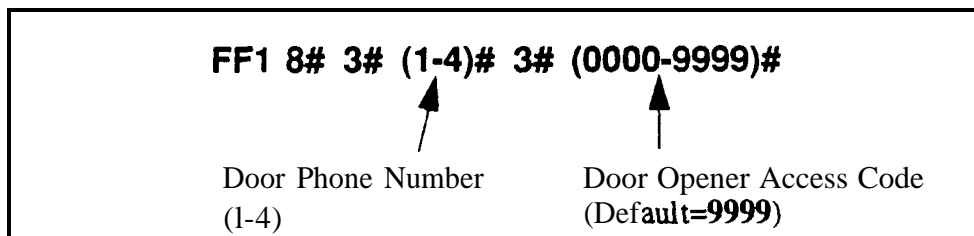
Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 8# 3# (DoorPhone)# 3# (0000-9999)#

**Description** This program establishes a 4-digit door opener access code which is entered on the keypad of the extension where the door phone call was answered. Entering this code will 'buzz' (and unlock) the door.

To determine the number of seconds the door will remain open use the "Door Opener Relay Timer" address FF1 8# 3# 7# (0-5)#

### Programming



### Related Programming

Door Phone Ring Assignments FF1 8# 3# (DoorPhone)# 2# (ExtPort)#  
(0 or 1)#

Door Opener Relay Timer FF1 8# 3# @oorPhone)# 7# (0-5)#

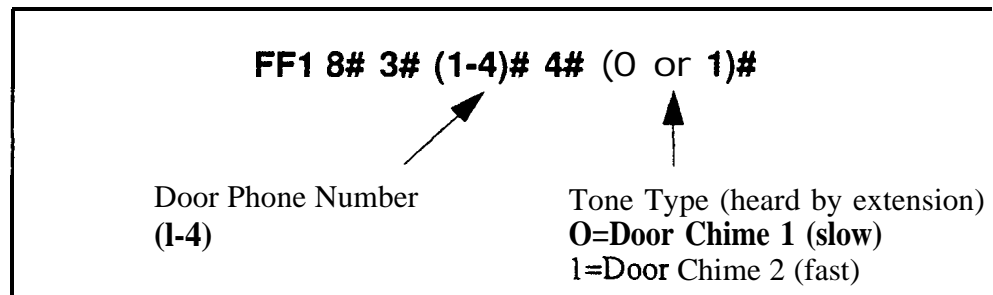
## Door Phone Tone Type

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF1 8# 3# (DoorPhone)# 4# (0 or 1)#**

**Description** This program specifies the type of tone that will be heard through the speaker of the designated extension s phone when a door phone caller rings to get in

### Programming



### Related Programming

Door Phone Ring Assignments **FF1 8# 3# (DoorPhone)# 2# (ExtPort)# (0 or 1)#**

Door Phone Ring Timer **FF1 8# 3# (DoorPhone)# 5# (0-15)#**

Door Phone Ring Pattern **FF1 8# 3# (DoorPhone)# 6# (0-5)#**

### Notes

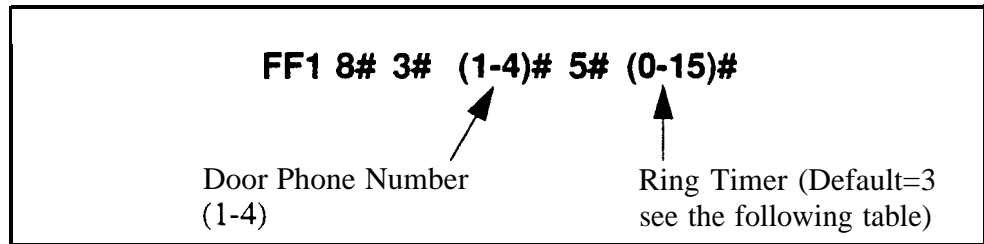
*Door Phone Implementation* If changing the Tone Type setting, activate the change by unplugging the door phone from its port and plugging it back in

## Door Phone Ring Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF1 8# 3# (DoorPhone)# 5# (0-15)#**

**Description** This program sets the amount of time (in seconds) that a door phone call will ring at its designated extension before it stops ringing. If the door phone caller re-initiates the call before this timer is up the timer will reset and will begin ringing again.

### Programming



**Table 1-32 Door phone ring timer values**

Number	Value	Number	Value
0	5 seconds	8	45 seconds
1	10 seconds	9	50 seconds
2	15 seconds	10	55 seconds
3	<b>20 seconds</b>	11	60 seconds
4	25 seconds	12	65 seconds
5	30 seconds	13	70 seconds
6	35 seconds	14	75 seconds
7	40 seconds	15	80 seconds

### Related Programming

Door Phone Ring Pattern **FFI 8# 3# (DoorPhone)# 6# (0-5)#**

### Notes

**Door Phone Implementation** If changing the Ring Timer setting, activate the change by unplugging the door phone from its port and plugging it back in.

## Door Phone Ring Pattern

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF1 8# 3# (DoorPhone)# 6# (0-5)#

**Description** This program specifies the ring pattern of the tone that will be heard through the speaker of the designated extension's phone when a door phone caller rings to get in. **In this** programming address, you **will** specify the **number of seconds between rings** (the ring itself has a fixed duration of approximately 3 seconds)

### Programming

<b>FF1 8# 3# (1-4)# 6# (0-5)#</b>	
Door Phone Number' (1-4)	Number of Seconds Between Rings 0=Rings one time only (no repeat ringing) <b>1=4</b> seconds between rings 2=6 seconds between rings 3=8 seconds between rings 4=10 seconds between rings 5= 12 seconds between rings

### Related Programming

Door Phone Ring Timer FF1 8# 3# (DoorPhone)# 5# (0- 15)#

### Notes

If changing the Ring Pattern setting, activate the change by unplugging the door phone from its port and plugging it back in

## Door Opener Relay Timer

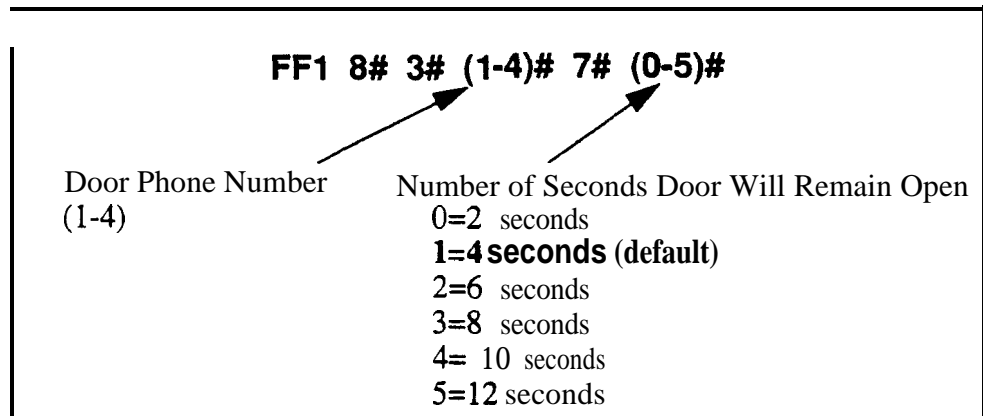
Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF1 8# 3# (DoorPhone)# 7# (0-5)#

### Description

Use this address to determine the number of seconds a “buzzing” (unlocked) door will remain unlocked for the door phone user to enter the building. Default is 4 seconds. This timer begins immediately after the inside extension (called party) enters the Door Opener Access Code to unlock the door.

### Programming



### Related Programming

Door Opener Access Code FF1 8# 3# (DoorPhone)# 3# (0000-9999)#

---

## 2. Trunk Programming (FF2)

Use the FF2 programming addresses in this chapter to set parameters for the CO trunks of the DBS 824 system

Most of these **FF2** addresses require a trunk number and/or extension port entry. The acceptable range of trunks/extension ports varies according to the configuration of your DBS 824 system. The basic 824 unit (no 208 Expansion Cards installed) supports 4 trunks and 8 extension ports. With one 208 EXP Card, the system will support 6 trunks and 16 extensions. With two 208 EXP Cards installed (possible only with a CPC M card), the 824 will support 8 trunks and 24 extension ports.

This chapter covers the following topics

Topic	Page
Trunk Port Operation	2-3
<b>DTMF/Pulse</b> Dialing for Trunks	2-4
Pooled Trunk Access for Group "9"	I 2-5 I
Pooled Trunk Access for Groups "81-86"	I 2-6 I
<b>Trunk Port Type</b>	I 2-7 I
DISA Auto Answer	2-8
Private Trunk Line	2-9
Automatic Pause for PBX Line	2-10
Dial Tone Detection	2-11
Outbound DTMF Signal Duration for Auto-Dialed Digits	2-12
Unsupervised Trunk Conference	2-13
Inbound <b>Ring</b> Pattern	2-14
Trunk Disconnect Detection <b>Timer</b>	2-15
DISA Start <b>Time</b>	2-16
DISA End <b>Time</b>	2-17
Trunk Circuit Type	2-18
CO Busy Tone Detection	2-19



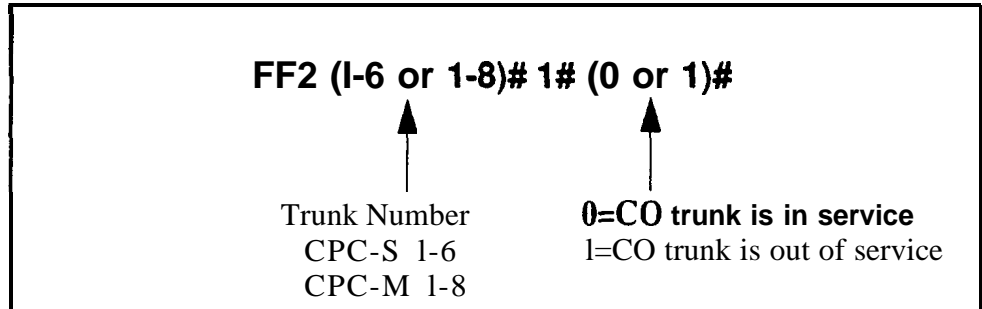
## Trunk Port Operation

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF2 (Trunk)# 1# (0 or 1)#

**Description** Use this feature to put a CO trunk in service or remove it from service

### Programming



### Notes

**Precaution on Putting Lines Out of Service** If a trunk is removed from service, a new incoming caller on that trunk will hear ringing, even though the trunk is not functional

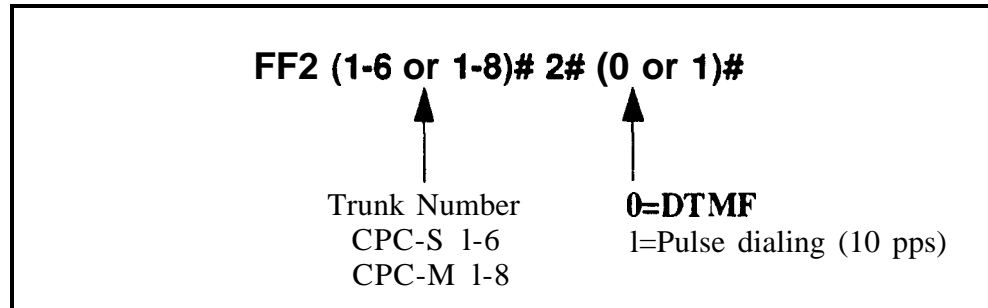


## DTMF/Pulse Dialing for Trunks

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF2 (Trunk)# 2# (0 or 1)#

**Description** Use this feature to set a trunk for **DTMF** or pulse dialing (10 pulses per second)

### Programming



## Pooled Trunk Access for Group “9”

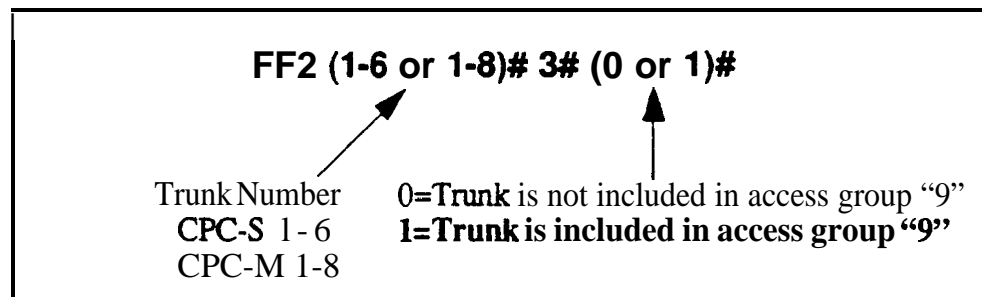
Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF2 (Trunk)# 3# (0 or 1)#**

**Description** Use this feature to place a trunk in a group from which trunks are automatically chosen for outbound dialing. When you dial “9” from an SLT or digital extension, or press an FF key that is set as a pooled trunk key any available **trunk** in the group will be accessed.

The trunk selection is made from the **highest** trunk number in the group to the **lowest**.

### Programming



### Notes

**Interaction with LCR** Set the “LCR Access” option (address **FF1 2# 1# 3#**) so that dialing “9” indicates a Pooled Trunk call. **If** this option is set so that dialing “9” indicates an LCR call, trunk selection will default to pooled trunk line access group 9 if all lines that could be used for LCR access are busy.

**Required Hardware Setting** To use pooled trunks, Strap J3 on the CPC card must **be cut**. See **Section 300-Installation** for instructions.

## Pooled Trunk Access for Groups "81-86"

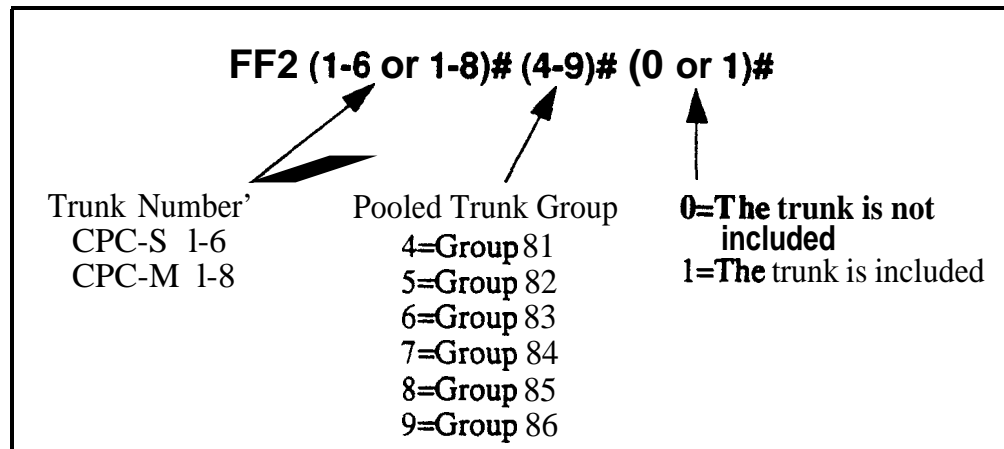
Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF2 (Trunk)# (4-9)# (0 or 1)#**

**Description** Use this feature to place a trunk in a group from which trunks are automatically chosen for outbound dialing. When you dial 8 1, 82, 83, 84, 85 or 86 from an SLT or digital extension, or press an FF key that is set as a pooled trunk key, any available trunk in the group will be accessed.

The trunk selection in a particular group is made from the highest available trunk number to the lowest available trunk number.

### Programming



### Notes

**Placing Trunks In More Than One Group** The same trunks may appear in more than one pooled trunk group, including trunk group 9.

**Required Hardware Setting** To use pooled trunks, Strap J3 on the CPC card must *be cut*. See **Section 300 Installation** for instructions.

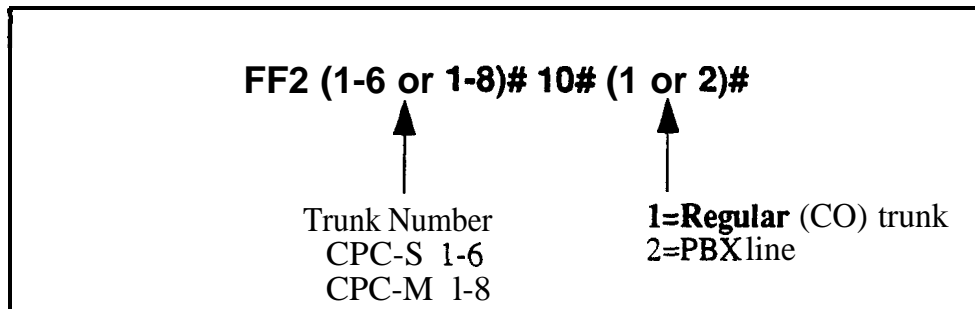
## Trunk Port Type

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF2 (Trunk)# 10# (1 or 2)#

**Description** Each trunk port must be identified as a regular CO trunk or as a PBX line

### Programming



**Notes** *Toll Restriction Interaction* Toll restriction (TRS) settings (FF7) can be affected by this parameter

## DISA Auto Answer

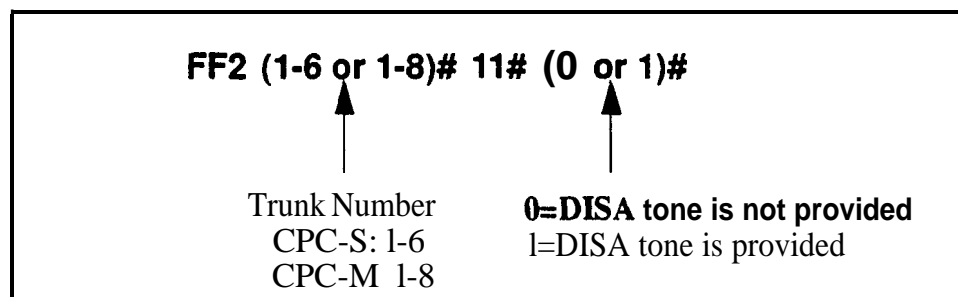
Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF2 (Trunk)# 11# (0 or 1)#**

**Description** Use this feature to set a trunk(s) to automatically provide DISA tone upon connection with an inbound caller (However after hearing the DISA tone the caller will still have to enter an **ID** code in order to *use* DISA )

If a trunk is set to provide DISA tone, you can limit DISA operation on that trunk to a certain number of hours each day using the DISA Start Time and DISA End Time addresses

### Programming



### Related Programming

Direct Inward System Access (DISA) ID Code **FF1 5# (0000-9999)#**

DISA Outbound Call ID Code 1 **FF1 6# 1# (0000-9999)#**

DISA Outbound Call ID Code 2 **FF1 6# 2# (0000-9999)#**

DISA Start time **FF2 (Trunk)# 19# (HHMM)#**

DISA End Time **FF2 (Trunk)# 20# (HHMM)#**

### Notes

**Interaction With Caller ID** If your DBS 824 system supports Caller ID, *do not* enable DISA on any trunk using this address (Caller ID will automatically enable or disable DISA to the caller based on the phone number he is calling from )

**Hardware Requirement For DISA** An MFR card is required for DISA, so that the system can interpret DTMF tones entered via the DISA connection

## Private Trunk Line

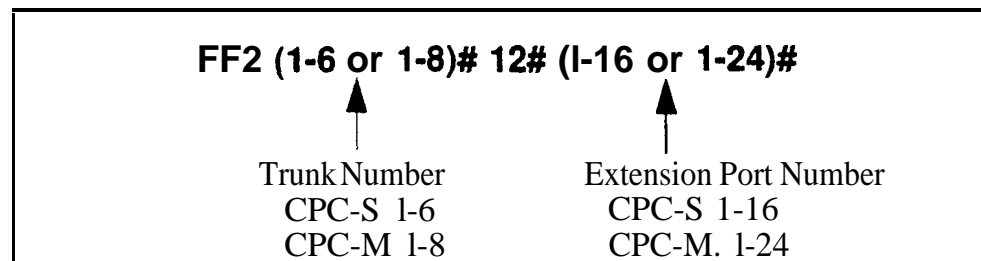
Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF2 (Trunk)# 12# (ExtPort)#**

**Description** Use this address to assign a private trunk line to an extension. A number of private trunks can belong to one extension but the same private trunk cannot be assigned to multiple extensions.

Once a private trunk is assigned to an extension, other extensions cannot make outbound calls or receive inbound calls on that trunk (the system will assign Toll Restriction Type 0 to the trunk on all other extensions). The system will assign TRS Type 7 (no restrictions) to the private trunk assigned to the extension.

### Programming

To assign a private trunk line(s) to an extension



To cancel private trunk assignment(s) for an extension

<b>FF2 (1-6 or 1-8)# 12# (1-16 or 1-24)# CONF ON/OFF</b>
--

### Related Programming

Day TRS Types 0-7 for Trunks **FF7 7# (ExtPort)# (Trunk)# (0-7)#**

Night TRS Types 0-7 for Trunks **FF7 8# (ExtPort)# (Trunk)# (0-7)#**

### Notes

**Reprogramming Toll Restrictions for Disabled Private Trunks** If a private trunk setting is disabled, the system will *not* automatically make that trunk available to other extensions (TRS Type 0 will apply to that trunk on all extensions). Therefore, the trunk's TRS type must be manually reprogrammed for each extension wishing to use that trunk (using addresses **FM 7#** and **FF7 8#**).

## Automatic Pause for PBX Line

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF2 (Trunk)# 13# (0 or 1)#**

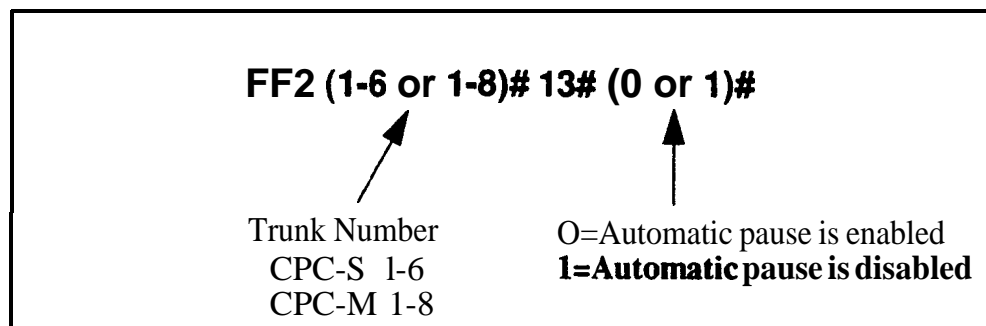
**Description** This address determines if a pause is automatically inserted during the dialing of a PBX access code

If this address is enabled, the system will automatically pause after dialing the first, second or third digit of the PBX access code, see program address **FF1 2# 3# (9-18)# (1-3)#** for more information

If this address is disabled (default setting), the phone user must manually insert a pause by pressing **REDIAL**. The length of the pause (whether inserted manually by the user or automatically by the system) is determined by the Automatic Pause Timer, which is set at address **FF1 3# 10#**

**Note:** Before assigning the automatic pause, you must first designate the trunk as a 'PBX line' (**FF2 Trunk# 10# 2#**)

### Programming



### Related Programming

Automatic Pause Position for PBX Access Codes **FF1 2# 3# (9-18)# (1-3)#**

Automatic Pause Timer **FF1 3# 10# (0-15)#**

Trunk Port Type **FF2 (Trunk)# 10# (1 or 2)#**

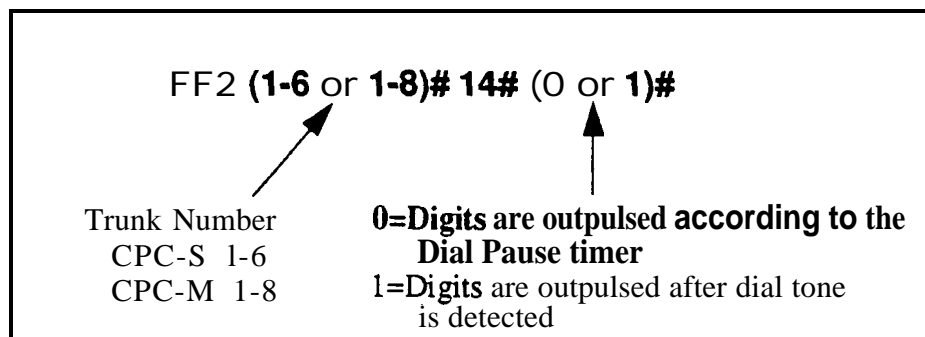
## Dial Tone Detection

SoftwareVersion CPC-S and CPC-M, Version 1 0 and higher

Address FF2 (Trunk)# 14# (0 or 1)#

**Description** This program determines when dialed digits are outputted -- either according to the Dial Pause Timer setting (FF1 3# 15#), or after the 824 system detects dial tone

### Programming



### Related Programming

Dial Pause Timer FF1 3# 15# (0-15)#



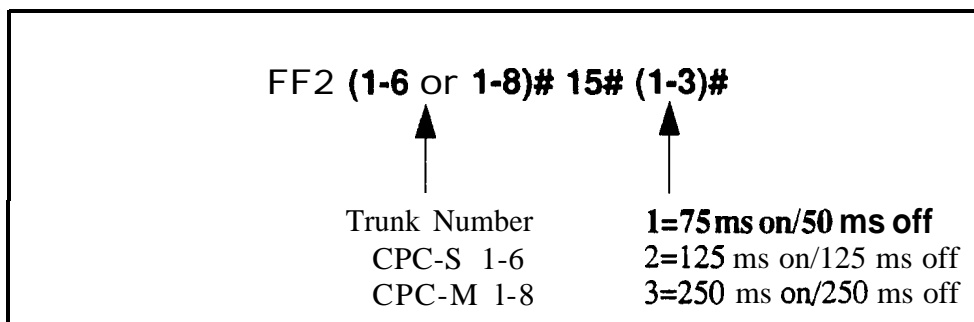
## Outbound DTMF Signal Duration for Auto-Dialed Digits

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF2 (Trunk)# 15# (1-3)#

**Description** This program controls DTMF signal duration when digits are dialed by the system rather than the user. Examples of system dialing include Redial, Saved Number Redial, Speed Dialing and LCR Digit Addition.

### Programming



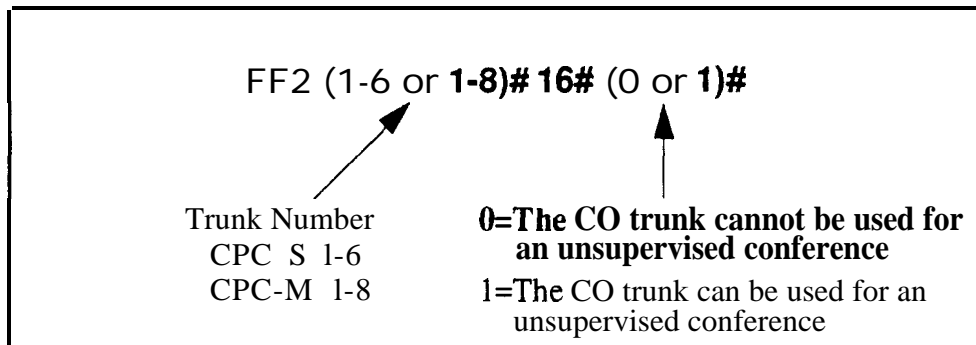
## Unsupervised Trunk Conference

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF2 (Trunk)# 16# (0 or 1)#

**Description** Use this feature to enable trunk(s) to be used in an unsupervised conference call

### Programming



### Related Programming

Unsupervised Conference Timer FF1 3# 9# (0-15)#

Unsupervised Conference FF3 (ExtPort)# 13# (0 or 1)#

### Notes

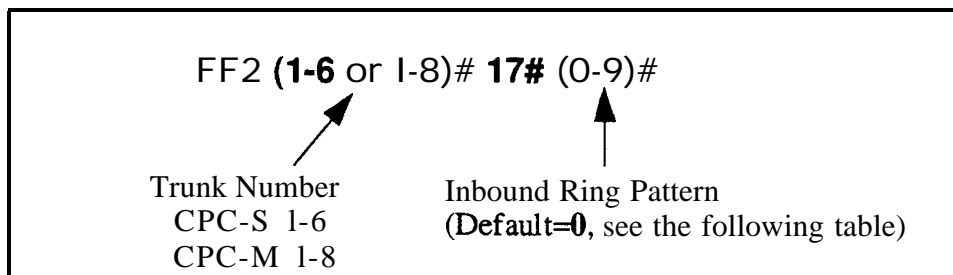
**Unsupervised Conference Timer Operation** A conference call will be automatically disconnected if it exceeds the time set in the Unsupervised Conference Timer

## Inbound Ring Pattern

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF2 (Trunk)# 17# (0-9)#

**Description** Each CO trunk can assigned a distinctive ring pattern for easy recognition of the trunk during an incoming ring Up to 9 different ring patterns are available

### Programming



**Table 2-1 Inbound ring patterns**

Address Number	Ring Patterns For Inbound Trunk Calls
0	Synchronize (the pattern is determined by the CO)
1	3 sec on/1 sec off
2	2 sec on/2 sec off
3	1 sec on/1 sec off
4	1 sec on/2 sec off
5	1 sec on/3 sec off
6	5 sec on/ 5 sec off
7	5 sec on/ 5 sec off/ 5 sec on/2 5 sec off
8	5 sec on/3 5 sec off
9	1 sec on/7 sec off

### Notes

**Transferred Calls** This setting does not affect transferred calls The ring pattern for transferred calls can be set in the Transfer Ring Pattern address (FF1 2# 1# 28#)

**Precedence of Extension Ring Pattern Setting** The ring pattern (if any) assigned to the extension (FF3 ExtPort# 38# Pattern#) will override this Inbound Ring Pattern for incoming trunk calls

## Trunk Disconnect Detection Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

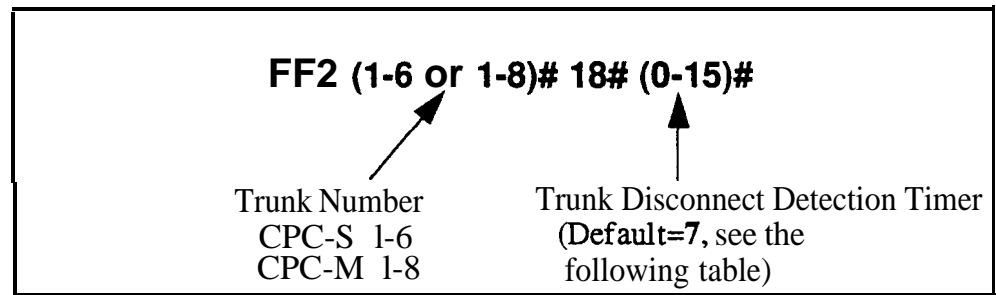
Address **FF2 (Trunk)# 18# (0-15)#**

**Description** When the trunk side of a CO call disconnects, the CO sends the DBS 824 a disconnect signal by opening the loop (cutting voltage) for a specified length of time

This timer determines how long the DBS 824 expects the disconnect signal to last. If set to default, an open loop of 350 ms or more will be interpreted as a disconnect signal

The standard range for CO disconnect signals is 350 to 600 ms

### Programming



**Table 2-2 Trunk disconnect detection timer**

Address Number	Value
0	Ignore disconnect
1	Over 50 ms
2	I Over 100 ms
3	Over 150 ms
4	Over 200 ms
5	Over 250 ms
6	Over 300 ms
7	I Over 350 ms
8	Over 400 ms
9	Over 450 ms
10	Over 500 ms
11	Over 550 ms
12	Over 600 ms
13	Over 650ms
14	Over 700 ms
15	Over 750 ms

## DISA Start Time

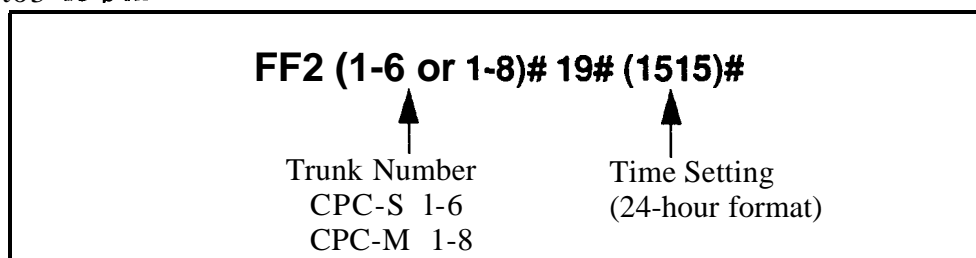
Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF2 (Trunk)# 19# (HHMM)#**

**Description** Use this address to program a DISA trunk to begin DISA operation at a specified time each day. Trunks *are enabled* for DISA using the DISA Auto Answer address (**FF2 Trunk# 11#**). Use this DISA Start Time address and the DISA End Time address following, to limit DISA operation on a trunk to a certain time period each day.

### Programming

#### To set the DISA start time

Enter the time using the 24-hour format. The following example sets the time to 3 15 p m.



#### To clear the DISA start time

<b>FF2 (1-6 or 1-8)# 19# CONF ON/OFF</b>
--

### Related Programming

Time Setting FF1 1# 2# (HHMM)#  
 DISA Inbound Call ID Code FF1 5# (0000-9999)#  
 DISA Outbound Call ID Code 1 FF1 6# 1# (0000-9999)#  
 DISA Outbound Call ID Code 2 FF1 6# 2# (0000-9999)#  
 DISA Auto Answer FF2 (Trunk)# 11# (0 or 1)#  
 DISA End Time FF2 (Trunk)# 20# (HHMM)#

### Notes

*DISA Operation With Default Setting* If DISA start time is not set in this address (left at default \*\*\*\*), DISA operation will be on all the time.

*Caller ID Automatic DZSA* This DISA Start Time setting does not affect Automatic DISA operation with Caller ID (FF1 2# 8# 1-10# PhoneNo #)

## DISA End Time

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF2 (Trunk)# 20# (HHMM)#**

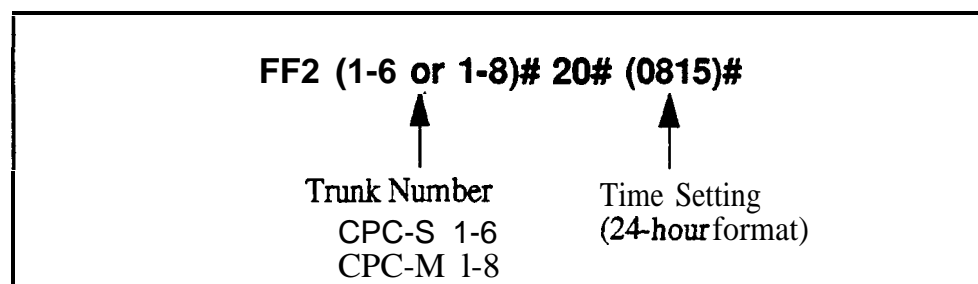
**Description** Use this address to program a DISA trunk to stop DISA operation at a specified time each day. Trunks are *enabled* for DISA using the DISA Auto Answer address (**FF2 Trunk# 11#**). Use this DISA End Tie address, and the DISA Start Time address (previous page), to limit DISA operation on a trunk to a certain time period each day.

NOTE: The DBS 824 will disable DISA to the trunk one minute *after* the time set in this address. (In the example below, DISA will actually end when the system clock reaches 8 16 a m.)

## Programming

### To set the DISA end time

Enter the time using the 24-hour format. The following example sets the time to 8 15 a m. (DISA will actually end when the system clock reaches 8 16 a m.)



### To clear the DISA end time

<b>FF2 (1-6 or 1-8)# 20# CONF ON/OFF</b>
--

## Related Programming

Tie Setting **FF1 1# 2# (HHMM)#**

DISA Inbound Call ID Code **FF1 5# (0000-9999)#**

DISA Outbound Call ID Code 1 **FF1 6# 1# (0000-9999)#**

DISA Outbound Call ID Code 2 **FF1 6# 2# (0000-9999)#**

DISA Auto Answer **FF2 (Trunk)# 11# (0 or 1)#**

DISA Start Time **FF2 (Trunk)# 19# (HHMM)#**

## Notes

**Caller ID Automatic DZSA** This DISA End Time setting does not affect Automatic DISA operation with Caller ID (program address **FF1 2# 8# 1-10# PhoneNo #**)

## Trunk Circuit Type

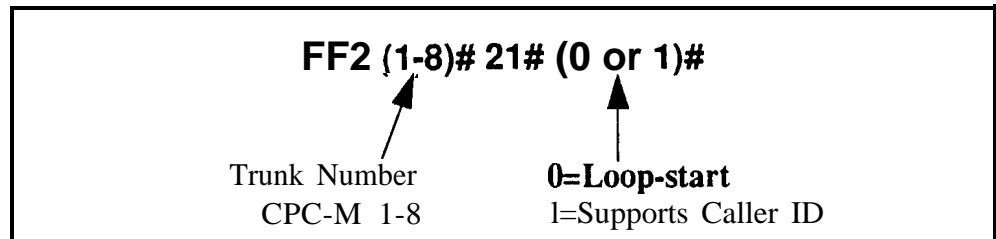
Software Version **CPC-M Only (Version 1 0 and above)**

Address **FF2 (Trunk)# 21# (0 or 1)#**

**Description** This program determines whether a trunk circuit in a CPC-M configuration is loop-start, or if it will support Caller ID

In a CPC-S configuration (which does not support Caller ID), all trunks are loop-start

### Programming



### Notes

**CPC Card Requirement.** This program address does not apply to the CPC-S model, which does not support Caller ID (Caller ID is a service offered by local COs, that sends caller information to the DBS 824 system for incoming calls )

**Power-Cycling Requirement** For changes to this parameter to take effect, the system must be turned off and back on

## CO Busy Tone Detection

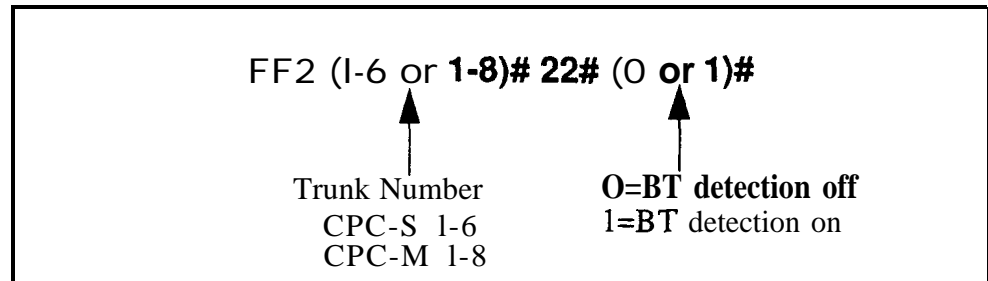
Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF2 (Trunk)# 22# (0 or 1)#**

**Description** This address determines whether the DBS 824 system will look for a busy tone from the CO for outgoing calls, for the purpose of activating the Auto-Repeat Dial feature

When this programming address is set to “on” the DBS 824 will monitor trunks for busy tone signals from the CO after outgoing calls are placed if the busy tone occurs, the DBS 824 will automatically send a hookflash signal to the CO and redial the number while the caller remains off-hook

### Programming



### Related Programming

Auto-Repeat Dialing Count **FF1 2# 1# 34# (0-15)#**

Wait Time for Auto-Repeat Dialing **FF1 3# 26# (0-15)#**

Busy Tone (BT) Detection Timer **FF1 3# 27# (0-15)#**

Dial Tone (DT) Detection Timer **FF1 3# 28# (0-255)#**

### Notes

**Termination of the Auto-Repeat Dialing Feature** The DBS 824 will terminate the Auto-Repeat Dialing operation if one of the following occurs

- Voice (or anything other than BT detection or time-out of the Auto-Repeat Dialing Wait Time) is detected on the called-party end of the outgoing call
- Caller goes on-hook
- RLS key is pressed
- The trunk line is seized by another operation (e g , CO key or MCO key)
- Other FF keys are pressed



*Limitation on Monitoring of Trunks For Busy Tone* The DBS 824 can monitor up to 2 trunks at the same time for busy tone. If a third trunk receives a busy tone on an outgoing call while 2 other trunks are in Auto-Repeat Dialing the system will not perform Auto-Repeat Dialing on the third trunk.

# 3. Extension Programming (FF3)

Use the FF3 programming addresses in this chapter to set parameters for extensions. When the programming address requires an extension port to be entered, the acceptable range of port numbers varies depending on the model of the CPC card in your DBS 824 system. CPC-S models have 1-16 ports. CPC-M models have 1-24 ports.

This chapter covers the following topics:

Topic	Page
Extension Numbers	3-3
Terminal Type	3-5
EM/24 Port Assignment	3-6
Forced Least Cost Routing	3-7
Forced Account Codes	3-8
Extension Lockout Code	3-9
Offhook Signal (CO)	3-10
Call Waiting/OHVA	3-11
Busy Override Send	3-12
Busy Override Receive	3-13
Prime Line Pickup	3-14
Auto Pickup (Ringing Line)	3-15
Unsupervised Conference	3-16
Station Message Detail Recorder (SMDR) Report	3-17
Offhook Signal Volume	3-18
Offhook Signal Pattern	3-19
PSD Name Display on Large-Sized LCD Phones	3-20
Page Group Extensions	3-21
Display When Idle	3-22
Display During Intercom Dial Tone	3-24
Display When Calling an Extension	3-26
Display When Accessing CO Dial Tone	3-28
Display When Accessing CO Dial Tone	3-29
Display When Receiving a Page	3-32
Display After Receiving a Call Waiting Tone	3-34
Display After Receiving a Call Waiting Tone	3-35
Extension Directory Display	3-38
Extension Class of Service Assignment	3-39
Ringback Tone From ML Keys	3-40
SLT Hookflash	3-41

Extension Ring Pattern	3-42
Digital SLT Receiving Volume	3-44
Auto Set Relocation Code	3-45
Permanent Call Forward Type	3-47
Permanent Call Forward Extension	3-48
ML/MCO Separation	3-49
VAU Hunting Priority	3-50
SLT Disconnect Signal	3-51
VAU Port Assignment	3-52
Hot Dial Pad	3-53
Auto-Redial on Extensions	3-54

## Extension Numbers

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF3 (ExtPort)# 1# (10-69 or 100-699)#

**Description** This program assigns an extension number to an extension port. An extension number is the 2-digit or 3-digit number that is dialed to reach the extension phone, extension numbers are programmable and can be changed. An extension port is the physical location (RJ11 jack) into which the phone is plugged; ports have fixed numbers which can't be changed.

### Programming

To assign an extension number

<b>FF3 (1-16 or 1-24)# 1# (10-69 or 100-699)#</b>	
↑ Extension Port CPC-S 1-16 CPC-M 1-24	↑ Extension Number (Defaults Port 1=10 or 100 Port 2=11 or 101, Port 3=12 or 102, etc )

To clear an extension number

<b>FF3 (1-16 or 1-24)# 1# CONF</b>
NOTE After clearing an extension number, the port is inoperative until an extension number is reassigned to it, and the phone is unplugged from the system and then plugged back in.

### Related Programming

Extension Number Digits FF1 2# 1# 12# (0 or 1)##

Extension Names FF6 1# (ExtPort)# CONF (Name)#

### Notes

**Default Extension Numbers for Attendants** The default extension number for the attendant is 10 or 100. Extension 100 cannot be assigned to a different port. If a second attendant is assigned, its default extension number is 11 or 101. However, the second attendant can be assigned a different extension number. If extension 101 or 11 is deleted, the alternate attendant is canceled.

*Clearing An Extension Number* Clearing an extension port of its extension number *does not return the number to a default value* -- instead, the port is inoperative until an extension number is reassigned to it and the phone is unplugged from the system, then plugged back in

*Re-Assigning An Extension Number* An extension number can be changed without clearing the old one first -- simply overwrite the old extension number using this program address (The system will recognize the new extension number without requiring the phone to be unplugged and then plugged back in afterwards )

*Assigning An Extension Number Already In Use* If an extension number is already assigned to a port, and you assign the same number to another port, the system will automatically clear the first port of the extension number. The first port would then have to be re-assigned a new extension number, and the phone unplugged and then plugged back in again

*Changing The Extension Name* The assignment or re-assignment of extension numbers does not change the extension name. To change the extension name, use program address FF6 1# (ExtPort)# CONF (Name)#

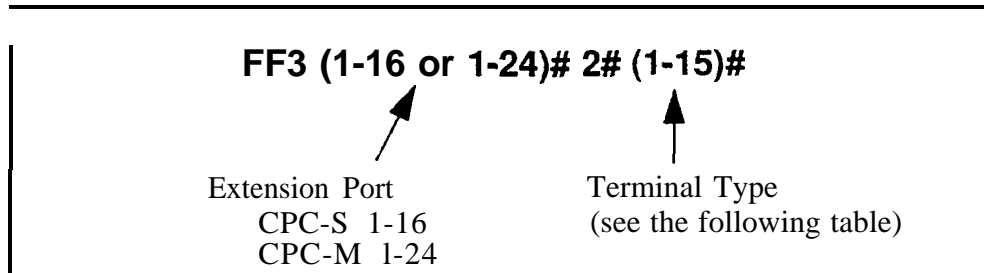
## Terminal Type

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF3 (ExtPort)# 2# (ExtType)#**

**Description** Some DBS 824 extensions are automatically configured when installed on an extension port. The Terminal Type address allows you to change default terminal assignments or assign special equipment to extension ports.

### Programming



**Table 3-1 Terminal types**

**Note:** If the configuration is “Auto”, the system defaults to the phone type plugged into that port.

Terminal Type	Description	Manual or Auto Configuration
1	Single-line telephone (SLT)	Auto
2	16-button key phone	Auto
3	22-button key phone	Auto
4	34-button key phone	Auto
5	Reserved for future use	(N/A)
6	Digital single-line telephone (DSLTL)	Auto
7	EM/24	Auto
8	OPX pulse station	Manual
9	OPX DTMF station -or- SLTA phone	Manual (OPX) -or- Auto (SLTA)
10	Third-party voice mail	Manual
11	DSS/72 #1 (for extension 10 or 100)	Manual
12	DSS/72 #2 (for extension 10 or 100)	Manual
13	DSS/72 #3 (for extension 11 or 101)	Manual
14	DSS/72 #4 (for extension 11 or 101)	Manual
15	Third-party voice mail with OPX	Manual

## EM/24 Port Assignment

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF3 (ExtPort)# 3# (ExtPort)#**

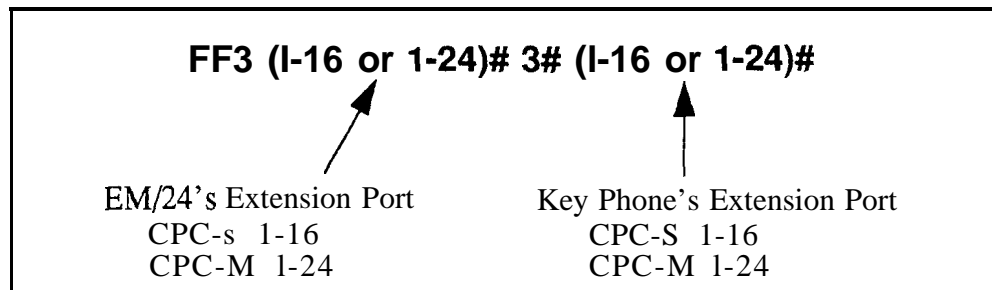
**Description** This program assigns an EM/24 terminal to a key phone, matching up their respective extension ports

The EM/24 terminal provides 24 additional FF keys to a key phone. It needs its own extension port. This address therefore requires two port number entries -- one for the EM/24 terminal, and one for the key phone

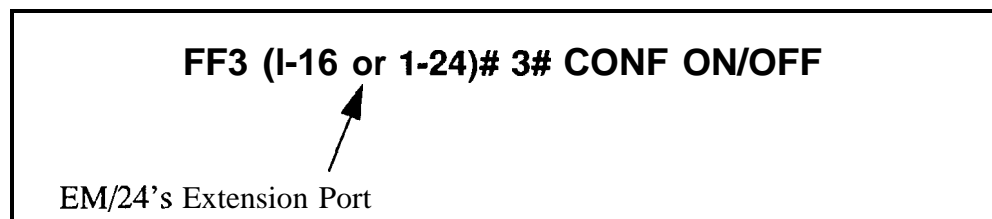
After the EM/24 is assigned to the key phone, the *key phone's* extension port should be used in other program addresses (for example, when including the phone in a hunt group or call coverage group)

### Programming

**To assign an EM/24 to a key phone**



**To clear an EM/24 assignment**



## Forced Least Cost Routing

Software Version CPC-S and CPC-M, Version 1.0 and higher

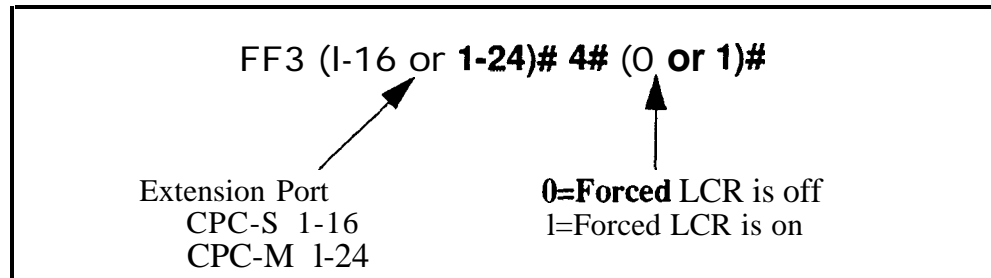
Address FF3 (ExtPort)# 4# (0 or 1)#

### Description

Use this address to set individual extension(s) for forced Least Cost Routing (LCR). If an extension is set for forced LCR the caller must dial 9 or press an FF key programmed for LCR in order to initiate an outside call. (The caller will now hear a dial tone generated by the DBS 824 -- but the system will not access an outside line until the caller dials an area code and office code, after which the system selects the least expensive trunk.)

LCR is an automatic routing feature in which the DBS 824 selects the trunk with the least expensive carrier for outside calls. LCR can be based on time of day, the carrier assigned to the trunk, and/or the dialed number. Use the FF8 program addresses to customize the LCR feature for your system.

### Programming



### Related Programming

Least Cost Routing All FF8 programs



# Forced Account Codes

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF3 (ExtPort) 5# (0-2)#**

## Description

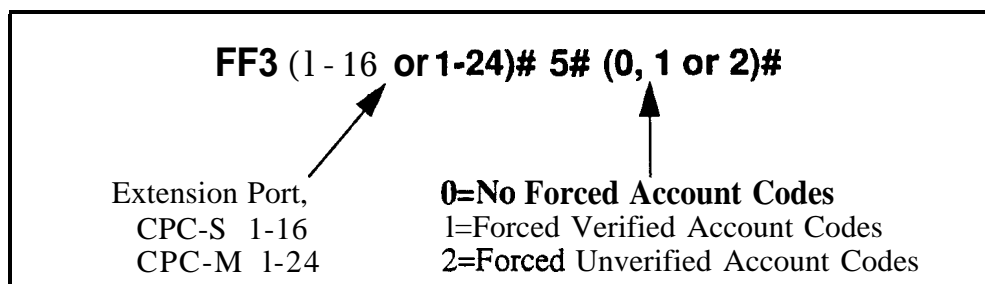
With this programming address, DBS 824 extensions can be programmed so that the caller has to enter an account code before accessing a trunk for an outgoing call. This address also enables or disables system verification of the entered account code on an extension-by-extension basis. This programming address affects the Toll Restriction Service (TRS) type used for the outgoing call.

If an extension is set for **Forced Verified Account Codes**, callers on that extension are restricted from making outside calls without first entering a valid 4-digit Account Code. After the caller enters the Account Code and the DBS 824 verifies it, the system will use the TRS type assigned to the Account Code rather than the TRS type for the extension or trunk.

If the extension is set for **Forced Unverified Account Codes** a caller can place outside calls after dialing a valid Account Code (can be 1- 10 digits long). The DBS 824 will not verify the Account Code, and will use the TRS type assigned to the extension to allow or disallow the call.

If the extension is set for **No Forced Account Codes**, callers can place outside calls without entering an Account Code. However, if a caller wishes to place a call that would normally be restricted at that extension, the caller can enter a valid Verified Account Code to use the TRS type assigned to the Account Code.

## Programming



## Related Programming

Verified Forced Account Codes **FF1 2# 6# (1-100)# 1# (0000-9999)#**

Toll Restriction for Verified Forced Account Codes **FF1 2# 6# (1- 100)# 2# (0-7)#**

TRS Types Assigned to Trunks or Extensions **FF7 addresses**

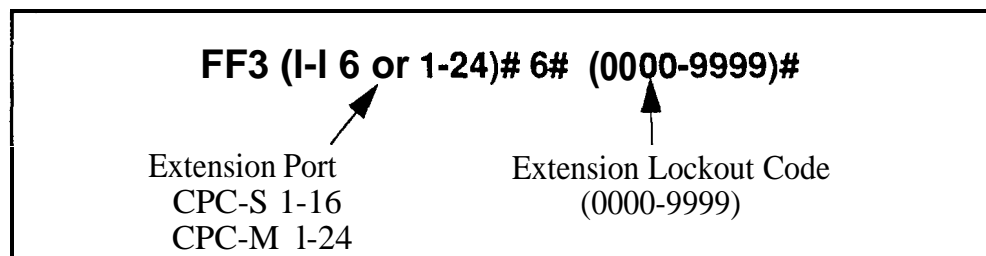
## Extension Lockout Code

Software Version CPC-S and CPC-M, Version 1.0 and higher  
 Address FF3 (ExtPort)# 6# (0000-9999)#

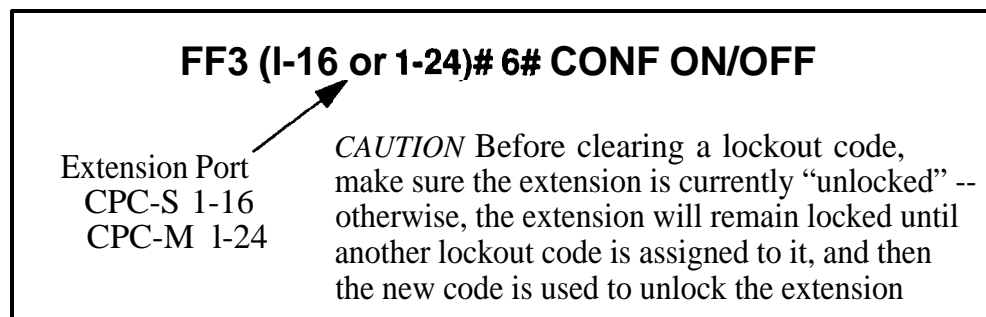
**Description** Use this address to assign a 4-digit lockout code to an extension. This allows an extension user to 'lock his/her phone before going away, thus preventing unauthorized trunk calls during the user's absence. Dialing '74' followed by the extension lockout code will "lock" the extension. Dial "74" and the lockout code again to "unlock" the extension.

### Programming

#### To assign an extension lockout code



#### To clear an extension lockout code



## Offhook Signal (CO)

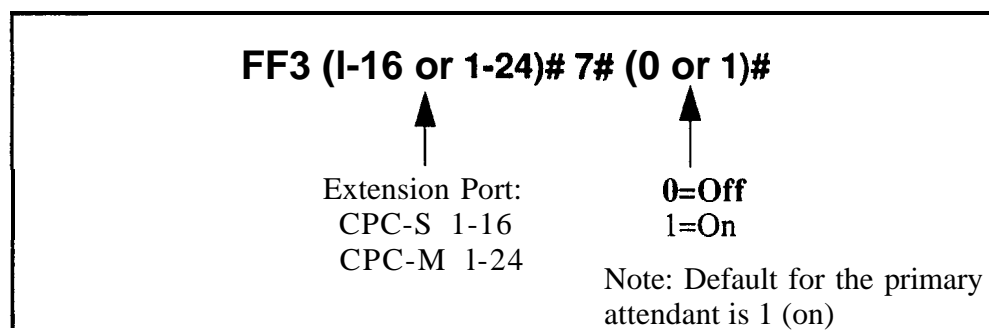
Software Version **CPC-S** and **CPC-M**, Version **1 0** and higher

Address **FF3 (ExtPort)# 7# (0 or 1)#**

**Description** This program determines if the DBS 824 system sends a tone signal to busy extensions when an additional trunk call arrives

### Programming

#### To activate the Offhook Signal



#### To reset the Offhook Signal to the default value

<b>FF3 (1-16 or 1-24)# 7# CONF ON/OFF</b>
---

### Related Programming

Offhook Signal Volume FF3 (ExtPort)# 15# (0-4)#

Offhook Signal Pattern FF3 (ExtPort)# 16# (0 or 1)#

### Notes

**Conditions Under Which the Signal Is Not Sent.** The system does not send the offhook signal during a conference call, while the called extension is on hold, or during a call on a trunk for which there is no line key on the telephone

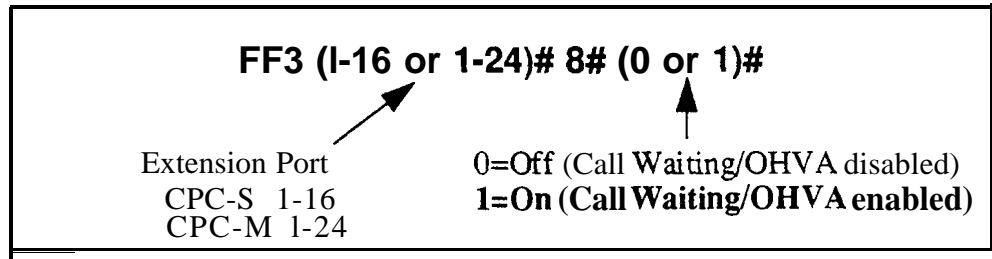
**VAU Interaction** If a Voice Announce Unit (VAU) is connected to the DBS 824, offhook signalling must be enabled on all extensions

## Call Waiting/OHVA

Software Version CPC-S and CPC-M, Version 1.0 and higher  
 Address FF3 (ExtPort)# 8# (0 or 1)#

**Description** This setting determines if an extension can receive Call Waiting and Offhook Voice Announcement (OHVA)

### Programming



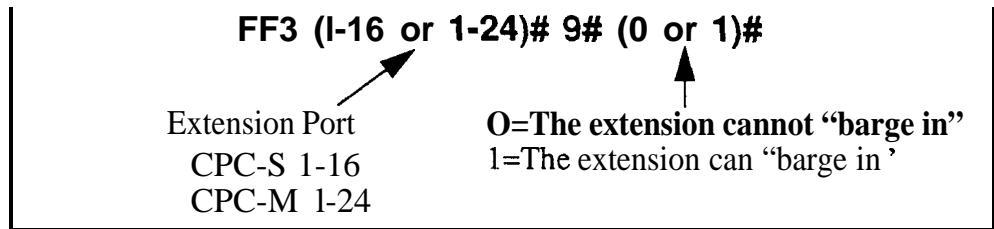
**Notes** *Conditions Under Which the Tone Is Not Sent* The Call Waiting notification tone cannot be sent to an extension that has an absence message, a held call, or the extension is engaged in a conference call

# Busy Override Send

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF3 (ExtPort)# 9# (0 or 1)#**

**Description** Use this program to determine whether to allow an extension to “barge in” on calls that are in progress on other extensions. If this feature is enabled, the extension caller can join in on another extension’s call; all three parties will be able to hear each other.

## Programming



## Related Programming

Alert Tone for Busy Override & OHVA FF1 2# 1# 16# (0 or 1)#

Busy Override Receive FF3 (ExtPort)# 10# (0 or 1)#

Page Group Extensions FF3 (ExtPort)# (18-25)# (0 or 1)#

## Notes

**Conditions That Restrict Busy Override** Extensions can be set to block barge-in calls with the Busy Override Receive address (FF3 ExtPort# 10# 0#). Also, a barge-in attempt will not work when the called extension is participating in a conference call.

**Interaction with Page Groups** Extensions with Busy Override Send enabled can only barge into calls on extensions within their own page group. For example, a Busy-Override-Send-enabled extension in page group 1 cannot interrupt a call in page group 2. Page group 0 does not allow Busy Override.

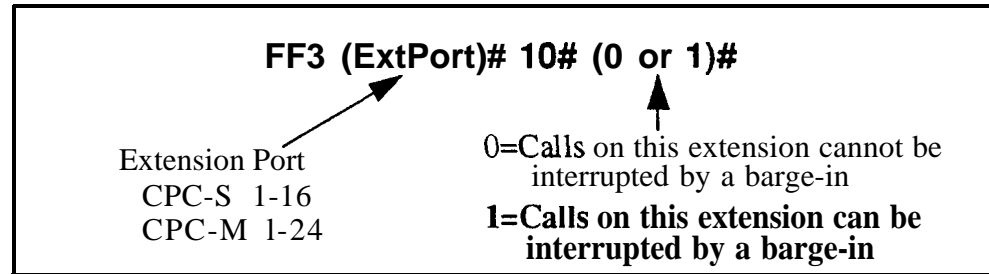
## Busy Override Receive

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF3 (ExtPort)# 10# (0 or 1)#**

**Description** This program determines whether an extension's calls can be "barged into" by other extensions

### Programming



### Related Programming

Alert Tone for Busy Override & OHVA FF1 2# 1# 16# (0 or 1)#

Busy Override Send FF3 (ExtPort)# 9# (0 or 1)#

Page Group Extensions FF3 (ExtPort)# (18-25)# (0 or 1)#

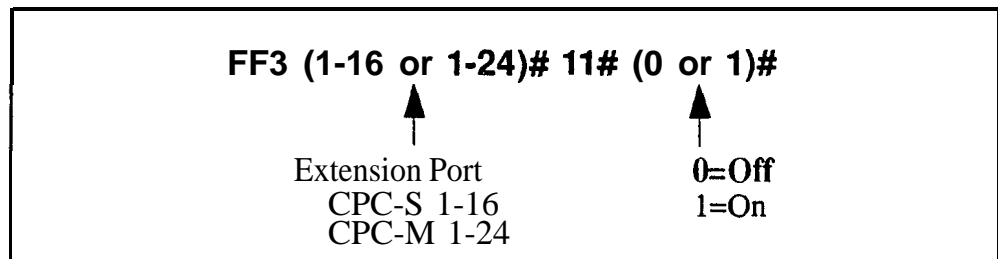
## Prime Line Pickup

Software Version CPC-S and CPC-M, Version 10 and higher  
Address FF3 (ExtPort)# 11# (0 or 1)#

**Description** This feature allows the user to automatically pick up a trunk assigned to the FF1 key by simply picking up the receiver

If the FF1 key is a pooled trunk key, an available trunk is accessed in numerical order from the highest trunk number assigned to the key to the lowest.

### Programming



### Notes

***Providing for Intercom Calling*** If this feature is enabled, intercom calls cannot be made from the extension unless an intercom call key is assigned to another FF key

## Auto Pickup (Ringing Line)

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF3 (ExtPort)# 12# (0 or 1)#**

### Description

Use this program to enable the ability to pick up the receiver at a ringing extension and connect an incoming CO line call, hold recall or transferred cd1

### Programming

**FF3 (1-16 or 1-24)# 12# (0 or 1)#**

**t**  
Extension Port  
CPC S 1-16  
CPC-M 1-24

**t**  
0=Disable Au to Pickup  
**1=Enable Auto Pickup**



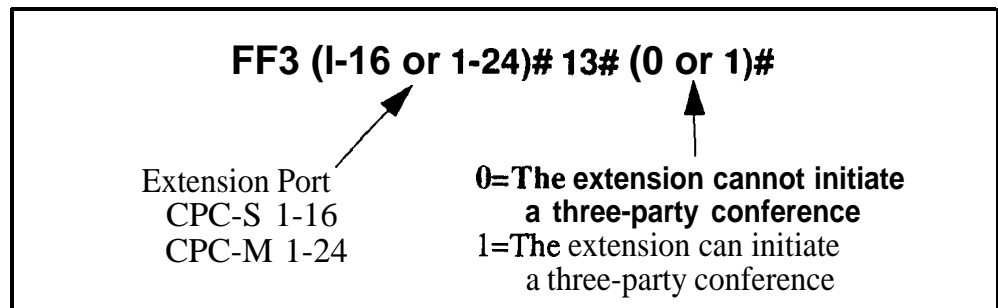
## Unsupervised Conference

**Software Version** CPC-S and CPC-M, Version 1 0 and higher

**Address** FF3 (ExtPort)# 13# (0 or 1)#

**Description** This feature enables an extension user to initiate a three-party conference between two trunks and the extension. Once the conference is initiated, the extension user can drop out of the call by pressing either of the trunk keys used to call the other parties.

### Programming



### Related Programming

Unsupervised Conference Timer FF1 3# 9# (0-15)#

Unsupervised Trunk Conference FF2 (Trunk)# 16#

### Notes

**Re-entering a Three-Party Conference** The user can re-enter the conference by pressing either of the two CO trunk keys used to initiate the conference.

**Interaction with Auto Pause** If the DBS 824 is behind a PBX, "Automatic Pause for PBX Line" (FF2# Trunk# 13#) cannot be used if the Conference feature is enabled.

## Station Message Detail Recorder (SMDR) Report

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF3 (ExtPort)# 14# (0 or 1)#

**Description** Any extension can be removed from the SMDR report, so that call activity from that port will not be recorded

### Programming

FF3 (1-16 or 1-24)# 14# (0 or 1)#	
Extension Port CPC-S 1-16 CPC-M 1-24	0=The extension is not included in the SMDR report 1=The extension is included in the SMDR report

### Related Programming

SMDR Display Start limer for CO Calls FF1 2# 1# 2# (0 or 1)#

### Ndtes

**Checking Communication Parameters** When you set this option, also check the communications parameters in programs FF1 2# 2# 1# through 9#

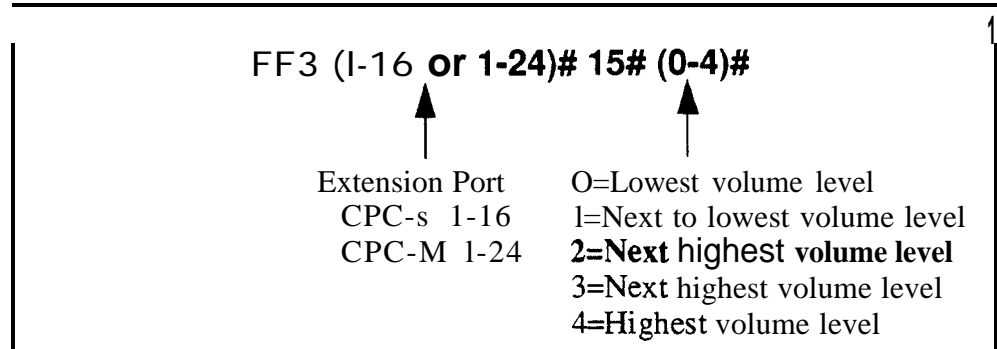
## Offhook Signal Volume

Software **Version** CPC-S and CPC-M, Version 1.0 and higher

Address FF3 (ExtPort)# **15# (0-4)#**

**Description** Offhook signaling volume can be set to five different levels

### Programming



### Related Programming

Alert Tone for Busy Override & OHVA FF1 2# 1# 16#

Offhook Signal FF3 (ExtPort)# 7# (0 or 1)#

Offhook Signal Pattern FF3 (ExtPort)# 16# (0 or 1)#

### Notes

*Power-Down Requirement* If you change the volume level in this address, the extension phone must be unplugged, then plugged back in so that the change will take effect.

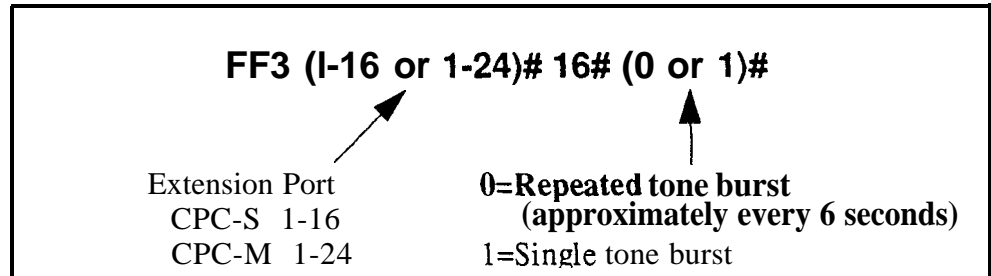
## Offhook Signal Pattern

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF3 (ExtPort)# 16# (0 or 1)#

**Description** The offhook signaling tone can be sent repeatedly or only once

### Programming



### Related Programming

Offhook Signal FF3 (ExtPort)# 7# (0 or 1)#

Offhook Signal Volume FF3 (ExtPort)# 15# (0 or 1)#

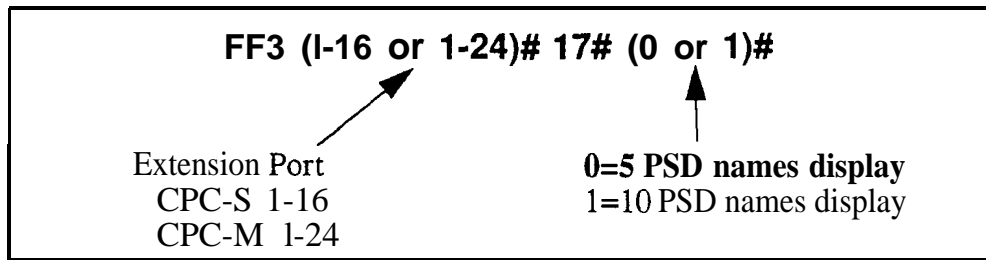
## PSD Name Display on Large-Sized LCD Phones

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF3 (ExtPort)# 17# (0 or 1)#

**Description** The large-screen phone can show either 5 or 10 personal speed dial names, depending on this setting

### Programming



### Related Programming

Personal Speed Dial Names FF6 3# (ExtPort)# (PSD)#

Personal Speed Dial Numbers FF10 2# (ExtPort)# (PSD)#

### Notes

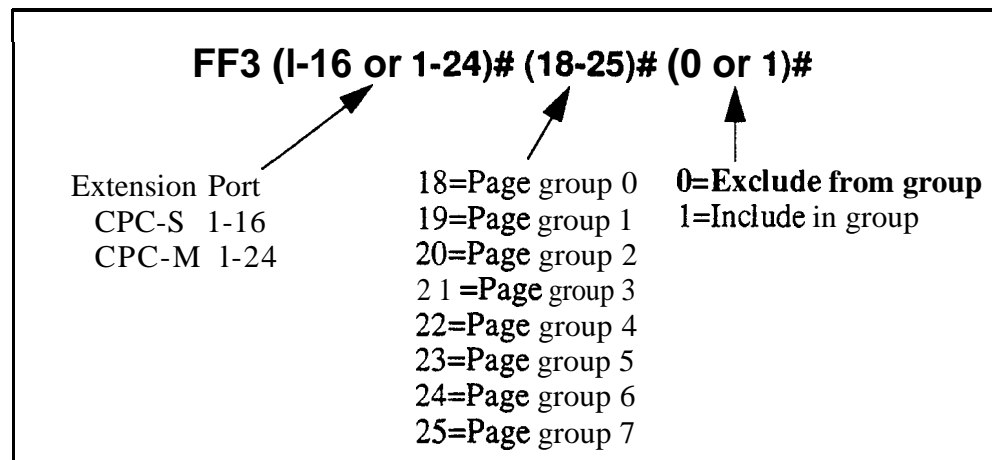
**Maximum Name Lengths** When the 10-name option is used, the maximum length of the names is 7 characters. With the 5-name option, the names can be 16 characters long.

## Page Group Extensions

Software Version CPC-S and CPC-M, Version 1.0 and higher  
 Address FF3 (ExtPort)# (18-25)# (0 or 1)#

**Description** Use this program address to include an extension in one or more of the eight page groups. If an extension is included in a page group, pages to that group will be heard on the extension phone's loudspeaker. Also the extension will be able to pick up calls to other extensions in the page group using the Group Call Pickup feature.

### Programming



### Notes

**Interaction with Group Call Pickup** Page groups determine which extensions can use the Group Call Pickup (70) feature.

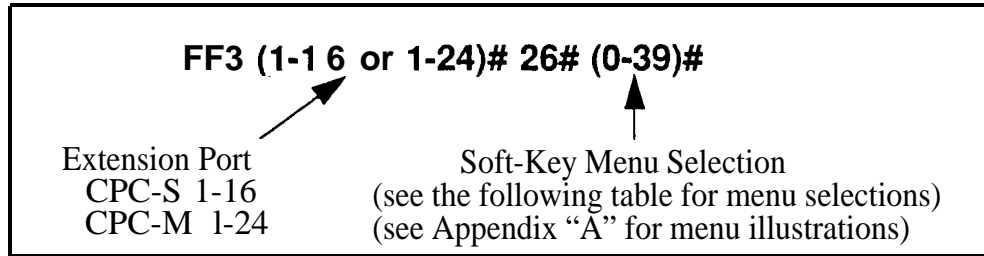
**Interaction with Busy Override** Page group 0 does not allow Busy Override. In other words, if an extension is a member of page group 0, it cannot be overridden. Also, a Busy-Override-Send enabled extension can only override calls at extensions within its own page group. For example, an extension on page group 1 cannot override calls in page group 2.

# Display When Idle

Software Version CPC-S and CPC-M, Version 1.0 and higher  
 Address FF3 (ExtPort)# 26# (0-39)#

**Description** Use this program address to select a soft key menu to be displayed on the large-display telephone during “idle” mode

## Programming



**Table 3-2 Available menus for idle display**

Menu Selection	Menu
<b>0</b>	<b>No change (previous menu selection is retained)</b>
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
<b>20</b>	Function screen 10 (fixed)

21	Function screen 11 (fixed)
22	Function screen 12 (fixed)
23	Function screen 13 (fixed)
24	Function screen 14 (fixed)
25	Custom Screen 1 (user-programmable)
26	Custom Screen 2 (user-programmable)
27	Custom Screen 3 (user programmable)
28	Custom Screen 4 (user-programmable)
29	Custom Screen 5 (user-programmable)
30	Custom Screen 6 (user-programmable)
31	Custom Screen 7 (user-programmable)
32	Custom Screen 8 (user-programmable)
33	Custom Screen 9 (user-programmable)
34	Custom Screen 10 (user-programmable)
35	Custom Screen 11 (user-programmable)
36	Custom Screen 12 (user-programmable)
37	Custom Screen 13 (user-programmable)
38	Custom Screen 14 (user-programmable)
39	Custom Screen 15 (user-programmable)

## Related Programming

Custom Screen addresses FF1 2# 7# 1# thru 4#

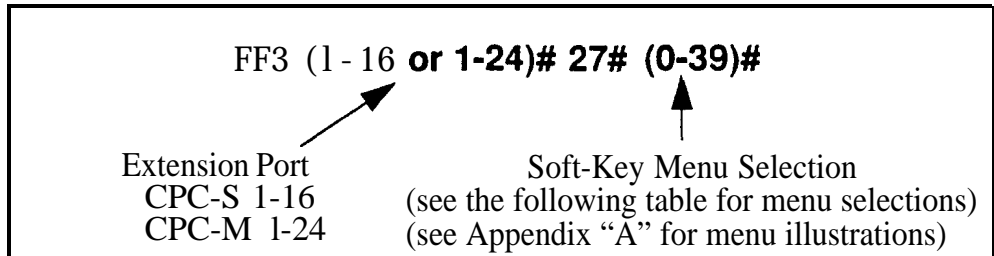


## Display During Intercom Dial Tone

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF3 (ExtPort)# 27# (0-39)#**

**Description** Use this program address to select a soft-key menu to be displayed on the large display telephone during intercom dial tone

### Programming



**Table 3-3 Available menus during intercom dial tone**

Menu Selection	Menu
0	<b>No change (previous menu selection is retained)</b>
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
20	Function screen 10 (fixed)

21	Function screen 11 (fixed)
22	Function screen 12 (fixed)
23	Function screen 13 (fixed)
24	Function screen 14 (fixed)
25	Custom Screen 1 (user-programmable)
26	Custom Screen 2 (user-programmable)
27	Custom Screen 3 (user-programmable)
28	Custom Screen 4 (user-programmable)
29	Custom Screen 5 (user-programmable)
30	Custom Screen 6 (user-programmable)
31	Custom Screen 7 (user-programmable)
32	Custom Screen 8 (user-programmable)
33	Custom Screen 9 (user-programmable)
34	Custom Screen 10 (user-programmable)
35	Custom Screen 11 (user-programmable)
36	Custom Screen 12 (user-programmable)
37	Custom Screen 13 (user-programmable)
38	Custom Screen 14 (user-programmable)
39	Custom Screen 15 (user-programmable)

## Related Programming

Custom Screen addresses FF1 2# 7# 1# thru 4#

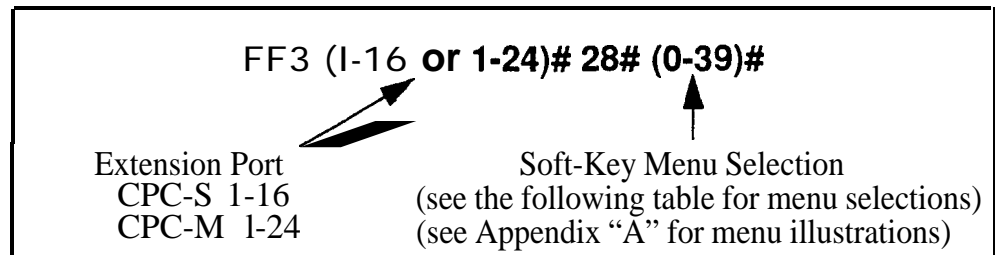
## Display When Calling an Extension

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF3 (ExtPort)# 28# (0-39)#

**Description** Use this program address to select a soft-key menu to be displayed on the large-display telephone while the user is calling another extension

### Programming



**Table 3-4 Available menus when calling an extension**

Menu Selection	Menu
0	<b>No change (previous menu selection is retained)</b>
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
20	Function screen 10 (fixed)

--	21	Function screen 11 (fixed)
	22	Function screen 12 (fixed)
	23	Function screen 13 (fixed)
	24	Function screen 14 (fixed)
	25	Custom Screen 1 (user programmable)
	26	Custom Screen 2 (user programmable)
	27	Custom Screen 3 (user programmable)
	28	Custom Screen 4 (user-programmable)
	29	Custom Screen 5 (user-programmable)
	30	Custom Screen 6 (user-programmable)
	31	Custom Screen 7 (user-programmable)
	32	Custom Screen 8 (user-programmable)
	33	Custom Screen 9 (user programmable)
	34	Custom Screen 10 (user-programmable)
	35	Custom Screen 11 (user-programmable)
	36	Custom Screen 12 (user programmable)
	37	Custom Screen 13 (user-programmable)
	38	Custom Screen 14 (user-programmable)
	39	Custom Screen 15 (user-programmable)

## Related Programming

Custom Screen addresses FF1 2# 7# 1# thru 4#

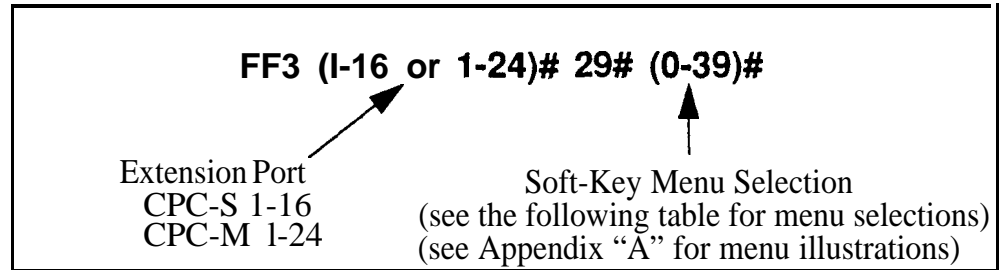
## Display When Accessing CO Dial Tone

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF3 (ExtPort)# 29# (0-39)#**

**Description** Use this program address to select a soft-key menu to be displayed on the large-display telephone while the user is accessing a trunk

### Programming



*Table 3-5 Available menus when accessing CO dial tone*

Menu Selection	Menu
<b>0</b>	<b>No change (previous menu selection is retained)</b>
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
20	Function screen 10 (fixed)

21	Function screen 11 (fixed)
22	Function screen 12 (fixed)
23	Function screen 13 (fixed)
24	Function screen 14 (fixed)
25	Custom Screen 1 (user-programmable)
26	Custom Screen 2 (user-programmable)
27	Custom Screen 3 (user-programmable)
28	Custom Screen 4 (user-programmable)
29	Custom Screen 5 (user-programmable)
30	Custom Screen 6 (user-programmable)
31	Custom Screen 7 (user-programmable)
32	Custom Screen 8 (user-programmable)
33	Custom Screen 9 (user-programmable)
34	Custom Screen 10 (user-programmable)
35	Custom Screen 11 (user-programmable)
36	Custom Screen 12 (user-programmable)
37	Custom Screen 13 (user-programmable)
38	Custom Screen 14 (user-programmable)
39	Custom Screen 15 (user-programmable)

## Related Programming

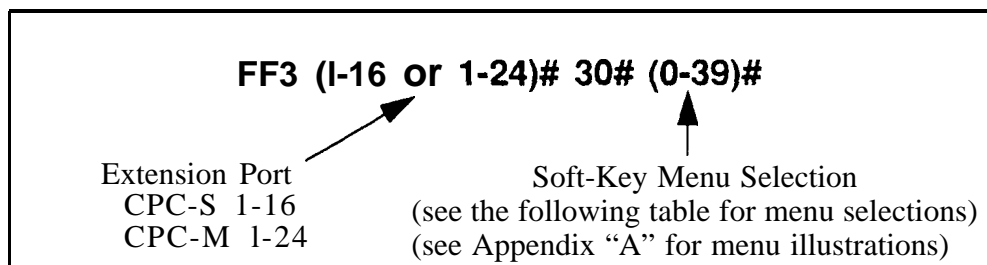
Custom Screen addresses FF1 2# 7# 1# thru 4#

# Display When Conversing on a CO Trunk

Software Version **CPC-S and CPC-M, Version 1.0 and higher**  
 Address **FF3 (ExtPort)# 30# (0-39)#**

**Description** Use this program address to select a soft-key menu to be displayed on the large display telephone while a trunk call is in progress

## Programming



*Table 3-6 Available menus when conversing on a CO trunk*

Menu Selection	Menu
<b>0</b>	<b>No change (previous menu selection is retained)</b>
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
20	Function screen 10 (fixed)

21	Function screen 11 (fixed)
22	Function screen 12 (fixed)
23	Function screen 13 (fixed)
24	Function screen 14 (fixed)
25	Custom Screen 1 (user-programmable)
26	Custom Screen 2 (user-programmable)
27	Custom Screen 3 (user-programmable)
28	Custom Screen 4 (user-programmable)
29	Custom Screen 5 (user-programmable)
30	Custom Screen 6 (user-programmable)
31	Custom Screen 7 (user-programmable)
32	Custom Screen 8 (user-programmable)
33	Custom Screen 9 (user-programmable)
34	Custom Screen 10 (user-programmable)
35	Custom Screen 11 (user-programmable)
36	Custom Screen 12 (user-programmable)
37	Custom Screen 13 (user-programmable)
38	Custom Screen 14 (user-programmable)
39	Custom Screen 15 (user-programmable)

## Related Programming

Custom Screen addresses FF1 2# 7# 1# thru 4#



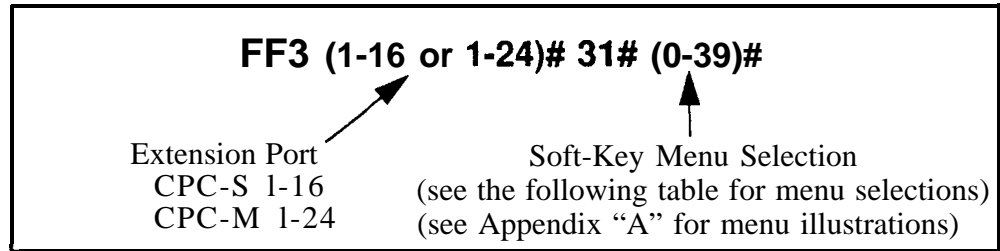
# Display W-hen Receiving a Page

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF3 (ExtPort)# 31# (0-39)#

**Description** Use this program address to select a soft-key menu to be displayed on the large-display telephone when the extension receives a page

## Programming



**Table 3-7 Available menus when receiving a page**

Menu Selection	Menu
<b>0</b>	<b>No change (previous menu selection is retained)</b>
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
<b>20</b>	Function screen 10 (fixed)

21	Function screen 11 (fixed)
22	Function screen 12 (fixed)
23	Function screen 13 (fixed)
24	Function screen 14 (fixed)
25	Custom Screen 1 (user-programmable)
26	Custom Screen 2 (user-programmable)
27	Custom Screen 3 (user-programmable)
28	Custom Screen 4 (user-programmable)
29	Custom Screen 5 (user-programmable)
30	Custom Screen 6 (user-programmable)
31	Custom Screen 7 (user-programmable)
32	Custom Screen 8 (user-programmable)
33	Custom Screen 9 (user-programmable)
34	Custom Screen 10 (user-programmable)
35	Custom Screen 11 (user-programmable)
36	Custom Screen 12 (user-programmable)
37	Custom Screen 13 (user-programmable)
38	Custom Screen 14 (user-programmable)
39	Custom Screen 15 (user-programmable)

## Related Programming

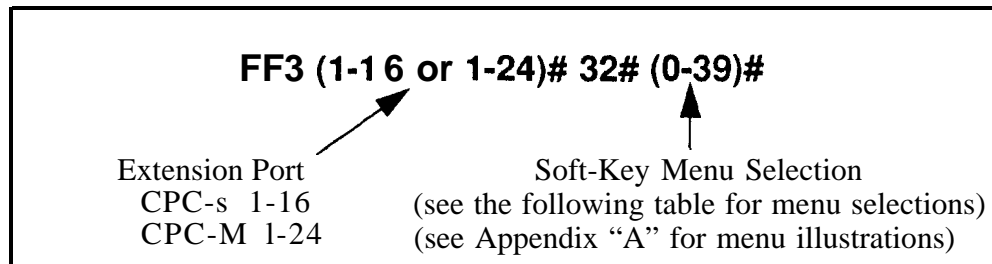
Custom Screen addresses FF1 2# 7# 1# thru 4#

# Display After Receiving a Call Waiting Tone

Software **Version** CPC-S and CPC-M, Version 1.0 and higher  
 Address FF3 (ExtPort)# **32# (0-39)#**

**Description** Use this program address to select a soft-key menu to be displayed on the large display telephone after the extension receives a call waiting tone

## Programming



**Table 3-8** Available menus after receiving a call waiting tone

Menu Selection	Menu
<b>0</b>	<b>No change (previous menu selection is retained)</b>
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
20	Function screen 10 (fixed)

21	Function screen 11 (fixed)
22	Function screen 12 (fixed)
23	Function screen 13 (fixed)
24	Function screen 14 (fixed)
25	Custom Screen 1 (user-programmable)
26	Custom Screen 2 (user-programmable)
27	Custom Screen 3 (user-programmable)
28	Custom Screen 4 (user-programmable)
29	Custom Screen 5 (user-programmable)
30	Custom Screen 6 (user-programmable)
31	Custom Screen 7 (user-programmable)
32	Custom Screen 8 (user-programmable)
33	Custom Screen 9 (user-programmable)
34	Custom Screen 10 (user-programmable)
35	Custom Screen 11 (user-programmable)
36	Custom Screen 12 (user-programmable)
37	Custom Screen 13 (user-programmable)
38	Custom Screen 14 (user-programmable)
39	Custom Screen 15 (user-programmable)

## Related Programming

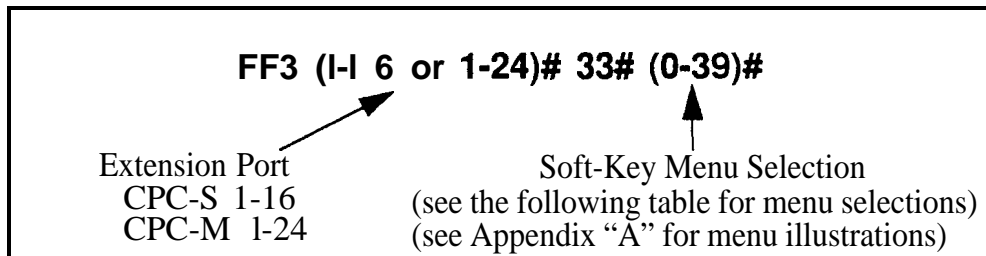
Custom Screen addresses FF1 2# 7# 1# thru 4#

# Display When Dialing a Busy Extension

**Software Version** CPC-S and CPC-M, Version 1.0 and higher  
**Address** FF3 (ExtPort)# 33# (0-39)#

**Description** Use this program address to select a soft-key menu to be displayed on the large-display telephone while the user dials a busy extension

## Programming



**Table 3.9 Available menus when dialing a busy extension**

Menu Selection	Menu
0	No change (previous menu selection is retained)
1	Main menu
2	Personal speed dial
3	System speed dial
4	Extension index
5	Help menu 1
6	Help menu 2
7	Help menu 3
8	Attendant menu 1
9	Attendant menu 2
10	Attendant menu 3
11	Function screen 1 (fixed)
12	Function screen 2 (fixed)
13	Function screen 3 (fixed)
14	Function screen 4 (fixed)
15	Function screen 5 (fixed)
16	Function screen 6 (fixed)
17	Function screen 7 (fixed)
18	Function screen 8 (fixed)
19	Function screen 9 (fixed)
20	Function screen 10 (fixed)

21	Function screen 11 (fixed)
22	Function screen 12 (fixed)
23	Function screen 13 (fixed)
24	Function screen 14 (fixed)
25	Custom Screen 1 (user-programmable)
26	Custom Screen 2 (user-programmable)
27	Custom Screen 3 (user-programmable)
28	Custom Screen 4 (user-programmable)
29	Custom Screen 5 (user-programmable)
30	Custom Screen 6 (user-programmable)
31	Custom Screen 7 (user-programmable)
32	Custom Screen 8 (user-programmable)
33	Custom Screen 9 (user-programmable)
34	Custom Screen 10 (user-programmable)
35	Custom Screen 11 (user-programmable)
36	Custom Screen 12 (user-programmable)
37	Custom Screen 13 (user-programmable)
38	Custom Screen 14 (user-programmable)
39	Custom Screen 15 (user-programmable)

## Related Programming

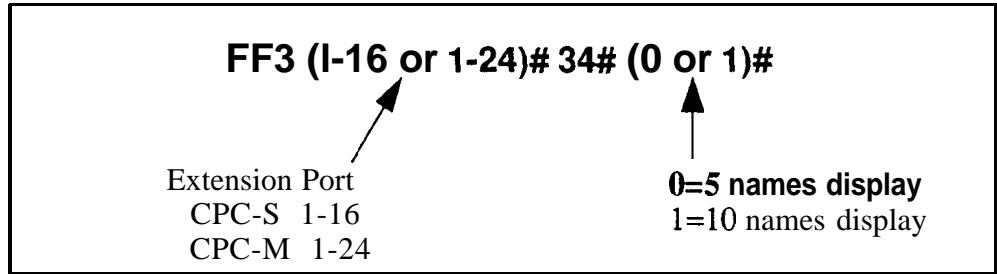
Custom Screen addresses FF1 2# 7# 1# thru 4#

# Extension Directory Display

Software Version: CPC-S and CPC-M, Version 1.0 and higher  
 Address: FF3 (ExtPort)# 34# (0 or 1)#

**Description** The large-display telephone can be set to display 5 or 10 extension names on the Extension Directory menu

## Programming



## Extension Class of Service Assignment

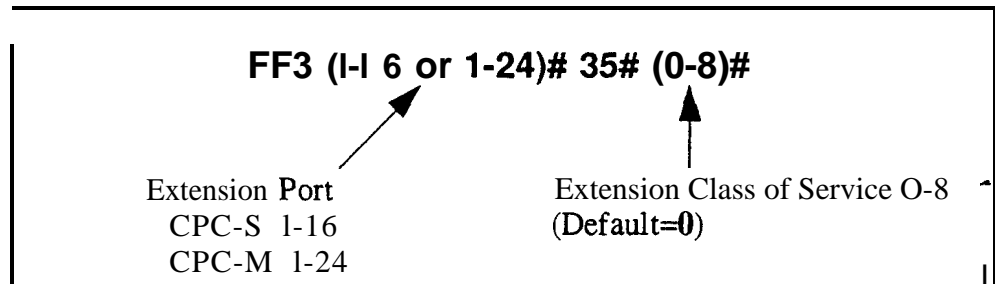
Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF3 (ExtPort)# 35# (0-8)#**

**Description** Use this feature to assign one of eight Classes of Service to an extension. Each Class of Service contains a unique combination of extension features which are assigned to the Class of Service in address FF1 2# 5#

When you assign a Class of Service to an extension in this address, you are assigning all the features of that Class of Service to the extension.

By default, all extensions are assigned Class of Service "0" which allows access to all features.

### Programming



### Related Programming

Extension Class of Service FF1 2# 5# (1-8)# (1-21)# (0 or 1)#



## Ringback Tone From ML Keys

Software Versiun CPC-S and CPC-M, Version 1 0 and higher

Address FF3 (ExtPort)# 36# (0-2)#

**Description** This address determines which tone an extension user will hear when dialing another extension that has a busy ML key

The tone selected in this address will be heard only if the called party has more than one ML key and one of the ML keys is busy

### Programming

<b>FF3 (1-16 or 1-24)# 36# (0-2)#</b>	
Extension Port	<b>0=Ringback tone followed by busy tone</b>
CPC-S 1-16	1=Busy tone
CPC-M 1-24	2=Ringback tone
NOTE Enter the extension port that will hear the tone (the <i>calling</i> party) -- not the extension <b>with</b> the ML keys (the called party)	

### Related Programming

ML/MCO Separation FF3 (ExtPort)# 43#

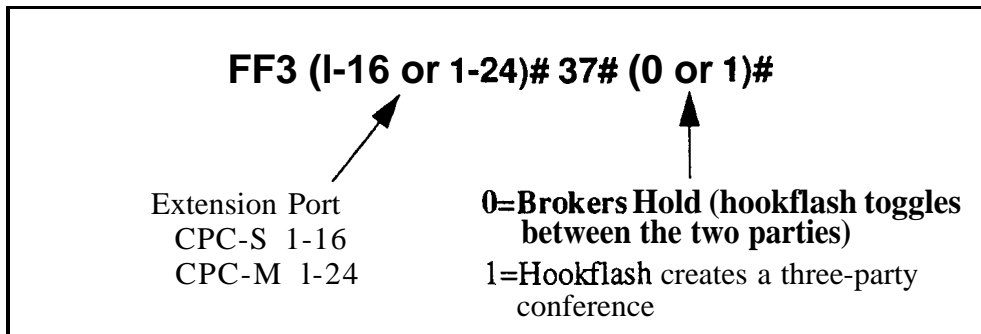
## SLT Hookflash

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF3 (ExtPort)# 37# (0 or 1)#

**Description** This setting determines what happens when a single-line telephone (SLT) user hookflashes when the SLT has one active call and one held call

### Programming



# Extension Ring Pattern

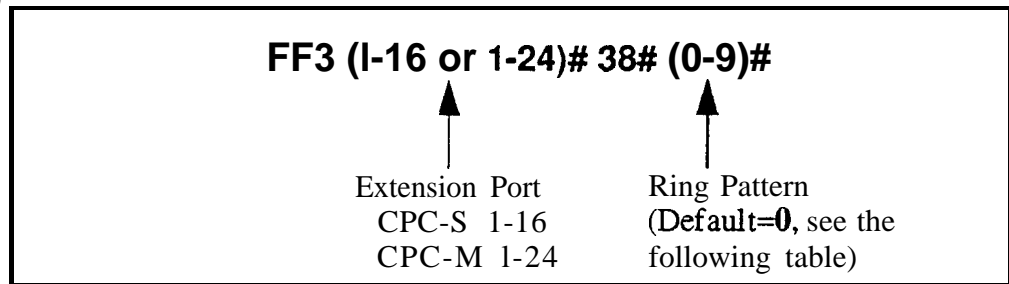
**Software Version** CPC-S and CPC-M, Version 1.0 and higher  
**Address** FF3 (ExtPort)# 38# (Pattern)#

## Description

Use this feature to assign a distinctive ringing pattern for incoming trunk calls to individual extension(s). There are 9 different patterns to choose from (see table below). Each address setting represents two different ring patterns; the pattern actually used will depend on the type of phone (digital or analog) plugged into the extension port.

Settings 1-9 in this address will override the ring pattern assigned to the *trunk* (FF2 Trunk# 17#). Setting 0 (default) will use the ring pattern assigned to the trunk.

## Programming



**Table 3-10** Extension ring patterns

Address Number	Ring Pattern (number of seconds on/off)	
	Digital Phones	Analog (SLTA) Phones
0	Determined by the trunk's ring pattern (FF2 Trunk# 17#)	
1	3 on/1 off	25 on/ 25 off/ 25 on/ 3 25 off
2	2 on/2 off	25 on/3 75 off
3	1 on/1 off	1 on/3 off
4	1 on/2 off	5 on/3 5 off
5	1 on/3 off	1 on/7 off
6	5 on/ 5 off	5 on/7 5 off
7	5 on/ 5 off/ 5 on/ 5 off/ 5 on/3 5 off	25 on/ 25 off/ 25 on/ 7 25 off
8	5 on/3 5 off	25 on/7 75 off
9	1 on/7 off	1 on/3 off

## Related Programming

Transfer Ring Pattern FF1 2# 1# 28# (0-6)#

Inbound Ring Pattern FF2 (Trunk)# 17# (0-9)#

Terminal Type FF3 (ExtPort)# 2#

## Notes

***Hardware Requirement For Distinctive Ringing On Extensions*** An MFR or MFRU card is required for distinctive ringing assigned to extensions (settings 1-9 in this address) See *Section 300-Installation* for more information

# Digital SLT Receiving Volume

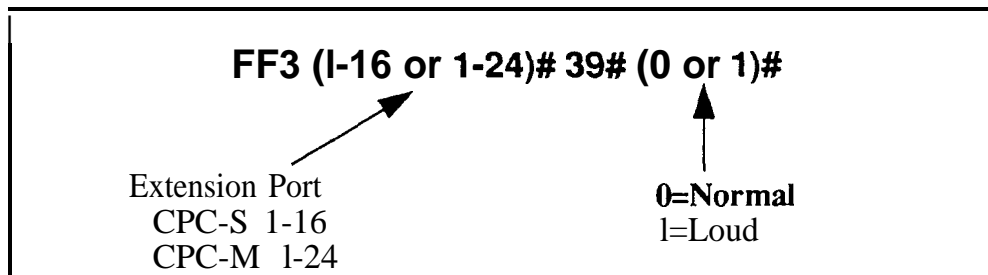
Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF3 (ExtPort)# 39# (0 or 1)#

**Description** The receiver (hearing) volume of the handset on a digital single-line telephone can be set to “normal” or “loud”.

The “loud” setting gives a +6 dB gain over the ‘normal’ setting (approximately twice as loud)

## Programming



## Auto Set Relocation Code

Software Version **CPC-S and CPC-M, Version 1.0 and higher**

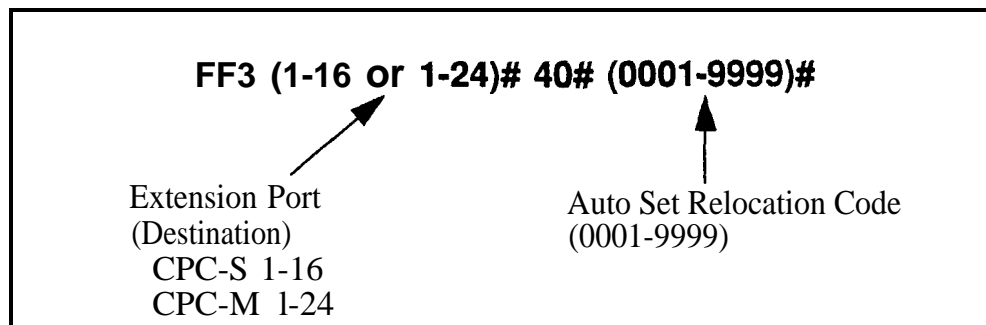
Address **FF3 (ExtPort)# 40# (0001-9999)#**

**Description** You can relocate (or swap) the program settings of one phone to another. The Auto Set Relocation Code enables you to perform the relocation.

For example, if the phone of extension 102 is unplugged and moved to an office with a wall jack (port) assigned to extension 103, this feature can be used to relocate 102's programming to 103. In order to move the programming, an Auto Set Relocation Code must be assigned for extension 103.

### Programming

#### *To assign an Auto Set Relocation Code*



#### *To clear an Auto Set Relocation Code*

<b>FF3 (1-16 or 1-24)# 40# CONF ON/OFF</b>
--

### Notes

**Moving An Extension** The following procedure explains how to move the program settings from extension 102 to extension 103.

- 1 At extension 102, pick up the handset.
- 2 Press “#10”
- 3 Dial extension number 103
- 4 Enter the four-digit Auto Set Relocation Code assigned to extension 103

- 5 Replace the handset. All programmed extension features, TRS and LCR settings from 102 will be transferred to 103 Extension 103 will be placed out of service
- 6 To return extension 103 to service, disconnect then reconnect the extension cable When extension 103 is returned to service, it will have the program settings of extension 102

**Restrictions** Phone settings cannot be exchanged between digital and analog (SLTA) ports

## Permanent Call Forward Type

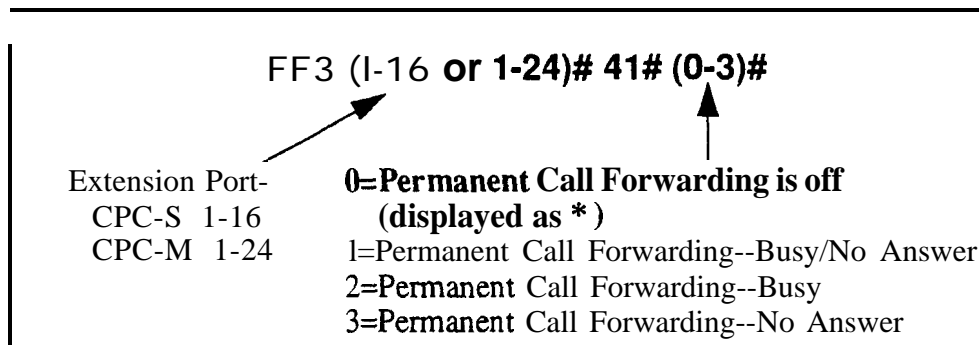
Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF3 (ExtPort)# 41# (0-3)#

### Description

Use this address to enable an extension for Permanent Call Forwarding, so that calls to that extension (if the extension is busy and/or not answered) will be forwarded to another location. This feature is often used for sending calls to Voice Mail, or forwarding peripheral equipment to a single extension port.

### Programming



### Related Programming

Permanent Call Forward Extension FF3 (ExtPort)# 42# (10-69 or 100-699)#

### Notes

**Interaction With User-Assigned Call Forwarding** Permanent Call Forwarding is assigned through system programming, rather than by the user. Permanent Call Forwarding is normally used to forward calls to a voice mail system.

An extension user can invoke other forms of call forwarding (no answer, busy, all calls) to temporarily override the Permanent Call Forwarding destination.

**Resetting To Default (Off) Condition** Entering 0 or pressing CONF will return this program address to its default condition "\*", and will also return the Permanent Call Forward Extension address to default "\*\*\*\*" (no extension assigned).



## Permanent Call Forward Extension

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF3 (ExtPort)# 42# (10-69 or 100-699)#**

**Description** If an extension is enabled for Permanent Call Forwarding (in address FF3 ExtPort# 41#), use this address to set another extension number as the target or 'permanent call forwarding point' for the forwarded calls

In addition to regular extension numbers, the permanent call forwarding point can also be a System Speed Dial number (SSD), a Personal Speed Dial number (PSD), a hunt group pilot number, or an attendant extension number

### Programming

*To assign a Permanent Call Forwarding Point*

**FF3 (1-16 or 1-24)# 42# (10-69 or 100-699)#**

↖

Extension Port  
CPC-S 1-16  
CPC-M 1-24

↖

Permanent Call Forwarding Point  
(Default=\*\*\*\*; **no extension assigned**)  
10-69 or 100-699=**Extension numbers,**  
including attendants  
**and hunt group pilot**  
**numbers**

AUTO 90-99 or 900-939=**PSD numbers**  
AUTO 00-89 or 000-199=**SSD numbers**

*To clear a Permanent Call Forwarding Point*

**FF3 (1-16 or 1-24)# 42# CONF ON/OFF**

↑

Extension Port  
CPC-S 1-16  
CPC-M 1-24

### Related Programming

Permanent Call Forward Type FF3 (ExtPort)# 41# (0-3)#

Hunt Group Pilot Numbers FF4 3# (1-4)# 1# (11-69 or 101-699)#

System Speed Dial Numbers FF10 1# (SSD)# (PhoneNo )#

Personal Speed Dial Numbers FF10 2# (ExtPort)# (PSD)# (PhoneNo )#

## ML/MCO Separation

Software Version CPCS and CPC-M, Version 10 and higher

Address FF3 (ExtPort)# 43# (0 or 1)#

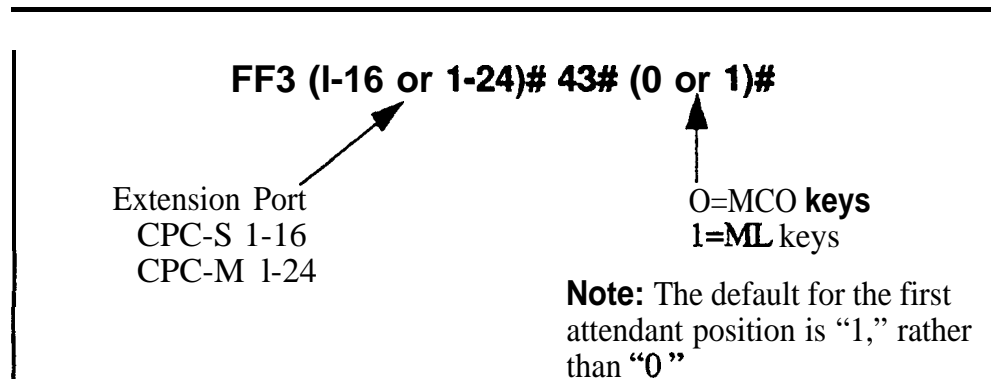
**Description** Use this address to program an extension to have MCO (Multi-CO) or ML (Multi-Line) FF keys

The difference between ML and MCO has to do with incoming calls. MCO means multiple trunks can be received at the extension -- if you press a flashing FF key, you will get an incoming trunk call. Calls from another extension will flash on the "EXT" LED (not through the FF key)

ML, on the other hand, means you can receive either a **trunk** call or an extension call on an FF key, which will flash for either type of call

If this address is set to ML, each FF key must be individually enabled for ML/MCO using program address FF5 (ExtPort)# (Key)# (FeatureCode)#

## Programming



## Related Programming

FF Key Assignments for Extensions FF5 (ExtPort)# (Key)# (Feature)#

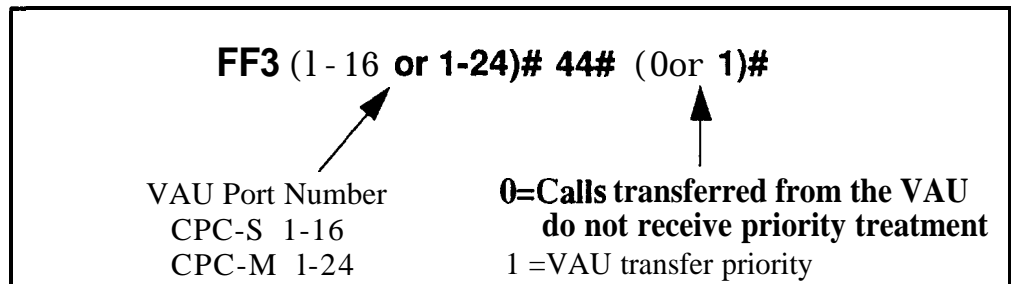
## VAU Hunting Priority

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF3 (ExtPort)# 44# (0 or 1)#**

**Description** This program allows you to assign hunting priority to calls that overflow from a hunt group to the VAU. If hunting priority is selected a caller that hears the VAU message and then decides to dial back into the hunt group is placed before other calls that have just entered the hunt group queue.

Without hunting priority, the caller loses his or her place in the queue and is placed in the last queue position upon reentry into the hunt group.

### Programming



### Related Programming

VAU Port Assignment **FF3 (ExtPort)# 46# (0 or 1)#**

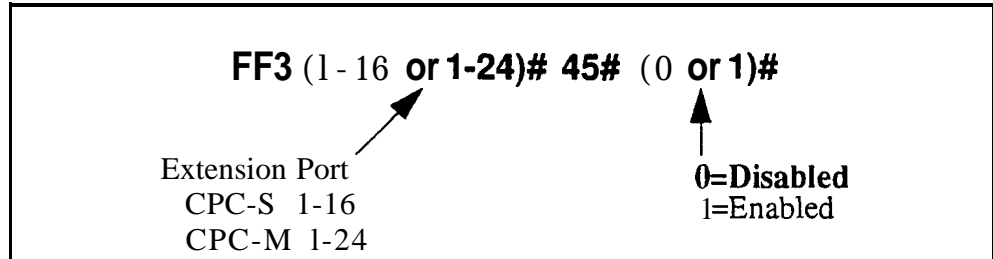
## SLT Disconnect Signal

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF3 (ExtPort)# 45# (0 or 1)#

**Description** If this program address is enabled, SLT extension ports will send a disconnect signal (open loop) upon hangup. Sending this signal allows quick disconnection from third-party voice mail systems.

### Programming



### Related Programming

SLT Disconnect Duration FF1 2# 1# 3 1# (0-15)#

## VAU Port Assignment

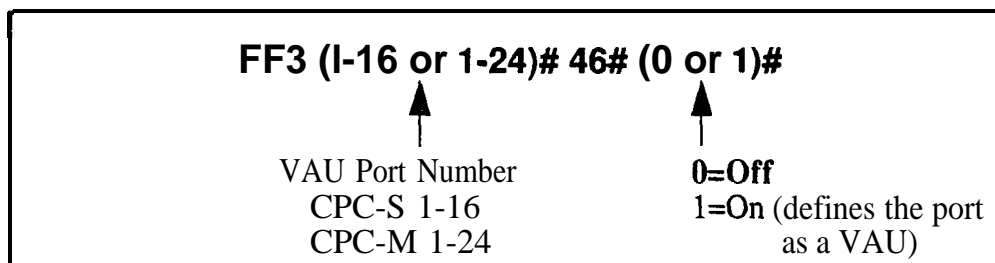
Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF3 (ExtPort)# 46# (0 or 1)#

**Description** This program assigns a digital port as a VAU (Voice Announce Unit). Once a port is assigned as a VAU, the system treats that port as if the following changes have been made:

- The CO Offhook Signal option is set to “on” (FF3 ExtPort# 7#)
- The Call Waiting Notification Tone/OHVA option is set to “off” (FF3 ExtPort# 8#)
- Auto Pickup is set to “on” (FF3 ExtPort# 12#)
- All FF keys for the extension port are cleared

### Programming



### Notes

**Applicable Call Types** When the VAU port assignment is set to “on,” the following call types are routed to the first VAU message:

- Trunk calls
- Transferred trunk calls
- Intercom calls
- Transferred intercom calls

~ All recalls are routed to the second VAU message

## Hot Dial Pad

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF3 (ExtPort)# 47# (0 or 1)#**

**Description** The dial pad on digital key phones can be designated as “hot” on an extension-by-extension basis. This feature allows the user to initiate a call without going **offhook**, by pressing any of the numeric keys 0-9 (the “\*” and “#” keys are not “hot”)

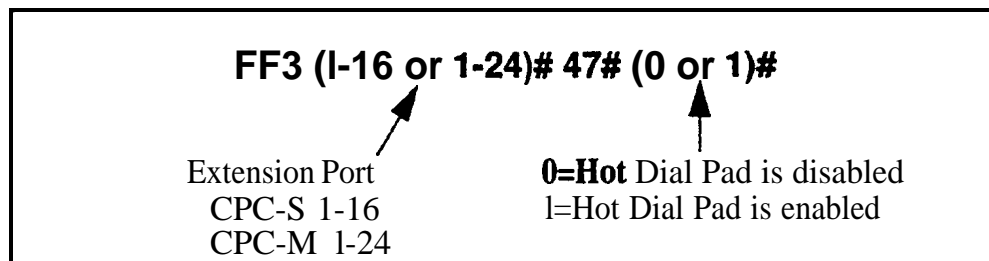
The extension’s dial pad can be “hot” under these conditions

- when the extension is idle
- when the extension is holding a call
- when the extension is holding a page

The extension’s dial pad **cannot** be “hot” under these conditions

- when an intercom or trunk call is ringing at the extension
- when the extension is on a call

### Programming



### Notes

**Paging** The Hot Dial Pad feature cannot be used to initiate a page

## Auto-Redial on Extensions

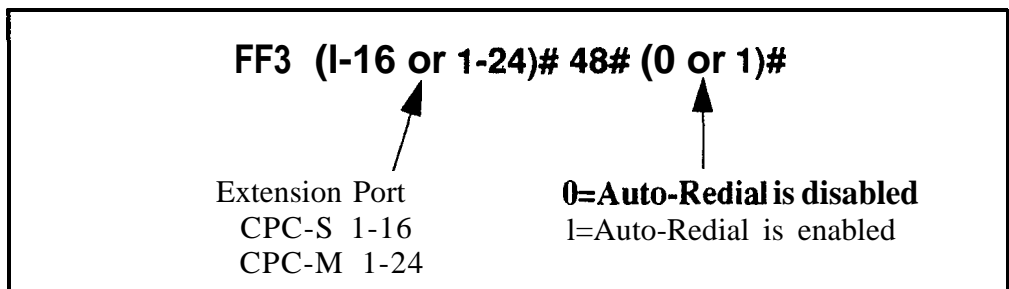
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF3 (ExtPort)# 48# (0 or 1)#

**Description** Use this program to activate the Auto-Redial feature on individual DBS 824 extensions. If the Auto-Redial feature is enabled, pressing the **REDIAL** key will automatically redial the last number dialed, whether it was an outgoing call (system will automatically seize a trunk), another extension, or an SSD or PSD number.

The Auto-Redial feature works on digital single-line phones (DSLTS) and on digital multiple-line phones (K-TELS).

### Programming



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## 4. Ringing and Hunt Groups (FF4)

- Use the FF4 program addresses in this chapter to set up ring assignments and hunt group parameters

This chapter covers the following topics

Topic	Page
CO Day Ring Assignments	4-3
CO Day Ring Assignments for Hunt Groups	4-4
CO Night 1 Ring Assignments	4-5
CO Night 1 Ring Assignments for Hunt Groups	4-6
Hunt Group Pilot Numbers	4-7
Hunt Group Type	4-9
Transfer Extension	4-10
Hunt Group Transfer Timer	4-11
Hunt Group Members	4-12
Call Coverage Group Members	4-13
CO Delayed Day Ring Assignments	4-14
CO Delayed Day Ring Assignments for Hunt Groups	4-15
CO Delayed Night 1 Ring Assignments	4-16
CO Delayed Night 1 Ring Assignments for Hunt Groups	4-17
Extension Ring Table	4-18
Extension Delayed Ring Table	4-19
CO Night 2 Ring Assignments	4-20
CO Night 2 Ring Assignments for Hunt Groups	4-21
CO Delayed Night 2 Ring Assignments	4-22
CO Delayed Night 2 Ring Assignments for Hunt Groups	4-23





# CO Day Ring Assignments

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF4 1# (ExtPort)# (Trunk)# (0 or 1)#

**Description** This program determines which extension(s) will receive incoming calls from a particular trunk when the DBS 824 system is in “Day” mode

## Programming

<b>FF4 1# (1-17 or 1-25)# (1-6 or 1-8)# (0 or 1)#</b>		
↖	↖	↑
Extension Port	Trunk Number	<b>0=Trunk does not ring</b>
CPC-S 1-16, 17	CPC-S 1-6	1=Trunkrings
CPC-M 1-24,25	CPC-M 1-8	
NOTE: Use port 17 (CPC-S) or port 25 (CPC-M) to assign ringing to an external paging or Universal Night Answer (UNA) device		

## Related Programming

Automatic Day Mode Start Time FF1 3# 25# HHMM#

## Notes

**Default Attendant Ring Assignments** All trunks are set by default to ring on ports 1 and 2 (the first and second attendants)

**Routing of Trunks That Have Not Been Assigned to Ring** All unassigned ringing trunks will be directed to the attendant.

## CO Day Ring Assignments for Hunt Groups

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF4 1# (HuntGrp)# (Trunk)# (0 or 1)#

**Description** This program determines which hunt group will receive incoming calls from a particular trunk when the DBS 824 system is in 'Day' mode

### Programming

FF4 1# (23-26 or 31-34)# (1-6 or 1-8)# (0 or 1)#		
Hunt Groups 1 thru 4		Trunk Number
CPC-S CPC-M for HuntGrp		0=Trunk does not ring
23 31 1		1=Trunk rings
24 32 2		
25 33 3		
26 34 4		
		CPC-S 1-6
		CPC-M 1-8

### Related Programming

Automatic Day Mode Start Time FF1 3# 25# HHMM#

Hunt Group Members FF4 3# (1-4)# (5-20)# (100-699)#

## CO Night 1 Ring Assignments

Software Version **CPC-S and CPC-M, Version 1.0 and higher**

Address **FF4 2# (ExtPort)# (Trunk)# (0 or 1)#**

**Description** This program determines which extension(s) will receive incoming calls from a particular trunk when the DBS 824 system is in "Night 1" mode

### Programming

**FF4 2# (1-17 or 1-25)# (1-6 or 1-8)# (0 or 1)#**

<p>Extension Port-</p> <p>CPC-S 1-16, 17</p> <p>CPC-M 1-24,25</p>	<p>Trunk Number</p> <p>CPC-S 1-6</p> <p>CPC-M 1-8</p>	<p><b>0=Trunk does not ring</b></p> <p>1=Trunk rings</p>
---	---	--

**Note:** Use port 17 (CPC-S) or port 25 (CPC-M) to assign ringing to an external paging or Universal Night Answer (UNA) device

### Related Programming

Automatic Night 1 Mode Start Time **FF1 3# 1# HHMM#**

### Notes

*Default Attendant Ring Assignments* All trunks are set to ring on ports 1 and 2 (the first and second attendants) by default

## CO Night 1 Ring Assignments for Hunt Groups

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF4 2# (Hunt@rp)# (Trunk)# (0 or 1)#

**Description** This program determines which hunt group will receive incoming calls from a particular trunk when the DBS 824 system is in "Night 1" mode

### Programming

FF4 <b>2#</b> (23-26 or <b>31-34</b> )# (1-6 or <b>1-8</b> )# (0 or <b>1</b> )#																				
<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Hunt Groups 1 thru 4</td> <td style="width: 33%;">Trunk Number</td> <td style="width: 33%;">0=Trunk does not ring</td> </tr> <tr> <td>CPC-S CPC-M for HuntGrp</td> <td>CPC-S 1-6</td> <td>1=Trunk rings</td> </tr> <tr> <td>23 31 1</td> <td>CPC-M 1-8</td> <td></td> </tr> <tr> <td>24 32 2</td> <td></td> <td></td> </tr> <tr> <td>25 33 3</td> <td></td> <td></td> </tr> <tr> <td>26 34 4</td> <td></td> <td></td> </tr> </table>			Hunt Groups 1 thru 4	Trunk Number	0=Trunk does not ring	CPC-S CPC-M for HuntGrp	CPC-S 1-6	1=Trunk rings	23 31 1	CPC-M 1-8		24 32 2			25 33 3			26 34 4		
Hunt Groups 1 thru 4	Trunk Number	0=Trunk does not ring																		
CPC-S CPC-M for HuntGrp	CPC-S 1-6	1=Trunk rings																		
23 31 1	CPC-M 1-8																			
24 32 2																				
25 33 3																				
26 34 4																				

### Related Programming

Automatic Night 1 Mode Start Time FF1 3# 1# HHMM#

Hunt Group Members FF4 3# (1-4)# (5-20)# (100-699)#

## Hunt Group Pilot Numbers

Software Version **CPC-S and CPC-M, Version 1.0 and higher**

Address **FF4 3# (HuntGrp)# 1# (11-69 or 101-699)#**

### Description

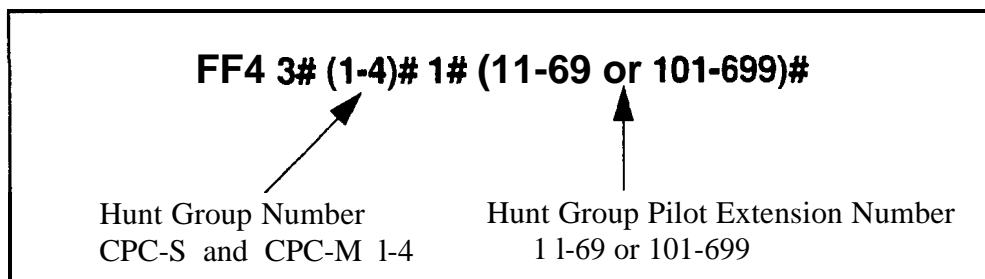
Use this program to assign a “pilot” extension number to a hunt group. This pilot number can be dialed from any intercom phone to reach the hunt group. An example is dialing “500” to reach a Voice Mail hunt group.

Each hunt group **must have a pilot number** assigned to it in order for the hunt group application to work -- including ring assignments to hunt groups, call transfers to hunt groups, etc.

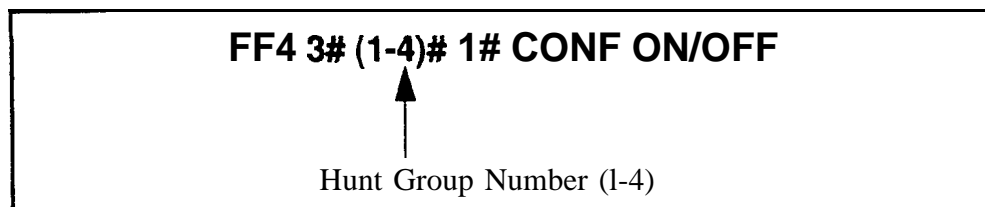
**Note:** This address requires an extension *number* entry, rather than an extension *port* entry. In fact, the hunt group pilot number cannot also be assigned to an extension port, double-check the FF3 (ExtPort)# 1# (ExtNumber)# program address to be sure the extension number is not assigned to a port.

### Programming

#### To assign a hunt group pilot number



#### To clear a pilot number



### Related Programming

Extension Number Digits **FF1 2# 1# 12# (0 or 1)##**

Extension Numbers **FF3 (ExtPort)# 1# (10-69 or 100-699)#**

CO Day Ring Assignments For Hunt Groups FF4 1# (23-26 or 31-34)#  
(1-6 or 1-8)# (0 or 1)#

CO Night 1 Ring Assignments For Hunt Groups FF4 2# (23-26 or 31-34)#  
(1-6 or 1-8)# (0 or 1)#

Hunt Group Type FF4 3# (1-4)# 2# (0-2)#

Transfer Extension FF4 3# (1-4)# 3# (100-699)#

Hunt Group Members FF4 3# (1-4)# (5-20)# (100-699)#

CO Delayed Day Ring Assignments For Hunt Groups FF4 5# (23-26 or  
31-34)# (1-6 or 1-8)# (0 or 1)#

CO Delayed Night 1 Ring Assignments For Hunt Groups FF4 6# (23-26 or  
31-34)# (1-6 or 1-8)# (0 or 1)#

CO Night 2 Ring Assignments For Hunt Groups FF4 9# 1# (23-26 or 31-  
34)# (1-6 or 1-8)# (0 or 1)#

CO Delayed Night 2 Ring Assignments For Hunt Groups FF4 9# 2# (23-  
26 or 31-34)# (1-6 or 1-8)# (0 or 1)#

## Hunt Group Type

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF4 3# (HuntGrp)# 2# (0-2)#

**Description** Use this program to assign one of the following search methods to a hunt group

### Terminal Hunt Group Operation

In a terminal hunt group, the hunt begins with the pilot number, and moves sequentially through the extensions in the hunt group. If all extensions are busy, the call camps onto the hunt group and waits for an extension to become idle.

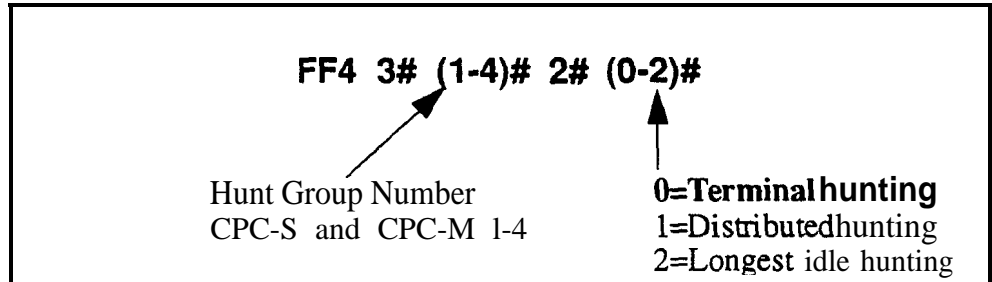
### Distributed Hunt Group Operation

In a distributed hunt group, the hunt begins at the extension after the last one to pick up a call, and continues in a circular manner for successive calls.

### Longest Idle Hunt Group Operation

In a longest idle hunt group, the hunt begins at the extension in the group that has been idle for the longest period of time, and progresses through the other extensions in the same manner.

## Programming



## Related Programming

- Hunt Group Members FF4 3# (1-4)# (5-20)# (10-69 or 100-699)#



# Transfer Extension

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF4 3# (HuntGrp)# 3# (ExtNumber)#

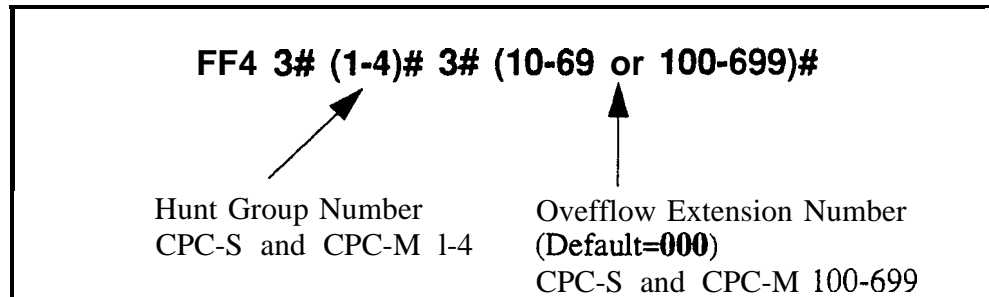
## Description

This program sets the extension number to which overflow calls will be transferred. Once all extensions in a hunt group have been searched or after the Hunt Group Transfer Timer has elapsed, the caller can be transferred to an individual extension, an extension in a different hunt group, the attendant or an SLT device.

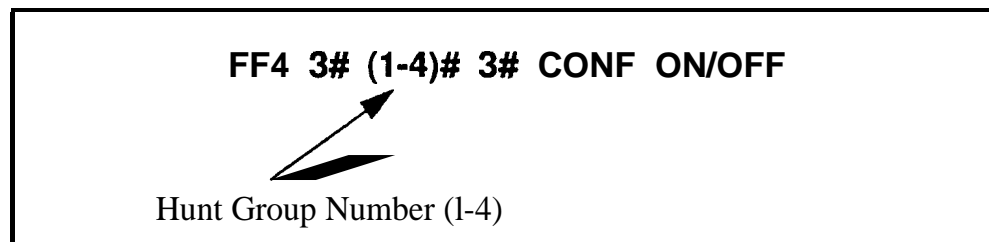
Note: This address requires an extension *number* entry, rather than an extension *port* entry.

## Programming

### To assign an overflow extension



### To clear an overflow extension



## Related Programming

Hunt Group Transfer Timer FF4 3# (1-4)# 4# (0-32)#

## Notes

**Overflow Extension Number Restriction** The overflow extension number cannot be a hunt group pilot number.

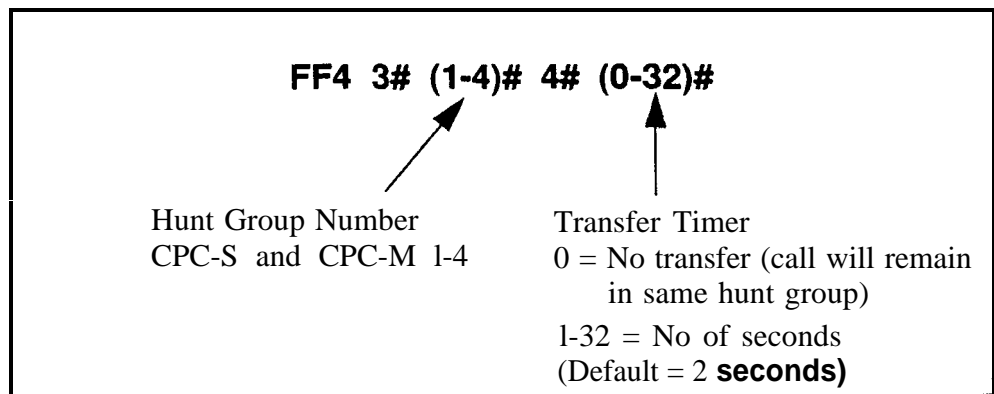
## Hunt Group Transfer Timer

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF4 3# (HuntGrp)# 4# (0-32)#**

**Description** Use this program to set the maximum amount of time that passes before a call being routed through a hunt group overflows to an extension or additional hunt group

### Programming



### Related Programming

Transfer Extension FF4 3# (1-4)# 3# (100-699)#

# Hunt Group Members

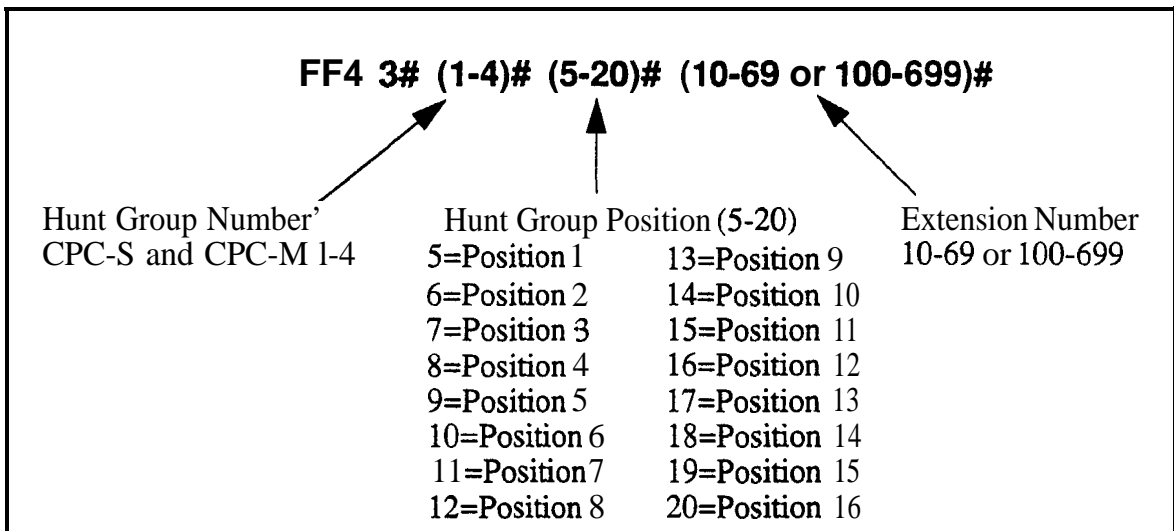
**Software Version** CPC-S and CPC-M, Version 1.0 and higher  
**Address** FF4 3# (1-4)# (5-20)# (10-69 or 100-699)#

**Description** Use this program to assign an extension to a hunt group, and determine its sequential position within the hunt group. Up to 16 positions are available in each hunt group. The extension numbers entered in this address must already be assigned to extension ports in address FF3 (ExtPort)# 1# (10-69 or 100-699)#. An extension cannot belong to more than one hunt group.

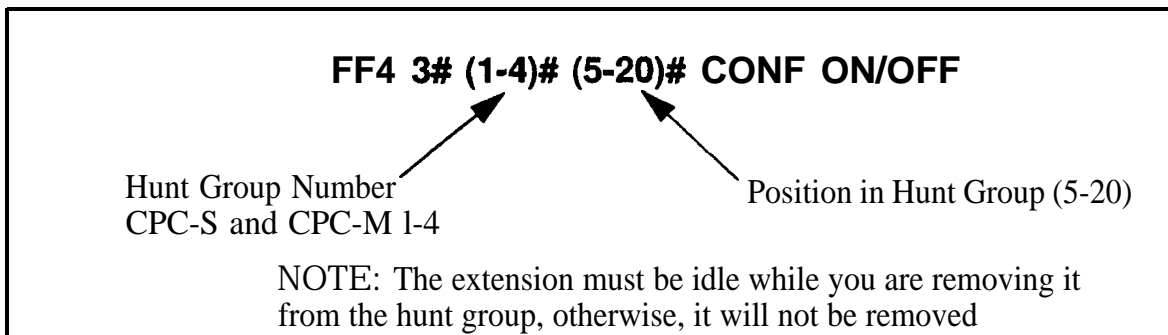
Note: A pilot number must be assigned to the hunt group in address FF4 3# (1-4)# 1# (11-69 or 101-699)# in order for the hunt group feature to work. However, do not include the pilot number here in Hunt Group Members.

## Programming

**To assign an extension number to a position in a hunt group**



**To remove an extension number from a hunt group**



# Call Coverage Group Members

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF4 4# (CallCovgGrp)# (1-8)# (ExtNumber)#**

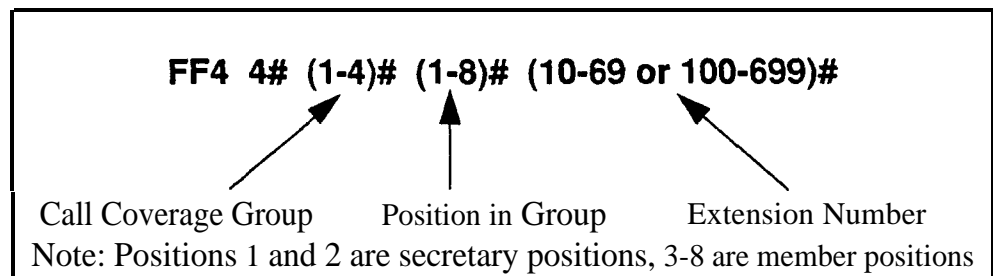
**Description** A Call Coverage Group allows up to two secretaries to serve as backup answering positions for unanswered calls on up to six other extensions

For example, if extensions 201-206 want their unanswered calls to be picked up by extensions 207 or 208, 201-206 can be assigned as group members (positions 3-8), and 207 and 208 can be assigned as group secretaries (positions 1 and 2). All incoming calls to the members will ring once on the first secretary's phone (if idle), the member's extension number will also appear on the first secretary's display (even if not idle). To pick up the call, the secretary presses the appropriate FF key assigned to the extension (or if no FF keys for extensions are assigned, the secretary can use Directed Call Pickup to take the call).

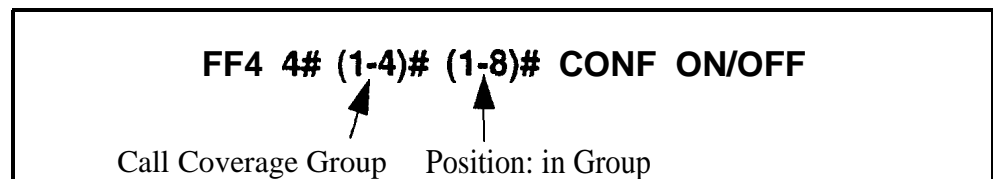
Member calls will not ring or display on the second secretary's phone unless the first secretary is 1) set to DND (Do Not Disturb), 2) set to Call Forward 3) set to send an Absence Message, or 4) busy on all MCO/ML keys.

## Programming

**To assign an extension to the call coverage group**



**To clear an extension from the call coverage group**



## Notes

**Call Coverage Group Member Restriction** A member of a hunt group cannot also be a member of a call coverage group. Also, a member of one call coverage group cannot also be a member of another call coverage group.

## CO Delayed Day Ring Assignments

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF4 5# (ExtPort)# (Trunk)# (0 or 1)#**

**Description** This program assigns delayed ringing to extensions for unanswered calls on specific trunks during the “Day” mode. Delayed ringing works like an automatic transfer -- if an incoming trunk call is unanswered at one extension after a certain period of time, the system will send the call to ring at another extension (the first extension will stop ringing).

The original extension or hunt group that receives an incoming trunk call during “Day” mode is set in the CO Day Ring Assignments address (FF4 1# ExtPort/HuntGrp# Trunk#). The period of time that passes before the system transfers the unanswered call, is set in the CO Delayed Ring Timer address (FF1 3# 22#).

### Programming

<b>FF4 5# (1-17 or 1-25)# (1-6 or 1-8)# (0 or 1)#</b>		
Extension Port	Trunk Number	<b>0=Do not ring this extension if the trunk call is unanswered elsewhere</b>
CPC-S 1-16, 17	CPC-S 1-6	<b>1=Ring this extension if the trunk call is unanswered elsewhere</b>
CPC-M 1-24,25	CPC-M 1-8	
NOTE: Use port 17 (CPC-S) or port 25 (CPC-M) to assign ringing to an external paging or Universal Night Answer (UNA) device		

### Related Programming

Delayed Ring FF1 2# 1# 21# (0 or 1)#

CO Delayed Ring Timer FF1 3# 22#

- Auto Day Mode Start Time FF1 3# 25#

CO Day Ring Assignments FF4 1# (ExtPort)# (Trunk)# (0 or 1)#

### Notes

**Attendant Interactions** If the first attendant is assigned delayed ringing, the Attendant Overflow feature will be disabled. Also, if the Delayed Ring function is enabled and no extensions are assigned or capable of ringing (DND, unplugged etc ), the ringing line will automatically ring the attendant.

# CO Delayed Day Ring Assignments for Hunt Groups

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF4 5# (HuntGrp)# (Trunk)# (0 or 1)#**

**Description** This program assigns delayed ringing to hunt groups for unanswered calls on specific trunks during the “Day” mode. Delayed ringing works like an automatic transfer -- if an incoming trunk call is unanswered at one extension after a certain period of time, the system will send the call to ring at another extension (the first extension will stop ringing).

The original extension or hunt group that receives an incoming trunk call during “Day” mode is set in the CO Day Ring Assignments address (FF4 1# ExtPort/HuntGrp# Trunk#). The period of time that passes before the system transfers the unanswered call, is set in the CO Delayed Ring Timer address (FF1 3# 22#).

## Programming

**FF4 5# (23-26 or 31-34)# (1-6 or 1-8)# (0 or 1)#**

Hunt Groups 1 thru 4 <u>CPC-S</u> <u>CPC-M</u> for HuntGrp 23     31     1 24     32     2 25     33     3 26     34     4	Trunk Number CPC-S   1-6 CPC-M   1-8	<b>0=Do not ring this hunt group if the trunk call is unanswered elsewhere</b>  <b>1=Ring this hunt group if the trunk call is unanswered elsewhere</b>
---	--	---

## Related Programming

Delayed Ring FF1 2# 1# 21# (0 or 1)#

CO Delayed Ring Timer: FF1 3# 22# (0-15)#

\_ Automatic Day Mode Start Time FF1 3# 25# HHMM#

CO Day Ring Assignments for Hunt Groups FF4 1# (HuntGrp)# (Trunk)# (0 or 1)#

## CO Delayed Night 1 Ring Assignments

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF4 6# (ExtPort)# (Trunk)# (0 or 1)#**

### Description

This program assigns delayed ringing to extensions for unanswered calls on specific trunks during the "Night 1" mode. Delayed ringing works like an automatic transfer -- if an incoming trunk call is unanswered at one extension after a certain period of time, the system will send the call to ring at another extension (the first extension will stop ringing).

The original extension or hunt group that receives an incoming trunk call during "Night 1" mode is set in the CO Night 1 Ring Assignments address (FF4 2# ExtPort/HuntGrp# Trunk#). The period of time that passes before the system transfers the unanswered call, is set in the CO Delayed Ring Timer address (FF1 3# 22#).

### Programming

**FF4 6# (1-17 or 1-25)# (1-6 or 1-8)# (0 or 1)#**

Extension Port CPC-S 1-16, 17 CPC-M 1-24,25	Trunk Number CPC-S 1-6 CPC-M 1-8	<b>0=Do not ring this extension if the trunk call is unanswered elsewhere</b> <b>1=Ring this extension if the trunk call is unanswered elsewhere</b>
---	--	---

**Note:** Use port 17 (CPC-S) or port 25 (CPC-M) to assign ringing to an external paging or Universal Night Answer (UNA) device

### Related Programming

Delayed Ring FF1 2# 1# 21# (0 or 1)#

CO Delayed Ring Timer FF1 3# 22# (0-15)#

- Automatic Night 1 Mode Start Time FF1 3# 1# HHMM#

CO Night 1 Ring Assignments FF4 2# (ExtPort)# (Trunk)# (0 or 1)#

### Notes

**Attendant Interactions** If the first attendant is assigned delayed ringing, the Attendant Overflow feature will be disabled. Also, if the Delayed Ring function is enabled and no extensions are assigned or capable of ringing (DND, unplugged etc), the ringing line will automatically ring the attendant.

## CO Delayed Night 1 Ring Assignments for Hunt Groups --

**Software Version** CPC-S and CPC-M, Version 1 0 and higher

**Address** FF4 6# (HuntGrp)# (Trunk)# (0 or 1)#

**Description** This program assigns delayed ringing to hunt groups for unanswered calls on specific trunks during the "Night 1" mode. Delayed ringing works like an automatic transfer -- if an incoming trunk call is unanswered at one extension after a certain period of time the system will send the call to ring at another extension (the first extension will stop ringing).

The original extension or hunt group that receives an incoming trunk call during "Night 1" mode is set in the CO Night 1 Ring Assignments address (FF4 2# ExtPort/HuntGrp# Trunk#). The period of time that passes before the system transfers the unanswered call, is set in the CO Delayed Ring Timer address (FF1 3# 22#).

### Programming

			<b>FF4 6# (23-26 or 31-34)# (1-6 or 1-8)# (0 or 1)#</b>		
Hunt Groups 1 thru 4			Trunk Number		<b>0=Do not ring this hunt group if the trunk call is unanswered elsewhere</b>  <b>1=Ring this hunt group if the trunk call is unanswered elsewhere</b>
<u>CPC-S</u>	<u>CPC-M</u>	<u>for HuntGrp</u>	<u>CPC-S</u>	1-6	
23	31	1	<u>CPC-M</u>	1-8	
24	32	2			
25	33	3			
26	34	4			

### Related Programming

Delayed Ring FF1 2# 1# 21# (0 or 1)#

CO Delayed Ring Timer FF1 3# 22# (0- 15)#

Automatic Night 1 Mode Start Time FF1 3# 1# HHMM#

CO Night 1 Ring Assignments for Hunt Groups FF4 2# (HuntGrp)# (Trunk)# (0 or 1)#

Hunt Group Members FF4 3# (1-4)# (5-20)# (100-699)#



# Extension Ring Table

Software Version CPC-S and CPC-M, Version 1.0 and higher

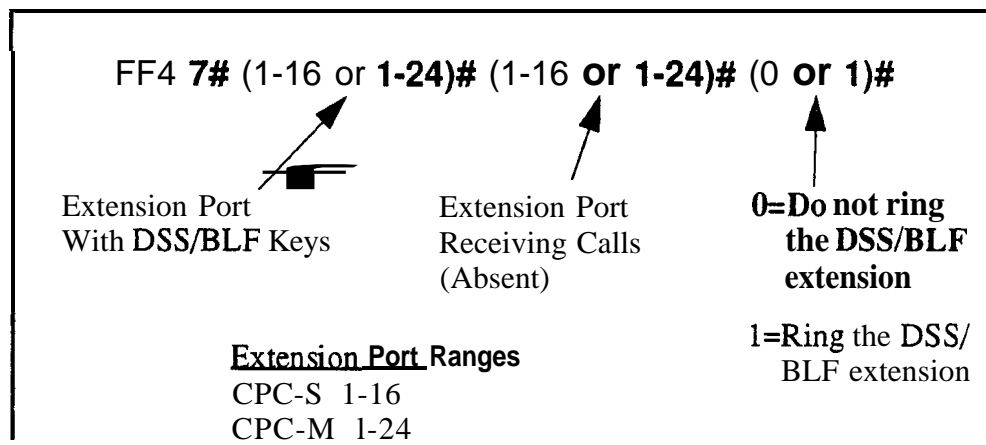
Address FF4 7# (TargetExtPort)# (SourceExtPort)# (0 or 1)#

## Description

Extensions that have DSS/BLF keys assigned to represent other extensions can be set to ring on those keys for any type of call directed to the other extensions. This feature allows a second extension user to answer a ringing call to an absent extension(s), by pressing the DSS/BLF key that represents the extension(s).

This program address requires two extension port entries -- the first entry being the DSS/BLF key phone, and the second entry being the (absent) extension receiving calls.

## Programming



## Related Programming

Terminal Type FF3 (ExtPort)# 2# (ExtType)#

EM/24 Port Assignment FF3 (ExtPort)# 3# (ExtPort)#

Call Coverage Group Members FF4 4# (1-4)# (1-8)# (100-699)#

## Extension Delayed Ring Table

Software Version CPC-S and **CPC-M**, Version 1.0 and higher

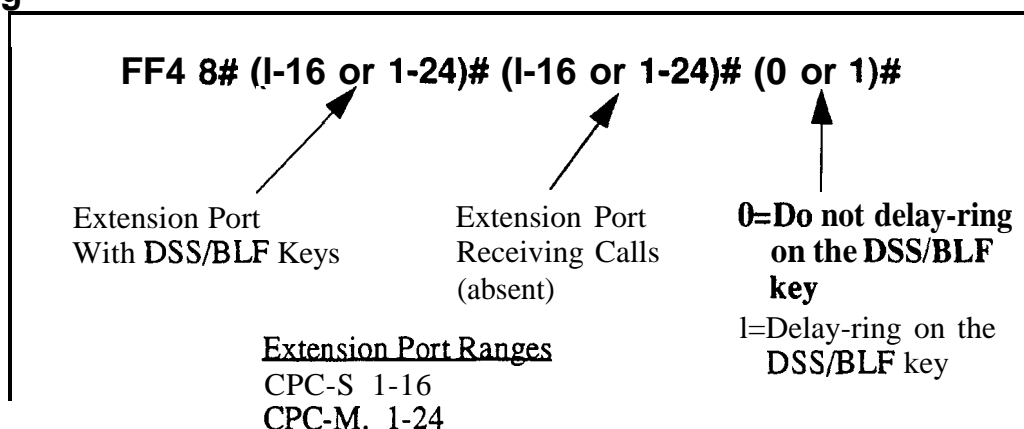
Address FF4 8# (TargetExtPort)# (SourceExtPort)# (0 or 1)#

### Description

Extensions that have DSS/BLF keys assigned to represent other extensions can be set for delayed ringing on those keys for any type of call directed to the other extensions. This feature allows a second extension user to answer a ringing call, on a delayed basis, to an absent extension(s). The second extension user answers the call by accessing the DSS/BLF key that represents the other extension(s). The first extension in the address is the target extension, and the second is the source extension.

The timing for extension delayed ringing is controlled by the Extension Delayed Ring Timer (FF1 3#)

### Programming



### Related Programming

Extension (BLF) Delayed Ring FF1 2# 1# 27# (0 or 1)#

Extension Delayed Ring Timer FF1 3# 23# (0-15)#

## CO Night 2 Ring Assignments

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF4 9# 1# (ExtPort)# (Trunk)# (0 or 1)#

**Description** This program determines which extension(s) will receive incoming calls from a particular trunk when the DBS 824 system is in 'Night 2' mode

### Programming

**FF4 9# 1# (1-17 or 1-25)# (1-6 or 1-8)# (0 or 1)#**

<p>Extension Port-</p> <p>CPC-S 1-16, 17</p> <p>CPC-M 1-24 25</p>	<p>Trunk Number</p> <p>CPC-S 1 6</p> <p>CPC-M 1-8</p>	<p><b>0=Trunk does not ring</b></p> <p>1=Trunk rings</p>
---	---	--

**Note:** Use port 17 (CPC-S) or port 25 (CPC-M) to assign ringing to an external paging or Universal Night Answer (UNA) device

### Related Programming

Automatic Night 2 Mode Start Time FF1 3# 29# HHMM#

### Notes

*Default Attendant Ring Assignments* All trunks are set to ring on ports 1 and 2 (the first and second attendants) by default

# CO Night 2 Ring Assignments for Hunt Groups

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF4 9# 1# (HuntGrp)# (Trunk)# (0 or 1)#**

**Description** This program determines which hunt group will receive incoming calls from a particular trunk when the DBS 824 system is in "Night 2" mode

## Progiamming

**FF4 9# 1# (23-26 or 31-34)# (1-6 or 1-8)# (0 or 1)#**

Hunt Groups 1 thru 4 <u>CPC-S</u> <u>CPC-M</u> for HuntGrp 23     31     1 24     32     2 25     33     3 26     34     4	Trunk Number CPC-S 1-6 CPC-M 1-8	<b>0=Trunk does not ring</b> 1=Trunk rings
---	--	---

## Related Programming

Automatic Night 2 Mode Start Time **FF1 3# 29# HHMM#**  
 Hunt Group Members **FF4 3# (1-4)# (5-20)# (100-699)#**

## CO Delayed Night 2 Ring Assignments

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF4 9# 2# (ExtPort)# (Trunk)# (0 or 1)#

### Description

This program assigns delayed ringing to extensions for unanswered calls on specific trunks during the “Night 2” mode. Delayed ringing works like an automatic transfer -- if an incoming trunk call is unanswered at one extension after a certain period of time, the system will send the call to ring at another extension (the first extension will stop ringing).

The original extension or hunt group that receives an incoming trunk call during “Night 2” mode is set in the CO Night 2 Ring Assignments address (FF4 9# 1# ExtPort/HuntGrp# Trunk#). The period of time that passes before the system transfers the unanswered call, is set in the CO Delayed Ring Timer address (FF1 3# 22#).

### Programming

FF4 9# 2# (1-17 or 1-25)# (1-6 or 1-8)# (0 or 1)#		
Extension Port	Trunk Number	<b>0=Do not ring this extension if the trunk call is unanswered elsewhere</b> <b>1=Ring this extension if the trunk call is unanswered elsewhere</b>
CPC-S 1-16, 17	CPC-S 1-6	
CPC-M 1-24, 25	CPC-M 1-8	
<p><b>Note:</b> Use port 17 (CPC-S) or port 25 (CPC-M) to assign ringing to an external paging or Universal Night Answer (UNA) device</p>		

### Related Programming

Delayed Ring FF1 2# 1# 21# (0 or 1)#

CO Delayed Ring Timer FF1 3# 22# (0-15)#

Automatic Night 2 Mode Start Time FF1 3# 29# HHMM#

CO Night 2 Ring Assignments FF4 9# 1# (ExtPort)# (Trunk)# (0 or 1)#

### Notes

**Attendant Interactions** If the first attendant is assigned delayed ringing, the Attendant Overflow feature will be disabled. Also, if the Delayed Ring function is enabled and no extensions are assigned or capable of ringing (@ND, unplugged, etc.), the ringing line will automatically **ring the attendant**.

# CO Delayed Night 2 Ring Assignments for Hunt Groups --

**Software Version** CPC-S and CPC-M, Version 1 0 and higher

**Address** FF4 9# 2# (HuntGrp)# (Trunk)# (0 or 1)#

**Description** This program assigns delayed ringing to hunt groups for unanswered calls on specific trunks during the “Night 2” mode. Delayed ringing works like an automatic transfer -- if an incoming trunk call is unanswered at one extension after a certain period of time, the system will send the call to ring at another extension (the first extension will stop ringing).

The original extension or hunt group that receives an incoming trunk call during “Night 2” mode is set in the CO Night 2 Ring Assignments address (FF4 9# 1# ExtPort/HuntGrp# Trunk#). The period of time that passes before the system transfers the unanswered call, is set in the CO Delayed Ring Timer address (FF1 3# 22#).

## Programming

<b>FF4 9# 2# (23-26 or 31-34)# (1-6 or 1-8)# (0 or 1)#</b>																	
Hunt Groups 1 thru 4 <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>CPC-S</u></th> <th style="text-align: left;"><u>CPC-M</u></th> <th style="text-align: left;"><u>for HuntGrp</u></th> </tr> </thead> <tbody> <tr><td>23</td><td>31</td><td>1</td></tr> <tr><td>24</td><td>32</td><td>2</td></tr> <tr><td>25</td><td>33</td><td>3</td></tr> <tr><td>26</td><td>34</td><td>4</td></tr> </tbody> </table>	<u>CPC-S</u>	<u>CPC-M</u>	<u>for HuntGrp</u>	23	31	1	24	32	2	25	33	3	26	34	4	Trunk Num ber CPC-S 1-6 CPC-M 1-8 is	0=Do not ring this hunt group if the trunk call is unanswered elsewhere  1=Ring this hunt group if the trunk call is unanswered elsewhere
<u>CPC-S</u>	<u>CPC-M</u>	<u>for HuntGrp</u>															
23	31	1															
24	32	2															
25	33	3															
26	34	4															

## Related Programming

Delayed Ring FF1 2# 1# 21# (0 or 1)#

CO Delayed Ring Timer FF1 3# 22# (0-15)#

~ Automatic Night 2 Mode Start Time FF1 3# 29# HHMM#

Hunt Group Members FF4 3# (1-4)# (5-20)# (100-699)#

CO Night 2 Ring Assignments for Hunt Groups FF4 9# 1# (HuntGrp)# (Trunk)# (0 or 1)#

---

# 5. FF Key Programming (FF5)

Use the FF5 addresses in this chapter to assign special features to the Flexible Function (FF) keys on DBS 824 phones. These keys provide phone users with one-touch activation of features which normally require several keystrokes. (User features are explained in detail in **Section 700-Feature Operation**.)

This chapter covers the following topics

Topic	Page
FF Key Assignments for Extensions	5-3
FF Key Assignments for DSS or EM/24 Consoles	5-6





# FF Key Assignments for Extensions

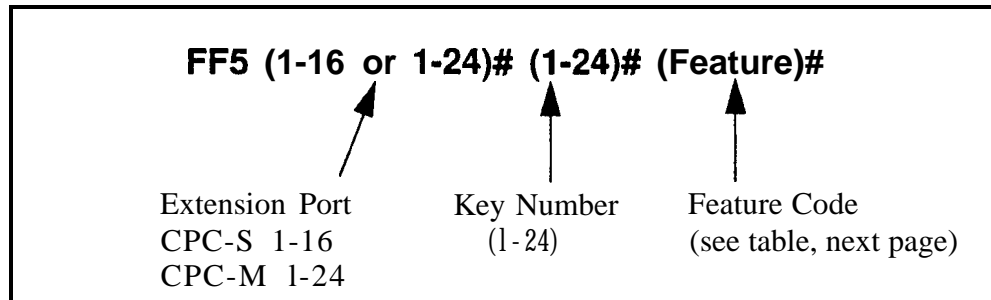
Software Version CPC-S and CPC-M, Version 1.0 and higher  
Address FF5 (ExtPort)# (Key)# (Feature)#

**Description --** Each Flexible Function (FF) key on DBS 824 phones and EM/24 consoles can be programmed with a feature code. During normal phone operation (not in programming mode), pressing the FF key performs the feature associated with the code.

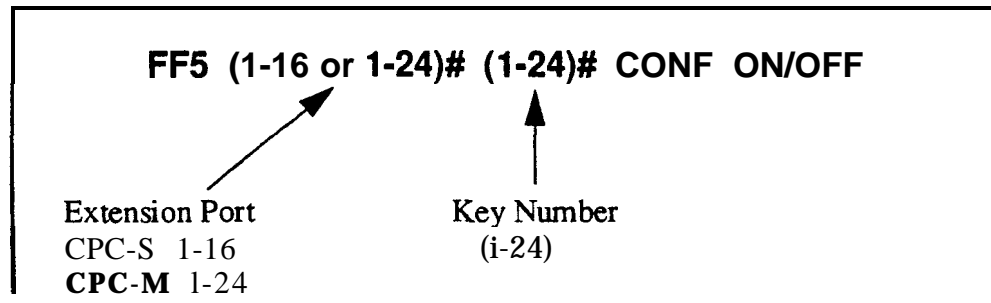
## Programming

### To assign a feature to an FF key

Note: If an FF key has already been assigned to a trunk line, the DBS 824 system will not allow you to assign a feature code to it -- you must first clear the trunk assignment from the FF key before assigning the feature code.



### To clear an FF key



**Table 5-1 Feature codes for FF key assignment**

<b>Feature</b>	<b>Code to be entered in the program address</b>
Absence Message	71
Account Code	FF12 7
Answer Key	FF11 1
Any Key	PROG PROG XXXXXX Note: The “Any Key” allows you to store digits other than extension numbers, CO trunks, or feature codes For example, an Any Key can be used to store an account code or a voice mail password
Attendant Park Hold	75 00 thru 09
Background Music	FF12 53
Call Forward--All Calls	720
Call Forward--Busy/No Answer	721
Call Forward--Busy	722
Call Forward--No Answer	724
Caller ID Log	FF11 6
Day Mode	FF12 521
Day/Night1/Night2 Mode Toggle	FF12 520
Direct Call Pickup	79
Dp-Not-Disturb	73
Extension Lockout	74
Group Call Pickup	70
Headset	FF12 51
Intercom Key	FF12 8
Internal Call	PROG 10-69 or 100-699
Internal Dial Tone	FF12 50
MCO or ML Keys	81 thru 86 or 89 Note: See “ML/MCO Separation” (programming address FF3 ExtPort# 43#) to determine which type of key is available with your software
Meet Me Answer	77
Message Waiting Answer	AUTOREDIAL
Mute	FF11 FF12
Night 1 Mode	FF12 522
Night 2 Mode	FF12 523

<i>Feature</i>	<i>Code to be entered in the program address</i>
One Touch VM Access	<p>PROG AUTO NNN XXX or AUTO 00-99#</p> <p>Voice mail pilot number      Password (optional)</p> <p>Note: If a password is used, it can be from 1 to 3 digits. If the password is over 3 digits, it must be assigned to a personal or system speed dial number (00-99). Be sure to include an ending # sign in the speed dial number if you are accessing a DBS voice mail system.</p>
Page	FF12 00 thru 07
Park Hold	75
Personal Speed Dial	AUTO 90 thru 99 (or 900 thru 909) (or 900 thru 939)
Release	FF11 2
System Speed Dial	AUTO 00 thru 89 (or 000 thru 089) (or 000 thru 199)
Talkback	FF11 3
Trunk Numbers	01 thru 06 (for CPC-S) 01 thru 08 (for CPC-M)
UNA Pickup	78

## Related Programming

FF Key Copy FF9 3# (ExtPort)# (ExtPort)##

## Notes

**Restriction on Trunk LED Indications** Only the first 24 FF keys will light for trunks that are assigned to them. Trunks can be assigned to the remaining keys from the phone (rather than through programming mode), but the LEDs will not light.

**Entering Asterisk and Pound Signs** When assigning feature codes in this address, use FF11 and FF12 to enter asterisks (“\*”) and pound signs (“#”). Pressing FF11 enters a “\*” in the feature code, pressing FF12 enters a “#”. When you enter these symbols, the display does not indicate that any data was entered, although the phone will recognize these keys.

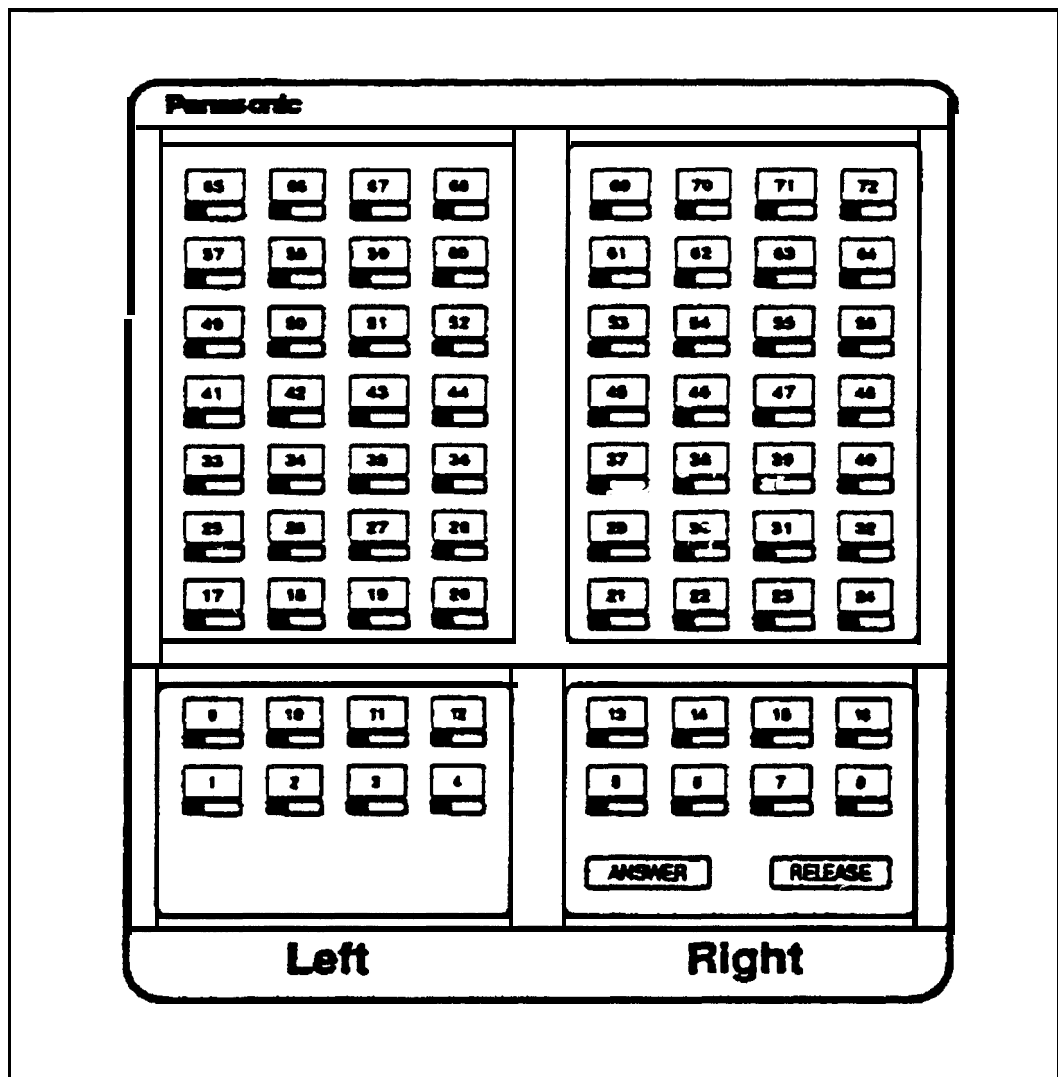
# FF Key Assignments for DSS or EM/24 Consoles

Software Version CPC-S and CPC-M, Version 1 0 and higher  
 Address FF5 (DSSPort)# (Key)# (Feature)#

**Description** Each FF key on a DSS or EM/24 console can be programmed with a feature code. During normal phone operation (not in programming mode) pressing the FF key performs the feature associated with the code.

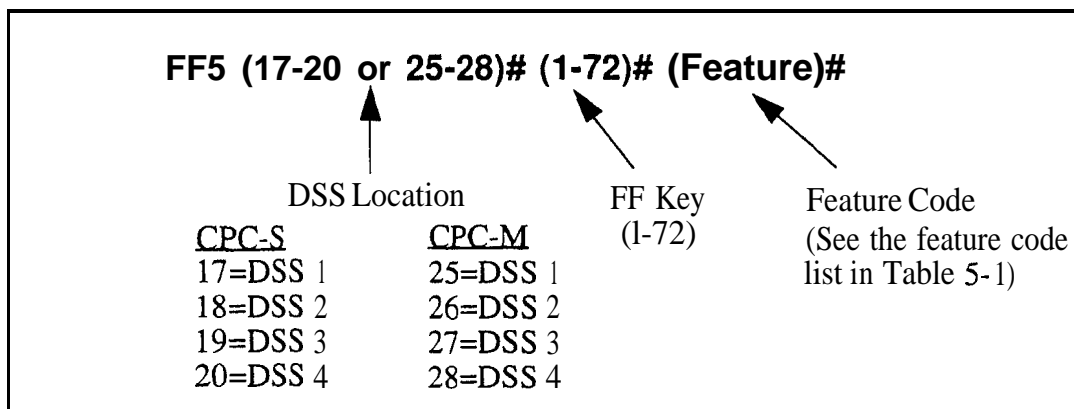
Figure 5-1 below shows the key layout of a DSS/72 console. Table 5-1 on page 5-4 shows the feature codes that can be entered.

Figure 5-1 DSS/72 key layout



## Programming

To assign a DSS FF key



To reset a DSS FF key to its default value

<b>FF5 (17-20 or 25-28)# CONF ON/OFF</b>
--

## Related Programming

FF Key Copy FF9 3# (ExtPort)# (ExtPort)##

## Notes

**Default Key Assignments** The FF keys on DSS consoles 1 and 3 are assigned by default as MCO keys. DSS consoles 2 and 4 do not have default key assignments.

**Restriction on Trunk LED Indications** Only the first 24 FF keys will light for trunks that are assigned to them. Trunks can be assigned to the remaining keys from the phone (rather than through programming mode), but the LEDs will not light.

**Entering Asterisk and Pound Signs** When assigning feature codes in this address, use FF11 and FF12 to enter asterisks (“\*”) and pound signs (“#”). Pressing FF11 enters a “\*” in the feature code, pressing FF12 enters a “#”. When you enter these symbols, the display does not indicate that any data was entered, although the phone will recognize these keys.

# 6. Name and Message Assignments (FF6)

- Use the FF6 program addresses in this chapter to create text names and messages that will appear on the LCD displays of DBS 824 phones

This chapter covers the following topics

<b>Topic</b>	<b>Page</b>
Extension Name	6-3
System Speed Dial Names	6-5
Personal Speed Dial Names	6-6
Absence Messages	6-7
Trunk Name Assignment	6-9
Hunt Group Name Assignment	6-10
Call Waiting/OHVA Text Reply	6-11



# Extension Name

Software Version CPC-S and CPC-M, Version 1 0 and higher

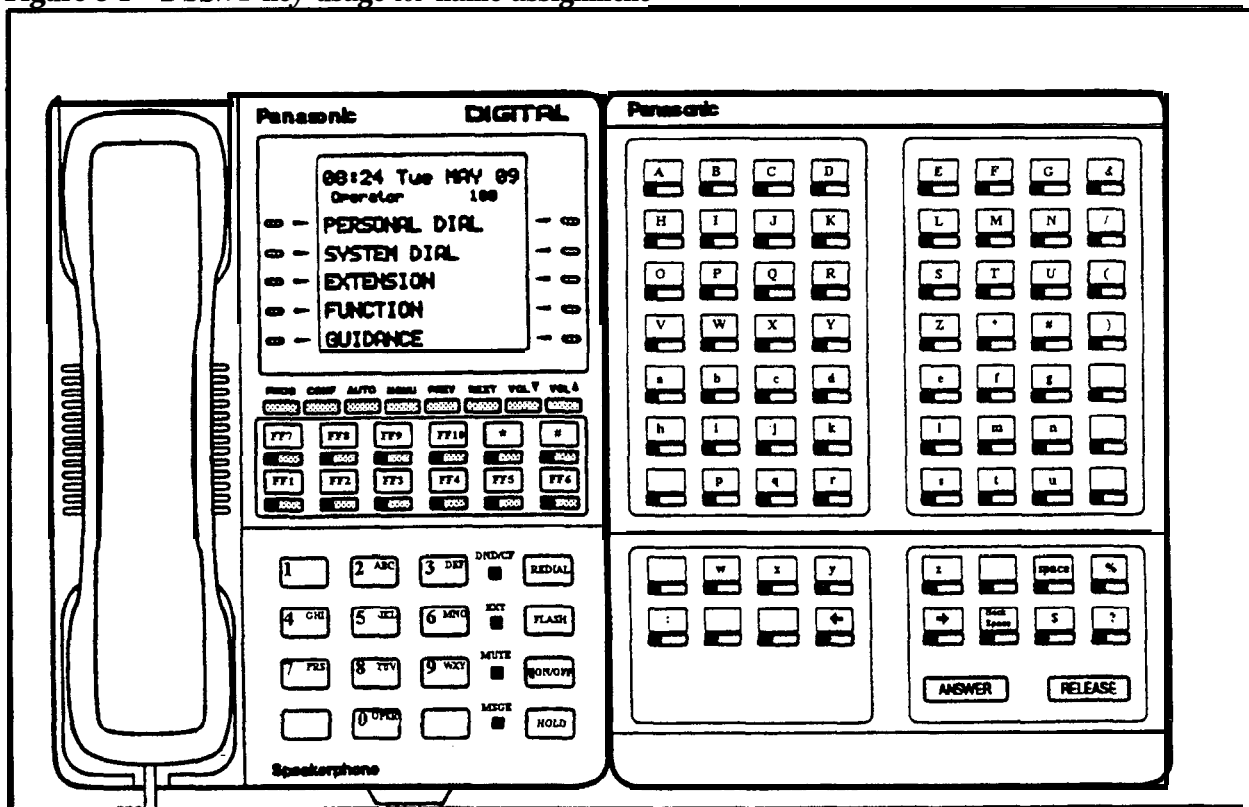
Address FF6 1# (ExtPort)# CONF (Name)#

**Description** Names of up to 10 characters can be assigned to each extension number. An extension's name appears on the second line of its display. The name of an extension being called appears on the top line of the display.

The following description explains how to assign extension names from the programming mode. Assigning names through the programming mode requires a DSS/72. Figure 6-1 below shows the DSS/72 keys used for name assignments.

Extension names can also be assigned from the attendant phone without entering the programming mode. For instructions on this method of name assignment, *see Section 700-Feature Operation*.

**Figure 6-1** DSS/72 key usage for name assignment





# Programming

## To assign an extension name

<b>FF6 1# (1-16 or 1-24)# CONF (NNNNNNNNNN)#</b>	
↑	↑
Extension Port CPC-s 1-16 CPC-M 1-24	Text Name (up to 10 characters)

## To clear an extension name

<b>FF6 1# (1-16 or 1-24)# CONF ON/OFF</b>	
↑	
Extension Port CPC-S 1-16 CPC-M 1-24	

## System Speed Dial Names

Software Version **CPCS and CPC-M, Version 1 0 and higher**

Address **FF6 2# (SSD)# CONF (Name)#**

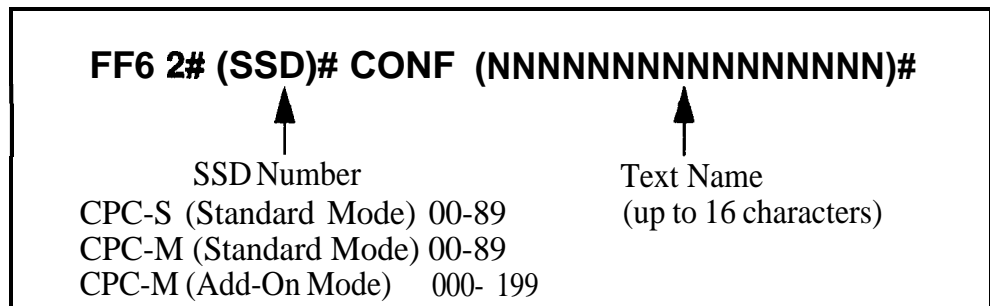
**Description** Names of up to 16 characters can be assigned to System Speed Dial (SSD) numbers. The names are displayed alphabetically on large-display telephones to confirm the name of the person being called using an SSD code.

The following description explains how to assign SSD names while in the programming mode. Assigning SSD names through the programming mode requires a **DSS/72**. Figure 6-1 on page 6-3 shows the **DSS/72** keys used for SSD name assignments.

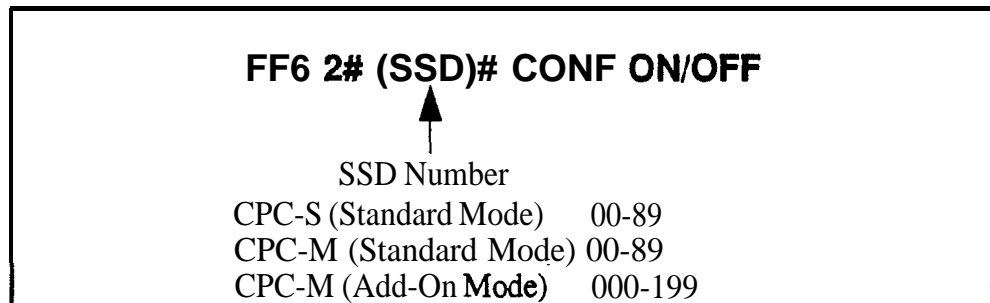
SSD names can also be assigned from the attendant phone without entering the programming mode. For instructions on this method of name assignment *see Section 700-Feature Operation*.

### Programming

To assign SSD names



To clear SSD names



# Personal Speed Dial Names

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **F F6 3# (ExtPort)# (PSD)# CONF (Name)#**

**Description** Names of up to 16 characters can be assigned to Personal Speed Dial (PSD) numbers. The names are displayed alphabetically on large-display telephones to confirm the name of the person being called using a PSD code.

The following description explains how to assign PSD names from the programming mode. Assigning names through the programming mode requires a DSS/72. Figure 6-1 on page 6-3 shows the DSS/72 keys used for name assignments.

Users can also assign their own PSD names from their display phones without entering the programming mode. For instructions on this method of name assignment *see Feature Operation (Section 700)*.

## Programming

To assign PSD names

<b>FF6 3# (1-16 or 1-24)# (PSD)# CONF (NNNNNNNNNNNNNNNNNN)#</b>		
↗	↑	↑
Extension Port CPC-S 1-16 CPC-M 1-24	PSD Number CPC-S (Standard Mode) 90-99 CPC-M (Standard Mode) 90-99 CPC-M (Add-On Mode) 900-939	Text Name (up to 16 char )

To clear PSD names

<b>FF6 3# (1-16 or 1-24)# (PSD)# CONF ON/OFF</b>		
↗	↑	
Extension Port CPC-s 1-16 CPC-M 1-24	PSD Number CPC-S (Standard Mode) 90-99 CPC-M (Standard Mode) 90-99 CPC-M (Add-On Mode) 900-939	

# Absence Messages

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF6 4# (5-9)# CONF (Message)#

**Description** Use this program to create up to 5 custom absence messages for DBS 824 phone users

As a feature option, a phone user can set his/her extension phone to send a message to calling parties, indicating he/she cannot answer the phone. The absence message is automatically displayed on the calling extension's LCD (if it has one)

When users set their phones to send absence messages, they can select which message will be displayed on the calling extension's phone. The DBS 824 system supports up to 10 different absence *messages*, 5 of these are preset and 5 can be created using this program address. The preset messages are as follows

**Table 6-1 Preset Absence Messages 0-4**

Absence Message No	Message Text
0	In Meeting
1	At Lunch
2	Out of Office
3	Vacation
4	Another Office

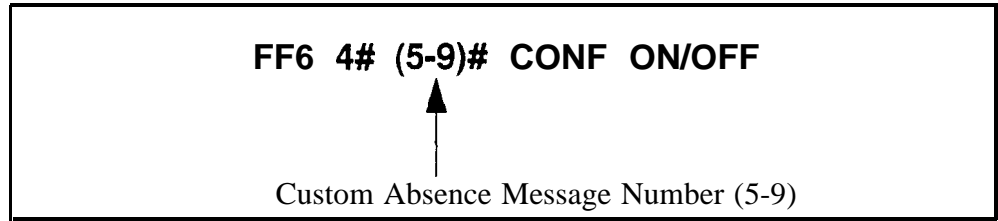
Custom absence messages 5-9 can be created using this program address on a DSS/72 console. Figure 6-1 on page 6-3 shows the DSS/72 keys used for entering absence message text.

## Programming

- To create a custom absence message



To clear a custom absence message



# Trunk Name Assignment

Software Version CPC-S and CPC-M, Version 10 and higher

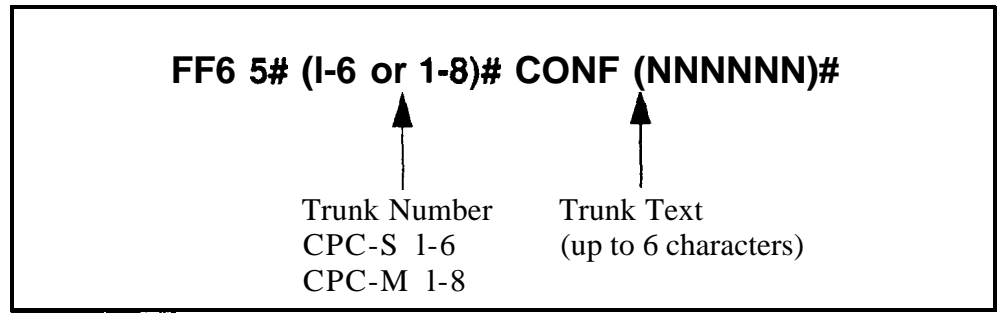
Address FF6 5# (Trunk)# CONF (NNNNNN)#

**Description** Trunks can be given names of up to 6 characters to help identify the source of calls. When an inbound call rings at an extension, the trunk name appears on the top line of the extension's display.

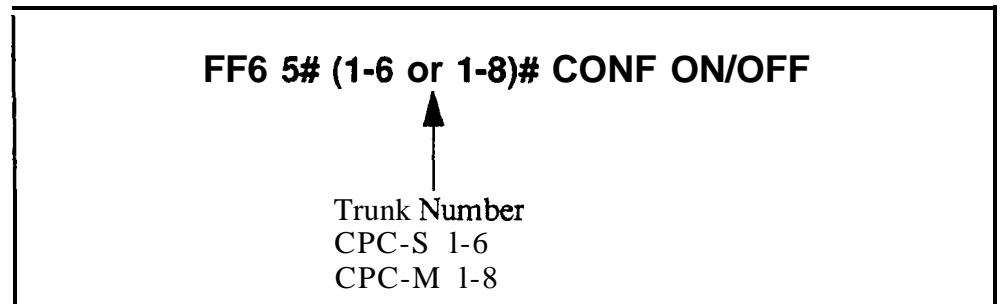
Trunk names can only be assigned through the programming mode using a DSS/72. See Figure 6-1 on page 6-3 for DSS/72 keys used for text assignment.

## Programming

To assign a trunk name



To clear a trunk name



# Hunt Group Name Assignment

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

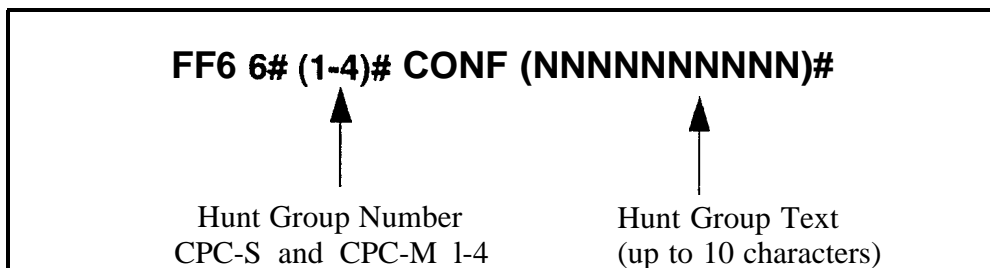
Address- **FF6 6# (HuntGrp)# CONF (NNNNNNNNNN)#**

**Description** Hunt groups can be given names of up to 10 characters to help identify the source of trunk calls transferred from the hunt group

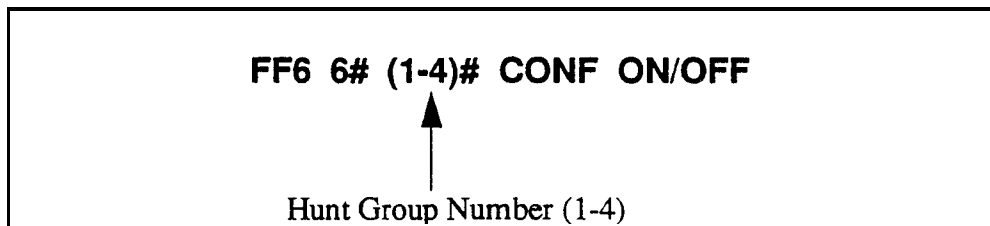
Hunt group names can only be assigned through the programming mode using a *DSS/72* See Figure 6-1 on page 6-3 for *DSS/72* keys used for text assignment

## Programming

To assign hunt group names



To clear hunt group names



# Call Waiting/OHVA Text Reply

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF6 7# (1-5)# CONF (NNNNNNNNNNNNNNNN)#**

**Description** When a busy party receives an indication of an incoming intercom call the busy party can respond by sending a text message back to the caller

The text message can be sent after a Call Waiting tone an Offhook Voice Announce, or a Call Waiting tone followed by Offhook Voice Announce

This address allows you to change the default messages The following table shows the default messages

**Table 6-2 Default call waiting/OHVA text reply messages**

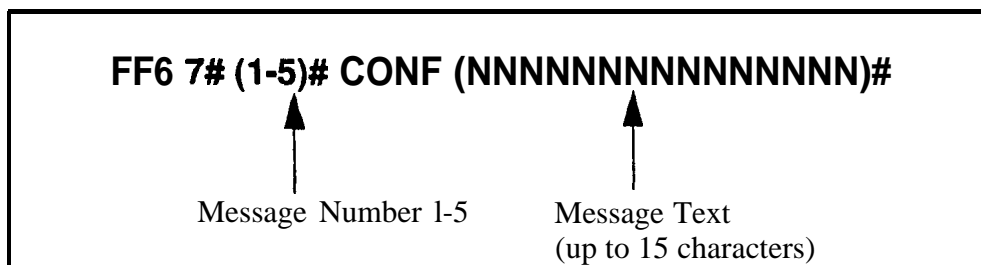
<i>Message Number</i>	<i>Message Definition</i>
1	Take A Message
2	Please Hold
3	Will Call Back
4	Transfer
5	Unavailable

Changing these default text messages in the programming mode requires a DSS/72 console Figure 6- 1 on page 6-3 shows the DSS/72 keys used for text assignment

Call **Waiting/OHVA** text messages can also be changed through the attendant phone without entering the programming mode For instructions on this method of text assignment, see Section **700-Feature Operation**

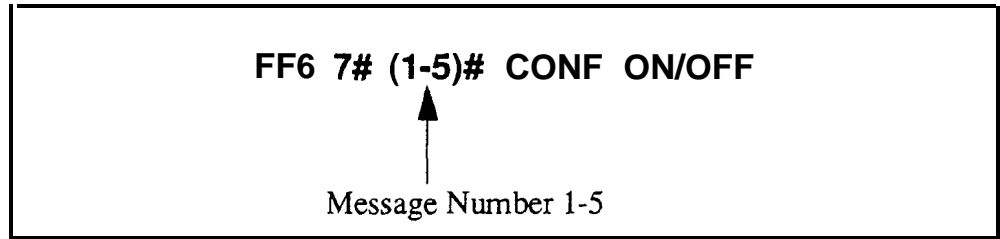
## Programming

**To assign call waiting/OHVA text reply messages**





To clear call waiting/OHVA text reply messages



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# 7. Toll Restrictions (FF7)

Use the FF7 program addresses in this chapter to perform Toll Restriction Service (TRS) programming

This chapter covers the following topics

<b>Topic</b>	<b>Page</b>
An Overview of Toll Restrictions	7-3
International Calling For TRS Types 3-6	7-5
Dialing Restriction During Inbound Trunk Calls for TRS Types 3-6	7-7
Maximum Dialed Digits For TRS Types 3-6	7-8
3-Digit Toll Restriction For TRS Types 2-6	7-9
7-Digit Toll Restriction For TRS Types 2-6	7-10
Dialing Plan Switch	7-11
Operator Access	7-12
International Calling on Extensions	7-13
Country Code Table	7-14
Equal Access Code Format	7-15
Office Code Restriction Table For TRS Types 2-6	7-16
Area Code Table For TRS Types 3-6	7-17
Office Code Table For TRS Types 3-6	7-18
Special Area Code Table For TRS Types 3-6	7-19
Special Office Code Table For TRS Types 3-6	7-20
Special 7-Digit Table For TRS Types 2-6	7-21
Day TRS Types 0-7 for Trunks	7-22
Night TRS Types 0-7 for Trunks	7-23
Area Code Table For TRS Types 3-6 (Global Copy)	7-24
Office Code Table For TRS Types 3-6 (Global COPY)	7-25
Area & Office Code Table for TRS Types 3-6 (Global Copy)	7-26
Special Office Code Table For TRS Types 3-6 (Global Copy)	7-27



# An Overview of Toll Restrictions

Use the Toll Restriction Service (TRS) to set limits on the types of calls that can be made from specific extensions or trunks. For example, TRS can prohibit long-distance calls and prevent after-hours calls. TRS can also minimize non-business calls and reduce phone bills by permitting only long-distance calls over designated trunks.

The DBS 824 system supports up to eight different TRS types (see table below). A TRS type can be assigned to each trunk to activate toll restriction.

**Table 7-1 Toll restriction types**

TRS Type	Characteristics
0	<ul style="list-style-type: none"> <li>• Full restriction of outbound dialing</li> <li>• Inbound calls can be answered if trunk is assigned to ring an extension</li> <li>• Intercom calls are permitted</li> <li>• Group Call Pickup (intercom calls only)</li> </ul>
1	<ul style="list-style-type: none"> <li>• Full restriction of outbound dialing</li> <li>• Inbound trunk calls to all phones can be answered and/or transferred</li> <li>• Intercom calls are permitted</li> <li>• Group Call Pickup (intercom calls only)</li> </ul>
2	<ul style="list-style-type: none"> <li>• Local calls (office code dialing) are permitted</li> <li>• 1-800 calls are permitted</li> <li>• 911 calls are always permitted</li> <li>• Inbound trunk calls to all phones can be answered and/or transferred</li> <li>• Full restriction of international calls</li> <li>• Full restriction of operator calls (old dialing plan)</li> <li>• Selectable restriction of operator calls (new NANP dialing plan)</li> <li>• Selectable restriction of speed dial numbers</li> <li>• Selectable restriction of N11 codes (211-811)</li> <li>• Restriction of up to 10 three-digit office codes (new NANP dialing plan)</li> <li>• Restriction of up to 50 seven-digit numbers</li> <li>• Inter-digit timing is set to 6 seconds</li> </ul>
3	<ul style="list-style-type: none"> <li>• 1-800 calls are permitted</li> <li>• 911 calls are always permitted</li> <li>• Full restriction of operator calls (old dialing plan)</li> <li>• Selectable restriction of operator calls (new NANP dialing plan)</li> <li>• Selectable restriction of international calls (defaulted to full restriction -- see Notes' next page)</li> <li>• Selectable restriction of N11 codes (211-811)</li> <li>• Selectable restriction of speed dial numbers</li> <li>• Restriction of up to 50 seven digit numbers</li> <li>• Trunk calls can be answered and transferred</li> <li>• Defaulted to full restriction of area code dialing (see 'Notes' next page)</li> <li>• Defaulted to full restriction of office-code dialing (see 'Notes', next page)</li> <li>• Inter-digit timing is set to 6 seconds</li> </ul>
4	<ul style="list-style-type: none"> <li>• Identical to TRS type 3, except that office-code dialing is permitted by default and operator calls are permitted (see "Notes" next page)</li> </ul>
5	<ul style="list-style-type: none"> <li>• Programmable TRS type defaulted to no restrictions (see Notes" next page)</li> </ul>
6	<ul style="list-style-type: none"> <li>• Programmable TRS type, defaulted to no restrictions (see 'Notes' next page)</li> </ul>
7	<ul style="list-style-type: none"> <li>• No restriction of outbound dialing</li> </ul>

## Notes:

**Operator Calls** Under the **old dialing plan**, operator calls for TRS types 3-6 are permitted if international calls are permitted system-wide (FF7 1# 1# 1#) The Office Code Tables (FM 3#) are used to restrict all 0+ dialing, the next two digits will also be analyzed (Operator calls are always restricted for TRS types 0-2 - and always allowed for TRS type 7 )

Under the **new NANP dialing plan** operator calls can be allowed or restricted on individual extensions (using FF7 1# 17#), as long as the extension uses a trunk assigned TRS type 2-6 (Operator calls are always restricted for TRS types 0 and 1 -- and always allowed for TRS type 7 )

**Area Codes and Office Codes** Under **either dialing plan** outgoing calls on trunks assigned TRS types 3-6 can be allowed or restricted based on the area code and/or office code dialed When a number is dialed, the system first checks **area/office code combinations** entered in the "Special Area Code/Office Code Tables" (FF7 4# and 5#) If it doesn't find any restrictions there, the system then checks **the office codes assigned to TRS types 2-6 as a group** (FF7 1# 21#) -- if the system is programmed to use the new NANP dialing plan If not (or if the system doesn't find a match), it then checks the individual area codes and office codes assigned to individual TRS types in FF7 2# and 3#

**International Calling** Under the **old dialing plan**, international calls are allowed or restricted on a system-wide basis using the TRS type assigned to the trunk Under **the new NANP dialing plan**, international calls on trunks assigned TRS types 3-6 can be allowed or restricted on individual extensions (FF7 1# 18#) Furthermore these extensions can also be programmed to allow or restrict individual calls based on the Country Code dialed (FF7 1# 1# and FF7 1# 19#)

## International Calling For TRS Types 3-6

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

Address **FF7 1# 1# (0 or 1)#**

**Description** Use this program to set system-wide restrictions for the dialing of international calls on trunks assigned TRS types 3-6

If the DBS 824 system is programmed to **use the new NANP dialing plan** (FF7 1# 16# 1#), this “International Calling For TRS Types 3-6” program determines whether the system will check the Country Code Table for any restrictions on the dialed number

If the DBS 824 system is programmed to use **the old dialing plan** (FF7 1# 16# 0#), this “International Calling For TRS Types 3-6” program determines whether international calling is allowed or restricted system-wide

This program only applies to those trunks that are assigned TRS types 3-6  
International calls are always restricted for TRS types 1 and 2 -- and always allowed for TRS type 7

### Programming

<b>FF7 1# 1# (0 or 1)#</b>	
Old Dialing Plan	<b>0=International calls are restricted</b> 1=International calls are permitted
New Dialing Plan (NANP)	<b>0=System will check Country Code Table for restrictions</b> 1=System will not check Country Code Table for restrictions (all international calls are allowed)

### Related Programming

Dialing Plan Switch FF7 1# 16# (0 or 1)#

Country Code Table FF7 1# 19# (Table)# (Code)#

Override Toll Restrictions with SSD Numbers FF1 2# 1# 4# (SSD)#

System Installation Area Code FF1 2# 1# 17# (0 or 1)#

**Notes**

***Restricting International Calls On Individual Extensions*** If the new NANP dialing plan is used, individual extensions can be set for allowing/restricting international calls based on the Country Code Table, using program address FF7 1# 18#

***Including "011" in Office Code Tables for International Calling*** If international calls are permitted, 011 should be permitted in office code tables for TRS types 3-6

## Dialing Restriction During Inbound Trunk Calls for TRS Types 3-6

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF7 1# 2# (0 or 1)#

**Description** Use this program to prevent users from circumventing restrictions on outside calling

If TRS types 3-6 are set to prevent outside calling, users may try to circumvent the restriction in the following manner

- The user receives an outside call
- During the outside call, the user presses **FLASH**, causing the phone to release and re seize the trunk
- The user dials an outside number on the trunk, thus circumventing the restriction

To prevent circumvention of the restriction, use this program to restrict dialing during inbound trunk calls for TRS types 3-6

### Programming

**FF7 1# 2# (0 or 1)#**



**0**=When an incoming call is received, the FLASH key cannot be used to originate an outgoing call

**1**=When an incoming call is received, the FLASH key can be used to originate an outgoing call



## Maximum Dialed Digits For TRS Types 3-6

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF7 1# 3# (1-15)#

**Description** The maximum number of dialed digits on trunks assigned TRS types 3-6 can be set from 15 to 29, or it can be unlimited

### Programming

**FF7 1# 3# (1-15)#**

↑

Maximum Number of Digits That Can Be Dialed

**Note:** The default setting is \*\* (unlimited) To change the setting to a limited number of digits, enter 1-15 (see the following table for values) To revert to the \*\* default, press FM 1# 3# CONF

**Table 7-2** Maximum number of dialed digits for TRS types 3-6

Setting	Maximum Number of Digits
1	15
2	16
3	17
4	18
5	19
6	20
7	21
8	22
9	23
10	24
11	25
12	26
13	27
14	28
15	29

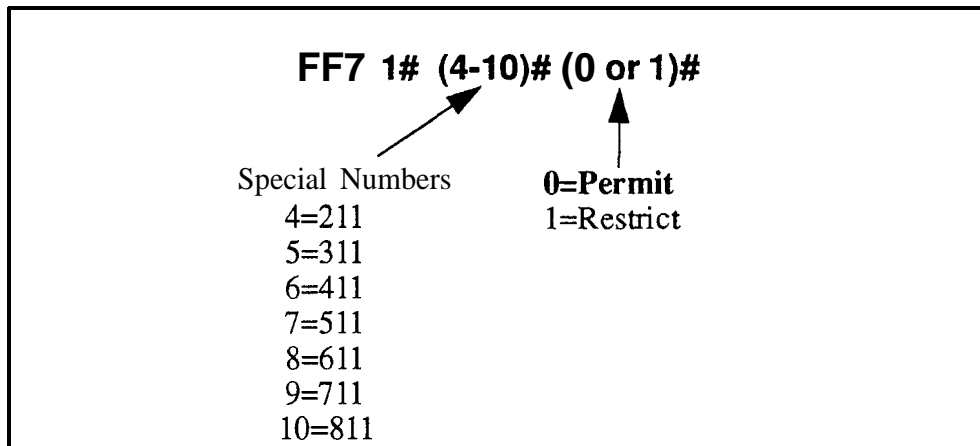
## 3-Digit Toll Restriction For TRS Types 2-6

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 1# (4-10)# (0 or 1)#

**Description** Use this program to restrict dialing of special 3-digit numbers (211-811) on trunks assigned TRS types 2-6 ("911" is permitted in all cases)

### Programming



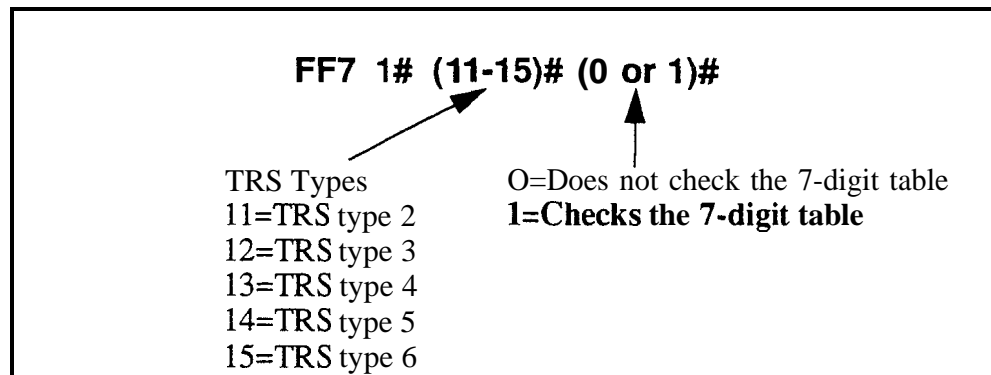
## 7-Digit Toll Restriction For TRS Types 2-6

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 1# (11-15)# (0 or 1)#

**Description** Use this program to restrict dialing of specified 7-digit numbers on trunks assigned TRS types 2-6. If this feature is enabled (default setting), the system checks the number dialed against a table of restricted 7-digit numbers (see “Special 7-Digit Table For TRS Types 2-6” on page 7-21)

### Programming



### Notes

*Analysis of Final Digits* Seven-digit toll restriction considers the last seven digits dialed, so that permitted area codes can be denied access to specific telephone numbers, such as 555-1212

## Dialing Plan Switch

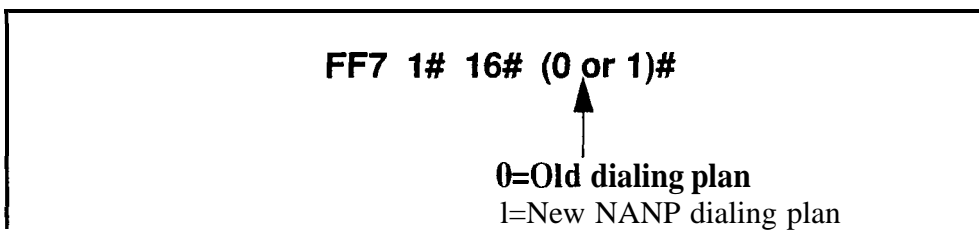
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 1# 16# (0 or 1)#

**Description** This address allows you to choose between the new North American Numbering Plan (NANP) and the old dialing plan

Selecting the new NANP dialing plan provides greater flexibility for “exceptions to the rule”, by applying/removing toll restriction to/from individual extensions, and to dialed area codes, office codes and country codes. Specific differences between the dialing plans are listed in the table below. Some of the FF7 addresses in this chapter apply only to the new NANP dialing plan, this is noted in the explanations for these addresses. Other FF7 addresses apply to both dialing plans, but the value of their settings differs depending on the dialing plan selected -- this too is noted in the explanations of these addresses.

### Programming



**Table 7-3 Differences between old and new dialing plans**

Subject	Old Plan	New (NANP) Plan
Office Codes	NNX-XXXX	Nxx - XxXx
Long-Distance Calls	N0/1X-NNX-XXXX	NXX-NXX-XXXX
Equal Access Code Format	10XXX	101XXXX
International Numbers	9 digits in length	15 digits in length
(N=digits 2 thru 9    X=digits 0 thru 9)		

### Related Programming

All Toll Restriction Addresses (FF7)

## Operator Access

Software Version CPC-S and CPC-M, Version 1 0 and higher

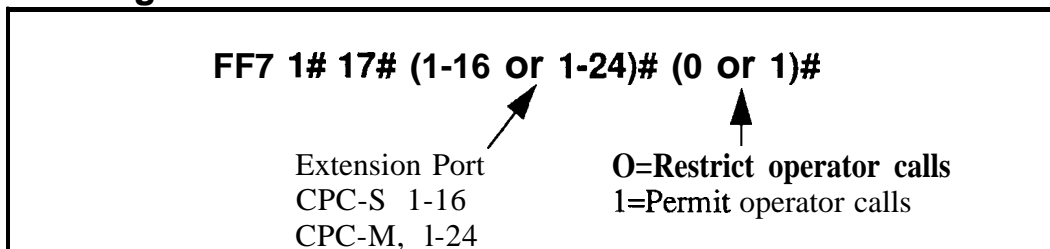
Address FF7 1# 17# (ExtPort)# (0 or 1)#

**Description** This Operator Access switch works only if the system is programmed to use the new NANP dialing plan (FF7 1# 16# 1#) Also, this switch applies only to TRS types 2-6 (TRS types 0 and 1 do not allow outbound dialing, TRS type 7 allows all dialing)

Use this address to block extension(s) from being able to access a trunk and dialing “O”, “OO”, “10XXX0” or “101XXXX0” to reach an operator This would prevent a user from being able to circumvent a TRS restriction by asking the operator to place a long-distance call

If this switch is set to “Restrict” (default) and an extension user accesses a trunk and dials the operator, the system will wait 6 seconds before automatically disconnecting the call, if the user dials additional digits within 6 seconds, the system will check other switches (if programmed) to allow or restrict the call, such as “International Calling On Extensions” (FF7 1# 18#), “7-Digit Toll Restriction” (FF7 1# 11-15#), etc

### Programming



### Related Programming

Dialing Plan Switch FF7 1# 16# (0 or 1)#

Equal Access Code Format FF7 1# 20# (0 or 1)#

## International Calling on Extensions

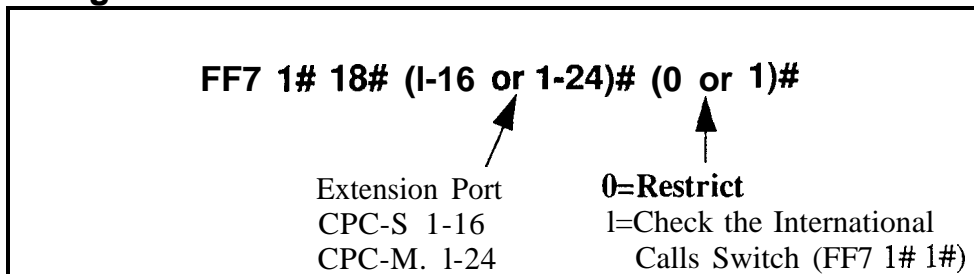
Software Version CPC-S and CPC-M, Version 1 0 and higher  
 Address FF7 1# 18# (ExtPort)# (0 or 1)#

### Description

This address applies only to systems programmed to use the new NANP dialing plan (FF7 1# 16#) It also applies only to TRS types 3-6 (TRS types O-2 do not allow international dialing, TRS type 7 allows all dialing)

Use this address to allow or restrict international calling on individual extension(s) that are “exceptions to the rule” When an extension attempts an overseas call (trunk access + 01 or 011) on a trunk assigned TRS type 3-6, the system checks the setting in this address (default=restrict call) However, if this address is set to ‘1’, the system checks the “International Calling For TRS Types 3-6” (FF7 1# 1#) to see if the dialed country code should be checked against the Country Code Table (FF7 1# 19#) before allowing the call If so, and if the dialed country code is included in the table, the call is allowed

### Programming



### Related Programming

International Calling For TRS Types 3-6 FF7 1# 1# (0 or 1)#

Dialing Plan Switch **FF7** 1# 16# (0 or 1)#

Country Code Table FF7 1# 19# (Table)# (Code)#

### Notes

**Restricted calls** If the system determines the call is restricted during any stage of the process, it sends a busy tone to the user and displays “Restricted” on the phone

**Interaction with TRS types** The “International Calling on Extensions” setting is not checked for TRS types O-2 or 7 International calls are always restricted for TRS types O-2, and always allowed for type 7

## Country Code Table

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

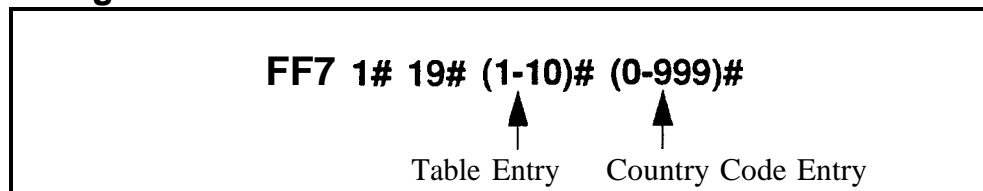
Address **FF7 1# 19# (Table)# (Code)#**

**Description** This address applies only to systems programmed to use the new NANP dialing plan (FF7 1# 16#) It also applies only to TRS types 3-6 (TRS types 0-2 do not allow international dialing TRS type 7 allows all dialing)

In this address, the DBS 824 system provides a Country Code Table of up to 10 allowable country codes for placing international calls Each defined country code can be 1 to 3 digits long, and can include wild-card characters

When a phone user accesses a trunk assigned TRS type 3-6 and then dials 01 or 0 11, the system first checks the international calling restriction (if any) assigned to that extension (in FF7 1# 18#) The DBS 824 then checks the system-wide international calling restriction (in FF7 1# 1#) to see if international calling is allowed, or if the Country Code Table should be checked first If so, and if the country code is included in the table, the call is allowed If the country code is not included in the table, the user will hear a busy tone and “Restricted” will be displayed on the phone

### Programming



### Related Programming

Dialing Plan Switch FF7 1# 16# (0 or 1)#

International Calling on Extensions FF7 1# 18# (ExtPort)# (0 or 1)#

International Calling For TRS Types 3-6 FF7 1# 1# (0 or 1)#

### Notes

**Short Country Codes** When country codes of less than 3 digits are entered, the system will allow any country code that *begins* with that number or numbers For example, an entry of “9” allows all two- and three-digit country codes beginning with “9 ” Likewise, an entry of “26” allows all three-digit country codes beginning with “26 ”

**Digit Restriction** The system will not accept country codes that begin with “1” (this is reserved for U S calls)

## Equal Access Code Format

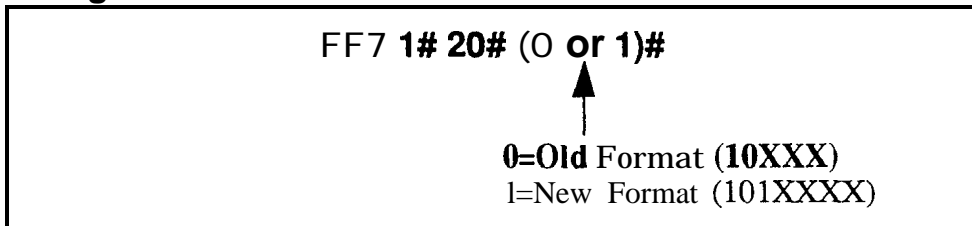
Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF7 1# 20# (0 or 1)#**

**Description** This program address determines the dialing format that will be recognized by the DBS 824 for accessing a preferred interexchange carrier. This address applies only to outgoing calls that are subject to toll restriction, and to DBS 824 systems that are programmed to use the new NANP dialing plan (see program address FF7 1# 16#)

Under the old dialing plan, callers can dial 10XXX to reach their preferred interexchange carrier. Within this dial sequence, the “XXX” indicates the carrier identification code (CIC)

In the new North American Numbering Plan, the preferred carrier format is being changed to 101XXXX (the CIC code is expanded to 4 digits, and “10” is replaced with “101”)

### Programming



### Related Programming

Dialing Plan Switch FF7 1# 16# (0 or 1)#

### Notes

**Allowing Both CZC Formats During Transition Period** The public network is currently providing a transition period during which both preferred-carrier formats are recognized for choosing the preferred carrier. Likewise, the DBS 824 system will also allow both formats, as long as the extension or dialed number does not have any toll restrictions assigned to it, and the system is programmed to use the new NANP dialing plan.



## Office Code Restriction Table For TRS Types 2-6

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 1# 21# (1-10)# (000-999)#

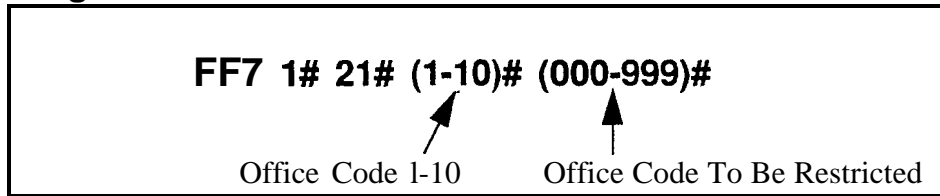
**Description** This address applies only to systems programmed to use the new NANP dialing plan (FF7 1# 16#)

This Office Code Restriction Table allows up to 10 office codes to be restricted system-wide for all trunks assigned TRS types 2-6. The system will check this table before checking the individual office code(s) assigned to individual TRS type(s) in FF7 3#

These office codes are **not** tied to any area codes. Therefore, whenever one of these office codes is dialed, it is restricted regardless of the area code.

Applications for this feature include 555,950, and 976 calls.

### Programming



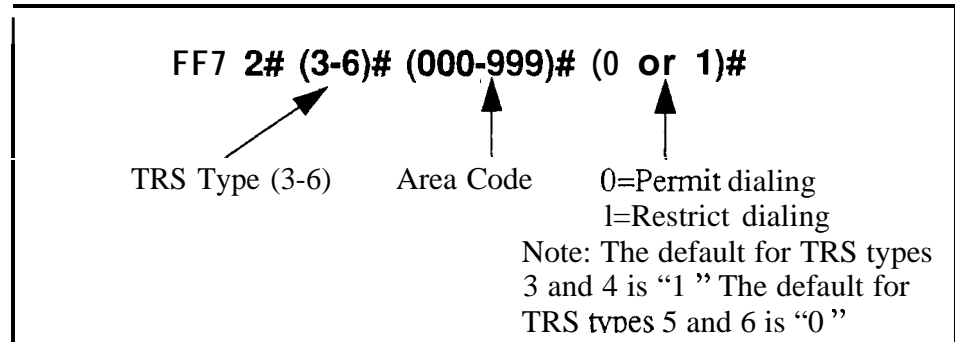
## Area Code Table For TRS Types 3-6

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF7 2# (3-6)# (000-999)# (0 or 1)#

**Description** Use this program to set area code dialing restrictions based on the TRS type assigned to a trunk. Callers accessing a trunk assigned to TRS types 3-6 are allowed or denied access to specific area codes according to the settings in this program.

### Programming



### Related Programming

System Installation Area Code FF1 2# 1# 17# (0 or 1)#

Day TRS Types 0-7 for Trunks FF7 7# (ExtPort)# (Trunk)# (0-7)#

Night TRS Types 0-7 for Trunks FF7 8# (ExtPort)# (Trunk)# (0-7)#

## Office Code Table For TRS Types 3-6

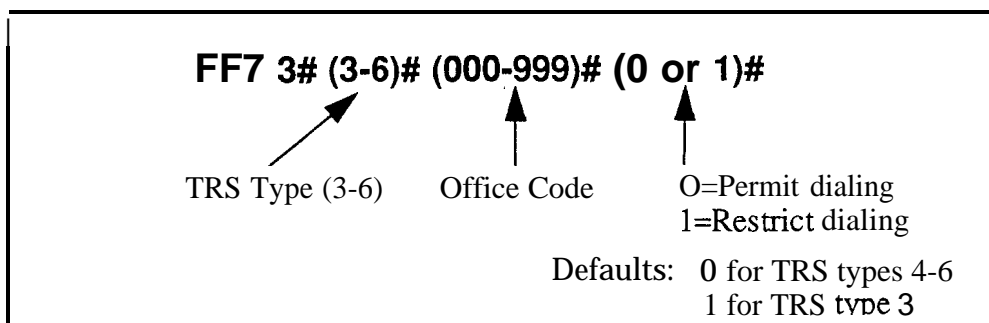
Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 3# (3-6)# (000-999)# (0 or 1)#

**Description** Use this program address to permit or restrict individual office code(s) based on the TRS type assigned to the trunk

The difference between this table and the Office Code Restriction Table (FF7 1# 21#) is that this Office Code Table assigns individual office codes to individual TRS types (3-6), and applies to both dialing plans. The Office Code Restriction Table, on the other hand, assigns up to 10 office codes to TRS types 2-6 as a *group* and applies only to the new NANP dialing plan

### Programming



### Related Programming

System Installation Area Code FF1 2# 1# 17# (0 or 1)#

## Special Area Code Table For TRS Types 3-6

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 4# (1-4)# (000-999)#

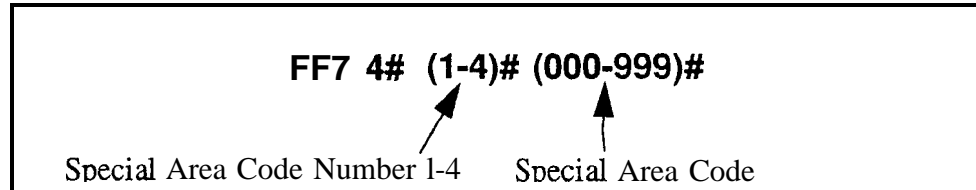
### Description

Use this address to enter up to four area codes that will be matched to ranges of office codes in the next address (FF7 5#) This allows you to set up special area/office code combinations that are “exceptions to the rule” -- for example, restricting calls to (800)976-xxxx numbers, while allowing (800)9xx-xxxx numbers

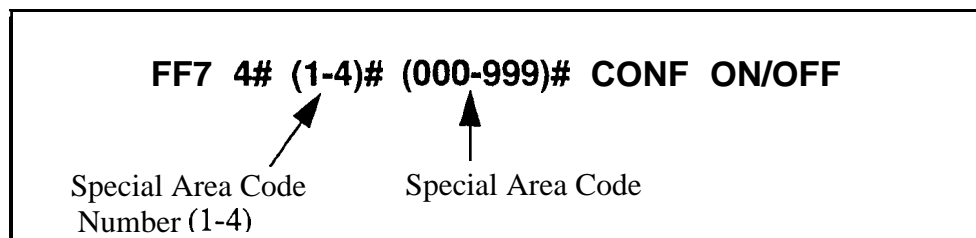
These special area/office code combinations will apply to TRS types 3-6

### Programming

To enter a special area code



To clear a special area code



### Related Programming

Special Office Code Table for TRS Types 3-6 FF7 5# (1-4)# (000-999)#  
(0 or 1)#

## Special Office Code Table For TRS Types 3-6

Software Version **CPC-S and CPC-M, Version 1 0 and higher**

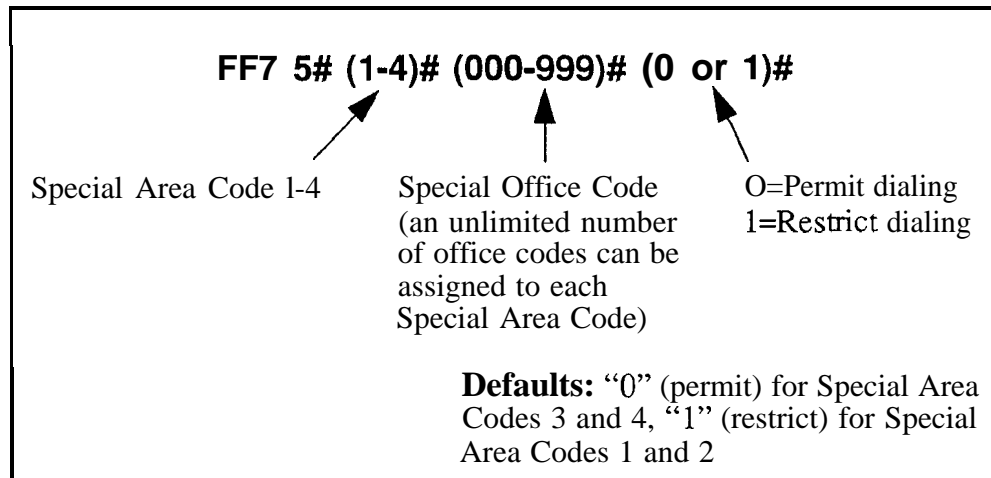
Address **FF7 5# (1-4)# (000-999)# (0 or 1)#**

**Description** Each of the four special area codes entered in the previous address (FF7 4#) can be matched with one or more special office codes using this address. Each special area code can be matched to an unlimited number of office codes (000-999). And, each office code can be individually permitted or restricted. Typically, “976”, “555” or other office codes representing pay-for-call services are entered as special office codes.

These special area/office code combinations will apply to TRS types 3-6.

**NOTE:** If at a later date you wish to reset *all* the special office codes assigned to a special area code to “permit” or “restrict”, you can use the Global Copy address (FF7 9# 13-16#) to do it all at once, instead of resetting each individual office code here.

### Programming



### Related Programming

Special Area Code Table for TRS Types 3-6 FF7 4# (1-4)# (000-999)#

Special Office Code Table for TRS Types 3-6 (Global Copy) FF7 9# (13-16)# (0 or 1)#

## Special 7-Digit Table For TRS Types 2-6

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 6# (1-50)# (0000000-9999999)#

**Description** Use this program to set up a table of up to 50 restricted 7-digit numbers for trunks assigned TRS types 2-6. These 7-digit numbers are restricted for all area codes "7-Digit Toll Restriction For TRS Types 2-6" on page 7-10 determines whether the numbers held in this table are checked.

### Programming

#### To assign a special 7-digit number

<b>FF7 6# (1-50)# (0000000-9999999)#</b>	
<b>t</b>	<b>t</b>
Special 7-Digit Number (1-50)	7-Digit Number

#### To clear a special 7-digit number

<b>FF7 6# (1-50)# CONF ON/OFF</b>
↑
Special 7-Digit Number (1-50)

## Day TRS Types O-7 for Trunks

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 7# (ExtPort)# (Trunk)# (O-7)#

**Description** Use this program to assign TRS types to the trunks on an extension when the DBS 824 is in “Day” mode. See “An Overview of Toll Restrictions” on page 7-3 for a review of the TRS types.

### Programming

FF7 7# (1-16 or 1-24)# (1-7 or 1-9)# (O-7)#		
↑	↑	↑
Extension Port	Trunk Number	TRS Type O-7
CPC-S 1-16	C P C - S 1-6, 7 (Default=7)	
CPC-M 1-24	CPC-M 1-8, 9	
Note: Enter “7” (CPC-S) or “9” (CPC-M) to apply <b>all</b> trunks on the extension to the TRS type		

## Night TRS Types O-7 for Trunks

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 8# (ExtPort)# (Trunk)# (0-7)#

**Description** Use this program to assign TRS types to the trunks on an extension when the DBS 824 is in “Night 1” or “Night 2” mode. See “An Overview of Toll Restrictions” on page 7-3 for a review of the TRS types.

### Programming

<b>FF7 8# (1-16 or 1-24)# (1-7 or 1-9)# (0-7)#</b>		
Extension Port	Trunk Number	TRS Type 0 7 (Default=7)
CPC-S 1-16	CPC-S 1-6, 7	
CPC-M 1-24	CPC-M 1-8, 9	
Note: Enter “7” (CPC-S) or “9” (CPC-M) to apply <b>all</b> trunks on the extension to the TRS type		



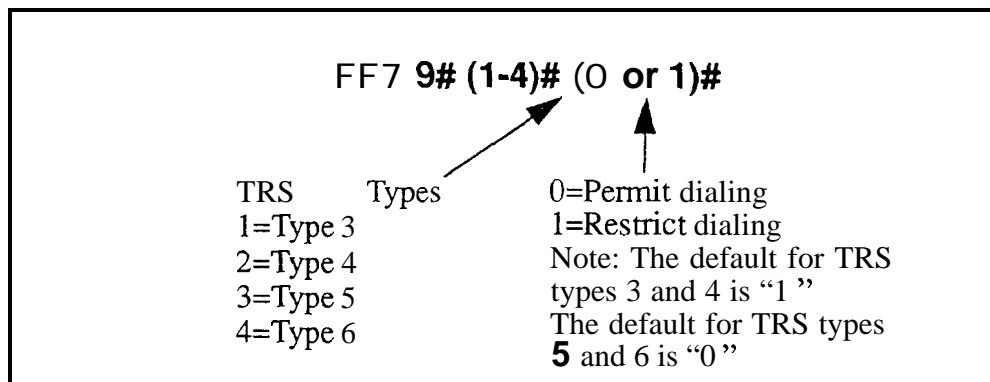
## Area Code Table For TRS Types 3-6 (Global Copy)

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF7 9# (1-4)# (0 or 1)#

**Description** Use this program to permit or restrict all area codes for TRS types 3-6

### Programming



### Related Programming

System Installation Area Code FF1 2# 1# 17# (0 or 1)#

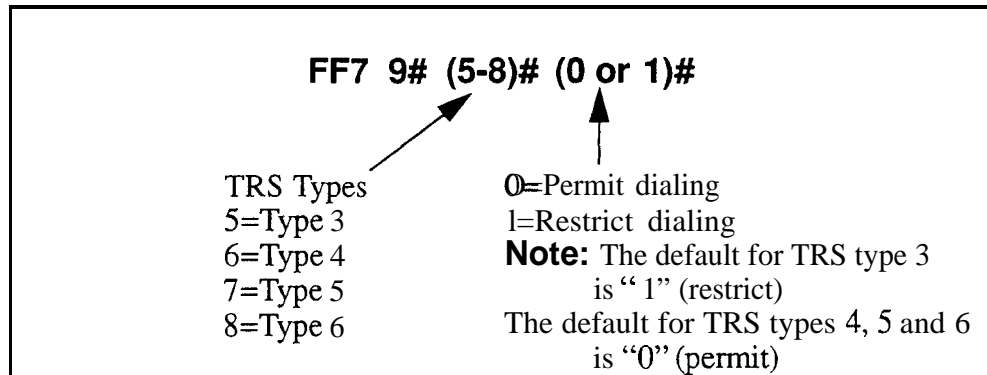
## Office Code Table For TRS Types 3-6 (Global Copy)

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 9# (5-8)# (0 or 1)#

**Description** Use this program to permit or restrict all office codes for TRS types 3-6

### Programming



### Related Programming

System Installation Area Code FF1 2# 1# 17# (0 or 1)#

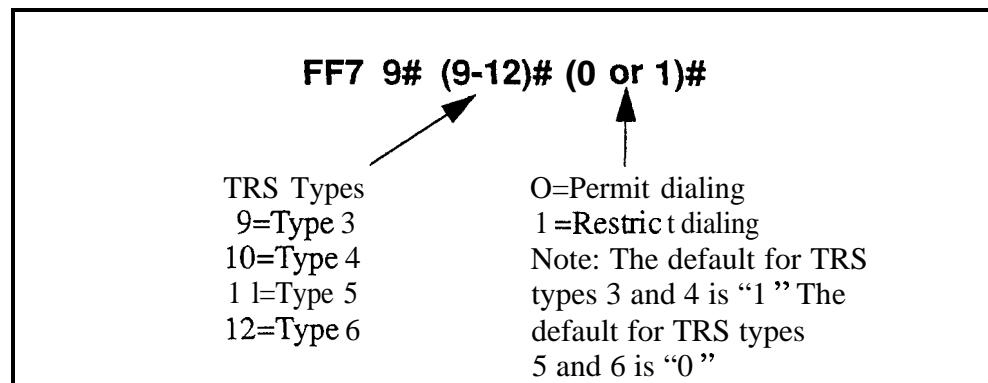
## Area & Office Code Table for TRS Types 3-6 (Global Copy)

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF7 9# (9-12)# (0 or 1)#

**Description** Use this program to permit or restrict all area codes and office codes for TRS types 3-6

### Programming



### Related Programming

System Installation Area Code FF1 2# 1# 17# (0 or 1)#

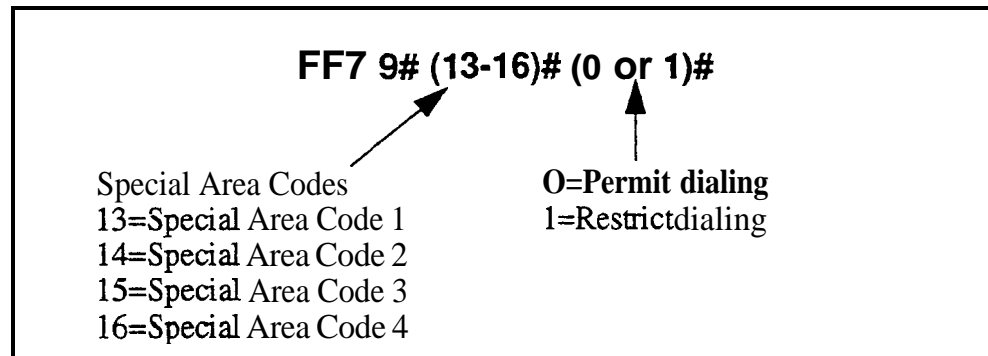
## Special Office Code Table For TRS Types 3-6 (Global Copy)

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF7 9# (13-16)# (0 or 1)#

**Description** Use this program address to permit or restrict the special area/office code combinations set in program addresses FF7 4# and 5#. This address is normally used to reset all office codes assigned to a special area code at once (instead of resetting the office codes individually in FF7 5#)

Special area/office code combinations apply to TRS types 3-6

### Programming



### Related Programming

Special Area Code Table For TRS Types 3-6 FF7 4# (1-4)# (000-999)#

Special Office Code Table For TRS Types 3-6 FF7 5# (1-4)# (000-999)#  
(0 or 1)#

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# 8. Least Cost Routing (FF8)

Use the FF8 program addresses in this chapter to set up Least Cost Routing

This chapter covers the following topics

<b>Topic</b>	<b>Page</b>
An Overview of Least Cost Routing	<b>8-3</b>
Least Cost Routing (LCR) Area Codes	8-7
Least Cost Routing (LCR) Office Codes	8-8
Special LCR Area Codes	<b>8-9</b>
Special LCR Office Code Tables	<b>8-10</b>
Time Priority Route Tables	8-11
LCR Trunk Groups	8-13
LCR Delete Tables	8-15
LCR Add Tables	8-16



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# An Overview of Least Cost Routing

Least Cost Routing (LCR) is used to automatically place calls along the least expensive trunks, depending on the carrier supplying the trunk and the time of day. For example, if calls to Toronto made between 10 p.m. and 2 a.m. are cheapest using a trunk supplied by AI Telecom, LCR automatically routes calls to that city, during that time, along AI Telecom trunks.

LCR can also be used to add non-dialed digits to (or delete non-dialed digits from) the dialed prefix.

## LCR Trunk Groups

LCR uses 4 trunk groups, each consisting of 4 trunks. The trunks in each group are prioritized according to their cost-effectiveness, so that LCR tries the highest priority trunk in the group first, then the next highest, etc.

Different LCR trunk groups are used at different times of the day. The time of day during which an LCR trunk group is used is determined by the Time Priority Route Tables.

## Time Priority Route Tables

LCR uses 6 Time Priority Route Tables to determine which LCR trunk groups are selected during a certain time of the day. Each Time Priority Route Table has three elements. The elements are:

- **Table Number** Time Priority Route Tables are identified by numbers 1-6. In DBS 824 programming, the tables are referred to by number.
- **Table Position and Priority**

- The “position” of a Time Priority Route Table indicates the time of day during which it is used. For example, a table assigned to position “1” is used between 7:00 a.m. and 7:59 a.m. Similarly, a table assigned to position “5” is used between 8:00 a.m. and 4:59 p.m. LCR provides up to 24 positions for Time Priority Route Tables.

The 24 positions are divided among 6 time periods, each time period uses 4 LCR trunk groups. For example, trunk groups assigned to positions 1-4 are used between 7:00 a.m. and 7:59 a.m.

- The priority of a Time Priority Route Table is determined by its position. For example, between 7:00 a.m. and 7:59 a.m., position 1 has the highest priority, while position 4 has the lowest priority. The most cost-effective Time Priority Route

Tables are assigned positions that give them the highest priority  
LCR tries to use the trunks in the highest-priority position first

- **LCR Trunk Group** Each Time Priority Route Table is assigned to an LCR trunk group Because the Time Priority Route Table is assigned to a time of day (a “position”), the table determines the time that the LCR trunk group is used The cost-effectiveness of a trunk group and the time of day it is to be used determine the position of the Time Priority Route Table

**Table 8-1 Time priority route table**

Time	← HIGH	----- Priority -----	LOW →
7 00 am - 7 59 am	1#	2#	3#
8 00 am - 4 59 pm	5#	6#	7#
5 00 pm - 7 59 pm	9#	10#	11#
8 00 pm - 11 59 pm	13#	14#	15#
12 00 am - 6 59 am	17#	18#	19#
weekend	21#	22#	23#

## LCR Tables

LCR uses 10 tables of up to 1000 numbers each to determine how to route specific numbers These are the Area Code, Office **Code**, Special LCR Area Code, and Special LCR Office Code tables Entries in the tables consist of a route table number (1-6) and an area or office code

Purposes of the tables are described in Table 8-2 The structure of an LCR table is illustrated in Table 8-3 (xx = route table number)

**Table 8-2 LCR table descriptions**

LCR Table	Purpose
“Least Cost Routing (LCR) Area Codes” (page 8-7)	Associates area codes with Time Priority Route Tables
“Least Cost Routing (LCR) Office Codes” (page 8-8)	Associates office codes with Time Priority Route Tables



LCR Table	Purpose
“Special LCR Area Codes” (page S-9)	Associates four area codes, numbered 1-4, with an unlimited number of office codes, to cause specific area/office code combinations to be routed by LCR
‘ Special LCR Office Code Tables” (page 8-10)	Associates office codes with the four “Special LCR Area Codes” and with Time Priority Route Tables

The Special Area and Special Office code tables are designed for 6 digit LCR dialing analysis. The Office Code Table is used for all ‘I-digit dialing 1+7 digit dialing searches the Area Code Table or the Special Office Code Tables when the ‘System Location” program address (FF1 2# 1# 17#) is configured with a “1” If this program address is improperly set, the LCR may search incorrect tables

**Table 8-3 LCR table**

000	xx	001	xx	002	xx	003	xx	004	xx	005	xx	006	xx	007	xx	008	xx	009	xx
010	xx	011	xx	012	xx	013	xx	014	xx	015	xx	016	xx	017	xx	108	xx	019	xx
020	xx	021	xx	022	xx	023	xx	024	xx	025	xx	026	xx	027	xx	028	xx	029	xx
etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc
etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc	etc
960	xx	961	xx	962	xx	963	xx	964	xx	965	xx		xx	967	xx	968	xx	969	xx
970	xx	971	xx	972	xx	973	xx	974	xx	975	x		xx	977	xx	978	xx	979	xx
980	xx	981	xx	982	xx	983	xx	984	xx	985			xx	987	xx	988	xx	989	xx
990	xx	991	xx	992	xx	993	xx	994	xx	995	xx	996	xx	997	xx	998	xx	999	xx

## Call Processing Flow

LCR processes calls according to the following steps

- 1 A user dials a number
- 2 The number is checked against the LCR tables to determine the Time Priority Route Table that should be used (If the number is not in an LCR

table, LCR processing terminates, and a trunk is selected from pooled trunk group “9 ”)

- 3 Each trunk group in the Time Priority Route Table is searched until an available trunk is found

If all the trunks in a trunk group are busy, the user hears a tone and LCR proceeds to the next trunk group (Each group is searched twice before the tone is issued ) If no trunks are available in any trunk group, the user can dial “2” to have the DBS 824 call back when a trunk becomes open When the DBS 824 recalls, the user accesses a line, and the DBS 824 automatically redials the previously dialed phone number

- 4 When a trunk is found, digits are added to or deleted from the number according to the LCR Add and LCR Delete tables

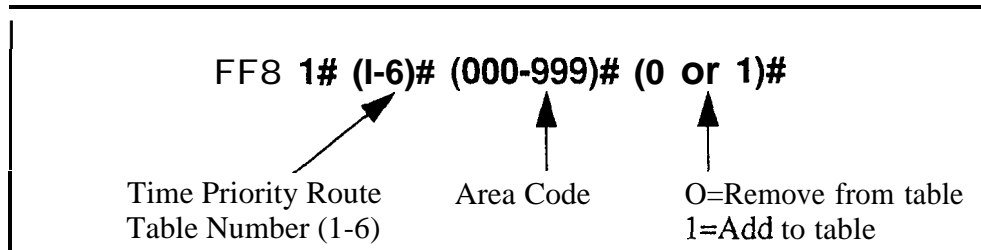
## Least Cost Routing (LCR) Area Codes

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF8 1# (1-6)# (000-999)# (0 or 1)#

**Description** Use this program to associate area codes with Time Priority Route tables. For an area code to be handled by LCR, it must be associated with a Time Priority Route Table. Otherwise, the call is routed out on a trunk in pooled trunk group "9".

### Programming



### Related Programming

Time Priority Route Tables FF8 5# (Table)# (Position)# (TrunkGrp)#

### Notes

**FLASH Key Interaction** Once a trunk is accessed through LCR, the FLASH key cannot be used to get a second dial tone. The flash operation is disabled to prevent second calls from being placed over inappropriate routes.

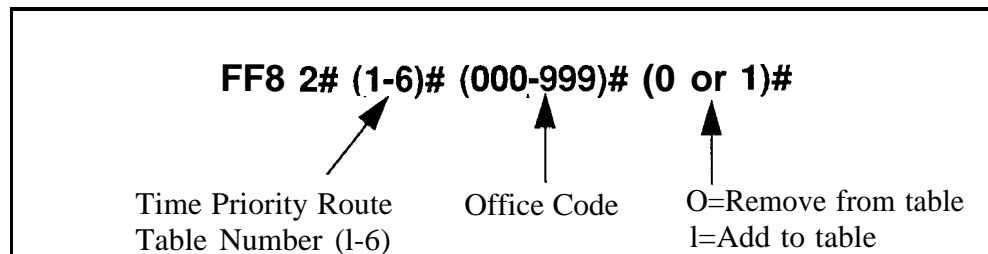
## Least Cost Routing (LCR) Office Codes

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF8 2# (1-6)# (000-999)# (0 or 1)#

**Description** Use this program to associate office codes with Time Priority Route tables. For an office code to be handled by LCR, it must be associated with a Time Priority Route Table. Otherwise, the call is routed out on a trunk from pooled trunk group "9".

### Programming



### Related Programming

Time Priority Route Tables FF8 5# (Table)# (Position)# (TrunkGrp)#

### Notes

**FLASH Key Interaction** Once a trunk is accessed through LCR, the FLASH key cannot be used to get second dial tone. The flash operation is disabled to prevent second calls from being placed over inappropriate routes.

## Special LCR Area Codes

Software Version CPC-S and CPC-M, Version 1.0 and higher

Address FF8 3# (1-4)# (000-999)#

### Description

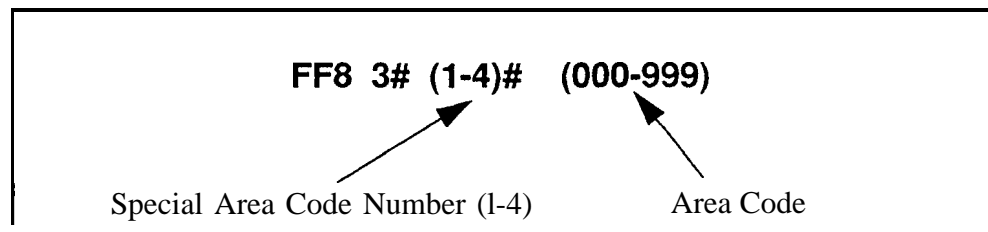
Four special area codes can be specially chosen for LCR routing. In DBS 824 programming, the special area codes are assigned numbers 1, 2, 3, and 4.

The special area codes are tied to four special LCR office code tables. An "office code table" is the group of office codes associated with a special area code. The office code tables can contain an unlimited number of office codes. This arrangement allows a broad range of numbers to be dialed by the least costly route.

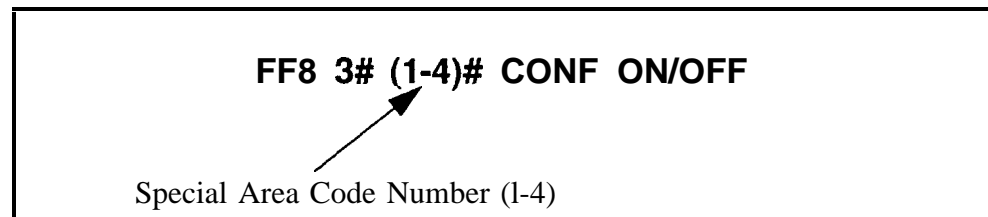
This operation keys off the first six digits dialed, where the first three digits represent an area code, and the second three digits represent an office code.

### Programming

To assign a special LCR area code



To clear a special LCR area code



### Related Programming

Time Priority Route Tables FF8 5# (Table)# (Position)# (TrunkGrp)#

### Notes

**FLASH Key Interaction** Once a trunk is accessed through LCR, the **FLASH** key cannot be used to get second dial tone. The flash operation is disabled to prevent second calls from being placed over inappropriate routes.

## Special LCR Office Code Tables

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF8 4# (1-4)# (1-6)# (000-999)# (0 or 1)#

### Description

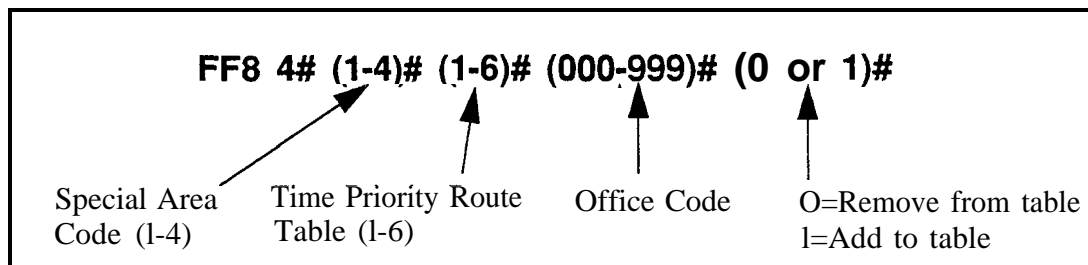
Use this program to create the special office code tables that are associated with the four special area codes set up using “Special LCR Area Codes” on page 8-9

An “office code table” is the group of office codes associated with a special area code. The office code tables can contain an unlimited number of office codes. This arrangement allows a broad range of numbers to be dialed by the least costly route.

This operation keys off the first six digits dialed, where the first three digits represent an area code, and the second three digits represent an office code.

### Programming

To assign a special LCR office code



## Time Priority Route Tables

Software Version CPCS and CPC-M, Version 1 0 and higher

Address FF8 5# (1-6)# (1-24)# (1-4)#

### Description

When LCR is used, outbound calls are automatically placed on different trunk groups depending on the time of day. The Time Priority Route Tables determine which trunks are used during certain times of day. Characteristics of Time priority Route Tables are

- **Table Number** Time priority Route Tables are identified by numbers 1-6. In DBS 824 programming, the tables are referred to by number.

- **Table Position and Priority**

- The "position" of a Time Priority Route Table indicates the time of day during which it is used. For example, a table assigned to position "1" is used between 7 00 a.m. and 7 59 a.m. Similarly, a table assigned to position "9" is used between 5 00 p.m. and 7 59 p.m. LCR provides up to 24 positions for Time Priority Route Tables.

The 24 positions are divided among 6 time periods, each time period uses 4 trunk groups. For example, trunk groups assigned to positions 1-4 are used between 7 00 a.m. and 7 59 a.m. The time periods and positions used are described in the following table.

**Table 8-4 LCR time periods and positions used**

Time Period	Positions Used
700a.m - 759am	1-4
8 00 a.m - 459 p.m	5-8
500p.m - 759p.m	9-12
8 00 - 11 59 p.m	13-16
1 200 a.m - 659 a.m	17-20
Weekend	21-24

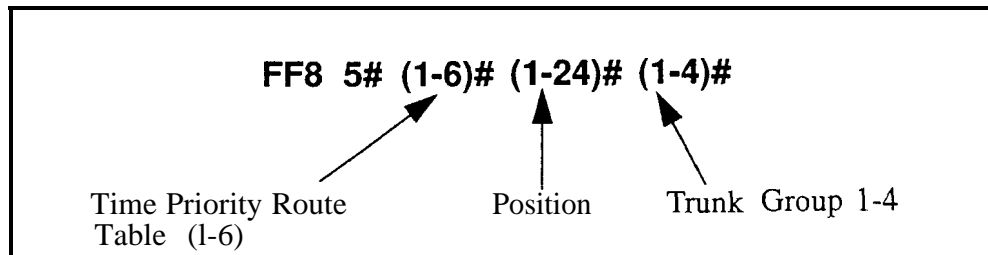
- The priority of a Time Priority Route Table is determined by its position. For example, between 8 00 a.m. and 4 59 p.m., position 5 has the highest priority, while position 8 has the lowest priority. The most cost-effective Time Priority Route Tables are assigned positions that give them the highest priority. LCR tries to use the trunks in the highest-priority position first.

- **LCR Trunk Group** Each Time Priority Route Table is assigned to an LCR trunk group. Because the Time priority Route Table is assigned to a time of

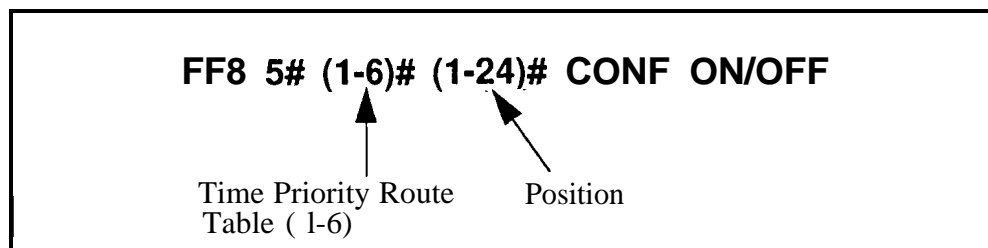
day (a “position”), the table determines the time that the LCR trunk group is used. The cost-effectiveness of a trunk group and the time of day it is to be used determine the position of the Time Priority Route Table.

## Programming

### To create Time Priority Route Tables



### To reset a position in a Time Priority Route Table to default



## Related Programming

Least Cost Routing (LCR) Access FF1 2# 1# 3# (0 or 1)#

LCR Trunk Groups FF8 6# (TrunkGrp)# (Position)# (Trunk)#



## LCR Trunk Groups

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF8 6# (TrunkGrp)# (Position)# (Trunk)#

**Description** Use this program to set up LCR trunk groups Set up LCR trunk groups before setting up Time Priority Route Tables

LCR uses 4 trunk groups, each consisting of 4 trunks The trunks in each group are prioritized according to their cost-effectiveness, so that LCR tries the highest priority trunk in the group first, then the next highest, etc

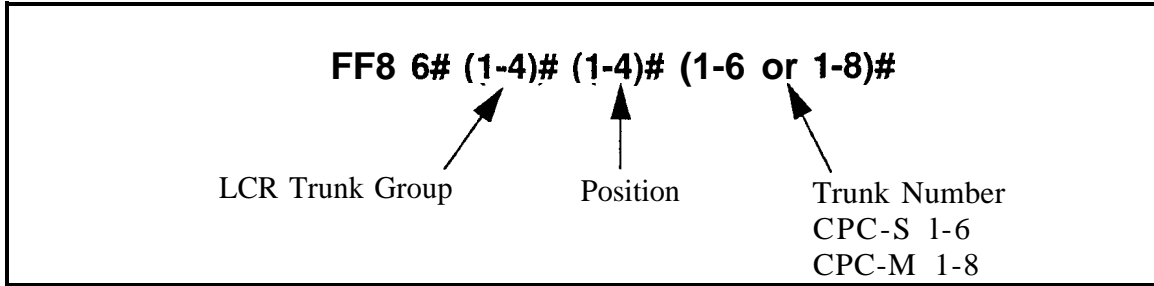
Different LCR trunk groups are used at different times of the day The time of day during which an LCR trunk group is used is determined by the Time Priority Route Tables (see program address FF8 5#)

LCR selects trunks from trunk groups in priority order, the most cost-effective trunks receive the highest priority, so that LCR tries to use them first The priority of a trunk is determined by its position in the trunk group A trunk in position 1 has the highest priority in the group A trunk in position 4 has the lowest priority in the group LCR trunk selection is illustrated in the following table

**Table 8-5 LCR trunk selection**

<b>If</b>	<b>Then</b>
LCR is activated	LCR tries the trunk in position 1
The first trunk is busy	LCR tries the trunk in position 2
The second trunk is busy	LCR tries the trunk in position 3
The third trunk is busy	LCR tries the trunk in position 4
The fourth trunk is busy	LCR tries the trunk in position 1 of the next trunk group, as determined by the Time Priority Route Table (program address FF8 5#)

### Programming



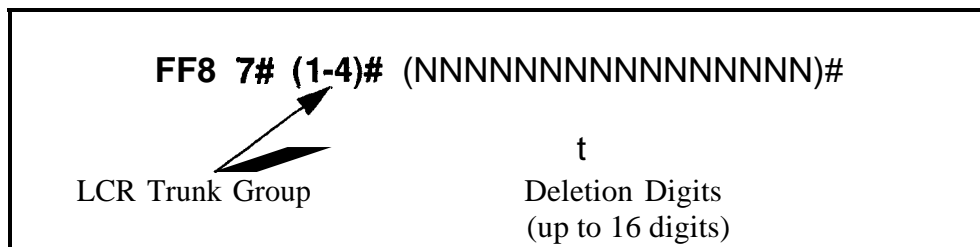
## LCR Delete Tables

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF8 7# (1-4)# (NNNNNNNNNNNNNNNNNNNN)#

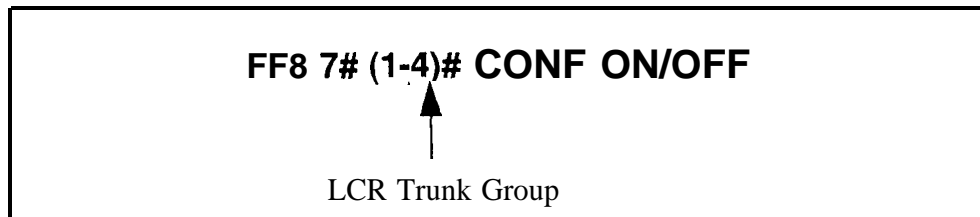
**Description** Use this program to assign deletion digits to a trunk group. When LCR uses the trunk group, it checks the beginning digits of the dialed number against the deletion digits. If the beginning digits match the deletion digits, they are automatically deleted from the dialed number. The deleted digits are never outpulsed.

### Programming

#### To create an LCR Delete Table



#### To clear an LCR Delete Table



### Notes

***Deletion First, Addition Next*** If digits are being added and deleted from the same trunk group, the DBS will delete digits **first**, then add digits

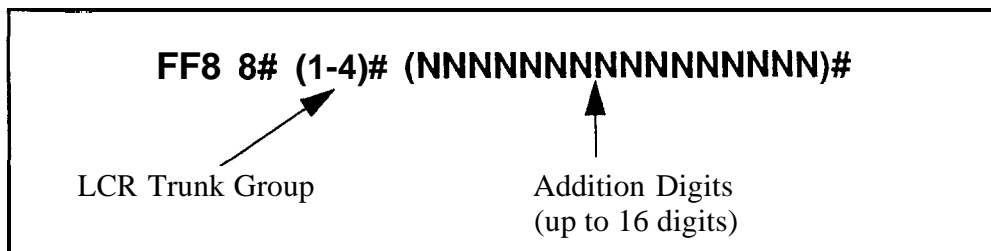
# LCR Add Tables

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
Address **FF8 8# (1-4)# (NNNNNNNNNNNNNNNNNNNN)#**

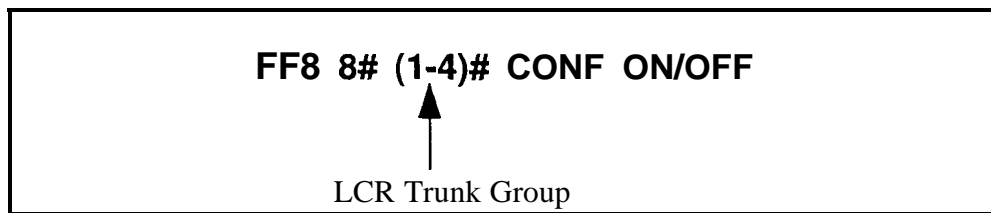
**Description** Digits to be added to dialed numbers, such as access codes, can be assigned to trunk groups. When LCR uses a trunk in the group, it automatically adds the digits to the beginning of the dialed number. After the digits are added, the numbers are outpulsed.

## Programming

To create an LCR Add Table



To clear an LCR Add Table



## Related Programming

Outbound DTMF Signal Duration for Auto-Dialed Digits FF2 (Trunk)#  
15# (1-3)#

**Notes** *Deletion First, Addition Next* If digits are being added and deleted from the same trunk group, the DBS will delete digits first, then add digits.

---

# 9. Copy Program Settings (FF9)

Use the FF9 program addresses in this chapter to copy settings among trunks extensions and FF keys

This chapter covers the following topics

<b>Topic</b>	<b>Page</b>
Trunk Copy	9-3
Extension Copy	I 9-4 I
FF Key Copy	9-5



## Trunk Copy

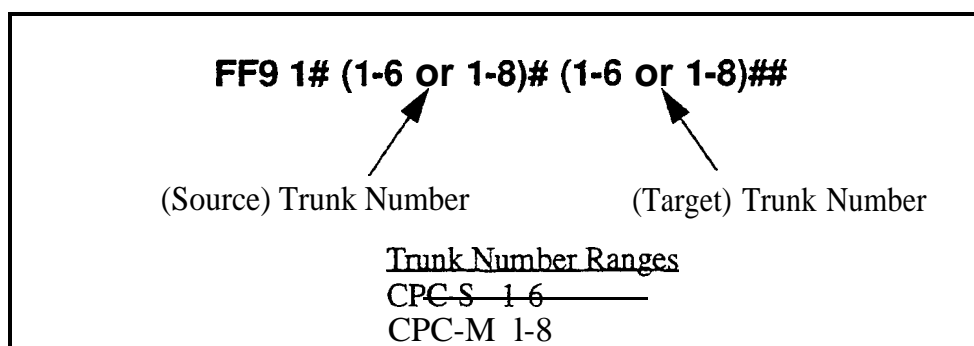
Software Version CPCS and CPC-M, Version 1 0 and higher

Address FF9 1# (SourceTrunk)# (TargetTrunk)##

**Description** Use this program to copy all the attributes of one trunk to another. Copying must be done on a trunk-by-trunk basis. The first trunk number in this address is the trunk being copied *from* (the source), and the second trunk number is the trunk being copied to (the target).

### Programming

**Note:** You must enter two pound-signs (##) at the end of this address



### Notes

**Restriction Regarding Private Trunks** This program copies all trunk attributes except the Private Trunk Line attribute.

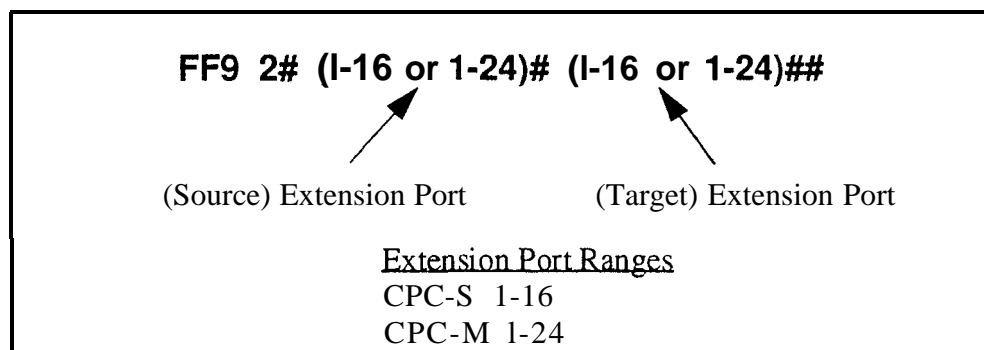
## Extension Copy

Software Version CPC-S and CPC-M, Version 1 0 and higher  
Address FF9 2# (SourceExtPort)# (TargetExtPort)##

**Description** Use this program to copy all the attributes of one extension to another. Copying must be done on an extension-by-extension basis. The first extension port number of this address is the extension being copied *from* (the source) the second extension port number is the extension being copied *to* (the *target*).

### Programming

Note: You must enter two pound-signs (##) at the end of this address



### Notes

**Copying Restrictions** This program copies all extension attributes except the extension number, telephone type, extension lockout code, and EM/24 port number (BLF port setting)

**Consideration for Call Forward ID Codes** Do not use this program to copy settings from an extension with a Call Forward ID Code. If the copied extension settings include a Call Forward ID Code, the copy “target” will be able to retrieve the messages of the copy “source.” For example, if you copy extension settings from station 200 to station 300, station 300 will be able to retrieve 200’s messages. Station 300 can retrieve 200’s messages because the Call Forward ID Code for 200 is also assigned to 300.



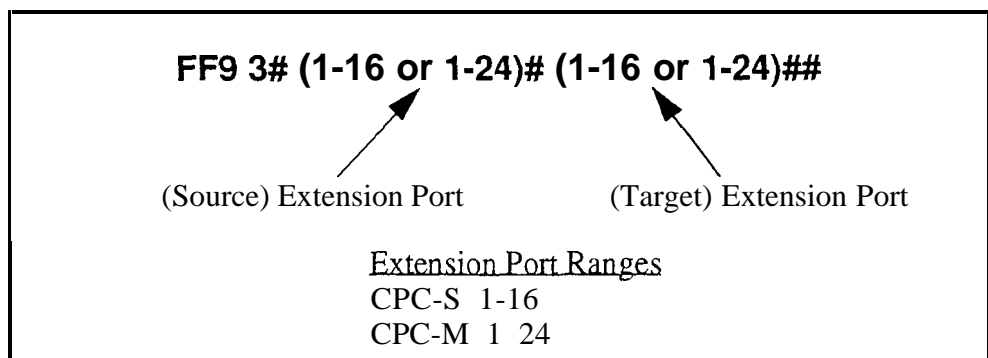
## FF Key Copy

Software Version **CPC-S and CPC-M, Version 1 0 and higher**  
 Address **FF9 3# (ExtPort)# (ExtPort)##**

**Description** Use this program to copy all the attributes of one extension's FF keys to another. Copying must be done on an extension-by-extension basis. The first extension port number of this address is the FF key source, and the second extension port number is the FF key target.

### Programming

Note: You must enter two pound-signs (##) at the end of this address.



### Notes

**Copying Restriction** This program only copies the settings of FF keys that are equipped with LEDs. Settings for FF keys without LEDs are not copied.

**Clearing FF Keys Before Using the Copy Program** Before you copy the FF keys to an extension that is set to the defaults, you must clear the key settings of the target phone. To clear key settings, use address **FF5 (ExtPort)# (Key)# CONF ON/OFF**.

**Setting Up FF Keys on Multiple Phones** To set up multiple extensions with new FF key settings, use the following steps:

- 1 Clear the keys of the source phone using **FF5 (ExtPort)# (Key)#**
- 2 Copy the cleared key settings to multiple target extensions using **FF9 3# (SourceExtPort)# (TargetExtPort)#**
- 3 Set up the FF keys on the source phone using **FF5 (ExtPort)# (Key)#**
- 4 Copy the new settings to multiple target extensions using **FF9 3# (SourceExtPort)# (TargetExtPort)#**

---

# 10. Speed Dial Programming (FF10)

Use the FF10 program addresses in this chapter to program speed dial numbers

This chapter covers the following topics

<b>Topic</b>	<b>Page</b>
System Speed Dial Numbers	10-3
Personal Speed Dial Numbers	10-5



# System Speed Dial Numbers

Software Version CPC-S and CPC-M, Version 1 0 and higher

Address FF10 1# (SSD)# (PhoneNumber)#

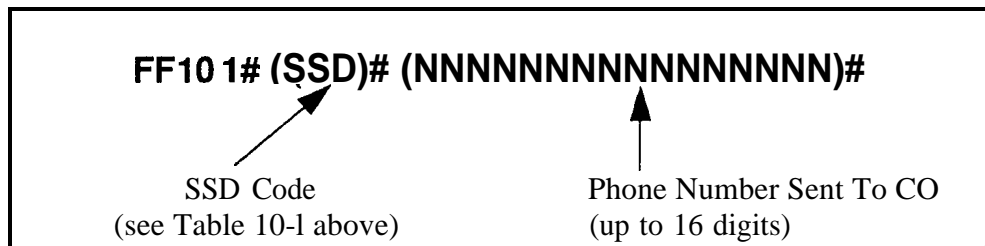
**Description** Use this program to set up System Speed Dial (SSD) codes and their related phone numbers. The range of available SSD codes depends on the CPC card installed in your DBS 824 system and on the speed-dial mode selected (using program address FF1 2# 1# 33#). In Standard mode, up to 90 SSD numbers can be programmed in Add-On mode, up to 200 SSD numbers

**Table 1 0-1 System Speed Dial ranges**

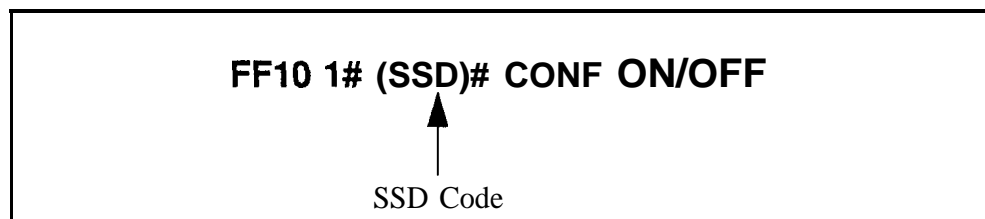
CPC Card	Standard Mode	Add-On Mode
C P C - s	00-89	(not available)
CPC-M	00-89	000- 199

## Programming

**To assign a System Speed Dial number**



**To clear a System Speed Dial number**



## Related Programming

Speed Dial Mode FF1 2# 1# 33#

Override Toll Restriction with SSD Numbers FF1 2# 1# 4# (SSD)#

SSD Display Restriction FF1 2# 1# 5#

SSD Name Display FF1 2# 1# 18# (0 or 1)#

System Speed Dial Names FF6 2# (SSD)#

**Notes**

**SSD Number Display** System Speed Dial numbers will appear on large-display telephones in alphabetical order

**Including Trunk Groups in an SSD Number** If a DSS console is available for programming, you can make a trunk group part of a system speed dial number To do this, insert a “C” as the first character of the speed dial number, followed by 1-4 to designate the trunk group number The “C” is required for an SLT to use SSD A “9” can also be used to access the pooled trunk capability

**DSS Key Functions** DSS keys can be used for several different tasks in speed dial programming The keys are described in the following table

**Table 10-2 DSS key functions in System Speed Dial programming**

DSS Key	Function
CONF	Clears entered data
<-	Backspaces
BS	Backspaces
->	Forward spaces
P	Inserts a pause
C	Initiates trunk group access

For example

“**C1P5551212**” will access pooled trunk group 81, then pause, and then dial 555-1212

# Personal Speed Dial Numbers

Software Version **CPCS and CPC-M, Version 1 0 and higher**  
 Address **FF10 2# (ExtPort)# (PSD)# (PhoneNumber)#**

**Description** Use this program to set up Personal Speed Dial (PSD) codes and their related phone numbers. The range of available PSD codes depends on the CPC card installed in your DBS 824 system, and on the speed-dial mode selected (using program address FF1 2# 1# 33#). In Standard mode, up to 10 PSD numbers can be programmed, in Add-On mode, up to 40 PSD numbers.

**Table 10-3 Personal Speed Dial ranges**

CPC Card	Standard Mode	Add-On Mode
CPC-s	90-99	(not available)
CPC-M	90-99	900-939

## Programming

To assign a Personal Speed Dial number

**FF10 2# (1-16 or 1-24)# (PSD)# (NNNNNNNNNNNNNNNNNN)#**

↑

Extension Port  
CPC-S 1-16  
CPC-M 1-24

↑

PSD Code  
(see Table 10-3 above)

↑

Phone Number  
Sent To CO  
(up to 16 digits)

To clear a Personal Speed Dial number

**FF10 2# (1-16 or 1-24)# (PSD)# CONF ON/OFF**

↑

Extension Port  
CPC-S 1-16  
CPC-M 1-24

↑

PSD Code  
(see Table 10-3 above)

## Related Programming

Speed Dial Mode FF1 2# 1# 33#

PSD Name Display FF3 (ExtPort)# 17# (0 or 1)#

Personal Speed Dial Names FF3 (ExtPort)# (PSD)# CONF (Name)#

**Notes**

**PSD Number Display** PSD numbers appear on large-display telephones in alphabetical order

**DSS Key Functions** DSS keys can be used for several different tasks in speed dial programming. The keys are described in the following table

**Table 10-4 DSS key functions in Personal Speed Dial programming**

<b>DSS Key</b>	<b>Function</b>
CON-F	Clears entered data
<-	I Backspaces
BS	Backspaces
->	Forward spaces
P	Inserts a pause
C	Initiates trunk group access

For example

“**C1P5551212**” will access pooled trunk group 8 1, then pause, and then dial 555-1212

# Appendix A. Large-Screen Displays

This appendix illustrates the menu screens that can be programmed to appear during different call states (e.g., when the phone is idle, during a trunk call, during an intercom call, etc.) on large-display phones. These screens act as labels for the soft keys surrounding the LCD. The soft keys provide one-touch initiation of a feature, or one-touch access to a directory, during the call state when the screen appears.

There are a total of 39 screens. Screens 1 thru 24 are fixed pre-programmed screens which cannot be changed. Screens 25 thru 39 can be custom-designed using program addresses FF1 2# 7# 1# thru 4#. All of these screens can be assigned to different call states using program address FF3 (ExtPort)# (26-33)# (0-39)#

Note: Some screens cannot be set to display during certain call processing operations.

<p><b>Main Menu</b> FF3 (ExtPort)# (26-33)# 1#</p> <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>PERSONAL DIAL</p> <p>SYSTEM DIAL</p> <p>EXTENSION</p> <p>FUNCTION</p> <p>HELP</p> </div>																
<p style="text-align: center;"><b>Personal Speed Dial</b> FF3 (ExtPort)# (26-33)# 2#</p> <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>PSD90</td><td>PSD95</td></tr> <tr><td>PSD91</td><td>PSD96</td></tr> <tr><td>PSD92</td><td>PSD97</td></tr> <tr><td>PSD93</td><td>PSD98</td></tr> <tr><td>PSD94</td><td>PSD99</td></tr> </table> </div>	PSD90	PSD95	PSD91	PSD96	PSD92	PSD97	PSD93	PSD98	PSD94	PSD99	<p style="text-align: center;"><b>System Speed Dial</b> FF3 (ExtPort)# (26-33)# 3#</p> <div style="text-align: center; border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>SSD DIRECTORY</td></tr> <tr><td>ABC MNO</td></tr> <tr><td>DEF PQRS</td></tr> <tr><td>GHI TUV</td></tr> <tr><td>JKL WXYZ</td></tr> </table> </div>	SSD DIRECTORY	ABC MNO	DEF PQRS	GHI TUV	JKL WXYZ
PSD90	PSD95															
PSD91	PSD96															
PSD92	PSD97															
PSD93	PSD98															
PSD94	PSD99															
SSD DIRECTORY																
ABC MNO																
DEF PQRS																
GHI TUV																
JKL WXYZ																



<p style="text-align: center;">Extension Index FF3 (ExtPort)# (26-33)# 4#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>EXT DIRECTORY</p> <p>ABC MNO</p> <p>DEF PQRS</p> <p>GHI TUV</p> <p>JKL WXYZ</p> </div>	<p style="text-align: center;">Help Menu 1 FF3 (ExtPort)# (26-33)# 5#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>Absence Message</p> <p>ACCT Code Entry</p> <p>Station Lockout</p> <p>Time Reminder</p> <p>FF-Key Setting</p> </div>
<p style="text-align: center;">Help Menu 2 FF3 (ExtPort)# (26-33)# 6#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>PSD Name/No. Set</p> <p>CFWD All_Call</p> <p>CFWD No_Answer</p> <p>CFWD On_Busy</p> <p>CFWD OUTSIDE</p> </div>	<p style="text-align: center;">Help Menu 3 FF3 (ExtPort)# (26-33)# 7#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>Programming Mode</p> <p>Park Holding</p> <p>Don't Disturb</p> <p>Save Dialing</p> <p>BGM Setting</p> </div>
<p style="text-align: center;">Attendant Menu 1 FF3 (ExtPort)# (26-33)# 8#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>** Att. Features **</p> <p>Timer Setting</p> <p>Timer Adjustment</p> <p>Attendant Cancel</p> <p>Day/Night Mode</p> </div>	<p style="text-align: center;">Attendant Menu 2 FF3 (ExtPort)# (26-33)# 9#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>SSD Name/No. Set</p> <p>EXT Name Setting</p> <p>MAINTE. Code Set</p> <p>Key Code Setting</p> <p>DISA Code Setting</p> </div>

<p style="text-align: center;">Attendant Menu 3 FF3 (ExtPort)# (26-33)# 10#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>Programming Mode</p> <p>Outgoing Amount</p> <p>Incoming Amount</p> <p>Use SSD Amount</p> </div>	<p style="text-align: center;">Function Screen 1 FF3 (ExtPort)# (26-33)# 11#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>BGM Off Mute</p> <p>DND Lockout</p> <p>Reminder</p> <p>Absence</p> <p>Call-FWD Cancel</p> </div>
<p style="text-align: center;">Function Screen 2 FF3 (ExtPort)# (26-33)# 12#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>Dial Tone OFF</p> <p>Headset</p> <p>Message Callback</p> <p>Message Cancel</p> <p>Confirmation</p> </div>	<p style="text-align: center;">Function Screen 3 FF3 (ExtPort)# (26-33)# 13#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>Page Answer</p> <p>Zone 1 Zone 5</p> <p>Zone 2 Zone 6</p> <p>Zone 3 Zone 7</p> <p>Zone 4 All Zone</p> </div>
<p style="text-align: center;">Function Screen 4 FF3 (ExtPort)# (26-33)# 14#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>Conference Mute</p> <p>Tone</p> <p>Set Message</p> <p>Transfer</p> <p>Release</p> </div>	<p style="text-align: center;">Function Screen 5 FF3 (ExtPort)# (26-33)# 15#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>Save Mute</p> <p>Repeat</p> <p>DTMF Conv.</p> <p>Release</p> <p>ACCT Code Entry</p> </div>

<p style="text-align: center;">Function Screen 6 FF3 (ExtPort)# (26-33)# 16#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <ul style="list-style-type: none"> <li>☐ Set Call Waiting ☐</li> <li>☐ Set Message ☐</li> <li>☐ Set Co_Queueing ☐</li> <li>☐ Busy Override ☐</li> <li>☐ Release ☐</li> </ul> </div>	<p style="text-align: center;">Function Screen 7 FF3 (ExtPort)# (26-33)# 17#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <ul style="list-style-type: none"> <li>☐ ACCT Code Entry ☐</li> <li>☐ LCR Call Direct ☐</li> <li>☐ TRK-G81 TRK-G84 ☐</li> <li>☐ TRK-G82 TRK-G85 ☐</li> <li>☐ TRK-G83 TRK-G86 ☐</li> </ul> </div>
<p style="text-align: center;">Function Screen 8 FF3 (ExtPort)# (26-33)# 18#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <ul style="list-style-type: none"> <li>☐ UNA Pick-Up ☐</li> <li>☐ Group Pick-Up ☐</li> <li>☐ Direct Pick-Up ☐</li> <li>☐ Page Pick-Up ☐</li> </ul> </div>	<p style="text-align: center;">Function Screen 9 FF3 (ExtPort)# (26-33)# 19#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <ul style="list-style-type: none"> <li>☐ MCO-Call MUTE ☐</li> <li>☐ LCR-Call PAGE ☐</li> <li>☐ PSD-DIR TONE ☐</li> <li>☐ SSD-DIR ☐</li> <li>☐ EXT-DIR ☐</li> </ul> </div>
<p style="text-align: center;">Function Screen 10 FF3 (ExtPort)# (26-33)# 20#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <ul style="list-style-type: none"> <li>☐ Message Mute ☐</li> <li>☐ Transfer DND ☐</li> <li>☐ Release Tone ☐</li> <li>☐ Conference Park ☐</li> </ul> </div>	<p style="text-align: center;">Function Screen 11 FF3 (ExtPort)# (26-33)# 21#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <ul style="list-style-type: none"> <li>☐ Repeat Release ☐</li> <li>☐ DTMF-Conv. Mute ☐</li> <li>☐ ACCT Code Entry ☐</li> <li>☐ SSD-DIR EXT-DIR ☐</li> <li>☐ PSD-DIR ☐</li> </ul> </div>

<p style="text-align: center;">Function Screen 12 FF3 (ExtPort)# (26-33)# 22#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Save</td> <td style="width: 50%;">Mute</td> </tr> <tr> <td>PSD-DIR</td> <td>Release</td> </tr> <tr> <td>SSD-DIR</td> <td>Transfer</td> </tr> <tr> <td>Conf.</td> <td>Reminder</td> </tr> <tr> <td>ACCT Code</td> <td>Entry</td> </tr> </table> </div>	Save	Mute	PSD-DIR	Release	SSD-DIR	Transfer	Conf.	Reminder	ACCT Code	Entry	<p style="text-align: center;">Function Screen 13 FF3 (ExtPort)# (26-33)# 23#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Page-Answer</td> <td style="width: 50%;">Mute</td> </tr> <tr> <td>Headset</td> <td>UNA</td> </tr> <tr> <td>Tone</td> <td>EXT-DIR</td> </tr> <tr> <td></td> <td>PSD-DIR</td> </tr> <tr> <td></td> <td>SSD-DIR</td> </tr> </table> </div>	Page-Answer	Mute	Headset	UNA	Tone	EXT-DIR		PSD-DIR		SSD-DIR
Save	Mute																				
PSD-DIR	Release																				
SSD-DIR	Transfer																				
Conf.	Reminder																				
ACCT Code	Entry																				
Page-Answer	Mute																				
Headset	UNA																				
Tone	EXT-DIR																				
	PSD-DIR																				
	SSD-DIR																				
<p style="text-align: center;">Function Screen 14 FF3 (ExtPort)# (26-33)# 24#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Talkback</td> <td style="width: 50%;">DND</td> </tr> <tr> <td>Release</td> <td>Park</td> </tr> <tr> <td>Conference</td> <td></td> </tr> <tr> <td>Transfer</td> <td></td> </tr> </table> </div>	Talkback	DND	Release	Park	Conference		Transfer		<p style="text-align: center;">Custom Screens 1 15 FF3 (ExtPort)# (26-33)# (25-39)#</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>08:14 Tue JAN 31 RICH SMITH 604</p> <p>(These screens are programmable; see program address FF1 2# 7# 1# for more information)</p> </div>												
Talkback	DND																				
Release	Park																				
Conference																					
Transfer																					

---

# Appendix B. Terminal Programming

The body of this Section 400 is devoted to programming the DBS 824 system through a key phone. However, the DBS 824 can also be programmed remotely via the Terminal Programming mode. Using this method, commands can be entered on a remote PC or terminal and sent to the system via modem or a local PC or terminal can be connected directly to the DBS 824's Maintenance port (CN2) on the Serial Interface Unit.

You can enter the Terminal Programming mode using any of the following three methods:

- *Direct Connection* Use a local PC or terminal and a communications package to connect directly to the DBS 824 serial port.
- *DISA* Dial into the system through a DISA trunk.
- *Operator Transfer* Dial into the system through a regular trunk, then have the operator enter the Remote Programming ID Code.

This appendix gives an overview of these programming methods.

## Terminal Programming Through a Direct Connection

To program the system through a PC or terminal connected to the DBS 824's CN2 serial port:

- 1 Make certain the cables are configured and connected as described in *Section 300-Installation*.
- 2 Make certain the DBS 824 is in the Maintenance mode. Dial the following codes from the attendant port:  
**ON/OFF #93**
- 3 Enter your terminal communications program and make sure your PC or terminal's data communications settings match those of the DBS 824.
- 4 From your terminal communications program (terminal emulation in a PC communications package), type the following command:  
**#99 xxxx** (where "xxxx" is the site's password, system default is "9999")
- 5 After the DBS 824 displays the "Remote Programming" banner screen on the computer, type P then press ENTER.
- 6 Follow the directions on the screen to access the desired program.

## Terminal Programming Through a CO or DISA Trunk

Note: To enter the Terminal Programming mode through a trunk, the DBS 824 must be equipped with an MFR card and an external modem

To program through a CO or DISA trunk

- 1 Dial into the DBS 824 through the trunk
- 2 Ask the operator to dial the following command (this will switch the system to the "Maintenance" mode)
 

**#99** xxxx (where "xxxx" is the site's password, system default is "9999")
- 3 Ask the operator to transfer you to the SLT extension number that is connected to the modem
- 4 After the DBS 824 displays the "Remote Programming" banner screen on the computer, type P then press ENTER
- 5 Follow the directions on the screen to access the desired program

## Terminal Programming Commands

Use the following commands to navigate terminal programming

**Table B-1 Terminal programming commands**

Command	Description
~01	Access System parameters
~02	Access Trunk parameters
~03	Access Extension parameters
~04	Access Ring assignments
-05	Access F'F key assignments
-06	Access Name assignments
-07	Access Toll Restriction data
-08	Access Least Cost Routing data
-09	Access Copy mode
-10	Access Speed Dial data
~B	Back to previous address
~b	Back to previous port
-F	Forward to next address
-f	Forward to next port
~R	Return to previous mode
Ctrl z	Quit

## Resuming SMDR or Bus Monitor Mode After Terminal Programming

The DBS 824's Serial Interface Unit (SIU) supports three remote functions

- Bus Monitor
- SMDR
- Terminal (Remote) Programming

However, only one of these functions can operate at a time. When not in Terminal (Remote) Programming, either SMDR or Bus Monitor is active. When you enter Terminal Programming (#99xxxx), the other function stops. When finished, the SMDR or Bus Monitor function resumes. The DBS 824 can be reset to the desired SMDR or Bus Monitor mode by entering (or having someone at the site enter) one of the following codes at an extension or attendant position.

**Table B-2 Codes for switching SMDR/Bus Monitor modes**

<b>Command</b>	<b>Function</b>
#90	Normal Bus Monitor on SIU Maintenance Port (CN2)
#91	Register Bus Monitor on SIU Maintenance Port (CN2)
#92	Poll Bus Monitor on SIU Maintenance Port (CN2)
#93	SMDR Output on SIU SMDR Port (CN1)

---

# Index

## A

Absence messages 6 7  
Add-On mode 1-38  
Alert tone for Busy Override/OHVA 1 21  
Alert tone for voice calls 1 20  
Any key **5-4**  
API/SLT assignment 1 24  
Assigning FF keys 5 3  
Assigning FF keys to DSS consoles 5-6  
Assigning names to absence messages 6-7  
Assigning names to PSD numbers 6-6  
Attendant call reversion timer 1-84  
Attendant hold recall timer for CO calls 1 78  
Attendant hold recall timer for intercom calls **1-100**  
Attendant intercom calling **1-18**  
Attendant override **1-31**  
Attendant park hold recall timer **1 82**  
Attendant transfer extension **1 30**  
Attendant transfer recall timer for CO calls 1-80  
Attendant transfer recall timer for intercom calls 1-102  
Auto flash redial **1-10**  
Auto pickup 3-15  
Auto set relocation code 3-45  
Automatic day mode start timer **1-109**  
Automatic DISA callers 1-70  
Automatic night 1 mode start timer 1-77  
Automatic night **2** mode start timer **1-116**  
Automatic pause for PBX line 2-10  
Automatic pause timer 1-88  
Auto-redial on extensions 3-54  
Auto-repeat dialing  
    Wait timer **1 111**  
Auto-repeat dialing count 1-39

## B

Background music **1-41**  
Baud rate 1-73  
Baud rate (SMDR) 1-46  
BLF delayed ring 1-32  
BT  
    CO busy tone detection 2 19  
    Detection timer **1-113**

**Bus** monitor mode 1-50  
Busy override receive 3-13

Busy override send 3-12  
Busy tone detection timer 1 113

## C

Call coverage group members 4-13  
Call duration display 1-5  
Call duration timer 1 37  
Call forwarding--permanent 3-47  
Call forward--no answer timer **1 99**  
Call waiting/OHVA notification tone **3-11**  
Call waiting/OHVA text reply **6-11**  
Caller ID Automatic DISA **1 70**  
Class of service assignment 3-39  
CN4 terminal block **1 56**  
CN6 phono-jack **1-41**  
CN8 phono-jack **1-41**  
CO busy tone detection 2-19  
CO day ring assignments 4-3  
CO day ring assignments for hunt groups 4-4  
CO delayed night 2 ring assignments 4-22  
CO delayed night 2 ring assignments for hunt groups 4-23  
CO delayed ring timer **1 104**  
CO flash timer 1-90  
CO night 1 ring assignments 4-5  
CO night 1 ring assignments for hunt groups **4-6**  
CO night 2 ring assignments 4-20  
CO night 2 ring assignments for hunt groups **4-21**  
CO ring cycle detection timer 1-93  
Conference circuit **1 43**  
CO-to-CO talk mode control 1-43  
Country code table 7 14  
CPC **Intro-4**  
Custom screens 1-63  
    Default (**all** screens) 1-69  
    Default (individual screens) 1-68  
    Feature codes assigned to 1-64  
    Soft key assignment 1-63  
    Text 1-67

## D

Data length (maintenance port) 1-75  
Data length (SMDR) **1 48**  
Day mode start timer **1-109**



- Day/date setting **1-3**
  - DBS** program structure **Intro 5**
  - Default program settings **Intro-S**
  - Delayed ring
    - extension (BLF) **1 32**
    - system setting **1 26**
  - Delayed ringing
    - CO delayed day ring assignments **4 14**
    - CO delayed day ring assignments for hunt groups **4 15**
    - CO delayed night 1 ring assignments 4-16
    - CO delayed night 1 ring assignments for hunt groups **4-17**
    - CO delayed ring timer **1-104**
    - CO night 2 ring assignments **4 22**
    - CO night 2 ring assignments for hunt groups 4-23
    - Extension delayed ring table 4-19
    - Extension delayed ring timer **1-106**
  - Dial pause timer 1-97
  - Dial tone detection **2-11**
  - Dial tone detection timer **1-115**
  - Dialing plan switch 7-11
  - Digital SLT receiving volume 3-44
  - Directory of extensions
    - Display 3-38
  - DISA auto answer 2 8
  - DISA end time 2-17
  - DISA inbound call **ID** code **1-118**
  - DISA outbound call **ID** code **1 1-119**
  - DTSA outbound call ID code 2 **1 120**
  - DISA start time 2-16
  - Disconnect signal
    - SLT 3 **51**
  - Display options
    - After receiving call waiting tone 3-34
    - During intercom dial tone 3-24
    - When accessing CO dial tone 3-28
    - When calling an extension 3-26
    - When dialing a busy extension 3 36
    - When on a CO trunk **3-30**
    - When phone is idle 3-22
    - When receiving a page 3-32
  - Door phones
    - Door opener access code **1 125**
    - Door opener relay timer **1-129**
    - Extensions 1-123
  - Ring assignments 1 124
  - Ring pattern **1-128**
  - Ring timer **1 127**
  - Tone type **1-126**
  - DSS key assignment 5 6
  - DSS/72 key usage for name assignment 6 3
  - DT
    - Detection timer **1 115**
  - DTMF/pulse dialing for trunks 2-4
- ## E
- EM/24 port assignment **3 6**
  - Entering programming **Intro-6**
  - EPI audio control 1-42
  - Equal access code format 7-15
  - Example programming entry **Intro-7**
  - Extension (BLF) delayed ring 1-32
  - Extension class of service assignment 3-39
  - Extension class of service setting **1 58**
  - Extension copy 9-4
  - Extension delayed ring timer **1-106**
  - Extension directory display 3-38
  - Extension hold recall timer for CO calls **1-79**
  - Extension hold recall timer for intercom calls **1-101**
  - Extension intercom calling **1-19**
  - Extension lockout code 3-9
  - Extension name assignments 6-3
  - Extension number digits **1 17**
  - Extension numbers
    - Assigning 3-3
  - Extension park hold recall timer **1-83**
  - Extension ring pattern 3 42
  - Extension ring table 4-18
  - Extension transfer recall timer for CO calls **1 81**
  - Extension transfer recall timer for intercom calls **1-103**
  - Extensions in page groups 3-21
  - External page interface control for paging groups 1-57
  - External pager device 1 42
  - External ringer device 1-42
- ## F
- Feature codes for **FF** key assignment 5-4
  - FF** key assignments

- feature codes for **5 4**
- FF key assignments for DSS or EM/24 Consoles **5-6**
- FF key assignments for extensions **5-3**
- FF key copy **9 5**
- Flash
  - auto flash redial **1-10**
  - PBX flash timer 1-98
  - SLT flash control **1-15**
  - SLT hookflash 3-41
  - SLT onhook flash timer 1 92
- FLASH key 1-90
- Flow control **1 49**
- Flow control (maintenance port) **1 76**
- Forced account codes **1-60, 3 8**
- Forced least cost routing 3 7
- Fourth attendant position 1 29

## H

- Hot dial pad 3 53
- Hunt group no answer timer **1 108**
- Hunt groups
  - Distributed 4-9
  - Longest idle 4-9
  - Members 4-12
  - name assignments 6-10
  - Pilot extension number 4-7
  - Terminal 4 9
  - Transfer extension number 4-10
  - Transfer timer 4-11
  - Type 4-9

## I

- ID code for system programming **1-121**
- Inbound ring cycle expansion timer 1-95
- Inbound ring pattern 2-14
- Install OPL port 1-40
- International calling on extensions 7 13

## L

- Large screen displays **A 1**
- LCR** access 1-7
- LCR table descriptions 8 4
- Least cost routing
  - add tables 8 16
  - area codes 8 7
  - call processing flow 8 5

- delete tables 8-15
- LCR table 8-5
- LCR trunk groups 8-3
- office codes 8 8
- overview 8-3
- special area codes 8-9
- special office codes **8-10**
- time priority route tables 8 3 8-11
- trunk group tables 8-13

## M

- Maintenance serial port flow control **1 76**
- Maintenance serial port parameters
  - Baud rate 1-73
  - Data length 1-75
  - Odd/even parity 1-72
  - Parity check 1 71
  - Stop bit length 1-74
- ML keys
  - Ringback tone 3-40
- ML/MCO separation 3-49
- Music-on-hold sound source 1-41

## N

- Name assignment
  - absence messages 6 7
  - call waiting/OHVA text 6 **11**
  - hunt group 6-10
  - PSD numbers 6 6
- trunks69**
- Name assignments
  - Extensions 6 3
- NANP dialing plan **7-11**
- New function reset **1-122**
- Night 1 mode
  - CO ring assignments 4-5
  - Ring assignments for hunt groups 4-6
- Night 1 mode start timer 1-77
- Night 2 mode
  - CO delayed night 2 ring assignments 4-22
  - CO delayed ring assignments for hunt groups 4-23
  - CO ring assignments 4-20
  - CO ring assignments for hunt groups 4 21
- Night 2 mode start timer **1-116**
- Non-appearing trunk hold **1-14**

## 0

Odd/even parity (maintenance port) 1-72  
Odd/even parity (SMDR) **1-45**  
Offhook signal (CO) 3-10  
Offhook signal pattern 3-19  
Offhook signal volume 3-18  
OHVA text reply 6-11  
One touch dial **1-11**  
Onhook transfer **1 12**  
Operator access 7-12  
OPL port 1-40  
Outbound DTMF signal duration 2-12  
Override toll restriction with SSD numbers **1 8**

## P

Page duration 1-34  
Page group extensions 3 21  
Paging groups  
    external page interface control **1 57**  
Parity check (maintenance port) **1-71**  
Parity check (SMDR) 1-44  
PBX flash timer 1-98  
PBX settings  
    access codes 1-53  
    automatic pause position for PBX access codes 1-54  
Permanent call forward extension 3-48  
Permanent call forward type 3-47  
Personal speed dial name display 3 20  
Personal speed dial numbers **10-5**  
Personal speed dial ranges **10-5**  
Pilot numbers for hunt groups 4-7  
Pooled trunk access  
    Group 9 2-5  
    Groups 81-86 2-6  
Port assignments for VAUs 3-52  
Preparations for Programming **Intro-3**  
Prime line pickup 3-14  
Private line 2-9  
Program structure **Intro-5**  
Programming authorization code **1 121**  
Programming preparations **Intro-3**  
PSD numbers 1-38  
    display **10-6**  
    DSS key functions in **10-6**

## R

RAMCLR switch **Intro-4**  
Recall timer for attendant park hold calls **1 82**  
Recall timer for attendant-held CO calls 1 78  
Recall timer for attendant-held intercom calls **1-100**  
Recall timer for attendant-transferred CO calls **1-80**  
Recall timer for attendant-transferred intercom calls 1-102  
Recall timer for extension park hold calls 1-83  
Recall timer for extension-held CO calls 1-79  
Recall timer for extension-held intercom calls **1-101**  
Recall timer for extension-transferred CO calls **1-81**  
Recall timer for extension-transferred intercom calls 1 103  
Receiving volume  
    digital SLT 3-44  
REDIAL key **1 90**  
Relay terminals  
    UNA 1-56  
Relocation code 3-45  
Remote programming **B-1**  
Remote programming ID code **1-117**  
Ring pattern  
    for extensions 3-42  
Ring patterns for UNA terminals 1-56  
Ringback tone from ML keys 3-40  
Ringing line pickup 3-15

## S

Second attendant position 1-27  
SLT DISA ring pattern 1-35  
SLT Disconnect Duration 1-36  
SLT disconnect signal 3-51  
SLT flash control **1-15**  
SLT hookflash 3 41  
SLT onhook flash timer 1-92  
SMDR mode 1-50  
SMDR printing mode 1 (outbound/inbound calls) 1-50  
SMDR printing mode 2 (local/long-distance) **1-51**  
SMDR printing mode 3 (header title) 1-52  
SMDR report 3-17

SMDR serial port flow control 1 49  
 SMDR serial port parameters  
   baud rate 1-46  
   data length 1-48  
   odd/even parity 1-45  
   parity check **1-44**  
   stop bit length 1-47  
 SMDR start timer for CO calls **1 6**  
 SMDR/Bus Monitor mode  
   resuming after terminal programming B-3  
 Speed dial mode 1-38  
 SSD display restriction 1-9  
 SSD name display 1-23  
 SSD numbers **1 38**  
   DSS key functions in **10-4**  
   including trunk groups in **10-4**  
 Standard mode 1-38  
 Stop bit length (maintenance port) 1 74  
 Stop bit length (SMDR) 1-47  
 System speed dial names 6-5  
 System speed dial numbers **10-3**  
 System speed dial ranges **10-3**

## T

Terminal programming **B-1**  
 Terminal programming commands B-2  
 Terminal type 3 5  
 Text assignment for absence messages 6-7  
 Text assignment for call waiting/OHVA text  
   reply 6-11  
 Text assignment for hunt groups 6-10  
 Text assignment for PSD numbers 6-6  
 Third attendant position 1-28  
 Three-digit numbering **1 17**  
 Time priority route table 8-4  
 Time setting **1-4**  
 Timers  
   Attendant call reversion timer 1-84  
   Automatic pause timer **1-88**  
   Busy tone detection timer **1-113**  
   call duration 1-37  
   Call forward--no answer timer 1-99  
   CO delayed ring timer 1-104  
   CO flash timer 1-90  
   CO ring cycle detection timer 1-93  
   Day mode start timer **1-109**  
   Dial pause timer **1 97**

Dial tone detection timer **1-115**  
 Extension delayed ring timer 1 106  
 Hunt group no answer timer **1 108**  
 Hunt group transfer timer 4-11  
 Inbound ring cycle expansion timer 1-95  
 Night 1 mode start timer **1 77**  
 Night 2 mode start timer **1 116**  
 PBX flash timer 1-98  
 Recall timer for attendant park hold calls 1-  
   82  
 Recall timer for attendant-held CO calls 1  
   78  
 Recall timer for attendant-held intercom  
   calls **1-100**  
 Recall timer for attendant-transferred CO  
   calls **1-80**  
 Recall timer for attendant-transferred inter-  
   com calls **1 102**  
 Recall timer for extension park hold calls **1**  
   83  
 Recall timer for extension-held CO calls **1**  
   79  
 Recall timer for extension-held intercom  
   calls **1 101**  
 Recall timer for extension-transferred CO  
   calls **1-81**  
 Recall timer for extension-transferred inter-  
   com calls **1-103**  
 SLT onhook flash timer 1-92  
 Trunk disconnect detection timer 2-15  
 Unsupervised conference timer 1-86  
 Wait timer for auto-repeat dialing **1 111**  
 Toll restrictions  
   3-digit restrictions for TRS 2-6 7 9  
   7-digit toll restriction for type 2-6 7-10  
   area & office code TRS 3-6 (global copy) 7  
     **26**  
   area code table for TRS 3-6 (global copy) 7-  
     **24**  
   area code table for TRS types 3-6 7 17  
   day TRS O-7 for individual trunks 7-22  
   dialing restriction during inbound calls w/  
     TRS 3-6 7-7  
   international calls for TRS 3-6 7-5  
   maximum dialed digits for TRS 3-6 7-8  
   night CO TRS O-7 for individual trunks 7-  
     **23**

office code restriction table for TRS 2-6 **7**

**16**

office code table for TRS 3-6 **7-18**

office code table for TRS 3-6 (global copy)

**7-25**

overview 7 3

special 7-digit table for TRS 2-6 **7 21**

special area code table for TRS 3-6 7 19

special office code table for TRS 3-6 7 20

special office code table for TRS 3-6 (global copy) 7 27

Transfer extension number 4-10

Transfer ring pattern 1-33

TRS for verified forced account codes 1 62

Trunk circuit type 2-18

Trunk copy 9-3

Trunk disconnect detection timer 2 15

Trunk name assignment 6-9

Trunk port operation 2 3

Trunk port type 2 7

Two-digit numbering 1-17

## **U**

UNA terminals

ring patterns 1-56

Unsupervised conference 3-16

Unsupervised conference timer 1 86

Unsupervised trunk conference 2 13

## **V**

VAU hunting priority 3 50

VAU port assignment 3 52

Verified forced account codes 1 60

Voice mail busy tone 1-25

Volume

receiving, digital SLT 3-44

## **W**

Wait timer for auto-repeat dialing **1-111**

## **X**

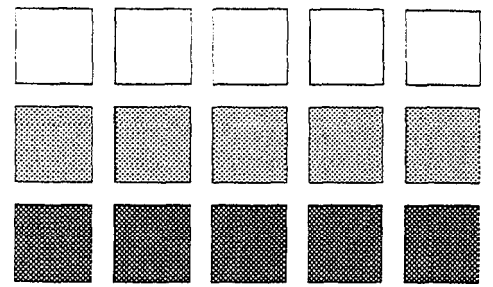
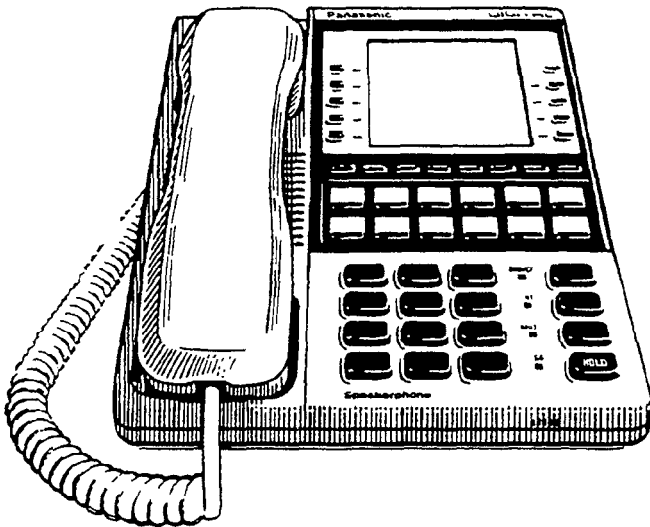
X ON/X OFF 149

X ON/X OFF (maintenance port) 1-76

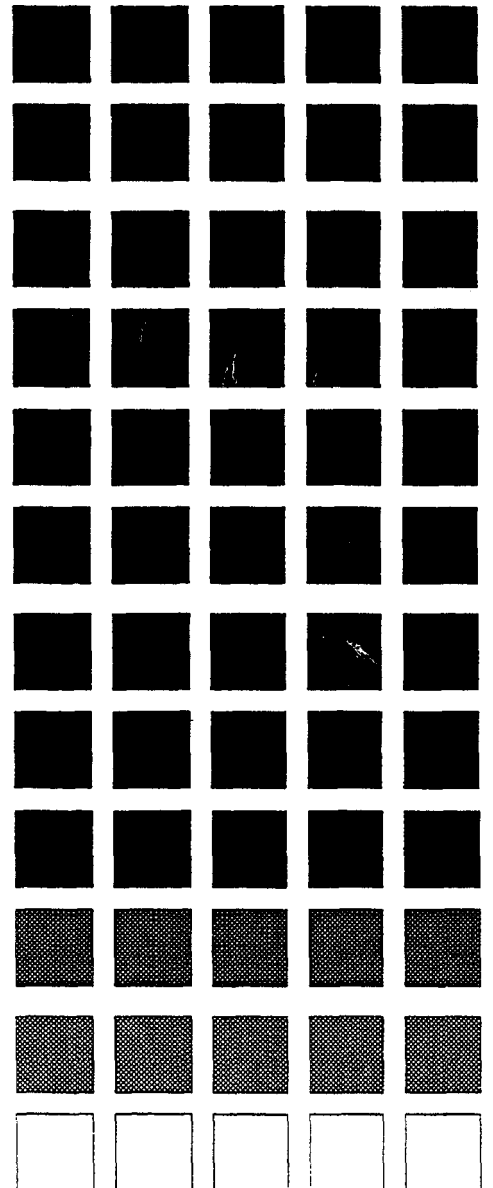
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## DBS 824



### Section 450 Programming Forms and Tables



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# Table of Contents

<b>Introduction</b> .....	1
<b>Section 1 - System Settings (FF1)</b> .....	<b>2</b>
Table 1 - System Parameters (Part I)	2
Table 2 - Extension Class Of Service	5
Table 3 - Verified Forced Account Codes	6
Table 4 - Custom Large LCD Screen Assignments	7
Table 5 - System Parameters (Timers/Access Codes)	8
Table 6 - Caller ID Automatic DISA	8
Table 7 - Door Phones	10
<b>Section 2 - Trunk Settings (FF2)</b> .....	<b>11</b>
Table 8 - Trunk Programming	11
<b>Section 3 - Extension Settings (FF 3)</b> .....	<b>13</b>
Table 9 - Extension Programming Features	13
<b>Section 4 - Ringing and Hunt Groups (FF4)</b> .....	<b>17</b>
Table 10 - Trunk to Extension Ring Assignments	17
Table 11 - Trunk to Hunt Group Ring Assignments	18
Table 12 - Hunt Group Assignments	19
Table 13 - Call Coverage Group Member	20
Table 14 - Extension Ring (BLF) Table	21
<b>Section 5 - FF Key Programming (FF5)</b> .....	<b>22</b>
Table 15 - FF Key Assignment for Extension Ports	22
Table 16 - DSS Key Telephone Assignments	23
Table 17 - EM/24 Key Assignments	25
<b>Section 6 - Name and Message Assignments (FF6)</b> ..	<b>27</b>
Table 18 - Extension Names	27
Table 19 - System Speed Dials	28
Table 20 - Personal Speed Dials	29
Table 2 1 - Absence Messages	30



Table 22 - Trunk Name Assignments	30
Table 23 - Hunt Group Name Assignment	30
Table 24 - Call Waiting/OHVA Text Reply	30

## **Section 7 - Toll Restriction Settings (FF7) .....31**

Table 25 - TRS Settings	31
Table 26 - TRS Restrictions for Extension Ports	32
Table 27 - TRS Country Codes Allowed	33
Table 28 - TRS Office Code Restrictions for Types 2-6	33
Table 29 - 7 Digit Toll Restriction for TRS Types 2-6	34
Table 30 - Special 7-Digit Table for TRS Types 2-6	34
Table 31 - Day/Night TRS Types for Trunk	35
Table 32 - Special Area Code Table for TRS Types 3-6	36
Table 33 - TRS Area Code/Office Code Table (000-249)	37
Table 34 - TRS Area Code/Office Code Table (250-499)	38
Table 35 - TRS Area Code/Office Code Table (500-749)	39
Table 36 - TRS Area Code/Office Code Table (750-999)	40

## **Section 8 - Least Cost Routing (FF 8) .....41**

Table 37 - LCR Trunk Group Assignments	41
Table 38 - Time Priority Route Table	42
Table 39 - LCR Area Code/Office Code Table (000-249)	43
Table 40 - LCR Area Code/Office Code Table (250-499)	44
Table 41 - LCR Area Code/Office Code Table (500-749)	45
Table 42 - LCR Area Code/Office Code Table (750-999)	46
Table 43 - Special LCR Area Code Table	47
Table 44 - Special LCR Office Code Table)	47

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## Introduction

This document contains the DBS 824 Programming Forms and Tables. These tables are useful in planning and configuring a DBS 824 Installation.

These tables are organized as follows:

- Section 1 - System Settings (FF1)
- Section 2 - Trunk Settings (FF2)
- Section 3 - Extension Settings (FF 3)
- Section 4 - Ringing and Hunt Groups (FF4)
- Section 5 - FF Key Programming (FF5)
- Section 6 - Name and Message Assignments (FF6 and FF10)
- Section 7 - Toll Restriction Settings (FF7)
- Section 8 - Least Cost Routing (FF 8)

The programming forms and tables are in the same general order as the programming telephone programming structure. *However some tables are combined to group related information.* For instance, the Speed Dial names (FF6 3#) and Speed Dial numbers (FF10 2#) are recorded on the same tables (see Tables 19 and 20). *Also, some items in the tables may be moved to group related information.* For instance, the System Settings for the Attendant Timers are grouped together not in programming order.

For ease of reference, a limited number of programming items are referenced in more than one place. Be sure to write the same value in each place. For instance, the Hunt Group No Answer Timer setting appears with system parameters and also in the Hunt Group Assignment Table.

When space permits, the related programming address is listed with the item. In some cases, the programming address is listed above or below the table.

Some tables show the possible settings including the default settings. The defaults are indicated in bold type. In some cases, the possible settings are too extensive to list in the tables. This is especially true for the system timing parameters. Most of the parameters with unlisted settings do not need to be changed from the default. If a change is required, refer to the DBS 824 Section 400,

In many cases, the actual programming telephone entry is a 0 or 1 with the meaning determined by the item. These are usually listed in parentheses to the right of the possible settings in the tables.

**Do not write on the originals! Instead make copies.** Several tables are used repeatedly and may need to be copied multiple times.

## Section 1 - System Settings (FF1)

**Table 1: System Parameters (Part I)**

PARAMETER	POSSIBLE ENTRY	ADDRESS	SETTING
<b>General System Settings (FF1 2# 1#)</b>			
Call Duration Display	Not Displayed (0) <b>Display (1)</b>	FF1 2# 1# 1#	
<b>SMDR</b> Start Timer for CO Calls	5 <b>sec</b> (0) 16sec (1) or 30 <b>sec</b> (2)	FF1 2# 1# 2#	
Least Cost Routing (LCR) Access	<b>Pooled-trunk call (0)</b> , LCR call (1)	FF1 2# 1# 3#	
Override 101 Restriction with SSD Numbers	0 0 <b>89 or 000 thru 199</b>	FF1 2# 1# 4#	
SSD Display Restriction	<b>SSD (50-89 or 160 199) dialed digits displayed (0)</b> SSD ( <b>80 89 or 166-199</b> ) dialed digits not displayed (1)	FF1 2# 1# 5#	
Auto Flash Redial	Redial does not send flash (0) <b>Redial sends flash (1)</b>	FF1 2# 1# 6#	
One Touch Dial	Disabled (0) <b>Enabled (1)</b>	FF1 2# 1# 7#	
<b>Onhook Transfer</b>	Disabled (0) <b>Enabled (1)</b>	FF1 2# 1# 8#	
Key Bank Hold	<b>Disabled (0)</b> , Enabled (1)	FF1 2# 1# 9#	
Non Appearing Trunk Hold	Exclusive hold (0) <b>System hold (1)</b>	FF1 2# 1# 10#	
SLT Flash Control	2nd SLT hookflash results in intercom dial tone (0) <b>2nd SLT hookflash results in held call (1)</b>	FF1 2# 1# 11#	
Extension Number Digits	2 digit numbers (0) <b>3-digit numbers (1)</b>	FF1 2# 1# 12#	
Attendant Intercom Calling	Ring tone calling (0) <b>Voice Calling (1)</b>	FF1 2# 1# 13#	
<b>Extension</b> Intercom Calling	Tone Calling (0) <b>Voice Calling (1)</b>	FF1 2# 1# 14#	
<b>Alert</b> Tone for Voice Calls	Disabled (0) <b>Enabled (1)</b>	FF1 2# 1# 15#	
<b>Alert Tone</b> Busy Override and OHVA	<b>Disabled (0)</b> Enabled (1)	FF1 2# 1# 16	
<b>System</b> Installation Area Code	1 not required before long distance call (0) <b>1 required before long-distance call (1)</b>	FF1 2# 1# 17#	
<b>SSD</b> Name Display	<b>Display 5 SSD names (0)</b> Display 10 SSD Names (1)	FF1 2# 1# 18#	
<b>API/SLT Assignment</b> (CPC-M Only)	Future Use	FF1 2# 1# 19#	
Voice Mail Busy Tone	<b>Silence (0)</b> , Busy Tone (1)	FF1 2# 1# 20#	
Delayed Ring	<b>Disabled (0)</b> Enabled (1)	FF1 2# 1# 21#	
Second Attendant Position	Extension Number ( <b>101</b> )	FF1 2# 1# 22#	
Third Attendant Position	Extension Number ( <b>***No entry</b> )	FF1 2# 1# 23#	
Fourth Attendant Position	&tension Number ( <b>***No entry</b> )	FF1 2# 1# 24#	
Attendant Transfer Extension	Extension Number ( <b>* * No entry</b> )	FF1 2# 1# 25#	
Attendant Override	Disabled (0) <b>Enabled (1)</b>	FF1 2# 1# 26#	
Extension ( <b>BLF</b> ) Delayed Ring	<b>Off (0)</b> On (1)	FF1 2# 1# 27#	
Transfer Ring Pattern	See Section 400 ( 25 <b>on/ 25 off/ 25 on/3 5 off 0)</b>	FF1 2# 1# 28#	
Page Duration	<b>Page Circuit Remains Open (0)</b> Open 60 <b>sec (1)</b>	FF1 2# 1# 29#	

**Table 1: System Parameters (Part I)**

PARAMETER	POSSIBLE ENTRY	ADDRESS	SETTING
SLT DISA Ring Pattern	1 second <b>on/3 0</b> seconds <b>off</b> (0) Same as CO Transfer <b>ring</b> pattern (1)	FF12#1#30#	
SLT Disconnect Duration	See Section 400 (No signal <b>sent</b> = 0)	FF12#1#31#	
Call Duration Timer	5ses (0) 16 <b>sec</b> (1) 30sec (2)	FF12#1#32#	
Speed Dial Mode (CPC M Only)	Standard Mode (0) Add On Mode (1)	FF12#1#33#	
Auto Repeat Dialing Count	0 15 (number of redials)	FF12#1#34#	
install OPL Port	0 1 <b>or 2 OPL Ports</b>	FF12#1#35#	
Music-On Hold Sound Source (CPC M Only)	Combined with <b>BGMCN6</b> (0) Internal Source (1) Separate <b>CN8</b> (2)	FF12#1#36#	
EPI Audio Control (CPC-S Only)	Use <b>EPA conn output for</b> External Page (0) Use <b>EPA conn output for UNA Ringing Tone</b> (1)	FF12#1#37#	
CD-to <b>CO</b> Talk Mode Control	Conned directly (0) use conference circuit (1)	FF12#1#38#	
<b>CO</b> Ring Control	Use CO ring pattern (0) Use DBS ring pattern (1)	FF12#1#39#	
Door <b>Opener Access</b> Code Required	Access Code <b>not</b> required (0) Access Code required (1)	FF12#1#40#	
<b>SMDR Data (Serial Port CN1) (FF1 2# 2#)</b>			
Parity Check (SMDR)	<b>Off</b> (0) <b>On</b> (1)	A1 2#2#1#	
Odd/Even Parity (SMDR)	Odd (0) Even (1)	FF12#2#2#	
Baud Rate (SMDR)	300 (1) 1200 (2) 2400 (3) 9600 (4)	FF12#2#3#	
Stop <b>Bit</b> Length (SMDR)	1 bit (1) 1 5 bit (2) 2 bits (3)	FF12#2#4#	
Data Length (SMDR)	7 bits (3) 8 bits (4)	FF12#2#5#	
<b>SMDR</b> Serial Port Flow Control (XON/XOFF)	<b>on</b> (0) <b>On</b> (1)	FF12#2#6#	
SMDR Printing Mode 1 Outbound and Inbound	Outbound Only (0) Inbound and Outbound (1)	FF12#2#7#	
SMDR Printing Mode 2 Long Distance and Local Calls	Long Distance Only (0) local and Long Distance (1)	FF12#2#8#	
<b>SMDR</b> Printing Mode 3 Header Title	<b>Off</b> (0) <b>On</b> (1)	FF12#2#9#	
<b>Maintenance Data (Serial Port CN2) (FF1 2# 9#)</b>			
Parity Check (Maint)	<b>on</b> (0) <b>On</b> (1)	FF12#9#1#	
Odd/Even Parity (Maint)	Odd (0) Even (1)	FF12#9#2#	
<b>Baud</b> Rate (Maint)	300 (1) 1200 (2) 2400 (3), 9600 (4)	FF12#9#3#	
Stop <b>Bit</b> Length (Maint.)	1 bit (1) 1 5 bit (2), 2 bits (3)	FF12#9#4#	
Data Length (Maint)	7 bits (3) 8 bits (4)	FF12#9#5#	
<b>Maint</b> Serial Port Flow Control (XON/XOFF)	<b>Off</b> (0) <b>On</b> (1)	FF12#9#6#	
<b>PBX Settings (FF1 2# 3#)</b>			
<b>PBX</b> Access Code 1	Access Code (up to 3 digits) (***) No Entry)	FF12#3#1#	
PBX Access Code 2	<b>Access</b> Code (up to 3 digits) (***) No Entry)	FF12#3#2#	

**Table 1: System Parameters (Part I)**

PARAMETER	POSSIBLE ENTRY	ADDRESS	SETTING
PBX Access Code 3	Access Code (up to 3 digits)	FF1 2# 3# 3#	
PBX Access Code 4	Access Code (up to 3 digits)	FF1 2# 3# 4#	
PBX Access Code 5	Access Code (up to 3 digits)	FF1 2# 3# 5#	
PBX Access Code 6	Access Code (up to 3 digits)	FF1 2# 3# 6#	
PBX Access Code 7	Access Code (up to 3 digits)	FF1 2# 3# 7#	
PBX Access Code 8	Access Code (up to 3 digits)	FF12# 3# 8#	
Automatic Pause Position for PBX Access Codes beginning with 1	Pause after 1st digit (1) pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 9#	
Automatic Pause Position for PBX Access Codes beginning with 2	Pause after 1st digit (1), pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 10#	
Automatic Pause Position for PBX Access Codes beginning with 3	Pause after 1st digit (1), pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 11#	
Automatic Pause Position for PBX Access Codes beginning with 4	Pause after 1st digit (1), pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 12#	
Automatic Pause Position for PBX Access Codes beginning with 5	Pause after 1st digit (1) pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 13#	
Automatic Pause Position for PBX Access Codes beginning with 6	Pause after 1st digit (1) pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 14#	
Automatic Pause Position for PBX Access Codes beginning with 7	Pause after 1st digit (1) pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 15#	
Automatic Pause Position for PBX Access Codes beginning with 8	Pause after 1st digit (1) pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 16#	
Automatic Pause Position for PBX Access Codes beginning with 9	Pause after 1st digit (1) pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 17#	
Automatic Pause Position for PBX Access Codes beginning with 0	Pause after 1st digit (1) pause after 2nd digit (2) pause after 3rd digit (3)	FF1 2# 3# 18#	
Ring Patterns for <b>UNA Terminals (M I C1 &amp; B1)</b>	<b>Intermittent</b> , 1 sec on, 3 sec off (0) Continuous (1)	FF1 2# 4# 1#	
External Page Interface Control for Paging Group 0	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	FF1 2# 4# 2#	
External Page interface Control for Paging Group 1	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	FF1 2# 4# 3#	
External Page interface Control for Paging Group 2	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	FF1 2# 4# 4#	
External Page Interface Control for Paging Group 3	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	FF12# 4# 5#	
External Page interface Control for Paging Group 4	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	AI 2# 4# 6#	
External Page interface Control for Paging Group 5	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	FF1 2# 4# 7#	
External Page Interface Control for Paging Group 6	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	FF1 2# 4# 8#	
External Page Interface Control for Paging Group 7	<b>No External Page and Relay Operation</b> (0) External Page and Relay Operation (1)	FF1 2# 4# 9#	

Note: Make certain that features are not in use before disabling. Some features that are disabled from the Class of Service while in use cannot be cancelled (for example if BGM is removed from COS while in use BGM cannot be turned off)

**Table 2: Extension Class Of Service**

Extension Feature (Default is Disabled 0)	Class of Service # (FF1 2# 5# (1 8)#)							
	1	2	3	4	5	6	7	8
Dial Tone On/Off (#50) FF1 2# 5# (COS)# 1# (0/1)#								
Head/Handset Exchange (#51) FF1 2# 5# (COS)# 2# (0/1)#								
BGM On/Off (#53) FF1 2# 5# (COS)# 3# (0/1)#								
Absence Message Set/Reset (71) FF1 2# 5# (COS)# 4# (0/1)#								
Call Forward Set/Reset (72) FF1 2# 5# (COS)# 5# (0/1)#								
Do Not Disturb (73) FF1 2# 5# (COS) 6# (0/1)#								
Station Lockout (74) FF1 2# 5# (COS)# 7# (0/1)#								
Park Hold (75) FF1 2# 5# (COS)# 8# (0/1)#								
Park Pickup (76) FF1 2# 5# (COS)# 9# (0/1)#								
Meet Me Answer (77) FF1 2# 5# (COS)# 10# (0/1)#								
UNA Pickup (78) FF1 2# 5# (COS)# 11# (0/1)#								
Direct Pickup (79) FF1 2# 5# (COS)# 12# (0/1)#								
Group Pickup (70) FF1 2# 5# (COS)# 13# (0/1)#								
Tone/Voice Mode (1) FF1 2# 5# (COS) 14# (0/1)#								
Message Waiting Set (2) FF1 2# 5# (COS)# 15# (0/1)#								
Busy Override (4) FF1 2# 5# (COS)# 16# (0/1)#								
Call Waiting (3) FF1 2# 5# (COS)# 17# (0/1)#								
Offhook Voice Announce (5) FF1 2# 5# (COS)# 18# (0/1)#								
Central Off ice Call Queuing (2) AI 2# 5# (COS)# 19# (0/1)#								
SLT Transfer (8) FF1 2# 5# (COS)# 20# (0/1)#								
Call Forwarding-- External FF1 2# 5# (COS)# 21# (0/1)#								

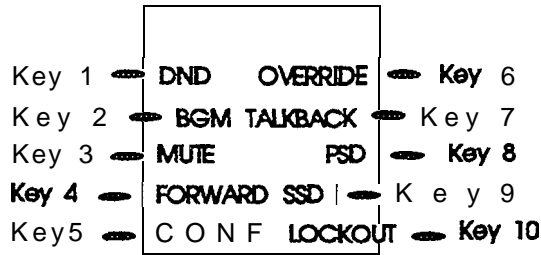
**Table 3: Verified Forced Account Codes**

Entry	4 Digit Account Code* (1111 9999)	TRS Type (0-7)"	Entry	4-Digit Account Code* (1111 9999)	TRS Type (0-7)**	Entry	4-Digit Account Code* (1111 9999)	TRS Type (0-7)**	Entry	4 Digit Account Code' (1171 9999)	TRS Type (0-7)**
1			26			51			76		
2			27			52			77		
3			28			53			7 8 )		
4			29			54			79		
5			30			55			80		
6			31			56			81		
7			32			57			82		
8			33			58			83		
9			34			59			84		
10			35			60			85		
11			36			61			86		
12			37			62			87		
13			38			63			88		
14			39			64			89		
15			40			65			90		
16			41			66			91		
17			42			67			92		
18			43			68			93		
19			44			69			94		
20			45			70			95		
21			46			71			96		
22			47			72			97		
23			48			73			98		
24			49			74			99		
25			50			75			100		

\*Verified Forced Account Code -- FF1 2# 6# (Entry 1-100)# 1# (0001-9999)#

\*\*TRS Type for Verified Forced Account Code -- FF1 2# 6# (Entry 1-100)# 2# (0-7)# Note that TRS types 0 and 1 do not allow outgoing calls

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**Table 4: Custom Large LCD Screen Assignments**

Screen Number _____					
Soft Key #	Feature Code FF1 2# 7# 1# (25 39)# (Soft Key)# (Code)#	Text FF12# 7# 2# (25 39)# (Soft Key)# (Text)#	Soft Key #	Feature Code FF1 2# 7# 1# (25 39)# (Soft Key)# (Code)#	Text FF1 2# 7# 2# (25 39)# (Soft Key)# (Text)#
1			6		
2			7		
3			8		
4			9		
5			10		

Screen Number _____					
Soft Key #	Feature Code FF1 2# 7# 1# (25 39)# (Soft Key)# (Code)#	Text FF12# 7# 2# (25 39)# (Soft Key)# (Text)#	Soft Key #	Feature Code FF1 2# 7# 1# (25 39)# (Soft Key)# (Code)#	Text FF12# 7# 2# (25 39)# (Soft Key)# (Text)#
1			6		
2			7		
3			8		
4			9		
5			10		



**Table 5: Caller ID Automatic DISA  
(CPC-M only)**

Phone Number Assignment	Phone Number (Max 10 Digits)
1 FF1 2# 8# 1# (Phone No )#	
2 FF1 2# 8# 2# (Phone No )#	
3 FF1 2# 8# 3# (Phone No )#	
4 FF1 2# 8# 4# (Phone No )#	
5 FF1 2# 8# 5# (Phone No )#	
6 FF1 2# 8# 6# (Phone No )#	
7 FF1 2# 8# 7# (Phone No )#	
8 - FF1 2# 8# 8# (Phone No )#	
9 FF1 2# 8# 9# (Phone No )#	
10 FF1 2# 8# 1 0# (Phone No )#	

**Table 6: System Parameters (Timers/Access Codes)**

	PARAMETER	POSSIBLE ENTRY	PROGRAM	SETTING
	<b>System Timers (FF1 3#)</b>			
System Timers	Auto Day Mode Start Time	Stat-I Time (in 24 hour format) (****)	FF13# 25# (0000 2359)#	
	Auto Night 1 Mode Start Timer	Starttime (in 24 hour format) (****)	FF13# 1# (0000 2359)#	
	Auto Night 2 Mode Start Time	Start Time (in 24-hour format) (● **)	FF13# 29# (0000 2359)#	
	Atnd Hold Recall Timer for CO Calls	See Section 400 (20 sec 1)	FF 1 3# 2# (0 12)#	
Attendant Timers	Atnd Transfer Recall Timer for CO Calls	See Section 400 (20 sec 1)	FF13# 4# (0-12)#	
	Atnd Park Hold Recall Timer	See Section 400 (20 sec 1)	AI 3# 6# (0-1 2)#	
	Atnd Call Reversion Timer	See Section 400 (180 sec 9)	FF13# 8# (0-1 2)#	
	Atnd Hold Recall Timer for intercom Calls	See Section 400 (40 sec 2)	FF13# 18# (0 12)#	
	Atnd Transfer Recall Timer for Intercom Calls	See Section 400 (20 sec 1)	FF1 3# 20# (0 12)#	
Extension Timers	Ext Hold Recall Timer for CO Calls	See Section 400 (140 sec 7)	FF13# 3# (0 12)#	
	Ext Transfer Recall Timer for CO Calls	See Section 400 (140 sec - 7)	FF13# 5# (0-1 2)#	
	Ext Park Hold Recall Timer	See Section 400 (140 sec 7)	FF13# 7# (0 12)#	
	Ext Delayed Ring Timer	See Section 400 (12 sec 2)	AI 3# 23# (0 15)#	

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	PARAMETER	POSSIBLE ENTRY	PROGRAM	SETTING
<b>Extension</b>	Ext Hold Recall Timer for Intercom Calls	See Section 400 (140 <b>sec</b> 7)	FF13# 19# (0 12)#	
	Ext Transfer Recall Timer for Intercom Calls	See Section 400 (140 <b>sec</b> 7)	FF13# 21# (0 12)#	
	Unsupervised Conference Timer	See Section 400 (10 <b>min</b> 2)	FF13# 9# (0 15)#	
	Automatic Pause Timer	See Section 400 (3 5 <b>sec</b> 7)	FF13# 10# (0 15)#	
<b>System Timer</b>	CO Flash Timer	See Section 400 (1 <b>sec</b> 9)	FF1 3# 11# (0 15)#	
	SLT Onhook Flash Timer	See Section 400 (200 to 1500 ms 4) (Power down and restart the system after changing this parameter)	FF1 3# 12# (0-6)#	
	CO Ring Cycle Detection Timer	4 <b>sec</b> (0) 6 <b>sec</b> (1) 8 <b>sec</b> (2) 10 <b>sec</b> (3)	FF1 3# 13# (0-3)#	
	Inbound Ring Cycle Expansion Timer	See Section 400 (350 <b>ms</b> 7)	FF13# 14# (0-15)#	
	Dial Pause Timer	See Section 400 (1 5 <b>sec</b> 1)	FF1 3# 15# (0-15)#	
	PBX Flash Timer	See Section 400 (8 <b>sec</b> 7)	FF1 3# 16# (0-10)#	
	Call Forward -- No Answer Timer	See Section 400 (12 <b>sec</b> 2)	FF13# 17# (0-15)#	
	CO Delayed Ring Timer	See Section 400 (12 <b>sec</b> 2)	FF13# 22# (0-15)#	
	Hunt Group No Answer Timer	See Section 400 (12 <b>sec</b> 2)	FF13# 24# (0 15)#	
	Wait Timer for Auto Repeat Dialing	See Section 400 (40 <b>sec</b> 8)	FF1 3# 26# (0 15)#	
	Busy Tone Detection Timer	See Section 400 (8 <b>sec</b> 4)	FF1 3# 27# (0 15)#	
	Dial Tone Detection Timer	See Section 400 (1 <b>sec</b> 25)	FF1 3# 28# (0 15)#	
	<b>Access Codes</b>	<b>Remote Programming and DISA Codes (FF14X through FF16#)</b>		
Remote Programming ID Code		4-digit ID code (9999)	FF14# (0000 9999)#	
DISA Inbound Call ID		4 digit ID code	FF15# (0000 9999)#	
DISA Outbound Call ID Code 1		4-digit ID code (1111)	FF16# 1# (0000 9999)#	
DISA Outbound Call ID Code 2		4 digit ID code (9999)	FF16# 2# (0000 9999)#	
<b>Programming Authorization Code (FF17#)</b>				
ID Code for System Programming	4 digit ID code (9999)	FF17# (0000 9999)#		

**Table 7: Door Phones**

	Door Phone 1	Door Phone 2	Door Phone 3	Door Phone 4
Door Phone Extension Port Number FF18# 3# (Door Phone #14)#1# (3 24)				
Ring on Extension Port(s) FF18# 3# (1 4)# 2# (1 24)# (0 or 1)#				
Door Opener Access Code (Default -9999) FF18# 3# (1 4)# 3# (0000 9999)#				
Door Phone Tone Type (Slow Chime - C1, Fast Chime - 1) FF18# 3# (1-4)# 4# (0 or 1)#				
Door Phone Ring Timeout (20 sec - 3) FF18# 3# (1-4)# 5# (0 15)#				
Door Phone Ring Pattern (4 sec between rings - 1) FF18# 3# (1 4)# 6# (0 5)#				
Door Opener Relay Timer (4sec -1) FF18# 3# (14)# 7# (0 5)#				

Note

See also “Door Opener Access Code Required” setting (FF1 2# 1# 40#) on page 3

## Section 2 - Trunk Settings (FF2)

**Table 8: Trunk Programming**

	Trunk Port							
	1	2	3	4	5	6	7	8
Trunk Telephone Number (For reference only)								
Name (See Table 22 on page 30 for trunk name assignments)								
Trunk Port Operation (In service 0 Out of service 1) FF2 (1 8)# 1# (0/1)#								
DTMF (0)/Pulse (1) FF2 (1 8)# 2#								
Pool Access Group 9 (Not included 0 Included 1) FF2 (1 8)# 3# (0/1)#								
Pool Access Group 81 (Not included 0 Included 1) FF2 (1 8)# 4# (0/1)#								
Pool Access Group 82 (Not included 0 Included 1) FF2 (1 8)# 5# (0/1)#								
Pool Access Group 83 (Not included 0 Included 1) FF2 (1 8)# 6# (0/1)#								
Pool Access Group 84 (Not included 0 Included 1) FF2 (1 8)# 7# (0/1)#								
Pool Access Group 85 (Not included - 0 Included 1) FF2(1 8)# 8# (0/1)#								
Pool Access Group 86 (Not included 0 Included 1) FF2 (1 8)# 9# (0/1)#								
Trunk Port Type (CO 1 PBX 2) FF2 (1 8)# 10# (0/1)#								
DISA Auto Answer (No 0 Yes 1) FF2 (1 8)# 11# (0/1)#								
Private Trunk Line Ext Port # (No default ****) FF2 (1 8)# 12# (124)#								
AutoPause For PBX Line (Enabled 0 Disabled 1) FF2 (1 8)# 13# (01)#								

**Table 8: Trunk Programming**

	Trunk Port							
	1	2	3	4	5	6	7	8
Dial Tone Detection (Dial Pause Timer 0 D T Detection 1) <b>FF2 (1 8)# 14# (0/1)#</b>								
Outbound DTMF Signal (75 ms on/50 ms off 1 125 ms on/125 ms off 2 250 ms on/250 ms off 3) <b>FF2 (1 8)# 15# (1 3)#</b>								
Unsupervised Trunk Conf (No 0 Yes 1) <b>FF2 (1 8)# 16# (0 1)#</b>								
Inbound Ring Pattern (Sync with CO 0 1 9) <b>FF2 (1 8)# 17# (0 9)#</b>								
Trk Disconn Detect Timer (0-15 >350 ms default 7) <b>FF2 (1 8)# 18# (0 15)#</b>								
<b>DISA</b> Start Time <b>FF2 (1 8)# 19# (HHMM)#</b>								
<b>DISA</b> End Time <b>FF2 (1 8)# 20# (HHMM)#</b>								
Trunk Circuit Type (LS 0 Caller ID 1) <b>FF2 (1 8)# 21# (0/1)#</b>								
CO Busy Tone Detection (Off 0 On 1) <b>FF2 (1 8)# 22# (0/1)#</b>								

## Section 3 - Extension Settings (FF 3)

**Table 9: Extension Programming Features**

Feature	Extension Port # (1 - 24)							
Extension Number FF3(1-24)# 1# (10-69 or 100-699)# (System defaults to 3 digit numbers See also Table 18 on page 27 )								
Terminal Type (Usually Automatic See Section 400) FF3 (1 24)# 2# (1 15)#								
EM/24 Port FF3 (1-24)# 3# (1 24)#								
Forced Least Cost Routing Off (0) or On (1) FF3 (1-24)# 4# (0 or 1)#								
Forced Account Codes None (0) Verified (1) Forced Unverified (2) FF3 (1-24)# 5# (0 1 or 2)#								
Extension Lockout Code (4 digits) (No default - ****) FF3 (1 24)# 6# (0000-9999)#								
Offhook Signal (CO) Off (0) On (1) FF3 (1 24)# 7# (0 or 1)#								
Call Waiting/OHVA Off (C) On (1) FF3 (1-24)# 8# (0 or 1)#								
Busy Override Send Cannot barge in (0) can barge in (1) FF3 (1-24)# 9# (0 or 1)#								
Busy Override Receive Cannot receive barge in (0) Can receive barge in (1) FF3 (1-24)# 10# (0 or 1)#								
Prime Line Pickup Off (0) On (1) FF3 (1-24)# 11# (0 or 1)#								
Auto Pickup (Ringing Line) Disabled (0) Enabled (1) FF3 (1 24)# 12# (0 or 1)#								

**Table 9: Extension Programming Features**

Feature	Extension Port # (1-24)							
Unsupervised Conference Cannot initiate (0) can initiate (1) FF3(1-24)# 13# (0 or 1)#								
SMDR Report Exclude (0) include (1) FF3 (1-24)# 14# (0 or 1)#								
OffhookSignal Vol (0 4 2 Default) FF3 (1-24)# 15# (0 4)#								
OffhookSignal Pattern Repeated burst (0) Single burst(1) FF3 (1-24)# 16# (0 or 1)#								
PSD Name Display on Large LCD Phones - 5 names (0) 10 names(1) FF3(1-24)# 17# (0 or 1)#								
Page Group0 Member Exclude (0) Include (1) FF3(1-24)# 18# (0 or 1)#								
Page Group 1 Member Exclude (0) Include (1) FF3 (1-24)# 19# (0 or 1)#								
PageGroup Member Exclude (0) Include(1) FF3(1-24)# 20# (0 or 1) #								
PageGroup Member Exclude (0) Include (1) FF3 (1-24)# 21# (0 or 1)#								
Page Group 4 Member Exclude (0) Include (1) FF3 (1-24)# 22# (0 or 1)#								
Page Group5 Member Exclude (0) Include (1) FF3(1-24)# 23# (0 or 1)#								
Page Group6 Member Exclude (0) Include (1) FF3 (1-24)# 24# (0 or 1)#								
Page Group 7 Member Exclude (0) Include (1) FF3(1-24)# 25# (0 or 1) #								

**Table 9: Extension Programming Features**

TARGET CD DISPI AV PHONE ONLY

Feature	Extension Port # (1 24)							
Display when Idle (Menu 0 39) <b>(No Change - 0)</b> FF3 (1 24)# 26# (0-39)#								
Display During Intercom D T <b>(No Change - 0)</b> FF3 (1 24)# 27# (0-39)#								
Display When Calling an Ext <b>(No Change - 0)</b> FF3 (1 24)# 28# (0-39)#								
Display When Accessing CO D T <b>(No Change - 0)</b> FF3 (1-24)# 29# (0 39)#								
Display When Conversing on a CO Trunk <b>(No Change - 0)</b> FF3 (1-24)# 30# (0-39)#								
Display when Receiving a Page <b>(No Change - 0)</b> FF3 (1 24)# 31# (0 39)#								
Display After Receiving a CW Tone <b>(No Change - 0)</b> FF3 (1 24)# 32# (0 39)#								
Display When Dialing a Busy Ext <b>(No Change - 0)</b> FF3 (1 24)# 33# (0 39)#								
Extension Directory Display <b>5 names (0) 10 names (1)</b> FF3 (1 24)# 34# (0 or 1)#								
Extension COS Assignment (0 8) FF3 (1 24)# 35# (0-8)#								
Ringback Tone from ML Keys <b>Ringback</b> followed by busy (0) Busy tone (1) Ringback tone (2) FF3 (1 24)# 36# (0 2)#								
SLT Hook-flash Brokers Hold (0) Conference (1) FF3 (1 24)# 37# (0 or 1)#								
Extension Ring Pattern (0-9) FF3 (1 24)# 38# (0-9)#								
DSL T Receiving Volume Normal (0) Loud (1) FF3 (1 24)# 39# (0 or 1)#								



**Table 9: Extension Programming Features**

Feature	Extension Port # (1 24)							
Auto Set Relocation Code (4 digits) <b>FF3 (1 24)# 40# (0001-9999)#</b>								
Permanent Call Forward Type <b>Off (0) (Displays as ● )</b> Busy/No Answer (1) Busy (2) No Answer (3) <b>FF3 (1 24)f 41# (0-3)#</b>								
Permanent Call Forward Extension Default=**** <b>no extension assigned</b> <b>FF3 (1-24)# 42# (10-69 or 100-699)#</b>								
ML/MCO Separ - <b>MCO (0)</b> ML (1) <b>FF3 (1 24)# 43# (0 or 1)#</b>								
VAU Hunting Priority <b>No Priority (0)</b> Priority (1) <b>FF3 (1-24)# 44# (0 or 1)#</b>								
SLT Disconnect Signal <b>Disabled (0)</b> Enabled (1) <b>FF3 (1-24)# 45# (0 or 1)#</b>								
VAU Port Assignment <b>Not VAU (0)</b> VAU (1) <b>FF3 (1 24)# 46# (0 or 1)#</b>								
Hot Dial Pad <b>Disabled (0)</b> Enabled (1) <b>FF3 (1 24)# 47# (0 or 1)#</b>								
Auto-Redial on Extensions <b>Disabled (0)</b> Enabled (1) <b>FF3 (1 24)# 48# (0 or 1)#</b>								

## Section 4 - Ringing and Hunt Groups (FF4)

Trunk Number \_\_\_\_\_ (1-8)

Trunk Name \_\_\_\_\_

Trunk Telephone Number \_\_\_\_\_ (For reference only)

**Table 10: Trunk to Extension Ring Assignments**

Call Type	Extension Port(s) to Ring (1 to 25)
CO Day Ring Assignment -Extension Ports (No ring 0 Ring - 1) FF4 1# (Ext Port)# (1-8)# (0/1)#	
CO Delayed Day Ring - Extension Port (No ring - 0 Ring 1) FF4 5# (Ext Port)# (1-8)# (0/1)#	
CO Night 1 Ring -Extension Ports (No ring -0 Ring 1) FF4 2# (Ext Port)# (1-8)# (0/1)#	
CO Delayed Night 1 Ring Extension Ports (No ring 0 Ring 1) FF4 6# (Ext Port)# (1-8)# (0/1)#	
CO Night 2 Ring Assignments Extension Ports (No ring -0 Ring - 1) FF4 9# 1# (Ext Port)# (1 8)# (0/1)#	
CO Delayed Night 2 Ring Assignments Extension Port (No ring - 0 Ring - 1) FF4 9# 2# (Ext Port)# (18)# (0/1)#	

Notes

With CPC-S use 1 - 16 for Extension ports 17 for UNA

With CPC-M use 1 - 24 for Extension ports, 25 for UNA

By default all trunks rings ports 1 and 2 for CO Day Night1 and Night2 Ring Assignments

**Trunk Number \_\_\_\_\_ (1-8)**

**Table 11: Trunk to Hunt Group Ring Assignments**

Call Type	Hunt Group to Ring (Circle)			
	Hunt Group 1	Hunt Group 2	Hunt Group 3	Hunt Group 4
CO Day Ring - Hunt Group Numbers (1 - 4) (No ring - 0 Ring - 1) FF4 1# (Hunt Group)# (1-8)# (0/1)#	CPC S - 23 CPC M 31	CPC-S 24 CPC-M 32	<b>CPC</b> s -- 25 CPCM- 33	CPC S - 26 CPC M 34
<b>CO Delayed Day Ring Assignments</b> Hunt Groups (No ring - 0 Ring - 1) FF4 5# (Hunt Group)# (1-8)# (0/1)#	CPC S 23 CPC M -- 31	CPC-S - 24 CPC-M - 32	CPC S -- 25 CPC M 33	CPC-S -- 26 CPC-M- 34
CO Night 1 Ring Assignments - Hunt Groups (No ring - 0 Ring - 1) FF4 2# (Hunt Group)# (1-8)# (0/1)#	CPC S - 23 CPC M - 31	CPC-S 24 CPC M - 32	CPC S - 25 CPC-M - 33	CPC-S -- 26 CPC-M -- 34
<b>CO Delayed Night</b> CO Delayed Night 1 Ring Assignments Hunt Groups (No ring - 0 Ring - 1) FF4 6# (Hunt Group)# (1-8)# (0/1)#	CPG S -- 23 CPC-M -- 31	CPC-S - 24 CPC-M - 32	<b>CPC</b> s -- 25 CPCM- 33	CPC-S -- 26 CPC-M 34
FF4 9# 2# (Hunt Group) (No Assignment) (1-8)# Ring (0/1)# 1)	CPC-S CPC-M 31 23	CPC-S CPC M - 32 24	<b>CPC</b> s CPC- 33 25	CPC-S CPC M -- 34 26
<b>CO Delayed Night 2 Ring Assignments</b> Hunt Groups (No ring - 0 Ring - 1) FF4 9# 2# (Hunt Group)# (1 8)# (0/1)#	CPC-s - 23 CPC M - 31	CPC-S - 24 CPC M - 32	CPC S - 25 CPC M 33	CPC-S - 26 CPC-M -- 34

**Notes**

- With CPC-S enter 23 for Hunting Group 1 24 for Hunting Group 2 25 for Hunting Group 3 and 26 for Hunting Group 4
- With CPC-M enter 31 for Hunting Group 1 32 for Hunting Group 2 33 for Hunting Group 3 and 34 for Hunting Group 4

**Table 12: Hunt Group Assignments**

Hunt Group Assignments	Hunt Group 1	Hunt Group 2	Hunt Group 3	Hunt Group 4
Hunt Group Name (See Table 23 on page 30)				
Pilot Extension # FF4 3# (14)# 1# (11 69 or 101 699)#				
Hunt Group Type Terminal (0) Distributed (1) Longest idle (2) FF4 3# (1 4)# 2# (0 2)#				
Hunt Group No Answer Timer D-15 <b>Default = 12 sec 2</b> FF1 3# 24# (0 15)# (Also listed on <i>page 9</i> )				
Transfer (Overflow) Extension Number FF4 3# (1 4)# 3# (1 0-69 or 100 699)#				
Hunt Group Transfer Timer Notransfer 0 1 32sec ( <b>Default = 2 sec 2</b> ) FF4 3# (1 4)# 4# (0 32)P				
Hunt Group Member Position 1 Extension # FF4 3# (1 4)# 5# (10 69 or 100 699)#				
Hunt Group Member Position 2 Extension # FF4 3# (1 4)# 6# (10 69 or 100 699)#				
Hunt Group Member Position 3 Extension # FF4 3# (1 4)# 7# (10 69 or 100 699)#				
Hunt Group Member Position 4 Extension # FF4 3# (1 4)# 8# (10 69 or 100 699)#				
Hunt Group Member - Position 5 Extension # FF4 3# (1 4)# 9# (10 69 or 100 699)#				
Hunt Group Member Position 6 Extension # FF4 3# (1 4)# 10# (10 69 or 100 699)#				
Hunt Group Member Position 7 Extension # FF4 3# (1 4)# 11# (10 69 or 100 699)#				
Hunt Group Member Position 8 Extension # FF4 3# (1-4)# 12# (10 69 or 100-699)#				
Hunt Group Member Position 9 Extension # FF4 3# (1 4)# 13# (10 69 or 100 699)#				
Hunt Group Member Position 10 Extension # FF4 3# (1 4)# 14# (10 69 or 100-699)#				
Hunt Group Member Position 11 Extension # Fi4 3# (1-4)# 15# (10 69 or 100-699)#				
Hunt Group Member Position 12 Extension # FF4 3# (1-4)# 16# (10 69 or 100-699)#				
Hunt Group Member Position 13 Extension # FF4 3# (1-4)# 17# (10 69 or 100 699)#				
Hunt Group Member Position 14 Extension # FF4 3# (1-4)# 18# (10 69 or 100 699)#				
Hunt Group Member Position 15 Extension # FF4 3# (1-4)# 19# (10 69 or 100 699)#				
Hunt Group Member Position 16 Extension # FF4 3# (1-4)# 20# (10 69 or 100 699)#				

**Table 13: Call Coverage Group Member**

	Call Coverage Group			
	1	2	3	4
Position 1 secretary (1st covering position) FF4 4# (1-4) 1# (10 69 or 100 699) P				
Position 2 secretary (2nd covering position) FF4 4# (1-4) 2# (10 69 or 100 699)#				
Position 3 member FF4 4# (1-4) 3# (10 69 or 100 699)#				
Position 4 member FF4 4# (1 4) 4# (10 69 or 100 699)#				
Position 5 member FF4 4# (1 4) 5# (10 69 or 100 699)#				
Position 6 member FF4 4# (1-4) 6# (10 69 or 100 699)#				
Position 7 member FF4 4# (1-4) 7# (10 69 or 100 699)#				
Position 8 member FF4 4# (1-4) 8# (10 69 or 100 699)#				

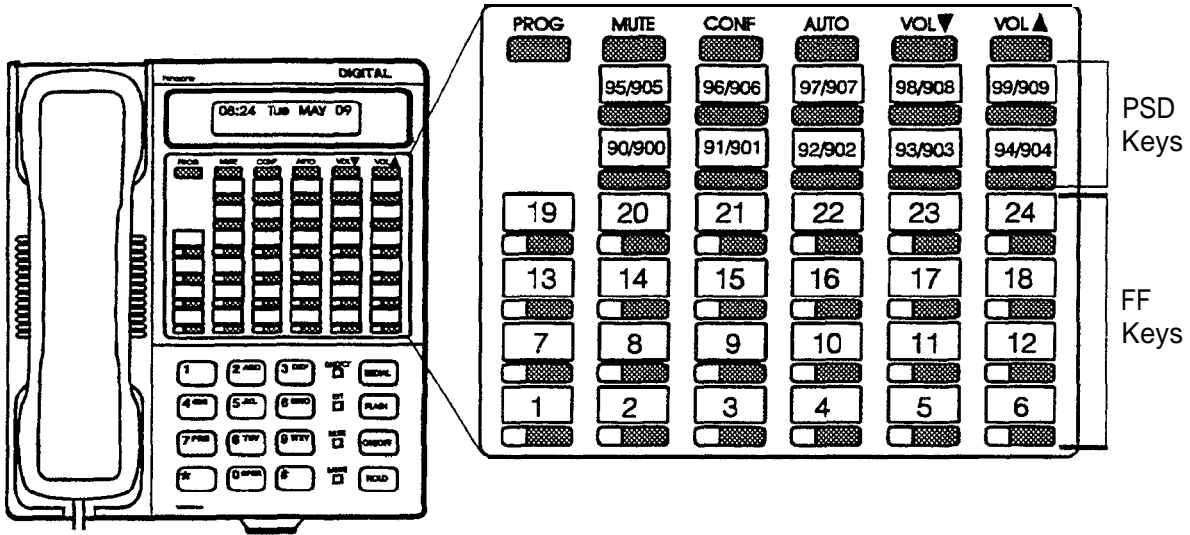
**Note**

Position 2 secretary does not cover **until** position 1 secretary is set to Do Not Disturb **Call Forward, Absence Message** or **Busy** on all **MCO/ML** keys  
 Position 1 and Position 2 phones require a **DSS/BLF** key for all members

**Table 14: Extension Ring (BLF) Table**

Extension Port Receiving Call (Source Extension)	IMMEDIATE RING Extension Port(s) with DSS/ BLF Keys (Target Extension) FF4 7# (Target Ext Port)# (Source Ext Port)# (0/1)#	DELAYED RING Extension Port(s) With Delayed DSS/BLF Keys (Target Extension) FF4 8# (Target Ext Port)# (Source Ext Port)# (0/1)#
Example: Port 5	Port 6, 7	Port 8
Port 1		
Port 2		
Port 3		
Port 4		
Port 5		
Port 6		
Port 7		
Port 8		
Port 9		
Port 10		
Port 11		
Port 12		
Port 13		
Port 14		
Port 15		
Port 16		
Port 17		
Port 18		
Port 19		
Port 20		
Port 21		
Port 22		
Port 23		
Port 24		

## Section 5 - FF Key Programming (FF5)



Port \_\_\_\_\_

Extension # \_\_\_\_\_

**Table 15: FF Key Assignment for Extension Ports**

FF5 (Ext Port)# (Key No )# (Feature Code)#

Key	Feature Code	Key	Feature Code	Key	Feature Code	Key	Feature Code	Key	Feature Code	Key	Feature Code
19		20		21		22		23		24	
13		14		15		16		17		18	
7		8		9		10		11		12	
1		2		3		4		5		6	

16 Key Telephone (VB-42210, 42211, 42213)= FF Keys 1 to 6  
 22 Key Telephone (VB-43220, 43221, 43223, 43225)= FF Keys 1 to 12  
 34 Key Telephone (VB-43230, 43231, 43233)= FF Keys 1 to 24

Select One

1st DSS 72 Console for 1st Attendant          FF5 (17-CPC S or 25 CPC M)# (Key No )# (Feature Code)#  
 2nd DSS 72 Console for 1st Attendant          FF5 (18 CPC-S or 26 CPC M)# (Key No )# (Feature Code)#  
 1st DSS 72 Console for 2nd Attendant          FF5 (19 CPC-S or 27 CPC M)# (Key No )# (Feature Code)#  
 2nd DSS 72 Console for 2nd Attendant          FF5 (20-CPC-S or 28 CPC M)# (Key No )# (Feature Code)#

**Table 16: DSS Key Telephone Assignments**

65	66	67	68	69	70	71	72
57	58	59	60	61	62	63	64
49	50	51	52	53	54	55	56
41	42	43	44	45	46	47	48
33	34	35	36	37	38	39	40
25	26	27	28	29	30	31	32
17	18	19	20	21	22	23	24
9	10	11	12	13	14	15	16
1	2	3	4	n	n	n	n



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Select One

1st DSS 72 Console for 1st Attendant \_\_\_\_\_

2nd DSS 72 Console for 1st Attendant \_\_\_\_\_ (No Default)

1st DSS 72 Console for 2nd Attendant \_\_\_\_\_

























2nd DSS 72 Console for 2nd Attendant \_\_\_\_\_ (No Default)

**Default DSS 72 Key Assignments (3-Digit Numbering)**

75 08 (Park 8) 65	75 09 (Park 9) 66	67	68	69	FF12 521 (Day) 70	FF12 522 (Night1) 71	FF12 523 (Night2) 72
75 00 (Park 0) 57	75 01 (Park 1) 58	75 02 (Park 2) 59	75 03 (Park 3) 60	75 04 (Park 4) 61	75 05 (Park 5) 62	75 06 (Park 6) 63	75 07 (Park 7) 64
FF12 00 (Page All) 49	FF12 01 (Page 01) 50	FF12 02 (Page 02) 51	FF12 03 (Page 03) 52	FF12 04 (Page 04) 53	FF12 05 (Page 05) 54	FF12 06 (Page 06) 55	FF12 07 (Page 07) 56
41	42	43	44	45	46	47	48
33	34	35	36	37	38	39	40
25	26	27	28	29	30	31	32
Ext 116 17	Ext 117 18	Ext 118 19	Ext 119 20	Ext 120 21	Ext 121 22	Ext 122 23	Ext 123 24
Ext 108 9	Ext 109 10	Ext 110 11	Ext 111 12	Ext 112 13	Ext 113 14	Ext 114 15	Ext 115 16
Ext 100 1	Ext 101 2	Ext 102 3	Ext 103 4	Ext 104 5	Ext 105 6	Ext 106 7	Ext 107 8

EM/24 Extension Port \_\_\_\_\_ Related Key Phone Extension Port \_\_\_\_\_

**Table 17: EM/24 Key Assignments**  
 FF5 (Ext Port)# (Key No )# (Feature Code)#

8 	16 	24 
7 	15 	23 
6 	14 	22 
5 	13 	21 
4 	12 	20 
3 	11 	19 
2 	10 	18 
1 	9 	17 

**Default EM/24 Key Assignments**

08 8 (TRK8)	16	24
07 7 (TRK7)	15	23
06 6 (TRK6)	14	22
05 5 (TRK5)	13	21
04 4 (TRK4)	12	20
03 3 (TRK3)	11	19
02 2 (TRK2)	10	18
01 1 (TRK1)	9	17

## Section 6 - Name and Message Assignments (FF6)

**Table 18: Extension Names**

Extension Port	Extension No FF3 (124)# 1 #(ExtNo)#	Name (Up to 10 Characters) FF61# (ExtPort)# CONF (Name)#
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Note

Name assignments require a DSS/72 for programming

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**Table 19: System Speed Dials**

System Speed Dial # (2 digits 00-89 or 3 digits 000 199)	Name (Up to 16 Characters) FF6 2# (SSD)# CONF (Name)#	Number (Up to 16 Digits) FF10 1# (SSD)# (Phone No)#

System Speed Dial # (2 digits 00-89 or 3 digits 000-1 99)	Name (Up to 16 Characters) FF6 2# (SSD)# CONF (Name)#	Number (Up to 16 Digits) FF10 1# (SSD)# (Phone No)#

**Notes**

Name assignments require a DSS/72 for programming  
 With CPC-M, see also Speed Dial Mode Assignment - FF1 2# 1# 33# ( Standard Mode - 0, Add-On Mode - 1)

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Port # \_\_\_\_\_ Ext # \_\_\_\_\_

**Table 20: Personal Speed Dials**

Personal Speed Dial # (2 digits 90-99 or 3 digits 900 939)	Name (Up to 16 Characters) FF6 3# (Ext Port)# (PSD)# CONF (Name)#	Number (Up to 16 Digits) FF10 2# (Ext Port)# (PSD) (PhoneNumber)#
90/900		
91/901		
92/902		
93/903		
94/904		
95/905		
96/906		
97/907		
98/908		
99/909		
910		
911		
912		
913		
914		
915		
916		
917		
918		
919		

System Speed Dial # (2 digits 90-99 or 3 digits 900 939)	Name (Up to 16 Characters) FF6 3# (Ext Port)# (PSD)# CONF (Name)#	Number (Up to 16 Digits) FF10 2# (Ext Port)# (PSD) (PhoneNumber)#
920		
921		
922		
923		
924		
925		
926		
927		
928		
929		
930		
931		
932		
933		
934		
935		
936		
937		
938		
939		

**Notes**

Name assignments require a DSS/72  
 For CPC-M, see also Speed Dial Mode Assignment - FF1 2# 1# 33# ( Standard Mode - 0,  
 Add-On Mode - 1)

**Table 21: Absence Messages**

<b>Absence Message #</b>	<b>Message Text (Up to 15 Characters) (Requires DSS/72)</b>
Message 5 (FF6 4# 5# CONF (Message)#	
Message 6 (FF6 4# 6# CONF (Message)#	
Message 7 (FF6 4# 7# CONF (Message)#	
Message 8 (FF6 4# 8# CONF (Message)#	
Message 9 (FF6 4# 9# CONF (Message)#	

**Table 22: Trunk Name Assignments**

<b>Trunk Number</b>	<b>Name Text (Up to 6 Characters) (Requires DSS/72)</b>
<b>Trunk1</b> (FF6 5# 1# CONF (Name)#	
<b>Trunk2</b> (FF65#2#CONF (Name)#	
<b>Trunk 3</b> (FF65#3#CONF (Name)#	
Trunk 4 (FF6 5# 4# CONF (Name)#	
Trunk 5 (FF6 5# 5% CONF (Name)#	
Trunk 6 (FF6 5# 6% CONF (Name)#	
Trunk 7 (FF6 5# 7# CONF (Name)#	
Trunk 8 (FF6 5# 8# CONF (Name)#	

**Table 23: Hunt Group Name Assignment**

<b>Hunt Group #</b>	<b>Name Text (Up to 10 Characters) (Requires DSS/72)</b>
Hunt Group 1 (FF6 6# 1# CONF (Name)#	
Hunt Group 2 (FF6 6# 2# CONF (Name)#	
Hunt Group 3 (FF6 6# 3# CONF (Name)#	
Hunt Group 4 (FF6 6# 4# CONF (Name)#	

**Table 24: Call Waiting/OHVA Text Reply**

<b>Message #</b>	<b>Message Text (Up to 15 Characters) (Requires DSS/72)</b>
Message 1 (FF6 7# 1# CONF (Message)#	(Default) Take A Message
Message 2 (FF6 7# 2# CONF (Message)#	(Default) Please Hold
Message 3 (FF6 7# 3# CONF (Message)#	(Default) <b>Will Call Back</b>
Message 4 (FF6 7# 4# CONF (Message)#	(Default) Transfer
Message 5 (FF6 7# 5% CONF (Message)#	(Default) <b>Unavailable</b>

## Section 7 - Toll Restriction Settings (FF7)

**Table 25: TRS Settings**

Parameter	Setting
International Calling for TRS Types 3 6 <b>Restricted (Old Dialing Plan) or Check Country Code Table (New NANP) (0) No Restriction (1)</b> FF7 1# 1# (0/1)#	
Dialing Restriction During Inbound Trunk Calls for TRS Types 3 6 When an incoming call is received DTMF cannot be outdialed (0) <b>DTMF can be outdialed</b> FF7 1# 2# (0/1)#	
<b>Maximum Dialed Digits for TRS Types 3 6 (from 15 (1) to 29 (15) digits)</b> FF7 1# 3# (1 15)# (** indicates no limit use CONF to clear entry and change to no limit)	
<b>3 Digit Toll Restrictions for TRS Types 2 6</b>	
211 (Allow 0 Deny 1) FF7 1# 4# (0/1)#	
311 (Allow 0 Deny 1) FF7 1# 5# (0/1)#	
411 (Allow 0 Deny 1) FF7 1# 6# (0/1)#	
511 (Allow 0 Deny 1) FF7 1# 7# (0/1)#	
611 (Allow 0 Deny 1) FF7 1# 8# (0/1)#	
711 (Allow 0 Deny 1) FF7 1# 9# (0/1)#	
811 (Allow 0 Deny 1) FF7 1# 10# (0/1)#	
Dialing Plan Switch <b>Old Plan (0) New NANP (1)</b> FF7 1# 16# (0/1)#	
Equal Access Code Format <b>Old Format 10XXX (0)</b> New Format 101XXXX (1) FF7 1# 20# (0/1)#	



**Table 26: TRS Restrictions for Extension Ports**

<b>Extension Port</b>	<b>Operator Access Restrict (0) or Permit (1) FF7 1# 17# (Ext Port)# (0/1)#</b>	<b>International Calling on Extensions Restrict (0) or Check International Calls Switch (1) FF7 1# 18# (Ext Port)# (0/1)#</b>
1		
2		
3		
4		
5		
6		
7		
a		
9		
10		
11		
12		
13		
14		
15		
16		
17		
<b>18</b>		
19		
20		
21		
22		
23		
24		

**Table 27: TRS Country Codes Allowed\***

Entry	Allowed Country Code (Up to 3 Digits)
1 (FF7 1# 19# 1# (0-999)#)	
2 (FF7 1# 19# 2# (0-999)#)	
3 (FF7 1# 19# 3# (0-999)#)	
4 (FF7 1# 19# 4# (0 999)#)	
5 (FF7 1# 19# 5# (0 999)#)	
6 (FF7 1# 19# 6# (0 999)#)	
7 (FF7 1# 19# 7# (0-999)#)	
8 (FF7 1# 19# 8# (0 999)#)	
9 (FF7 1# 19# 9# (0-999)#)	
10 (FF7 1# 19# 10# (0-999)#)	

\* Set FF7 1# 1# 0# for International Caller FF7 1# 16# 1# for New NANP

**Table 28: TRS Office Code Restrictions for Types 2-6\***

Entry	Denied Office Code (3 Digits)
1 (FF7 1# 21# 1# (000 999)#)	
2 (FF7 1# 21# 2# (000-999)#)	
3 (FF7 1# 21# 3# (000 999)#)	
4 (FR 1# 21# 4# (000-999)#)	
5 (FF7 1 # 21# 5# (000 999)#)	
6 (FF7 1 # 21# 6# (000 999)#)	
7 (FF7 1# 21# 7# (000 999)#)	
8 (FF7 1# 21# 8# (000 999)#)	
9 (FF7 1# 21# 9# (000 999)#)	
10 (FF7 1# 21# 10# (000 999)#)	

\* The entered office codes are always restricted regardless of any area code dialed

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**Table 29: 7 Digit Toll Restriction for TRS Types 2-6**

Parameter	Setting
7 Digit Toll Restriction for TRS Types 2 6 Do not check 7 Digit table (0) Check Special 7 digit table for TRS Types 2 6 (1) (See below) FF7 1# (11 for Type 2 to 15 for Type 6)# (0/1)#	

**Table 30: Special 7-Digit Table for TRS Types 2-6**

Entry #	Restricted 7-Digit Number
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

Entry #	Restricted 7 Digit Number
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	

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\_\_\_\_ Day FF7 7# (Ext Port)# (Trunk)# (TRS Type)#

\_\_\_\_ Night FF7 8# (Ext Port)# (Trunk)# (TRS Type)#

**Table 31: Day/Night TRS Types for Trunk**

Extension Port	TRS Type (0 7)							
	Trunk 1	Trunk 2	Trunk 3	Trunk 4	Trunk 5	Trunk 6	Trunk 7	Trunk 8
Ext Port 1								
Ext Port 2								
Ext Port 3								
Ext Port 4								
Ext Port 5								
Ext Port 6								
Ext Port 7								
Ext Port 8								
Ext Port 9								
Ext Port 10								
Ext Port 11								
Ext Port 12								
Ext Port 13								
Ext Port 14								
Ext Port 15								
Ext Port 16								
Ext Port 17								
Ext Port 18								
Ext Port 19								
Ext Port 20								
Ext Port 21								
Ext Port 22								
Ext Port 23								
Ext Port 24								

**Table 32: Special Area Code Table for TRS Types 3-6**

Special Area Code Table Number	Special Area Code (000-999)
Special Area Code Table 1 (FF7 4# 1# (000 999)#)	I
Special Area Code Table 2 (FF7 4# 2# (000999)#)	
Special Area Code Table 3 (FF7 4# 3# (000 999)#)	
Special Area Code Table 4 (FF7 4# 4# (000999)#)	

**TRS AREA CODE AND OFFICE CODE PLANNING NOTES**

When planning the TRS Type settings, use higher numbered TRS types for less restrictive calling  
The defaults for the TRS Types are as follows

- TRS Type 3 Defaults -      **All Area Codes Restricted**      **All Office Codes Restricted**
- TRS Type 4 Defaults -      **All Area Codes Restricted**      **All Office Codes Allowed**
- TRS Type 5 Defaults -      **All Area Codes Allowed**      **All Office Codes Allowed**
- TRS Type 6 Defaults -      **All Area Codes Allowed**      **All Office Codes Allowed**

When planning Special Area Codes, use higher numbered Special Area Codes for less restrictive calling  
The defaults for the Special Area Code are as follows

- Special Area Code 1 Defaults -      **All Special Office Codes Restricted**
- Special Area Code 2 Defaults -      **All Special Office Codes Allowed**
- Special Area Code 3 Defaults -      **All Special Office Codes Allowed**
- Special Area Code 4 Defaults -      **All Special Office Codes Allowed**

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Select one of the following

- Area Code Table for TRS Type (3-6) FF7 2# (3-6)# (000-999)# (0/1)#
- Office Code Table for TRS Type (3-6) FF7 3# (3-6)# (000-999)# (0/1)#
- Special Office Code Table (1-4) FF7 5# (1-4)# (000-999)# (0/1)#

**Table 33: TRS Area Code/Office Code Table (000-249)**

Allow (Circle) or Deny (X-Out)									
000	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	029
030	031	032	033	034	035	036	037	038	039
040	041	042	043	044	045	046	047	048	049
050	051	052	053	054	055	056	057	058	059
060	061	062	063	064	065	066	067	068	069
070	071	072	073	074	075	076	077	078	079
080	081	082	083	084	085	086	087	088	089
090	091	092	093	094	095	096	097	098	099
100	101	102	103	104	105	106	107	108	109
110	111	112	113	114	115	116	117	118	119
120	121	122	<b>123</b>	124	125	126	127	128	129
130	131	132	133	134	135	136	137	138	139
140	141	142	143	144	145	146	147	148	149
150	151	153	153	154	155	156	157	158	159
160	161	162	163	164	165	166	167	168	169
170	171	172	173	174	175	176	177	178	179
180	181	182	183	184	185	186	187	188	189
190	191	192	193	194	195	196	197	198	199
200	201	202	203	204	205	206	207	208	209
210	211	212	213	214	215	216	217	218	219
220	221	222	223	224	225	226	227	228	229
230	231	232	233	234	235	136	237	238	239
240	241	242	243	244	245	246	247	248	249

**Notes:**

- TRS Type 3 Area Code and Office Code defaults restrict dialing
- TRS Type 4 Area Code defaults restrict dialing and **Office** Code defaults **allow** dialing
- TRS Type 5 Area Code defaults allow dialing and **Office** Codes defaults allow dialing
- TRS Type 6 Area Code defaults allow dialing and Office Codes defaults allow dialing
- Special Office Code Table 1 and 2 defaults restrict dialing
- Special **Office** Code Table 3 and 4 defaults allow dialing

Select one of the following

Area Code Table for TRS Type \_\_\_\_\_ (3-6)

FF7 2# (3-6)# (000-999)# (0/1)#

Office Code Table for TRS Type \_\_\_\_\_ (3-6)

FF7 3# (3-6)# (000-999)# (0/1)#

Special Office Code Table \_\_\_\_\_ (1-4)

FF7 5# (1-4)# (000-999)# (0/1)#

**Table 34: TRS Area Code/Office Code Table (250-499)**

Allow (Circle) or Deny (X-Out)									
250	251	252	253	254	255	256	257	258	259
260	261	262	263	264	265	266	267	268	269
270	271	272	273	274	275	276	277	278	279
280	281	282	283	284	285	286	287	288	289
290	291	292	293	294	295	296	297	298	299
300	301	302	303	<b>304</b>	305	306	307	308	309
310	311	312	313	314	315	316	317	318	319
320	321	322	323	324	325	326	327	328	329
330	331	332	333	334	335	336	337	338	339
340	341	342	343	344	345	346	347	348	349
350	351	352	353	354	355	356	357	<b>358</b>	359
360	361	362	363	364	365	366	367	<b>368</b>	369
370	371	372	373	374	375	376	377	378	379
380	381	382	383	<b>384</b>	385	386	387	388	389
390	391	392	393	394	395	396	397	398	399
400	401	402	403	<b>404</b>	405	<b>406</b>	407	408	409
410	411	412	413	414	415	416	417	<b>418</b>	419
420	421	422	423	424	425	426	427	428	429
430	431	432	433	434	435	436	437	438	439
440	441	442	443	<b>444</b>	445	446	447	448	449
450	451	452	453	454	455	456	457	458	459
460	461	462	463	464	465	466	467	468	469
470	471	472	473	474	475	<b>476</b>	477	478	479
480	<b>481</b>	482	483	484	485	486	487	488	489
490	491	492	493	494	495	496	497	498	499

**Notes:**

TRS Type 3 Area Code and Office Code defaults restrict dialing

TRS Type 4 Area Code defaults restrict dialing and Office Code defaults allow dialing

TRS Type 5 Area Code defaults allow dialing and Office Codes defaults **allow** dialing

TRS Type 6 Area Code defaults allow dialing and Office Codes defaults allow dialing

Special Office Code Table 1 and 2 defaults **restrict** dialing

Special Office Code Table 3 and 4 defaults allow dialing

Select one of the following

- Area Code Table for TRS Type \_\_\_\_ (3-6)      FF7 2# (3-6)# (000-999)# (0/1)#
- Office Code Table for TRS Type \_\_\_\_ (3-6)      FF7 3# (3-6)# (000-999)# (0/1)#
- Special Office Code Table \_\_\_\_ U-4)      FF7 5# (3-6)# (000-999)# (0/1)#

**Table 35 TRS Area Code/Office Code Table (500-749)**

Allow (Circle) or Deny (X-Out)									
500	501	502	503	504	505	506	507	508	509
510	511	512	513	514	515	516	517	518	519
520	521	522	523	524	525	526	527	528	529
530	531	532	533	534	535	536	537	538	539
540	541	542	543	544	545	546	547	548	549
550	551	552	553	554	555	556	557	558	559
560	561	562	563	564	565	566	567	568	569
570	571	572	573	574	575	576	577	578	579
580	581	582	583	584	585	586	587	588	589
590	591	592	593	594	595	596	597	598	599
600	601	602	603	604	605	606	607	608	609
610	611	612	613	614	615	616	617	618	619
620	621	622	623	624	625	626	627	628	629
630	631	632	633	634	635	636	637	638	639
640	641	642	643	644	645	646	647	648	649
650	651	652	653	654	655	656	657	658	659
660	661	662	663	664	665	666	667	668	669
670	671	672	673	674	675	676	677	678	679
680	681	682	683	684	685	686	687	688	689
690	691	692	693	694	695	696	697	698	699
700	701	702	703	704	705	706	707	708	709
710	711	712	713	714	715	716	717	718	719
720	721	722	723	724	725	726	727	728	729
730	731	732	733	734	735	736	737	738	739
740	741	742	743	744	745	746	747	748	749

**Notes:**

- TRS Type 3 Area Code and Office Code defaults restrict dialing
- TRS Type 4 Area Code defaults restrict dialing and Office Code defaults allow dialing
- TRS Type 5 Area Code defaults allow dialing and Office Codes defaults allow dialing
- TRS Type 6 Area Code defaults allow dialing and Office Codes defaults allow dialing
- Special Office Code Table 1 and 2 defaults restrict dialing
- Special Office Code Table 3 and 4 defaults allow dialing



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Select one of the following

- Area Code Table for TRS Type (3-6) FF7 2# (3-6)# (000-999)# (0/1)#
- Office Code Table for TRS Type (3-6) FF7 3# (3-6)# (000-999)# (0/1)#
- Special Office Code Table (1-4) FF7 5# (3-6)# (000-999)# (0/1)#

**Table 36: TRS Area Code/Office Code Table (750-999)**

Allow (Circle) or Deny (X Out)									
750	751	752	753	754	755	756	757	758	759
760	761	762	763	764	765	766	767	768	769
770	771	772	773	774	775	776	777	778	779
780	781	782	783	784	785	786	787	788	789
790	791	792	793	794	795	796	797	798	799
800	801	802	803	804	805	806	807	808	809
810	811	812	813	814	815	816	817	818	819
820	821	822	823	824	825	826	827	828	829
830	831	832	833	834	835	836	837	838	839
840	841	842	843	844	845	846	847	848	849
850	851	852	853	854	855	856	857	858	859
860	861	862	863	864	865	866	867	868	869
870	871	872	873	874	875	876	<b>877</b>	878	879
880	881	882	883	884	885	886	887	888	889
890	891	892	893	894	895	896	897	898	899
900	901	902	903	904	905	906	907	908	909
910	911	912	913	914	915	916	917	918	919
920	921	922	923	924	925	926	927	928	929
930	931	932	933	934	935	936	937	938	939
940	941	942	943	944	945	946	947	948	949
950	951	952	953	954	955	956	957	958	959
960	961	962	963	964	965	966	967	968	969
970	971	972	973	974	975	976	977	978	979
980	981	982	983	984	985	986	987	988	989
990	991	992	993	994	995	996	997	998	999

**Notes:**

- TRS Type 3 Area Code and Office Code defaults restrict dialing
- TRS Type 4 Area Code defaults restrict dialing and Office Code defaults allow dialing
- TRS Type 5 Area Code defaults allow dialing and Office Codes defaults allow dialing
- TRS Type 6 Area Code defaults allow dialing and Office Codes defaults allow dialing
- Special Office Code Table 1 and 2 defaults restrict dialing
- Special Office Code Table 3 and 4 defaults allow dialing

## Section 8 - Least Cost Routing (FF 8)

Table 37: LCR Trunk Group Assignments

		LCR Trunk Group 1 For Long Distance or	LCR Trunk Group 2 For Local or	LCR Trunk Group 3 For Backup or	LCR Trunk Group 4 for
Priority	Priority 1 Trunk Port FF8 6# (LCR Trunk Group No )# 1# (Trunk Port)#				
	Priority 2 Trunk Port FF8 6# (LCR Trunk Group No )# 2# (Trunk Port)#				
	Priority 3 Trunk Port FF8 6# (LCR Trunk Group No )# 3# (Trunk Port)#				
	Priority 4 Trunk Port FF8 6# (LCR Trunk Group No )# 4# (Trunk Port)#				
Add/Delete Digits	Deletion Digits (Up to 16 Digits) FF8 7# (LCR Trunk Group No )# (Deletion Digits)#				
	Addition Digits (Up to 16 Digits) FF8 8# (LCR Trunk Group No )# (Addition Digits)#				

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**Table 38: Time Priority Route Table**

FF8 5# (Time Priority Route Table)# (Priority)# (LCR Trunk Group)#

Time Period/ Priority Position		LCR Trunk Group (1 4)					
		Time Priority Route Table 1 For Long Distance or	Time Priority Route Table 2 For Local or	Time Priority Route Table 3 For Backup or	Time Priority Route Table 4 for	Time Priorii Route Table 5 for	Time Priorii Route Table 6 for
700am 759am	Priority 1						
	Priority 2						
	Priority 3						
	Priority 4						
800am 459pm	Priority 5						
	Priority 6						
	Priority 7						
	Priority 8						
5 00 p m 7 59 p m	Priority 9						
	Priority 10						
	Priority 11						
	Priority 12						
8 00 p m 11 59 p m	Priority 13						
	Priority 14						
	Priority 15						
	Priority 16						
12 00 a m 6 59 a m	Priority 17						
	Priority 18						
	Priority 19						
	Priority 20						
Weekend	Priority 21						
	Priority 22						
	Priority 23						
	Priority 24						

Select one of the following

\_\_\_\_ LCR Area Code Time Priority Route Table Number \_\_\_\_ (1-6)    FF8 1# (1 6)# (000-999)# (0/1)#  
 \_\_\_\_ LCR Office Code Time Priority Route Table Number \_\_\_\_ (1 6)    FF8 2# (1 6)# (000-999)# (0/1)#

**Table 39: LCR Area Code/Office Code Table (000-249)**

Circle All Codes To be Included									
000	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	029
030	031	032	033	034	035	036	037	038	039
040	041	042	043	044	045	046	047	048	049
050	051	052	053	054	055	056	057	058	059
060	061	062	063	064	065	066	067	068	069
070	071	072	073	074	075	076	077	078	079
080	081	082	083	084	085	086	087	088	089
090	091	092	093	094 I	095	096	097	098	099
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	148	149
150	151	153	153	154	155	156	157	158	159
160	161	162	163	164	165	166	167	168	169
170	171	172	173	174	175	176	177	178	179
180	181	182	183	<b>184</b>	185	186	187	188	189
190	<b>191</b>	192	193	194	195	196	197	<b>198</b>	199
200	201	202	203	204	205	206	207	208	209
210	211	212	213	214	215	216	217	218	219
220	221	222	223	224	225	226	227	228	229
230	231	232	233	234	235	236	237	238	239
240	241	242	243	244	245	246	247	248	249

Note

There are no default settings for LCR All applicable appropriate area codes and office codes must be entered

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Select one of the following

\_\_\_\_ LCR Area Code Time Priority Route Table Number \_\_\_\_ (1-6)    FF8 1# (1-6)# (000 999)# (0/1)#  
LCR Office Code Time Priority Route Table Number \_\_\_\_ (16)    FF8 2# (1-6)# (000 999)# (0/1)#

Table 40: LCR Area Code/Office Code Table (250-499)

Circle All Codes To be Included									
250	251	252	523	254	255	256	257	258	259
260	261	262	263	264	265	266	267	268	269
270	271	272	273	274	275	276	277	278	279
280	281	282	283	284	285	286	287	288	289
290	291	292	293	294	295	296	297	298	299
300	301	302	303	304	305	306	307	308	309
310	311	312	313	314	315	316	317	318	319
320	321	322	323	324	325	326	327	328	329
330	331	332	333	334	335	336	337	338	339
340	341	342	343	344	345	346	347	348	349
350	351	352	353	354	355	356	357	358	359
360	361	362	363	364	365	366	367	368	369
370	371	372	373	374	375	376	377	378	379
380	381	382	383	384	385	386	387	388	389
390	391	392	393	394	395	396	397	398	399
400	401	402	403	404	405	406	407	408	409
410	411	412	413	414	415	416	417	418	419
420	421	422	423	424	425	426	427	428	429
430	431	432	433	434	435	436	437	438	439
440	441	442	443	444	445	446	447	448	449
450	451	452	453	454	455	456	457	458	459
460	461	462	463	464	465	466	467	468	469
470	471	472	473	474	475	476	477	478	479
480	481	482	483	484	485	486	487	488	489
490	491	492	493	494	495	496	497	498	499

Note

There are no default settings for LCR All applicable appropriate area codes and office codes must be entered

These forms may be reproduced as needed by certified DBS Dealers and Technicians

Select one of the following

\_\_ LCR Area Code Time Priority Route Table Number \_\_\_\_ (1-6)      FF8 1# (1-6)# (000-999)# (0/1)#

\_\_ LCR Office Code Time priority Route Table Number \_\_\_\_ (1-6)      FF8 2# (1-6)# (000-999)# (0/1)#

**Table 41 LCR Area Code/Office Code Table (500-749)**

Circle Ail Codes To be included:									
500	501	502	503	504	505	506	507	508	509
510	511	512	513	514	515	516	517	518	519
520	521	522	523	524	525	526	527	528	529
530	531	532	533	534	535	536	537	538	539
540	541	542	543	544	545	546	547	548	549
550	551	552	553	554	555	556	557	558	559
560	561	562	563	564	565	566	567	568	569
570	571	572	573	574	575	576	577	578	579
580	<b>581</b>	582	583	584	585	586	587	588	589
590	591	592	593	594	595	596	<b>597</b>	598	599
600	601	602	603	604	605	606	607	608	609
610	611	612	613	614	615	616	617	618	619
620	621	622	623	624	625	626	627	628	629
630	631	632	633	634	635	636	637	638	639
640	641	642	643	644	645	646	647	648	649
650	651	652	653	654	655	656	657	658	659
660	661	662	663	664	665	666	667	668	669
670	671	672	673	674	675	676	677	678	679
680	681	682	683	684	685	686	687	688	689
690	691	692	693	694	695	696	697	698	699
700	701	702	703	704	705	706	707	708	709
710	711	712	713	714	715	716	717	718	719
720	721	722	723	724	725	726	727	728	729
730	731	732	733	734	735	736	737	738	739
740	741	742	743	744	745	746	747	748	749

Note

There are no default settings for LCR All applicable appropriate area codes and office codes must **be** entered

These forms may be reproduced as needed by certified DBS Dealers and Technicians

Check one of the following

\_\_\_\_ LCR Area Code Time Priority Route Table Number \_\_\_\_ (1 6)    **FF8 1# (1 6)# (000 999)# (0/1)#**  
 \_\_\_\_ LCR Office Code Time Priority Route Table Number \_\_\_\_ (1 6)    **FF8 2# (1 6)# (000 999)# (0/1)#**

**Table 42: LCR Area Code/Office Code Table (750-999)**

Circle All Codes To be Included									
750	751	752	753	754	755	756	757	758	759
760	761	762	763	764	765	766	767	768	769
770	771	772	773	774	775	776	777	778	779
780	781	782	783	784	785	786	787	788	789
790	791	792	793	794	795	796	797	798	799
800	801	802	803	804	805	806	807	808	809
810	811	812	813	814	815	816	817	818	819
820	821	822	823	824	825	826	827	828	829
830	831	832	833	834	835	836	837	638	a39
840	841	642	843	844	845	846	847	848	849
850	851	852	853	854	<b>855</b>	856	857	858	859
860	861	862	863	864	865	866	867	868	869
870	871	672	873	874	875	876	877	<b>878</b>	a79
880	881	882	<b>883</b>	884	885	886	887	<b>888</b>	889
890	891	892	893	894	895	896	897	898	899
900	901	902	903	904	905	906	907	<b>908</b>	909
910	911	912	913	914	915	916	917	918	919
920	921	922	923	924	925	926	927	928	929
930	931	932	933	934	935	936	937	938	939
940	941	942	943	944	945	946	947	948	949
950	951	952	953	954	955	956	957	958	959
960	961	962	963	964	965	966	967	968	969
970	971	972	973	974	975	976	977	978	979
980	981	982	983	984	985	986	987	988	989
990	991	992	993	994	995	996	997	998	999

Note

There are no default settings for LCR All applicable appropriate area codes and office codes must be entered

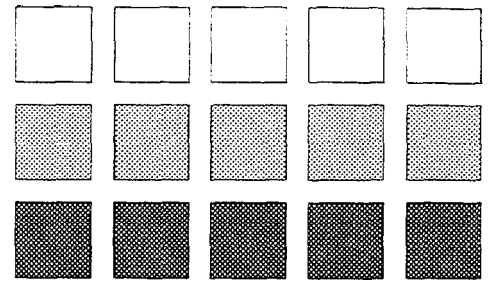
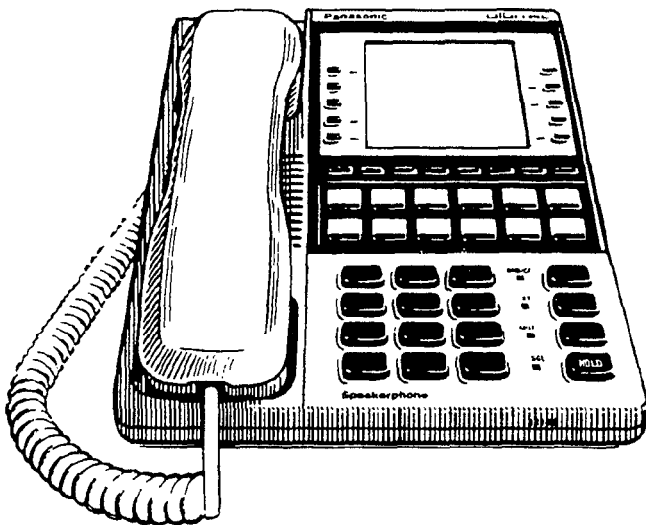




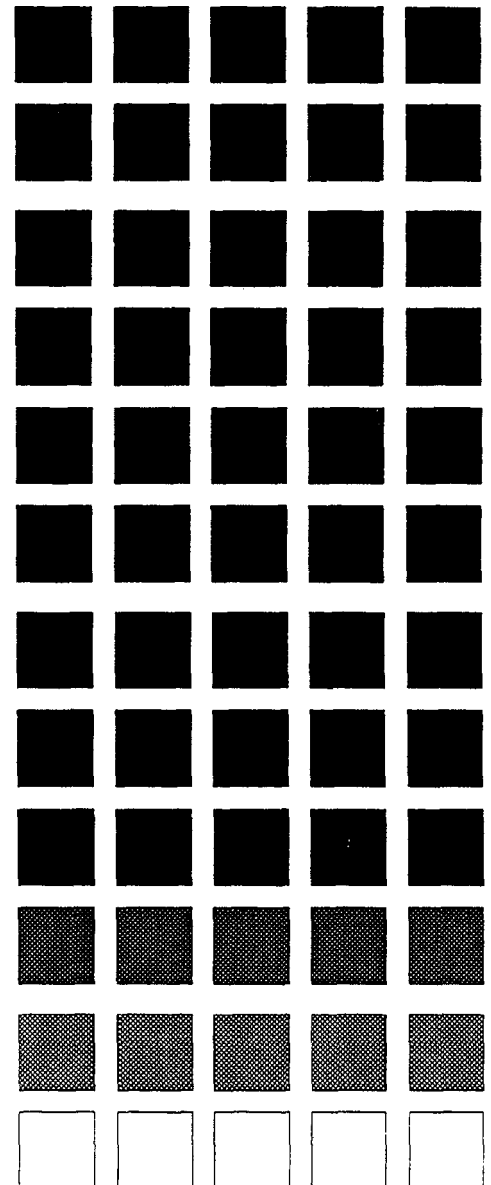
# Panasonic™

**DBS**  
Digital Business System

## DBS 824



### Section 700 Feature Operation





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Warning: This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take necessary measures to correct the interference.

## Battery Recycling Statement

The following statement applies if you purchased backup batteries with your system. The product you have purchased contains rechargeable batteries. The batteries are recyclable. At the end of their useful life, under various state and local laws, it may be illegal to dispose of these batteries into the municipal waste stream. Check with your local solid waste officials for details on recycling options or proper disposal.

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## About This Manual

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## List of Features

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### Chapter 1. System Features

Account Codes	1-3
Non-Verified Account Codes	1-3
Verified Account Codes	1-4
Answer Supervision for Voice Mail	1-6
Auto Day Mode	1-7
Auto Set Relocation	1-8
Background Music	1-10
	1-11
Battery Alarm	1-11
Battery Backup	1-12
Call Forward ID Code for Voice Mail	1-12
Caller ID	1-13
Caller ID Call Log	1-13
Centrex/PBX Compatibility	1-14
Direct Inward System Access (DISA)	1-14
Direct Trunk Access	1-17
Distinctive Ringing	1-17
Door Box	1-18
DP to DTMF Signal Conversion	1-20
Hunting Priority for VAUs	1-21
Independent Timers	1-22
Least Cost Routing (LCR)	1-23
Music-on-Hold	1-24
Night Service	1-25
Off-Premises Extension	1-27
Paging	1-28
Power Failure Transfer	1-29
Remote Maintenance	1-31
Remote Programming Mode	1-31
Station Class of Service	1-33
Station Hunting	1-34
Station Message Detail Recording (SMDR)	1-37
Toll Restriction	1-38

---

Trunk Groups	1-40
Trunk Name Assignment	1-41
Trunk Queuing	1-42
Universal Night Answer	1-43
Voice Mail Ringing	1-44
VAU	1-45
VAU Port Assignment	1-45
Walking TRS Class of Service	1-46

---

## Chapter 2. Attendant Features

Attendant Assignment of Speed Dialing	2-3
Attendant Busy Override	2-4
Attendant Call Park	2-5
Attendant Control of Absence Messages,	2-6
Attendant-Controlled Text Assignment	2-7
Attendant Groups	2-9
Dial Tone Disable	2-10
DSS/72	2-11
Headset Operation	2-13
Key Bank Hold	2-14
One-Touch VM Transfer	2-14
Station Lockout Code Assignment	2-17
System Time and Date Control	2-18
Traffic Measurement	2-20
Walking COS Confirmation	2-22

---

## Chapter 3. Key Telephone Features

Key Phone	3-3
Absence Message	3-3
Auto Redial	3-6
Auto-Repeat Dial	3-7
Busy Override	3-7
Call Coverage Groups	3-8
Call Duration Display	3-10
Call Forwarding	3-10
Call Hold	3-14
Exclusive Hold	3-14
System Hold	3-15
Call Park	3-17
Call Pickup	3-19
Group Call Pickup	3-20

---

Call Transfer	3-21
Blind Transfer	3-21
Screened Transfer	3-23
Call Waiting	3-25
Call Waiting/OHVA Text Reply	3-28
Camp-on	3-29
CO Line Key Trunk Access	3-30
Conference Calls	3-31
Delayed Ringing	3-33
Dial '0' for Attendant	3-34
Do-Not-Disturb (DND)	3-35
EM/24 Console	3-36
Flexible Function (FF) Keys	3-37
Handsfree Answerback	3-42
Handsfree Operation	3-43
Headset Operation	3-43
Intercom Calling	3-43
Last Number Redial	3-46
Line Appearances	3-47
DSS/B LF Appearances	3-48
Multi-CO (MCO) Appearances	3-51
Multi-Line (ML) Appearances	3-53
ML/MCO Separation	3-54
Meet-Me Answer	3-54
Message Waiting/Callback Request	3-55
Non-Appearing Outside Lines	3-58
Offhook Signaling	3-59
Offhook Voice Announce (OHVA)	3-60
One-Touch Keys	3-62
One-Touch VM Access	3-65
Onhook Dialing	3-67
Pooled Trunk Access	3-68
Prime Line Preference	3-70
Private Line	3-71
Reminder Call	3-72
Ringing Line Preference	3-73
Saved Number Redial	3-74
Speed Dialing	3-75
System Speed Dial	3-78
Speed Dial Linking	3-80
Station Lockout	3-81
Trunk-to-Trunk Transfer	3-82

---

## Chapter 4. DSLT Features

DSLT	4-3
Absence Message	4-3
Busy Override	4-5
Call Forwarding	4-6
Call Hold	4-9
Call Park	4-10
Call Pickup	4-12
Direct Call Pickup	4-12
Group Call Pickup	4-13
Call Transfer	4-14
Blind Transfer	4-14
Screened Transfer	4-15
Call Waiting	4-16
Camp-on	4-18
Conference Calls	4-20
Dial “0” for Attendant	4-21
Direct Trunk Access	4-21
Do-Not-Disturb (DND)	4-22
Intercom Calling	4-23
Last Number Redial	4-24
Meet-Me Answer	4-25
Message Waiting/Callback Request	4-26
Off-Hook Voice Announce (OHVA)	4-27
Onhook Dialing	4-29
Pooled Trunk Access	4-29
Reminder Call	4-30
Saved Number Redial	4-31
Speed Dialing	4-32
Personal Speed Dialing	4-32
System Speed Dial	4-33

---

## Chapter 5. SLT Features

Absence Message	5-3
Auto Redial	5-5
Auto-Repeat Dial	5-5

---

Group Call Pickup	5- 13
Call Transfer	5- 14
Blind Transfer	5- 14
Screened Transfer	5- 15
Call Waiting	5- 17
Camp-on	5- 19
Conference Calls	5- 20
Dial "0" for Attendant	5- 21
DTMF Stations	5- 22
Direct Trunk Access	5- 22
Do-Not-Disturb (DND)	5- 23
Intercom Calling	5- 24
Last Number Redial	5- 25
Meet-Me Answer	5- 26
Message Waiting/Callback Request	5- 27
Offhook Voice Announce (OHVA)	5- 28
Pooled Trunk Access	5- 29
Speed Dialing	5- 30
Personal Speed Dial	5- 30
System Speed Dial	5- 31

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# Chapter 1. System Features

This chapter contains detailed descriptions of DBS 824 System Features. System Features are either available on a system-wide basis or aid in the overall administration of the DBS 824.

This chapter covers the following topics:

<b>Topic</b>	<b>Page</b>
Account Codes	1-3
Answer Supervision for Voice Mail	1-6
Auto Day Mode	1-7
Auto Set Relocation	1-8
Background Music	1-10
Battery Backup	1-12
Call Forward ID Code for Voice Mail	1-12
Caller ID	1-13
Direct Inward System Access (DISA)	1-14
Direct Trunk Access	1-17
Distinctive Ringing	1-17
Door Box	1-18
DP to DTMF Signal Conversion	1-20
DP to DTMF Signal Conversion	1-20
Hunting Priority for VAUs	1-21
Independent Timers	1-22
Least Cost Routing (LCR)	1-23
Music-on-Hold	1-24
Night Service	1-25
Off-Premises Extension	1-27
Paging	1-28
Power Failure Transfer	1-29
Remote Maintenance	1-31
Station Class of Service	1-33
Station Hunting	1-34
Station Message Detail Recording (SMDR)	1-37
Toll Restriction	1-38
Trunk Groups	1-40



<b>Topic</b>	<b>Page</b>
Trunk Name Assignment	1-41
Trunk Queuing	1-42
Universal Night Answer	1-43
Voice Mail Ringing	1-44
VAU	1-45
VAU Port Assignment	1-45
Walking TRS Class of Service	1-46

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# Account Codes

You can assign account codes to clients to facilitate billing and to track call dates and times, numbers called and outside line numbers used This information is printed for each account on the SMDR record

## Non-Verified Account Codes

(CPC-S and CPC-M)

### *Description*

Non-verified account codes can be *forced* or *voluntary*, depending on extension programming

With voluntary account codes, the user is not forced to enter an account code before making a call With forced account codes, the user must enter an account code before accessing an outside line

Non-verified account codes can be assigned to incoming and outgoing calls To assign an account code to an outgoing call, the user enters the account code before making the call or during the call To assign an account code to an incoming call, the user enters the account code during the call

### To enter an Account Code before dialing

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 **Press the AUTO** key, then press “#”
  - “Enter Account #” appears on the display
  - If you are using a Single Line Telephone (SLT), dial “#7”
- 3 Enter the Account Code (up to 10 digits)
- 4 **Press “#”**
  - “Entered Account #” appears on the display
- 5 Press a vacant CO key or dial a trunk access code

- 6 Dial the telephone number

### To enter an Account Code during an outside call

- 1 Press the AUTO key
- 2 Press “#”  
“Enter Account #” appears on the display
- 3 Enter the Account Code (up to 10 digits)  
The Account Code entered appears on the display
- 4 Press “#”

### Hardware Requirements

- An SMDR printer or external call accounting system is required to collect account code records

### Related Programming

- FF3 (Extension) Forced Account Codes

### Considerations

- SLTs cannot assign account codes during a call

## Verified Account Codes

(CPC-S and CPC-M)

### Description

Extensions with **the** Verified Account Codes feature **enabled are** restricted from making outside calls without the user first entering a valid Account Code After a valid Account Code is entered, the Toll Restriction Service (TRS) type assigned to the code is substituted for the extension TRS type, thus temporarily allowing calls based on the new TRS type

Extensions with **the** Verified Account Codes feature **disabled** can place **outside** calls based on the TRS type assigned to the extension If a user wishes to place a call that would normally be restricted at the extension the user can

enter a valid Verified Account Code to upgrade the TRS type assigned to the extension

## **Operation**

- 1 Pick up the handset.  
The phone issues intercom dial tone
- 2 Dial “#11 ”
- 3 Enter the four-digit Account Code
- 4 Press “#”  
The phone issues intercom dial tone
- 5 Press an available CO key or dial a trunk access code  
The phone issues outside dial tone
- 6 Dial the telephone number  
The Verified Account Code TRS type remains in effect until the call is completed

## **Related Programming**

- . FF1 (System) Verified Forced Account Codes
- . FF1 (System) Toll Restriction for Verified Forced Account Codes
- . FF3 (Extension) Forced Account Codes
- . FF7 (TRS) Toll Restrictions

## **Hardware Requirements**

- . An SMDR printer or external call accounting system is required to collect account code records

## **Considerations**

- . Verified account codes are for outgoing calls only
- . The maximum number of verified account codes is 100
- . Each verified account code must consist of 4 digits

- “0000” cannot be used for a verified account code
- Verified account codes do not override station lockout.
- Verified account codes do not override Least Cost Routing (LCR) settings

---

# Answer Supervision for Voice Mail

(CPC-S and CPC-M)

## ***Description***

This feature allows the DBS 824 to send an answer signal to third-party voice mail systems. Sending an answer signal provides quicker response time between the DBS 824 and the voice mail system.

The following programming can be performed from an attendant phone or any other phone that has entered the programming access code.

### **To assign an answer signal code**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the PROG key
- 3 Enter #94
- 4 Enter the Answer Signal Code (1 to 5 digits)
- 5 Press the HOLD key

### **To view an answer signal code**

- 1 Press the ON/OFF key
- 2 Press the CONF key
- 3 Dial “#94 ”

## ***Considerations***

- The digits used for the answer signal code are determined by the requirements of the voice mail system
- If the called extension does not answer and is forwarded to voice mail, the DBS 824 sends a call forward ID code back to the voice mail system
- During transmission of the answer signal code, other DTMF digits and functions from the DBS 824 extension are ignored

---

## Auto Day Mode

(CPC-S and CPC-M)

### **Description**

Auto Day Mode allows the DBS 824 to go into day mode automatically

The DBS 824 can also be programmed to go into night mode automatically (see “Night Service,” page 1-25)

If only one of the auto modes is turned on, the **DAY/NIGHT1/NIGHT2** toggle key or the **DAY**, **NIGHT1** or **NIGHT2** key is used to turn off the auto mode For instance, if night mode has been activated automatically, the attendant must press the **DAY/NIGHT1/NIGHT2** key or **DAY** to go into day mode (Note You must wait at least 3 minutes delay after the automatic mode is activated before manually changing the mode Otherwise the system will immediately revert back to the automatic mode )

If only one of the auto modes is turned on, the **DAY/NIGHT1/NIGHT2** toggle key, **NIGHT1** key, or **NIGHT2** key can also be used to go into an auto mode before the scheduled time If auto day and both auto night modes are turned on, the manual mode keys cannot be used

### **Related Programming**

- FF1 (System) Automatic Day Mode Start Time
- FF1 (System) Automatic Night Mode Start Time
- FF1 (System) Automatic Night2 Mode Start Time

### **Considerations**

- If both auto modes are set, the starting times must differ by at least one hour

- When one auto mode is turned on, the mode cannot be reset by the **DAY/NIGHT1/NIGHT2, NIGHT** key or **NIGHT2** key until 3 minutes after the auto mode is activated (When both auto modes are set, the mode keys cannot be used )
- If mode keys are not assigned, the access codes #520 (DAY/NIGHT1/NIGHT2 toggle), #521 (Day), #522 (Night1) and #523 (Night2) can be used instead

---

# Auto Set Relocation

(CPC-S and CPC-M)

## *Description*

Auto Set Relocation can be used to relocate the program settings of one extension to another extension

Auto Set Relocation is commonly used when extension users want to trade work areas. For example, if Extensions “A” and “B” are going to switch office locations, Auto Set Relocation enables them to switch telephone settings without re-programming.

## *Operation*

Before a phone can be relocated, it must be assigned an Auto Set Relocation code. See “Related Programming” for the program address used to set up the Auto Set Relocation Code.

The following example illustrates how the program settings for extensions 200 and 300 could be switched.

### **To Transfer Extension Settings from 200 to 300**

- 1 At extension 200, pick up the handset
  - 2 Press “#10 ”
  - 3 Dial extension number 300
  - 4 Enter the four-digit auto set relocation code assigned to extension 300
  - 5 Replace the handset.
- All programmed extension features, TRS, and LCR settings from 200 are transferred to 300

- Extension 300 is placed out of service

### **To Reactivate Extension 300**

- 1 Unplug the extension cable from 300
- 2 Reconnect the cable

Extension 300 assumes all extension features, TRS, and LCR settings that were initially assigned to 200

### ***Related Programming***

- FF3 (Extension) Auto Set Relocation Code

### ***Considerations***

- The following types of data can be transferred using this feature
  - TRS type settings
  - Ring settings (trunk line, remote ringing, day/night)
  - FF key data
  - Extension numbers and names
  - Absence messages
  - Call forward settings
  - Message waiting
  - All settings and data defined by programming
- Settings may not be transferred between extensions of different types In other words, an SLT and a KTEL cannot exchange program settings
- Attendant 1 is excluded from this feature



---

# Background Music

(CPC-S and CPC-M)

## ***Description***

If your system is set up to provide Background Music, music can be played from the speakers of idle telephones. If a call is made to an extension receiving Background Music, the music stops and the phone rings. Background Music is also interrupted when the phone goes offhook.

The system can also provide music-on-hold using the Background Music source or a separate music source. If Music-on-Hold is provided, callers automatically hear music when they are placed on hold. (See page I-24 for more information on Music-on-Hold.)

## ***Operation***

### **To turn Background Music on**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “#53 ”
  - “BGM ON” appears on the display
- 3 Press the ON/OFF key
  - The ON/OFF LED goes off

### **To turn Background Music off**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “#53 ”
  - “BGM OFF” appears on the display
- 3 Press the ON/OFF key

- The ON/OFF LED goes off
- The date and time appear on the display

### ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

### ***Considerations***

- The music source must be purchased separately It is not provided with the DBS 824
- If a single music source is used for both music-on-hold and background music, the music source connects to CN6 on the front of the CPC card If a separate music source is used for background music and music-on-hold, background music connects to the CN6 on the CPC-M card and music-on-hold connects to **CN8** on the CPC-M card **See Installation (Section 300)** for instructions
- The input impedance for the music source is 10k ohms
- The maximum input level is 10 dB

---

# **Battery Alarm**

(CPC-S and CPC-M)

### ***Description***

The DBS 824 will display “**BATTERY ALARM**” on the attendant phone when the system reverts to battery power

---

# Battery Backup

(CPC-S and CPC-M)

## ***Description***

The DBS 824 uses two 12-volt batteries. The backup batteries are connected in a series circuit, using cables provided with the DBS 824. With maximum traffic, the backup batteries last up to 40 minutes. The backup batteries should be replaced about every 3 years.

---

# Call Forward ID Code for Voice Mail

(CPC-S and CPC-M)

## ***Description***

Call Forward ID Code for Voice Mail allows users to call forward to a third-party voice mail system. The ID Code sends the digits that are required by the voice mail to identify the DBS 824 extension and allow it to retrieve messages.

ID Codes can be set from any key phone.

## ***Operation***

### **To set a Call Forward ID Code for Voice Mail**

- 1 Press the PROG key
- 2 Press the AUTO key
- 3 Press “\* ”
- 4 Enter the extension number
- 5 Enter the digits to be forwarded to voice mail
- 6 Press the HOLD key

### **To clear the ID Code**

- 1 Press the PROG key

- 2 Press the AUTO key
- 3 Press “\*”
- 4 Enter the extension number
- 5 Press the **HOLD** key

### **Considerations**

- External callers do not hear the tones sent to voice mail, but internal callers do
- The Extension Copy program (FF9 2# 1-24# 1-24##) should **not** be used to copy extension settings that include a Call Forward ID Code Copying extension settings in this manner allows the copy “destination” to retrieve the messages of the copy “source ” For example, if you copy extension settings from extension 200 to extension 300, extension 300 can retrieve 200’s messages Extension 300 can retrieve 200’s messages because the Call Forward ID Code for 200 is also assigned to 300

---

## **Caller ID**

(CPC-S and CPC-M)

### **Description**

The DBS 824 supports Caller ID (CID), a service offered by local central offices, sends calling number information from the local CO to the DBS 824 Users who have display telephones can see CID information as incoming calls ring at their extension and can have access to previous calls via the call log feature

---

## **Caller ID Call Log**

(CPC-S and CPC-M)

### **Description**

The Call Log keeps a record of Caller ID calls to individual phones The Call Log allows users to view Caller ID calls that have been sent to their phone

Users can assign an FF key to flash when there are new entries in the log  
When the user presses the key to access the log, the LED turns off

Call Logs can be assigned to both attendant and non-attendant extensions

---

## Centrex/PBX Compatibility

(CPC-S and CPC-M)

### ***Description***

Centrex/PBX Compatibility allows the DBS 824 to be connected to centrex or PBX lines

The DBS 824 supports up to 8 access codes for dialing centrex or a PBX  
These access codes allow the DBS 824 SMDR output to exclude the number dialed to reach a centrex or PBX line

The DBS 824 also supports transmission of a flash signal over the centrex or PBX link

### ***Related Programming***

- FF1 (System) PBX Access Code(s)
- FF2 (Trunks) Trunk Type
- FF8 (Least Cost Routing) LCR Add Tables

### ***Considerations***

- The LCR Add Table can be used to prefix digits for outgoing calls through Centrex

---

## Direct Inward System Access (DISA)

(CPC-S and CPC-M)

### ***Description***

Direct Inward System Access (DISA) gives off-site users dial-in access to the DBS 824 Users access DISA by dialing in on the DISA trunk

For security reasons, one incoming DISA code may be assigned. If an incoming code is assigned, it must be entered as soon as the DISA trunk answers.

Two outgoing DISA codes are assigned (**1111** and 9999 by default). One of the two outgoing codes must be entered before the user dials an outgoing call.

## ***Operation***

### **To make a DISA call to an extension**

- 1 Dial the DISA trunk number
- 2 Once you hear DISA tone from the DBS 824, enter the 4-digit DISA code (if an incoming DISA code is assigned)

If the incoming DISA code is not assigned, proceed to the next step.

- 3 Dial the extension number

### **To make a DISA call to an outside number**

- 1 Dial the DISA trunk number
- 2 Once you hear DISA tone from the DBS 824, enter the 4-digit DISA code (if an incoming DISA code is assigned)

If the incoming DISA code is not assigned, proceed to the next step.

- 3 Dial #7 plus the 4-digit outgoing DISA code

Two outgoing DISA codes are assigned. Either may be used after the #7.

- 4 Dial the number of the trunk group you want to use (81-86 or 9)
- 5 Dial the desired telephone number

## ***Related Programming***

- FF1 (System) Direct Inward System Access @ISA) Call ID Code
- FF1 (System) DISA Outbound Call ID Code 1
- FF1 (System) DISA Outbound Call ID Code 2
- FF2 (Trunk) DISA Auto Answer
- FF2 (Trunk) DISA Start Time

- FF2 (Trunk) DISA End Time

### To program an incoming code from an attendant phone

In addition to the DISA ID Setting in FF1, the following procedure can be used to program an incoming code

- 1 **Press the ON/OFF** key
  - The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 **Press the CONF** key
- 3 **Dial ‘#7 ’**
- 4 Enter the DISA code
- 5 Press the **HOLD** key
- 6 **Press the ON/OFF** key  
The **ON/OFF** LED goes off

### ***Hardware Requirements***

- An MFR card is required for DISA (either the 2-circuit MFRU Circuit Card VB-42431 or the 8-circuit MFR Circuit Card VB-43431) The MFR card is required to detect DTMF tones entered via the DISA connection
- CT1 (CO Tone 1, also labeled VR1) controls the ringing volume of DISA calls to extensions when the **MFR 8-circuit** VB-43431 circuit card is used VR1 (also labeled MOH) controls the ringing volume of DISA calls to extensions when the **2-circuit MFRU** VB-42431 circuit card is used See the DBS 824 Installation Manual (Section 300) for more information

### ***Considerations***

- DISA can be used to access extensions as well as outside numbers
- Once an incoming DISA code is entered, you cannot blank it out without entering the programming mode
- Busy override cannot be used for a DISA line

---

# Direct Trunk Access

(CPC-S and CPC-M)

## ***Description***

Extensions can access a specific trunk for outgoing calls. Extensions can also use Direct Trunk Access to test trunks or to access data trunks.

## ***Operation***

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “88,” then enter the desired line number (01-08)
  - The phone issues outside dial tone
  - “CO TALK #XX” (where “XX” is the line number) appears on the display
- 3 Dial the telephone number

The number appears on the display
- 4 Complete the call and replace the handset

## ***Considerations***

- You cannot use the Direct Trunk Access feature if you are holding a call that does not appear on a CO line key

---

# Distinctive Ringing

(CPC-S and CPC-M)

## ***Description***

Distinctive trunk call ringing patterns can be set up for each extension using the Distinctive Ringing feature. Distinctive Ringing allows users to determine which extension is ringing when several telephones are in the same area. If no



distinctive ringing pattern is set, the extension rings based on the incoming ring pattern assigned to the trunk

### ***Related Programming***

- FF3 (Extension) Extension Ring Pattern

### ***Considerations***

- One of several ringing patterns can be selected
- The ringing patterns are different for key phones and SLT/OPX phones

---

## **Door Box**

(CPC-S and CPC-M)

### ***Description***

Door Boxes (also called Door Phones) and door openers work together. The Door Box is an intercom that allows visitors to announce their presence from the office door. The door opener enables a user to unlock the door using a telephone. Door openers are not sold by Panasonic, they can be purchased separately from an electronics dealer. The Door Box is installed through the Door Box Adapter (VB-437 11) connected to a digital port.

### ***Operation***

#### **To Open a Door When Talking to the Door Box**

- 1 Answer the Door Box (Door Box calls ring in on a dedicated FF key )
- 2 Press “**#80**” followed by the Door Box access code (9999 by default) followed by “**\***” while connected to the Door Box extension

The door opens automatically.

#### **To Open a Door When Not Talking to the Door Box**

- 1 Press the ON/OFF key

- 2 Dial “##so”
- 3 Dial the Door Box Access Code
- 4 Dial the Door Box Extension Number
- 5 Dial “\*”

### ***Related Programming***

- FF4 (Ringing and Hunt Groups) Ringing Assignments (all)
- FF1 (System Programming) Door Phone Assignments (All)

### ***Hard ware Requirements***

- The Door Box feature requires a Door Box Adaptor (VB-43711), Door Box (Door Phone) (VA-43705), and door opener The door opener can be purchased from an electronics dealer
- One Door Box can be connected to a Door Box Adaptor
- Each Door Box Adaptor uses one digital extension port

### ***Considerations***

- The Door Box extension cannot take part in conference calls or be overridden
- Door Box calls cannot be call forwarded or be hunting or coverage group members
- The Door Opener can be set to open for 2 to 12 seconds
- While the Door Opener is functioning, a call from another Door Box cannot be answered

---

# DP to DTMF Signal Conversion

(CPC-S and CPC-M)

## ***Description***

This feature allows an extension user to switch from DP to DTMF signaling when using a DP trunk

For instance, if a user dials into a voice mail system using a DP trunk, the user can switch to DTMF signaling to communicate with the voice mail system

DTMF tones can be sent either during the call or while the call is being dialed

## ***Operation***

To switch from dial pulse to DTMF dialing, press “\*” or “#”

## ***Related Programming***

- FF2 (Trunk) DTMF/Pulse Dialing for Trunks

## ***Considerations***

- DTMF dialing remains in effect for the duration of the call Pulse dialing is restored when the handset is replaced
- Once DTMF dialing is invoked, the user cannot switch back to pulse dialing without disconnecting the call
- Changing from dial pulse to DTMF is possible even if the “\*” or “#” key is programmed for speed dialing

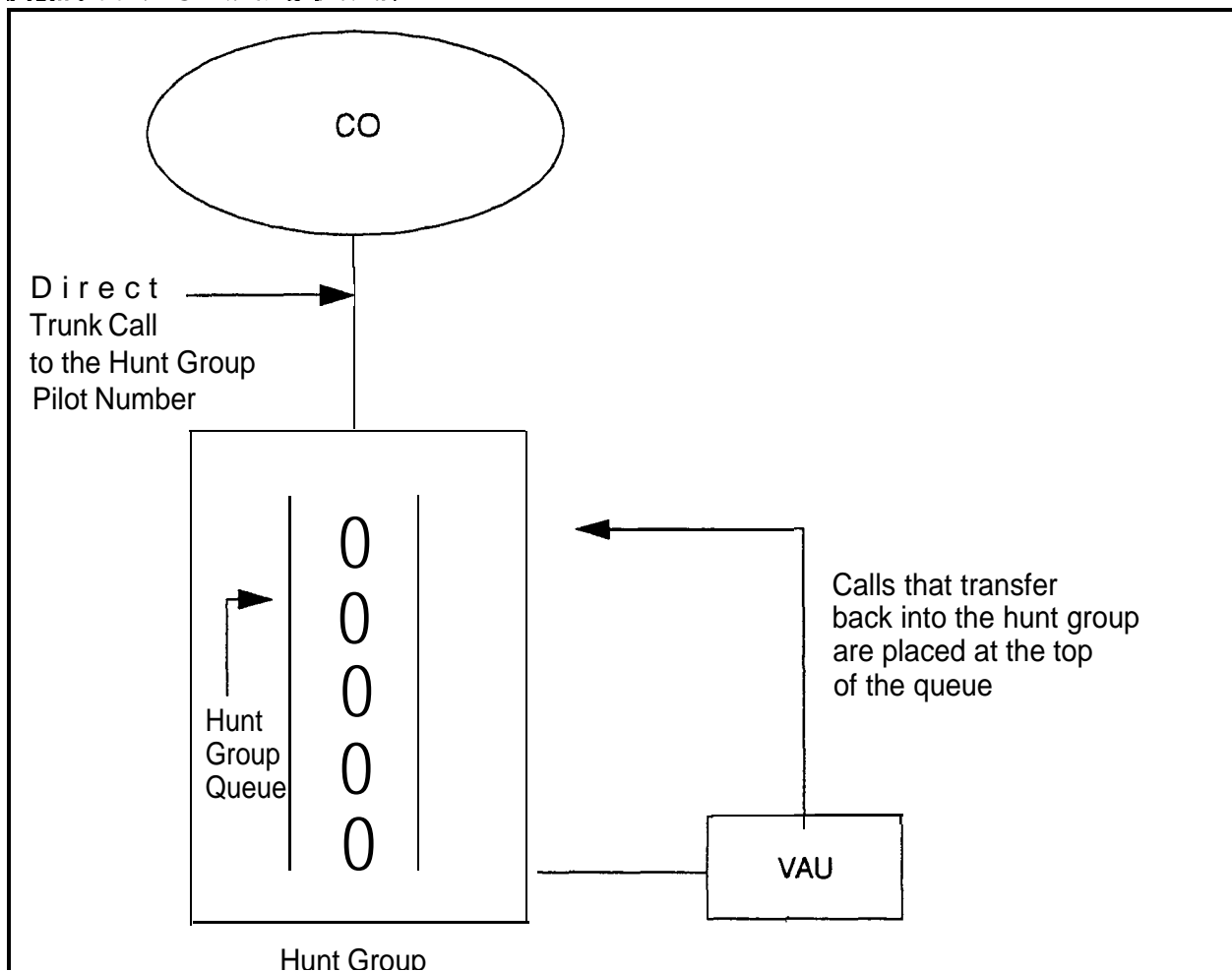
# Hunting Priority for VAUs

(CPC-S and CPC-M)

## Description

This feature allows hunting priority to be assigned to calls that overflow from the hunt group to the VAU. If the caller hears the VAU message and then decides to dial back into the hunt group, he or she is placed before other calls that have just entered the hunt group queue. For an illustration of the flow of calls, see Figure 1-1.

Figure 1-1 VAU hunting priority



- FF3 (Extension) VAU Hunting Priority

### ***Considerations***

- The following call types are routed to the first VAU message
  - Trunkcalls
  - Transferred trunk calls
  - Intercom calls
  - Transferred intercom calls

All recalls are routed to the second VAU message

---

## **Independent Timers**

(CPC-S and CPC-M)

### ***Description***

The DBS \$24 provides separate timers for Call Forwarding-No Answer, CO Delayed Ring, Extension Delayed Ring, and Hunt Group--No Answer

The Call Forwarding-No Answer timer determines how long a call will ring an extension before forwarding

The CO Delayed Ring and Extension Delayed Ring timers determine how long a call will ring an extension before ringing other extensions assigned the delayed ringing

The Hunt Group-No Answer timer determines how long a call will ring an idle member of a hunt group before hunting to the next idle group member

### ***Related Programming***

- FF1 (System) Call Forward--No Answer Timer

---

# Least Cost Routing (LCR)

(CPC-S and CPC-M)

## **Description**

Least cost routing (LCR) automatically selects the least expensive route available for toll calls. LCR is accessed by dialing “9” before placing a call.

## **Related Programming**

### **Primary Program Areas**

- FF1 (System) Least Cost Routing (LCR) Access
- FF3 (Extension) Forced Least Cost Routing
- FF8 (LCR) Time Priority Route Tables
- FF8 (LCR) LCR Trunk Group Tables
- FF8 (LCR) Least Cost Routing Area Codes
- FF8 (LCR) Special LCR Area Codes
- FF8 (LCR) Least Cost Routing (LCR) Office Codes
- FF8 (LCR) Special LCR Office Codes Tables

### **Other Program Areas**

- FF8 (LCR) LCR Add Tables
- FF8 (LCR) LCR Delete Tables

## **Considerations**

- If LCR is enabled, ML and MCO keys can be assigned for trunk group 89. However, the FF keys will not light.
- If the LCR feature is deactivated, Pooled Trunk Access is selected automatically.
- Your system can be programmed to use the LCR feature for *all* outgoing calls.

---

# Music-on-Hold

(CPC-S and CPC-M)

## *Description*

The DBS 824 can provide Music-on-Hold to parties on hold on a CO line. The Music-on-Hold feature can also be used to play announcements or advertisements if desired.

The system can provide Music-on-Hold with the internal MOH resource on systems using the MFR card option (CPC-M only). See “Background Music” on page 1- 10 for more information.

## *Hardware Requirements*

- The music source must be purchased separately. It is not provided with the DBS 824.
- If a single music source is used for both Music-on-Hold and background music, the music source connects to the CN6 on the CPC. If a separate music source is used for background music (CPC-M only), it connects to CN6 and music-on-hold connects to CN8. See *Installation (Section 300)* for instructions.
- The input impedance for the music source is 10k ohms.
- The maximum input level is 10 dB.



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**Important:** A license may be required from the American Society of Composers, Authors, and Publishers (ASCAP) or similar organizations to transmit radio or recorded music through the Music-On-Hold feature. Panasonic Communications & Systems Company, its distributors, and affiliates assume no liability should users of Panasonic equipment fail to obtain such a license.

---

## *Related Programming*

- FF1 (System) Music-On-Hold Sound Source

---

# Night Service

(CPC-S and CPC-M)

## **Description**

The Attendant can switch the system between Day and two Night Modes for answering outside calls. It is also possible to program the system to automatically switch between night and day modes.

While in a Night Mode (generally used at night or any time when your office is closed), incoming calls can ring at selected extensions (a night watchman's extension, for example), an extension connected to an answering machine, or to a Universal Night Answer point. Universal Night Answer (UNA) is used to allow calls to be picked up from any extension.

See page 1-43 for information on setting a UNA point.

See "Auto Day Mode" (page 1-6) for information that allows automatic switching between day and night modes.

## **Operation**

### **To switch to a Night Mode**

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial "#522" for Night1 mode or "#523" for Night 2 mode (Note #520 can be used to toggle between Day, Night1 and Night2 modes )
- 3 Press the ON/OFF key
  - The ON/OFF LED goes off
  - "NIGHT MODE" or "NIGHT2 MODE" appears on the display

### **To switch to Day Mode**

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone



- The ON/OFF LED lights
- 2 Dial “#521” (Note #520 can be used to toggle between modes )
- 3 Press the ON/OFF key
  - The ON/OFF LED goes off
  - “DAY MODE” appears on the display

### ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF1 (System) Ring Patterns for UNA Terminals (M, C, & B)
- FF3 (Extension) Extension Class of Service Assignment
- FF4 (Ringing and Hunt Groups) CO Day Ring Assignments
- FF4 (Ringing and Hunt Groups) CO Night Ring Assignments
- FF4 (Ringing and Hunt Groups) CO Night2 Ring Assignments

### ***Hardware Requirements***

- Calls during Night Mode are often indicated by external paging speakers or an external ringing device, such as a night bell External paging and ringing devices are not provided with the DBS 824, they must be purchased separately

### ***Considerations***

- Day, Night and Night 2 modes can be assigned to FF keys on an attendant phone The attendant can switch between Day, Night and Night 2 modes simply by pressing the appropriate key The FF key Lights red when the system is in the assigned mode Alternatively a DAY/NIGHT1/NIGHT2 toggle mode key can be assigned Pressing the key toggles the mode When in Day mode, the FF key LED is not lit When in NIGHT1 mode, the LED lights red When in NIGHT2 mode, the LED lights green
- If the same mode key is assigned on different attendant positions, each key indicates the current mode For instance, if a NIGHT1 key is assigned for two attendants, both light when in NIGHT1 mode
- If the system is programmed to switch between night and day modes automatically, you cannot switch between modes by using the “#520/#521/#522/#523 ”

---

# Off-Premises Extension

(CPC-S and CPC-M)

## **Description**

SLTs that are located in remote locations can be connected to the DBS 824 through the Off-Premises Extension (OPX) Adaptor

Off-premise phones can be connected through a direct line to the DBS 824 or through the central office, depending on how far they are from the main cabinet. For specifications, *see Installation (Section 300)*

## **Operation**

Feature operation for OPX extensions is the same as for local SLTs connected to the DBS 824

## **Related Programming**

- FF3 (Extension) Terminal Type

## **Hardware Requirements**

- One OPX Adaptor (VB-43702) is required for each OPX extension
- When OPX extensions are connected through the central office, an external ringer supply may be required. If required, the ringing supply is connected to the OPX Adaptor

## **Considerations**

- Up to 6 OPX extensions can be connected to a system
- The DBS 824 side of the OPX Adaptor is *connected* to a *digital* extension port

---

# Paging

(CPC-S and CPC-M)

## ***Description***

Internal paging is accomplished through the speakers of your system's key phones. The Paging feature allows you to contact someone temporarily away from an extension, give instructions to an entire group, or communicate with several people at once. If an external paging system is connected to your system, pages can also be sent through its speakers.

The Paging feature can also be programmed to time out after sixty seconds. When a page call times out, a busy tone is sent to the extension that initiated the page.

## ***Operation***

To use the Paging feature

- 1 Pick up the handset.
- 2 Press “#,” then enter the number of the desired Paging Group (00-07).  
The EXT LED lights.
- 3 Make your announcement.
- 4 Replace the handset.

## ***Related Programming***

- FF1 (System) Page Duration
- FF1 (System) External Page Interface Control for Paging Groups
- FF3 (Extension) Page Group (0-7) Extensions

## ***Hardware Requirements***

- External relays and an amplifier are required for external paging.

## ***Considerations***

- If an external paging system has been connected to Paging Groups 00-07, pages can be made through the external speakers Voice Paging can also be heard over the extensions in groups 00-07
- An extension can belong to more than one paging group
- A maximum of eight Paging Groups can be assigned to a system
- Additional pages cannot be sent when someone is paging group 00 In fact, if you page group 00 while other extensions are paging groups 01-07, the latter operations will be terminated, and “Page Overridden” will appear on your display
- Paging cannot be heard at busy extensions or at extensions for which the Do Not Disturb, Call Forwarding, or Absence Message feature is activated
- You can answer Paging from an idle extension by dialing the Meet-Me Answer code (“77”)
- The Meet-Me Answer feature cannot be used at an extension that is off-hook at the time of the Paging Call, even if the extension later goes onhook
- The Meet-Me Answer feature cannot be used with Paging Group 00

---

## Power Failure Transfer

(CPC-S and CPC-M)

### *Description*

This feature provides telephone service to a limited number of SLTs during a power failure The SLTs are connected to the CO via a Power Failure Unit (PFU)

In the event of a power failure, the power failure extensions have dial tone directly from the CO, system features and restrictions do not apply

### *Hardware Requirements*

- Power Failure Unit (VA-43703)
- An SLT that will be connected to the PFU

- A Single Line Telephone Adapter (VB-40709) is required to provide analog ports to the PFU

### ***Considerations***

- Up to four SLTs can be connected to one Power Failure Unit
- If a call is in progress through the PFU when the power is restored, the call will be disconnected
- For added protection against power outages, backup batteries can be installed in the DBS 824 Backup batteries provide full telephone service and system features to all DBS 824 extensions for a limited amount of time

With maximum traffic, the backup batteries last up to 40 minutes

---

# Remote Maintenance

(CPC-S and CPC-M)

## *Description*

The DBS 824 can be programmed from a remote terminal or from a remote PC by connecting via modems to the Maintenance port on the Serial Interface Unit (SIU) The Remote Programming Mode may also be used locally by directly connecting to the Maintenance Port

## Remote Programming Mode

(CPC-S and CPC-M)

## *Description*

Remote Programming Mode uses a modem connected to a “dumb” terminal or a PC terminal program to access a modem connected to the DBS 824 Maintenance serial port. Local programming bypasses the modems and connects directly from the PC or terminal to the Maintenance serial port

When programming from a terminal connected to the RS-232C (Maintenance) port either directly or via a modem, perform the following steps

- 1 Make certain that any cables and modems are configured and connected as outlined in Section 300
- 2 Enter your terminal communications program and make sure your PC's data communications settings match those of the DBS 824
- 3 If connecting remotely using modems, dial up the DBS 824 Maintenance port modem following the procedures for your terminal package Once connected, if the Bus Monitor is active, Bus monitor information may display
- 4 Set the DBS 824 to the terminal communications mode by entering or have someone on site enter the following code at an extension or attendant position  
  
**#99xxxx** (where xxxx = the site's password)
- 5 After the DBS 824 displays the DBS Remote Programming Banner Screen, type P and then press Enter

- 6 Follow the directions on the screen to access the desired programs (See “Terminal Programming Commands ”)

**Note:** The Serial Interface Unit (SIU) supports three functions, 1) Bus Monitor, 2) SMDR, and 3) Remote Programming However only one function can operate at a time When not in remote programming, either SMDR or a Bus Monitor is active When the remote programming mode is entered (by #99xxxx), the other function stops When finished, the SMDR or Bus Monitor function resumes You may set the DBS 824 in the desired SMDR or Bus Monitor mode by entering or have someone on site enter the following code at an extension or attendant position

<i>Command</i>	<i>Function</i>
#90	Normal Bus Monitor on SIU Maintenance Port
#91	Register Bus Monitor on SIU Maintenance Port
#92	Poll Bus Monitor on SIU Maintenance Port
#93	SMDR Output on SIU <del>SMDR</del> Port

## ***Terminal Programming Commands***

Use the following commands to navigate terminal programming

<b>Command</b>	<b>Description</b>
-01	Access System parameters
-02	Access Trunk parameters
-03	Access Extension parameters
-04	Access Ring assignments
-05	Access FF-key assignments
-06	Access Name assignments
-07	Access Toll Restriction data
-08	Access Least Cost Routing data
-09	Access Copy mode
-10	Access Speed Dial data
-B	Back to previous address
-b	Back to previous port
~F	Forward to next address
- f	Forward to next port
- R	Return to previous mode
Ctrl-Z	Quit

# Station Class of Service

(CPC-S and CPC-M)

## Description

Station Class of Service provides a way to restrict access to certain extension features. Station Class of Service 0 provides access to all features. By default, all extensions are assigned to this class of service. Classes of Service 1-8 can be modified to allow and restrict access to specific features. The following table shows the features that can be enabled/disabled for station classes of service.

**Table I-1 Station Classes of Service**

Class of Service Features	
Number	Feature
1	Dial Tone On/Off (#50)
2	Head/Handset Exchange (#51)
3	BGM On/Off (#53)
4	Absence Message Set/Reset (71)
5	Call Forward Set/Reset (72)
6	Do Not Disturb (73)
7	Station Lockout (74)
8	Park Access (75)
9	Park Pick Up (76)
10	Meet Me Answer (77)
11	UNA Pickup (78)
12	Direct Pickup (79)
13	Group Pickup (70)
14	Tone/Voice Mode (1)
15	Message Waiting Set (2)
16	Busy Override (4)
17	Call Waiting (3)
18	Offhook Voice Announce (5)
19	Central Office Call Queuing (2)
20	SLT Transfer (8)
21	Call Forwarding External <b>Note:</b> This item controls external call forwarding for internal calls

## Related Programming

- . FF1 (System) Extension Class Of Service Setting
- . FF3 (Extension) Extension Class of Service Assignment



---

# Station Hunting

(CPC-S and CPC-M)

Station hunting allows calls to be automatically transferred among a preselected group of phones

When a call terminates to a busy extension in a hunt group, the call automatically transfers to another extension in the group. If the second extension is busy, the call automatically transfers to another member of the group.

Three types of hunt groups are available: Terminal, Distributed, and Longest Idle. In addition, a software-defined pilot extension number is available.

The DBS 824 also allows calls from busy hunt groups to overflow to a transfer extension. The transfer extension can be the pilot of another hunt group, the pilot (0) of the attendant group, or a single extension number.

## ***Terminal Hunt Groups***

When the Terminal method is selected, a call to the hunt group will repeatedly search hunt group members until the Transfer Timer expires. If none of the members is free when the timer expires, the call is transferred to the transfer extension.

## ***Distributed Hunt Groups***

When the Distributed method is selected, calls are distributed through the hunt group based on which extension in the group received a call in the last search. The incoming call begins its search at the next available extension in the group and then repeatedly searches the group, in sequence, until the Transfer Timer expires. If none of the members is free when the timer expires, the call is transferred to the transfer extension.

## ***Longest Idle Hunt Groups***

With Longest Idle hunting, a call to the pilot number rings the extension in the group that has been available the longest.

As with the other two methods, the search then continues through the Hunt Group until the Transfer Timer expires. If a member does not become available before the timer expires, the call is transferred to the transfer extension.

## ***Related Programming***

- FF4 (Ringing and Hunt Groups) Hunt Group Type

- FF4 (Ringing and Hunt Groups) Hunt Group Pilot Number
- FF4 (Ringing and Hunt Groups) Hunt Group Transfer Timer
- FF4 (Ringing and Hunt Groups) Hunt Group Member
- FF4 (Ringing and Hunt Groups) Transfer Extension
- FF4 (Ringing and Hunt Groups) CO Delayed Day Ring Assignments for Hunt Groups
- FF4 (Ringing and Hunt Groups) CO Delayed Night Ring Assignments for Hunt Groups
- FF4 (Ringing and Hunt Groups) CO Delayed Night 2 Ring Assignments for Hunt Groups
- FF4 (Ringing and Hunt Groups) Central Office Day Ring Assignments for Hunt Groups
- FF4 (Ringing and Hunt Groups) Central Office Night Ring Assignments for Hunt Groups
- FF4 (Ringing and Hunt Groups) Central Office Night 2 Ring Assignments for Hunt Groups
- FF4 (Ringing and Hunt Groups) Ringing Assignments (all)
- FF1 (System) Hunt Group No Answer Timer

### **Considerations**

- Up to 4 Station Hunt Groups can be programmed, a single Hunt Group can contain up to 16 extensions, plus a pilot extension number
- The transfer destination of any Hunt Group can be set to the pilot number of the next group, the pilot number (0) of the Attendant Group, the pilot number of the same group, or a real extension The transfer destination cannot be voice mail
- A Transfer Timer adjusts the transfer time between hunt groups The transfer time can be set from 0 to 32 seconds If the timer is set to 0 seconds, CO calls will be queued at the hunt group until a member is available Intercom calls will also queue
- Central **office** trunks can be set to terminate to different hunt group pilot numbers during day and night mode operation
- The Hunt Group No Answer Timer determines how long a hunt group member rings before the call is transferred to the next hunt group member

- A call arriving at the the pilot number of a hunt group will hunt to a member that has call forwarding set, unless call forwarding is set to an outside number The following call types will hunt to a member that has call forwarding set
  - Intercom calls
  - Transferred intercom calls
  - Incoming CO calls
  - Transferred CO calls
  - DISA calls
- In order for an extension to be permanently call forwarded to the pilot number of a hunt group, the hunt group pilot number must be 244 or above If extension 200 is assigned as the pilot number of a hunt group, hunting will work properly when 200 is dialed However, permanent call forwarding will not work for any extension that is permanently call forwarded to the hunt group pilot number

# Station Message Detail Recording (SMDR)

(CPC-S and CPC-M)

## Description

Station Message Detail Recording (SMDR) provides detailed call records of outgoing calls. SMDR records can be output to a printer or an external call accounting system. Figure 1-2 shows the SMDR format for the CPC-S and CPC-M.

Figure 1-2 SMDR Format CPC-S and CPC-M

0	1	2	3	4	5	6	7				
0	1	2	3	4	5	6	7				
0	1	2	3	4	5	6	7				
012345678901234567890123456789012345678901234567~901234567~901234567~901234567											
1	2	3	4	5	6	7	8	9			
T	MM/DD	HH:MM	SS	HH:MM	SS	NNN	DDDDDDDDDDDDDDDDDDDDDDDDDDDDDD	AAAAAAAAA	VVVV	NN	
1=Call type					5=Extension number						
S=Inbound DISA					10-69 100-699=extensions						
s=Outbound DISA					CO number=DISA						
I=Incoming					6=Dialed digits or Caller ID						
O=Outgoing					DD=digits 0-9 or symbols * or#						
T=Transfer (See Note 1 )					(See Note 2 )						
2=Date					7=Account code						
MM=month					A=0-9999999999						
DD=day											
3=Call start time					8=Verified account code or walking						
HH=hours					COS code						
MM=minutes					V0000-V9999=verified account codes						
SS=seconds					W0000-W9999=walking COS codes						
4=Call duration					9=Trunk Number						
HH=hours					NN=number (01-64)						
MM=minutes											
SS=seconds											
Notes:											
1 Transferred calls include direct and group call pickups and conference calls											
If a station call is transferred to an outside number, an SMDR record is											
also created for the station that is transferred											
2 The • symbol appears as a greater-than sign (>) on the SMDR printout; the # symbol											
appears as a less-than sign (<) Centrex and PBX codes, as well as LCR access											
codes do not appear as dialed digits With Caller ID information "Private"											
appears with calls that have restricted Caller SD display and "Out of Area"											
appears with calls that originated out of the CO s area											

- FF1 (System) SMDR Start Timer for CO Calls
- FF1 (System) SMDR Printing Mode 1 Outbound and Inbound
- FF1 (System) SMDR Printing Mode 2 Long Distance and Local Calls
- FF1 (System) SMDR Printing Mode 3 Header Title
- FF3 (Extension) Station Message Detail Recorder (SMDR) Report

## Hardware Requirements

- A printer or external call accounting system is required to output SMDR data

---

# Toll Restriction

(CPC-S and CPC-M)

## Description

Access levels, including the prohibition of long distance calls or after-hours calls, can be assigned to specific extensions or CO lines using the Toll Restriction feature. This minimizes non-business related calls and reduces phone bills by only allowing long distance calls over designated lines.

The following access levels are available:

**Table 1-2 Toll Restriction Types**

Toll Restriction Type	Characteristics
0	Restriction of outbound dialing (except 911) Inbound ringing trunks can be answered by or transferred to Type 0 extensions Intercom calls are allowed Cannot perform Group Call Pickup
1	Full restriction of outbound dialing (except 911) Inbound ringing on all trunks Intercom calls are allowed Group call pickup is allowed

2	Local calls allowed 1-800 calls allowed Inbound trunk calls can be answered and transferred from a Type 2 phone Full restriction of international calls Full restriction of operator calls Speed dial number selectable restriction N11 code selectable restriction except 911 Restriction of up to 50 seven-digit numbers Inter-digit timing is set to 6 seconds
3	1 800 calls allowed Full restriction of operator calls Selectable restriction of international calls Selectable restriction of N11 codes (211 811) Speed dial number selectable restriction Restriction of up to 50 seven-digit numbers Trunk calls can be answered and transferred Defaulted to full restriction of area-code dialing (see Notes) Defaulted to full restriction of office-code dialing (see Notes) Inter digit timing is set to 6 seconds
4	Identical to Type 3 except that office code dialing is allowed by default; type 4 also allows Operator Calls (Type 3 does not allow Operator Calls) (See Notes)
5	Programmable TRS Type; defaulted to no restrictions (see Notes)
6	Programmable TRS Type; defaulted to no restrictions (see Notes)
7	No restriction of outbound dialing
<p>Notes:</p> <p>For TRS types 3 6 operator calls are allowed if <b>FF7 1# 1#</b> is set to on The office code tables are used to restrict all 0 plus dialing the next two digits will also be analyzed</p> <p>For TRS types 3 6 area code and office code restrictions can be changed using Area Code Table For TRS Types 3 6 Office Code Table For TRS Types 3 6 Special Area Code Table For TRS Types 3 6 and Special Office Code Table For TRS Types 3 6 explained in Chapter 8 of <i>Programming (Section 400)</i></p> <p>For TRS types 3 6 area and office code restrictions can be further managed using Special Area Code Table For TRS Types 3 6 and Special Office Code Table For TRS Types 3 6 found in Chapter 8 of <i>Programming (Section 400)</i> Four area codes can be associated with special area code tables 1-4 (one area code per table) Within each of these tables the entire range of valid office codes can be individually allowed or restricted Thus the Special Area and Office Codes work together to provide specific toll restrictions</p>	

The following calling restrictions are also available

- Station Lockout Key Code Restriction

A key code must be entered before calling out when the Station Lockout feature is activated

- Account Code Restriction

An Account Code must be entered before calling out.

- Forced LCR Restriction

The LCR feature controls outside calls

### ***Related Programming***

- FF1 (System) Override Toll Restrictions with SSD Numbers
- FF3 (Extension) Extension Lockout Code
- FF7 (Toll Restriction) Toll Restriction Settings (all)

### ***Considerations***

- The dialing restrictions included in this feature help prevent unauthorized outgoing calls. It is possible, however, to program your system to allow System Speed Dialing to override Toll Restrictions.

---

# **Trunk Groups**

(CPC-S and CPC-M)

### ***Description***

Trunks can be placed in trunk groups. When a trunk group is accessed, the DBS 824 automatically selects an open trunk from the group.

### ***Operation***

To access a trunk group, do one of the following:

- Dial a trunk group access code before dialing the telephone number. Trunk group access codes are 9, 81, 82, 83, 84, 85, and 86.
- Press an FF key that is assigned as a pooled trunk key.

### ***Related Programming***

- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Groups “81-86”

### ***Considerations***

- Trunks can appear in more than one trunk group
- If Least Cost Routing is enabled, the trunk group “9” automatically accesses the LCR features

---

## Trunk Name Assignment

(CPC-S and CPC-M)

### ***Description***

You can display a name, number, or message of up to six characters on the LCD in place of your CO trunk line number. The name will appear when a CO call is ringing or connected.

For example, you can assign specific CO lines to different individuals or departments. Then, when an extension rings, the individual’s name or the department’s name will appear on the display, immediately identifying the person for whom the call is intended.

While you are speaking on the extension, “CO TALK XXXXXX” will appear on the LCD (XXXXXX represents the six characters of the Trunk Name). While the extension is ringing, “INCOMING XXXXXX” will appear. While the extension is ringing and you are speaking on the extension at the same time, “INCOMING XXXXXX” will appear on the second line of the display.

### ***Related Programming***

- FF6 (Name and Message) Trunk Name Assignment

### ***Considerations***

- Trunk names can be assigned with a DSS or an attendant phone
- If a text name is assigned to a CO trunk, the trunk number does not appear on the display



---

# Trunk Queuing

(CPC-S and CPC-M)

## ***Description***

If all outside lines in a Trunk Group are busy, the system can call you when a line becomes free. When the Trunk Callback alert tone rings, simply pick up the handset and dial the telephone number.

## ***Operation***

### **To set Trunk Queuing**

- 1 Press the **ON/OFF** key
- 2 Press the CO line key or dial a trunk access code  
  
The phone issues busy tone
- 3 **Press “2”**  
  
“In CO Queuing” appears on the display
- 4 **Press the ON/OFF** key
- 5 Wait for the Trunk Callback alert tone

### **To respond to the Trunk Callback alert tone**

Pick up the handset.

- The outside line is automatically accessed
- The phone issues dial tone
- “CO TALK #XX” (where “XX” is the line number) appears on the display

## ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

## **Considerations**

- Response to the Trunk Callback alert tone must be within sixteen seconds or Trunk Queuing will be canceled
- If a call arrives from an outside line while the Trunk Queuing feature is activated, Trunk Queuing will be suspended for the duration of the incoming call
- If you are engaged in another call on a different line for more than twenty minutes after the desired outside line becomes available, that outside line's assignment to you will be canceled
- The Trunk Queuing feature may also be used if you hear a busy tone when trying to make a call using the Pooled Trunk Access feature
- Trunk Queuing can be used by SLTs

---

# **Universal Night Answer**

(CPC-S and CPC-M)

## **Description**

During night mode, Universal Night Answer (UNA) incoming calls can be indicated on an external speaker system **With** the CPC-M, calls can alternatively be indicated on an external ringer, such as a night bell

Universal Night Answer calls can be picked up from any extension, provided the extension's Class of Service allows UNA answer

## **Operation**

### **To answer a UNA call**

- 1 Pick up the handset.

The phone issues intercom dial tone

- 2 Dial '78'**

"CO TALK #XX" appears on the display (where "XX" = the trunk number)

## ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF1 (System) Ring Patterns for UNA Terminals (M, C, & B)
- FF3 (Extension) Extension Class of Service Assignment
- FF4 (Ringing and Hunt Groups) CO Day Ring Assignment
- FF4 (Ringing and Hunt Groups) CO Night Ring Assignment

## ***Hard ware Requirements***

- An external ringing device is not provided with the DBS 824 It can be purchased separately from an electronics dealer
- An external amplifier and speakers are not provided with the DBS 824, they must be purchased separately

## ***Considerations***

- Extension port 17 (CPC-S) or port 25 (CPC-M) is used to assign ringing to an external UNA interface

---

# **Voice Mail Ringing**

(CPC-S and CPC-M)

## ***Description***

The Voice Mail Ringing feature allows calls from a DBS 824 Automated Attendant or from an ACD port to ring an extension with the same ring tone as a CO trunk The ring pattern is selected in the Extension Distinctive Ringing program If a distinctive ringing pattern is not specified, the ringing pattern will be two seconds on/two seconds off

## ***Related Programming***

- FF3 (Extension) Extension Ring Pattern

---

# VAU

(CPC-S and CPC-M)

## **Description**

The Voice Announce Unit (VAU) is a digital answering device that can be connected to the DBS 824. It provides for the recording and playback of up to two voice messages, along with the ability to transfer incoming calls.

When a call reaches the VAU, it plays a prerecorded voice message. The caller is then allowed to dial a number or is automatically transferred to a predetermined extension.

The VAU is often used to back up operators or hunt groups. Callers overflowing from either of these positions hear a message and can then dial a number or wait to be transferred back to the operator or hunt group.

The VAU can be used to provide a variety of other services to callers, such as a menu of dialing options or transfer to an answering machine.

---

# VAU Port Assignment

(CPC-S and CPC-M)

## **Operation**

A digital port can be assigned as a VAU through system programming.

The following call types are routed to the first VAU message:

- DISA calls
- \*Transferred trunk calls
- \*Transferred intercom calls

All recalls are routed to the second message.

## **Programming**

- FF3 (Extension) VAU Port Assignment
- FF3 (Extension) VAU Hunting Priority

---

# Walking TRS Class of Service

(CPC-S and CPC-M)

## ***Description***

Walking TRS Class of Service allows an extension user to “carry” his or her toll restrictions to another phone

Before the Walking TRS Class of Service feature can be used, a Walking Class of Service code must be entered for each extension that wants to use dialing privileges at another extension

### **To enter a Walking Class of Service code**

- 1 Pick up the handset  
The phone issues intercom dial tone
- 2 Dial “#12 ”
- 3 Enter the four-digit Walking Class of Service code (0001-9999)

## ***Operation***

### **To enter a Walking Class of Service code**

- 1 Pick up the handset.  
The phone issues intercom dial tone
- 2 Dial “#12 ”
- 3 Enter the four-digit Walking Class of Service code (0001-9999)
- 4 Press “#”
- 5 Replace the handset.

### **To use a Walking Class of Service code**

- 1 Pick up the handset of an extension other than your own  
The phone issues intercom dial tone
- 2 Dial “#13 ”

- 3 Enter your extension number
- 4 Enter your Walking Class of Service code
- 5 Press “#”
- 6 Enter a trunk access code (88XX, 9, 81-86)  
The phone issues outside dial tone
- 7 Dial the telephone number  
The Walking Class of Service remains in effect until you replace the handset.

### **To clear a Walking Class of Service code**

- 1 Pick up the handset  
The phone issues intercom dial tone
- 2 Dial “#12 ”
- 3 Enter the original Walking Class of Service code
- 4 Press “#”
- 5 Replace the handset

### **To confirm a Walking Class of Service code (Attendant Phone only)**

- 1 Pick up the handset.  
The phone issues intercom dial tone
- 2 Press the CONF key
- 3 Dial “#12 ”
- 4 Enter the extension number  
The Walking Class of Service code for that extension appears on the display

## **Considerations**

- Walking Class of Service can be used by KTELEs, DSLTs, and SLTs
- A Walking Class of Service code can be used on more than one extension

- If an extension is locked out, the Walking Class of Service feature will override the lockout
- LCR and TRS dialing privileges follow the Walking Class of Service

---

# Chapter 2. Attendant Features

This chapter describes features that are available to an attendant phone

In addition to functioning as a central answering point, an attendant phone also has special capabilities for monitoring and programming other phones

This chapter covers the following topics

<b>Topic</b>	<b>Page</b>
Attendant Assignment of Speed Dialing	2-3
Attendant Busy Override	2-4
Attendant Call Park	2-5
Attendant Control of Absence Messages,	2-6
Attendant-Controlled Text Assignment	2-7
Attendant Groups	2-9
Dial Tone Disable	2-10
DSS/72	2-11
Headset Operation	2-13
Key Bank Hold	2-14
One-Touch VM Transfer	2-14
Station Lockout Code Assignment	2-17
System Time and Date Control	2-18
Traffic Measurement	2-20
Walking COS Configuration	2-22





---

# Attendant Assignment of Speed Dialing

(CPC-S and CPC-M)

## ***Description***

The attendant can assign system speed dialing numbers. System speed dialing numbers are shared by all DBS 824 extensions.

## ***Operation***

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 Press the PROG key
  - “F” appears on the display
- 3 Press AUTO
  - “FA” appears on the display
- 4 Enter the Speed Dial code (00-89 or 000-199)
  - “Enter SSD XX” appears on the display (where “XX” is the System Speed Dial code)
- 5 Dial the telephone number to be stored
  - The number appears on the display
- 6 Press the HOLD key
  - “SSD XX” (where “XX” is the Speed Dial code) and the stored telephone number appear on the display
- 7 Repeat steps 2-6 to store additional numbers

## ***Considerations***

- Storing a new number erases any previously stored data
- To delete a System Speed Dial number, perform the programming **steps**, but do not enter a number before pressing HOLD

- Names for System Speed Dialing can also be stored using a DSS console connected to the attendant phone

---

# Attendant Busy Override

(CPC-S and CPC-M)

## ***Description***

The Attendant Busy Override feature allows the attendant to break in on an Intercom Call or a CO Call that is already in progress

Attendant Busy Override can break into any extension, even if the extension has “Busy Overridden” turned off (The extension feature “Busy Override” cannot break into an extension that has “Busy Overridden” turned off )

System programming determines whether the override is preceded by an alert tone By default, Attendant Override does not sound an alert tone

## ***Operation***

### **To override a busy extension**

Press “4 ”

“CONF XXX YYY” (where “XXX” and “YYY” are the extension numbers) appears on the display

## ***Related Programming***

- FF1 (System) Attendant Override
- FF1 (System) Alert Tone for Busy Override & OHVA

## ***Considerations***

- Replace the handset to exit the three-party conference call
- The alert tone can be turned on or off through system programming

# Attendant Call Park

(CPC-S and CPC-M)

## ***Description***

Using the Attendant Call Park feature, the Attendant may park an outside call until the called party can be found. The attendant can then use the Paging feature to inform the called party of the call's Park Number. The parked call can then be retrieved from any extension by dialing the Park Number.

The attendant phone is equipped with ten outside line Park Numbers (00-09). Programming a Call Park key into an **FF** key on a telephone or a DSS console makes one-touch Call Park possible.

## ***Operation***

### **To park an outside call**

- 1 Press the **HOLD** key
  - The outside call is placed on hold
  - “CO HOLD #XX” (where “XX” is the trunk number) appears on the display
- 2 Dial “75 ”
- 3 Enter desired Park Number (00-09)
  - “PARK HOLD 01” appears on the display if you selected Park Number 01

### **To release a parked call (after receiving the Park Number from the Attendant)**

- 1 Pick up the handset.
  - The phone issues intercom dial tone
- 2 Dial “76 ”
- 3 Enter the Park Number assigned to the call
  - “PARK PICK XX” (where “XX” is the park number) appears, and then “CO TALK #XX” (where “XX” is the trunk number of the call) appears

## ***Related Programming***

- FF1 (System) Attendant Park Hold Recall Timer

## ***Considerations***

- An FF key assigned to Call Park indicates when a call is parked
- If a parked call is not answered before the Attendant Park Hold Recall Timer expires, the parked call recalls to the attendant

---

# **Attendant Control of Absence Messages, Call Forwarding, and DND**

(CPC-S and CPC-M)

## ***Description***

An attendant phone can cancel the Absence Message, Call Forwarding, and Do-Not-Disturb (DND) features activated on any extension

## ***Operation***

### **To cancel an Absence Message, Call Forwarding, or DND**

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the **CONF** key
- 3 Dial the extension number
- 4 Press **\*\***
- 5 Press the **ON/OFF** key

The **ON/OFF** LED goes off

## ***Considerations***

- On DSS consoles equipped with DSS keys, the indicator for an extension that has Absence Message, Call Forwarding, or DND activated lights green This indicator goes off when the feature is canceled The indicator does not light for Permanent Call Forwarding

---

# Attendant-Controlled Text Assignment

(CPC-S and CPC-M)

## **Description**

The attendant can assign text to extensions, system speed dial numbers, and Call Waiting/OHVA text replies without using a DSS/72 or entering the programming mode

Text is assigned through the dial pad on the attendant phone

## **Operation**

### **To assign names to extensions**

- 1 Pick up the receiver or press the ON/OFF key
- 2 Press PROG
- 3 Dial #2
- 4 Enter the extension's port number
- 5 Press AUTO to backspace and erase the existing name
- 6 Use the dialpad sequences shown in Table 2-1 on page 2-8 to enter letters and/or numbers  
  
Press FLASH after each letter  
  
Press CONF to switch between numbers and letters
- 7 To store your entry, press HOLD

### **To assign names to System Speed Dial numbers**

- 1 Pick up the receiver or press the ON/OFF key
- 2 Press PROG

- 3 Dial #1
- 4 Press AUTO
- 5 Dial the desired system speed dial number (00-89 or 000-199)
- 6 Press AUTO to backspace and erase the existing name
- 7 Use the dialpad sequences shown in Table 2-1 to enter letters and/or numbers  
  
Press FLASH after each letter  
  
Press CONF to switch between numbers and letters
- 8 To store your entry, press HOLD

### To assign text to Call Waiting/OHVA Text Replies)

- 1 Pick up the handset or press ON/OFF
- 2 Press PROG
- 3 Dial #5
- 4 Dial 1-5, depending on which text message you want to change
- 5 Press AUTO to backspace and erase the existing name
- 6 Use the dialpad sequences shown in Table 2-1 to enter letters and/or numbers  
  
Press FLASH after each letter  
  
Press CONF to switch between numbers and letters
- 7 To store your entry, press HOLD

**Table 2-1 Key sequences for text assignment**

Key	Number of Key Presses					
	Once	Twice	Three times	Four times	Five times	Six times
1	Space	Q	Z	Space	q	z
2	A	B	C	a	b	c
3	D	E	F	d	e	f
4	G	H	I	g	h	i

Key	Number of Key Presses					
	Once	Twice	Three times	Four times	Five times	Six times
5	J	K	L	j	k	l
6	M	N	O	m	n	o
7	P	R	S	p	r	s
8	T	U	V	t	u	v
9	W	X	Y	w	x	y
0						
*	*	-	?	*	-	?
#	#	/	!	#	/	!

## Attendant Groups

(CPC-S and CPC-M)

### *Description*

The DBS 824 can accommodate up to four attendant positions. The first attendant is fixed at port 1, extension 100. The other Attendants can be set to any port or extension. When there is more than one attendant in a system, you can create an Attendant Group with a pilot number of 0.

When all Multi-Line keys on the first attendant phone are busy, calls are forwarded to the second, third, and fourth attendant phones, in that order.

### *Related Programming*

- FF1 (System) Second Attendant Position
- FF1 (System) Third Attendant Position
- FF1 (System) Fourth Attendant Position
- FF1 (System) Attendant Transfer Extension

### *Considerations*

- If all four phones are busy, calls are transferred to a preset destination, which must be a real extension number. The forwarding destination cannot be the pilot number of a hunt group.



The third and fourth attendants cannot have a DSS/72

**Dial “0”** calls ring the first attendant, even if the first attendant has call forwarding activated. However, if a call is unanswered, it does not skip to the next attendant. The call continues to ring the first attendant until the caller hangs up.

---

# Dial Tone Disable

(CPC-S and CPC-M)

## *Description*

The intercom dial tone can be turned off at an attendant phone. Dial tone is turned off when a headset is used.

## *Operation*

### **To disable the intercom dial tone**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press “#50 ”
- 3 Press the ON/OFF key

The ON/OFF LED goes off

### **To reactivate dial tone**

Repeat the preceding steps

# DSS/72

(CPC-S and CPC-M)

## Description

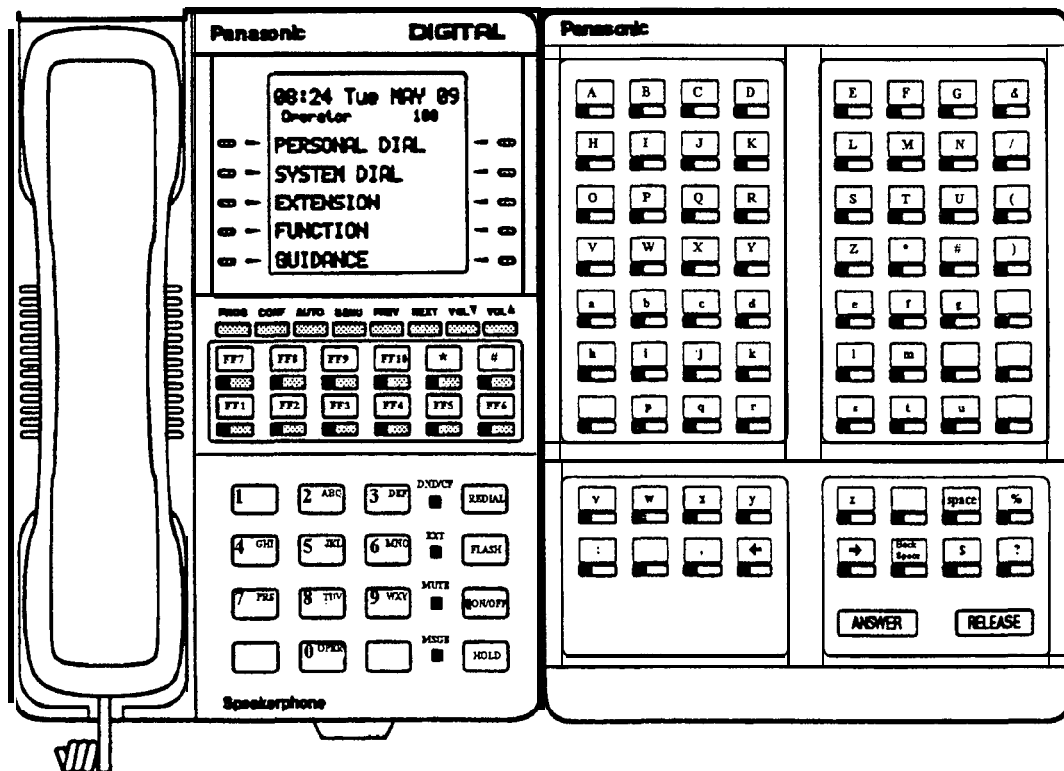
The DSS/72 is a 72-key console that can be attached to the attendant phone

The 72 keys of the DSS can be programmed as Direct Station Select (DSS) keys for internal lines In addition to providing direct station selection, the DSS keys also provide busy lamp fields to assist the attendant in monitoring the status of extensions

The attendant can perform a simplified call transfer by pressing a DSS key while connected to an outside line The outside line is placed on hold and the extension is dialed automatically

When the attendant is placed in the programming mode, the DSS can be used for inputting text names Figure 2-1 shows which keys are pressed for text input.

Figure 2-1 VB-43225 with a DSS/72



## Related Programming

- FF3 (Extensions) Terminal Type

## Hardware Requirements

Table 2-2 *DSS/72* maximums

Attendant Position	DSS/72 Assignments
Attendant 1	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">DSS/72</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">DSS/72</div> </div>
Attendant 2	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">DSS/72</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">DSS/72</div> </div>
Attendant 3	The DSS/72 cannot be assigned
Attendant 4	The DSS/72 cannot be assigned

- The DSS key LED informs the attendant of the status of assigned extensions The LED lights red when the extension is busy and green when Absence Message, Call Waiting, or DND is activated
- Pressing a DSS key while connected to an outside line places the line on hold

# Headset Operation

(CPC-S and CPC-M)

## ***Description***

A headset can be connected to attendant or non-attendant phones (Dial tone is normally turned off when the headset is connected )

## ***Operation***

### **To use a headset**

- 1 Connect a headset to the telephone
- 2 Press the ON/OFF key
- 3 Press “#5 1 ”

The ON/OFF LED remains lit

### **To stop using a headset**

Repeat the preceding steps

## ***Hardware Requirements***

- Headsets are not provided with the DBS 824, they must be purchased separately
- Most commercially available headsets (with ECM mike transducers) can be used

# Key Bank Hold

(CPC-S and CPC-M)

## *Description*

Key bank hold allows a user on a trunk call to initiate another trunk call by simply pressing an FF key for another trunk. When the user presses the FF key, the first trunk call is automatically placed on system hold.

In addition, the attendant can use key bank hold with DSS/BLF keys to provide one-touch call transfer to an extension. For example, if the attendant phone has a DSS/BLF key assigned for extension 200, the attendant can answer an incoming trunk call and then press the DSS/BLF key to automatically transfer the call to 200.

If key bank hold is turned off, the user must press **HOLD** before accessing a second trunk or transferring a call.

## *Related Programming*

- FF1 (System) Trunk Line Automatic Hold (Key Bank Hold)

---

# One-Touch VM Transfer

(CPC-S and CPC-M)

## *Operation*

The VM key can also be used by attendants to easily transfer incoming callers to an extension's voice mailbox. When a user presses a voice mail key and then presses a DSS/BLF key, the digits programmed for the DSS/BLF key are transmitted to the voice mail system.

For example, if an attendant receives an incoming call for station 200 and the attendant knows that station 200 is busy because the DSS/BLF key is lit red, the attendant can press the VM key and then press the DSS/BLF key to automatically transfer the caller to 200's voice mailbox.

For a general description of the VM key as well as instructions on using the key for personal message retrieval, see "One-Touch VM Access" on page 3-65.

Note: The VM key is assigned differently, depending on whether it is used for personal message retrieval or attendant transfer. See the following “Operation” section for instructions.

## **Operation**

### **To assign a voice mail key**

Note: You cannot program this feature if trunks are assigned to the key. First clear the FF assignments, then use the following procedures to assign the VM key.

- 1 Press the **ON/OFF** key
  - . The phone issues intercom dial tone
  - . The **ON/OFF** LED lights
- 2 Press the **PROG** key
- 3 Press the FF key, DSS key, or One-Touch key
- 4 Press the **CONF** key
- 5 Press the **AUTO** key
- 6 Dial the voice mail extension number
- 7 If the key is for personal message retrieval, enter a password (XXX or AUTO 00-99) if desired. If the key is for attendant transfer to voice mail, do not enter a password but include any special codes (\* or #, for example) if they are required by the voice mail system.

Note: The length of the password and the VM extension number cannot exceed six digits. If the VM number and the password total more than six digits, assign the password to a personal or system speed dial number (00-99 or 000-199, 900-939).

- 8 Press the **HOLD** key

### **Attendant Transfer to Voice Mail**

- 1 The attendant answers an incoming call.

The incoming caller asks to be transferred to an extension number.
- 2 The attendant checks the **DSS/BLF** key for the extension. If the light is red, the attendant presses the **VM** key followed by the **DSS/BLF** key.

The incoming caller is transferred to the extension's mailbox

### ***Related Programming***

- FF5 (Keys) FF Key Assignment for Extensions
- FF5 (Keys) FF Key Assignments for DSS Consoles

### ***Considerations***

- Once an extension is connected to voice mail, pressing a DSS/BLF key will transmit the extension number stored on the DSS/BLF key to the voice mail system, regardless of what state the DSS/BLF key is in. In other words, the extension number is transmitted whether the key is idle, ringing or busy.

Note: DSS/BLF keys on the DSS/72 always light red when an extension is active, they do not flash red when an extension is ringing, or light green when an extension is forwarded.

Note: If an attendant wants one VM key for a personal mailbox and one for transferring to voice mail, the personal VM key must be assigned to the lowest-numbered FF key.

For example, if DSS keys 60 and 61 are assigned as VM keys, key 60 should be used for the attendant's personal mailbox. If VM keys are assigned to both the phone FF keys and the DSS keys, the lowest-numbered FF key on the phone should be used for the attendant's personal mailbox. If the personal VM key is not assigned to the lowest-numbered key, it will not flash to indicate VM messages.

---

# Station Lockout Code Assignment

(CPC-S and CPC-M)

## **Description**

The Station Lockout feature allows users to dial a Station Lockout code to restrict their phone from being used for outside calls

Station Lockout codes can be assigned through the attendant phone

## **Operation**

### **To program a Station Lockout code**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the CONF key
- 3 Dial “#8 ”
- 4 Dial the extension number
- 5 Enter the desired key code (four digits)
- 6 Press the HOLD key

“STORE XXXX” (where “XXXX” is the key code) appears on the display
- 7 Press the ON/OFF key

The ON/OFF LED goes off

## **Considerations**

- A locked extension can be used for Intercom Calls
- Station Lockout key codes can also be set through system programming



---

# System Time and Date Control

(CPC-S and CPC-M)

## **Description**

The date and time displayed on all system extensions are set from an attendant phone

## **Operation**

### **To set the date and time**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The current date and time are displayed on your LCD
- 2 Press the PROG key
  - “F” appears on the display
- 3 Dial “## ”
  - “Program Mode ” appears on the first line of the display, “MAIN MODE” appears on the second line
- 4 Press the FF 1 key
  - “SELECT SUB MODE” appears on the second line of the display
- 5 Dial “1# ”
  - “1 DATE 2 TIME” appears
- 6 Dial “1# ”
  - “MONTH/DAY/YEAR” appears
- 7 Enter six digits for the month, day, and year
  - For example, to set the date to March 3, 1993, enter “030393 ”
- 8 Press #
  - “TIME SET MODE appears on the display

- 9 Enter four digits for hours and minutes (24-hr tune)

For example, for 11 00 a m , enter “1100 ’

- 10 Press #

- 11 Press the ON/OFF key

The new date and time appear on the display

### **To reset the minutes display to “00 ”**

If the clock is five minutes slow or fast, you can re-synchronize the minutes setting to “00,” provided the current minutes display is between “ 55” and ‘ 05 ”

- 1 Press the ON/OFF key

- The phone issues intercom dial tone
- The ON/OFF LED lights

- 2 Press the PROG key

“F” appears on the display

- 3 Dial “#4 ”

“Time Adjusted” appears on the display

- 4 Press the ON/OFF key

The ON/OFF LED goes off

### **Considerations**

- The month is entered in numeric form, but is displayed as the name of the month
- The day of the week is calculated automatically

---

# Traffic Measurement

(CPC S and CPC-M)

## ***Description***

An attendant phone can track the number of outgoing and incoming calls for each outside line number, as well as the number of times each System Speed Dial number is used. This information can be used to evaluate trunk usage and control costs.

### **To determine the number of outgoing calls made on an outside line**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the CONF key

“C” appears on the display
- 3 Dial “#90,” then enter the number of the outside line you want to check

If 1234 outgoing calls have been made on line 01, “OutGoing0101234” appears on the display

Pressing the #key steps through the trunk numbers and system speed dial numbers
- 4 Press the ON/OFF key

The ON/OFF LED goes off

### **To check other usage rates**

Replace “#90” in Step 3 with one of the following codes

**Table 2-3 Traffic measurement options**

<b>Operation</b>	<b>Code</b>	<b>Display</b>
Check the number of incoming calls to a specific trunk	#91NN	“Incoming NW”
Check the number of times a System Speed Dial number was used	#92SS	“SYS-SPD SS”
Delete usage data	#93	“Clear All Inform”
<b>Notes:</b> NN = CO line number (01-08) SS = System Speed Dial number (00-89 or 000-199)		

### **Considerations**

- The Traffic Measurement feature can be accessed from any display phone
- Usage data cannot be cleared item by item
- All data is retained until it is deleted or until 65,536 entries are made (at which point the figures are reset to zero)
- A backup battery protects memory contents in case of power failure

# Walking COS Confirmation

(CPC-S and CPC-M)

## ***Description***

The attendant can check the Walking Class of Service ID code of any extension.

## ***Operation***

1. Press ON/OFF
2. Press CONF
- 3 Dial #12 plus the extension number.

The Walking Class of Service ID code appears on the display

---

# Chapter 3. Key Telephone Features

This chapter describes DBS 824 key telephone features. DBS 824 key telephones are proprietary digital phones that provide feature access through a combination of feature keys and access codes.

This chapter covers the following topics:

Topic	Page
Key Phone	3-3
Absence Message	3-3
Auto Redial	3-6
Auto-Repeat Dial	3-7
Call Coverage Groups	3-8
Call Duration Display	3-10
Call Forwarding	3-10
Call Hold	3-14
Call Park	3-17
Call Pickup	3-19
Call Transfer	3-21
Call Waiting	3-25
Call Waiting/OHVA Text Reply	3-28
Camp-on	3-29
CO Line Key Trunk Access	3-30
Conference Calls	3-31
Delayed Ringing	3-33
Dial "0" for Attendant	3-34
Do-Not-Disturb (DND)	3-35
EM/24 Console	3-36
Flexible Function (FF) Keys	3-37
Handsfree Answerback	3-42
Handsfree Operation	3-43
Headset Operation	3-43
Intercom Calling	3-43
Last Number Redial	3-46
Line Appearances	3-47
Meet-Me Answer	3-54

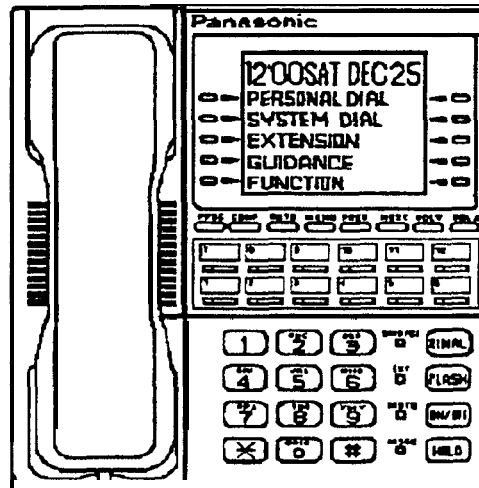
<b>Topic</b>	<b>Page</b>
Message Waiting/Callback Request	3-55
Non-Appearing Outside Lines	3-58
Offhook Signaling	3-59
Offhook Voice Announce (OHVA)	3-60
One-Touch Keys	3-62
One-Touch VM Access	3-65
Onhook Dialing	3-67
Pooled Trunk Access	3-68
Prime Line Preference	3-70
Private Line	3-71
Reminder Call	3-72
Ringing Line Preference	3-73
Saved Number Redial	3-74
Speed Dialing	3-75
Station Lockout	3-81
Trunk- to-Trunk Transfer	3-82

---

# Key Phone

As an example of a key phone, Figure 3-1 illustrates the DBS 824 key phone model VB-43225. The VB-43225 provides a large display that includes one-touch access to speed dial numbers, telephone features, and help screens.

**Figure 3-1** VB-43225 key phone



---

# Absence Message

(CPC-S and CPC-M)

## *Description*

Extension users can leave text messages on their phones when they are away.

When the unattended extension is dialed, the text message displays on the caller's phone.



Any one of the following messages can be selected Messages 5 to 9 can be changed through system programming

**Table 3-1 Absence Messages**

Message No	Message Text
0	In Meeting
1	At Lunch
2	Out of Office
3	Vacation
4	Another Office
5	User Defined
6	User Defined
7	User Defined
8	User Defined
9	User Defined

## Operation

### To set an Absence Message

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 Dial “7 1 ”
  - “Enter Msg Code” appears on the display
- 3 Enter a message code between 0 and 9 (See Table 3-1)
  - “Enter Parameter” appears on the display
- 4 Enter the time you will return (optional) See Table 3-2 for examples
- 5 Press the **ON/OFF** key
  - **The DND/CF** LED lights
  - “At Lunch” appears on the display if you selected message code 1

### To cancel an Absence Message

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 Dial “71 ”
 

“Enter Msg Code” appears on the display
- 3 Press the **ON/OFF** key
  - The **ON/OFF** LED goes off
  - **The DND/CF** LED goes off, and the message disappears from the display

### Related Programming

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF6 (Names and Messages) Absence Messages

### Considerations

- Calling parties without a display get a busy signal, rather than the Absence Message
- If a message code number that has not been programmed is selected, “Absence,” followed by the code number, appears on the display
- Absence Message return times can be input as shown in the following table

**Table 3 2 Example Return Times for Absence Messages**

<b>Input</b>	<b>Display</b>
No input	Return
9	Return 9 00
11	Return 1100
615	Return 6 15
1035	Return 10 35

Four-digit numbers can also be input (0000-9999 = Hours & Minutes or Month & Date)

- When an Absence Message is set on a DID extension, incoming DID calls are routed according to the ringing assignment programmed for the incoming trunk
- DND and Absence Messages cancel Call Forwarding

Calls to an extension with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls  
Intercom calls receive busy tone, trunk calls are routed to the extension defined in permanent call forwarding

The following types of incoming trunk calls follow permanent call forward settings

- Direct trunk calls
- Transferred trunk calls
- Callback to an incoming CO call on a Private Line is available if the Absence Message feature is activated

---

## Auto Redial

(CPC-S and CPC-M)

### ***Description***

If the Redial key is pressed when the extension is idle or receiving dial tone, the last intercom or outside number is automatically redialed

### ***Related Programming***

- FF3 (System) Auto-Redial on Extensions
- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

# Auto-Repeat Dial

(CPC-S and CPC M)

## ***Description***

When a called outside party is busy, pressing the **REDIAL** key while hearing busy tone automatically redials the number. The system will keep redialing the number until the called party answers, you hang up or the Auto-Repeat Dialing Count is reached.

## ***Related Programming***

- . FF1 (System) Auto-Repeat Dialing Count
- . FF1 (System) Wait Timer for Auto-Repeat Dialing
- . FF1 (System) Busy Tone Detection Timer
- . FF1 (System) Dial Tone Detection Timer
- . FF2 (Trunk) CO Busy Tone Detection

---

# Busy Override

(CPC-S and CPC-M)

## ***Description***

Extensions in the same Paging Group (1-7) can break into one another's outside calls or intercom calls to relay urgent information or to create three-party conference calls.

## ***Operation***

- 1 Pick up the handset  
The phone issues intercom dial tone
- 2 Dial the extension number
- 3 When you hear busy tone, dial "4 "

- An alert tone sounds to both phones (system programming required)
- The EXT LED lights

### ***Related Programming***

- FF1 (System) Alert Tone for Busy Override and OHVA
- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Busy Override Send
- FF3 (Extension) Busy Override Receive
- FF3 (Extension) Extension Page Group
- FF3 (Extension) Call Waiting

### ***Considerations***

- You cannot break in on three-party conference calls
- Attendants can be prevented from using busy override
- The default for the override alert tone is “off ” If the override alert tone is enabled, the tone will be sent to both parties when a call is overridden
- “Overridden” does *not* appear on the display of an extension that has been broken into
- Call Waiting must be activated for Busy Override to operate on hunt groups calls

---

## **Call Coverage Groups**

(CPC-S and CPC-M)

### ***Description***

Call coverage is designed for office workers who almost always want their unanswered calls to be routed to the same secretary or secretaries

Up to two extensions can be designated as covering phones (secretary)

For example, if an outside call on line 1 is sent to extension 135, but extension 135 does not answer, the call will ring once when the call first comes in at the covering phone and “TRK #01> 135” will appear on the covering phone’s display

If two extensions are designated as covering phones and the first in DND, the second will receive the call

Call coverage assignments are controlled through system programming, rather than from individual extensions

For extension-controlled routing of unanswered calls, see “Call Forwarding” on page 3-10

### ***Related Programming***

- FF3 (Extension) Offhook Signal
- FF4 (Ringing and Hunt Groups) Call Coverage Group Member Table

### ***Considerations***

- Up to four Call Coverage Groups can be programmed into your system A Call Coverage Group can have up to two covering phones and up to six extensions
- A member of one Call Coverage Group cannot belong to another Call Coverage Group or to a Hunting Group
- A single-line telephone (SLT) can be a member of a coverage group, but it cannot be a covering phone
- Calls to an extension in DND do not cover
- Calls to an extension with Call Forwarding activated do not cover
- If the Call Forwarding feature or the Absence Message feature is activated for covering phone No 1, covering phone No 2 will “cover” the other extensions in the group
- Voice intercom calls do not activate call coverage Only tone intercom calls can activate call coverage

---

# Call Duration Display

(CPC-S and CPC-M)

## Description

The length of a conversation on a CO line usually appears on display phones. The duration display shows the number of minutes and seconds the call has lasted.

The display does not begin right away, it begins either 5, 16 or 30 seconds after the call begins, depending on how the DBS 824 is programmed.

## Related Programming

- FF1 (System) Call Duration Display
- FF1 (System) Call Duration Timer
- FF1 (System) SMDR Start Timer for CO Calls

---

# Call Forwarding

(CPC-S and CPC-M)

Call Forwarding allows users to send their calls to another extension, to an outside line, or to voice mail. The following table shows the call forwarding features available.

**Table 3 3 DBS 824 Call Forwarding features**

Feature
Call Forwarding--All Calls
Call Forwarding--No Answer
Call Forwarding--Busy
Call Forwarding--Busy/No Answer
Permanent Call Forwarding

## Descriptions

**Call Forwarding--All Calls** When the Call Forwarding--All Calls feature is activated, all incoming calls to an extension are immediately forwarded.

**Call Forwarding--No Answer** When Call Forwarding--No Answer is activated, an unanswered call will ring until the Call Forward No Answer timer expires. When the timer expires, the unanswered call is forwarded.

**Call Forwarding--Busy** When Call Forwarding--Busy is activated, all incoming calls to a busy extension will be forwarded.

**Call Forwarding--Busy/No Answer** When Call Forwarding--Busy/No Answer feature is activated, all incoming calls to an extension that is busy or does not answer will be forwarded.

**Permanent Call Forwarding** Permanent call forwarding is assigned through system programming, rather than by the user. Permanent call forwarding is normally used to forward calls to a voice mail system.

An extension user can invoke other forms of call forwarding (no answer, busy, all calls) to temporarily override the permanent call forwarding destination.

Permanent call forwarding can be used with busy, no answer, or busy/no answer.

When Permanent Call Forwarding is assigned, the **DSS** and/or **BLF** keys are not lit green, the **DND/CF** LED is off, and the second line of LCD displays do not display the Call Forwarding assignment.

## To activate Call Forwarding

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “72 ”
 

“ENTER FWD CODE” appears on the display
- 3 Dial the appropriate call forwarding code

Call Forward Type	Code
All	0
Busy/no answer	1
Busy	2
No answer	4

“ENTER FWD EXT#” appears on the display



- 4 If you are forwarding to an internal number, enter the number of the extension you want to receive your calls. If you are forwarding to an outside number, press **AUTO** plus the appropriate speed dial number.

**Note:** To forward to an outside number, the number must be pre-programmed in personal or system speed dialing. Forwarding to an outside number requires use of pooled access trunks (Dial 9, 8 1 - 86). However, Dial 9 is not available when using Least Cost Routing mode.

- 5 **Press the ON/OFF key**
  - **The DND/CF LED lights**
  - “FWD-EXT 135” appears on the 2nd line of the display if extension 135 is selected. If a name is assigned to the extension, the name appears instead of the extension number.

### **To cancel Call Forwarding**

- 1 Press **ON/OFF**
- 2 Dial “72 ”
- 3 Hang up

### ***Related Programming***

- FF1 (System) Call Forward No Answer Timer
- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Permanent Call Forward Type
- FF3 (Extension) Permanent Call Forward Extension
- FF10 (Speed Dial) System Speed Dial Numbers
- FF10 (Speed Dial) Personal Speed Dial Numbers

### ***Considerations***

- DND and Absence Messages cancel Call Forwarding

Calls to an extension with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls. Intercom calls receive busy tone, trunk calls are routed to the extension.

defined in permanent call forwarding

The following types of incoming trunk calls follow permanent call forward settings

- Direct trunk calls
- Transferred trunk calls
- Voice calls do not forward when Call Forwarding--No Answer is used
- If several calls arrive at once at an extension set for Call Forwarding-No Answer, **all** of the calls will be queued (The timing for each call begins with the ringing tone )
- Extensions for which Call Forwarding to an external number has been set **cannot**
- Be in the middle of an outside call when the feature is activated
- Have a toll restriction setting that prohibits outside calls
- To forward to an outside number, the number must be pre-programmed in personal or system speed dialing Forwarding to an outside number requires use of pooled access trunks (Dial 9, 81 - 86) However, Dial 9 is not available when using Least Cost Routing mode
- Calls can be forwarded to a third-party voice mail using the “Call Forward ID Code” described on page 1-12
- In order for an extension to be permanently call forwarded to the pilot number of a hunt group, the hunt group pilot number must be 244 or above For example, if extension 200 is assigned as the pilot number of a hunt group, hunting will work properly when 200 is dialed However, permanent call forwarding will not work for any extension that is permanently call forwarded to the hunt group pilot number

# Call Hold

(CPC-S and CPC-M)

The DBS 824 provides both Exclusive and System Hold

## Exclusive Hold

### *Description*

With Exclusive Hold, only the extension that held the call can retrieve it

Exclusive Hold can be used to hold CO calls and intercom calls

### *Operation*

#### **To place a call on Exclusive Hold**

Press the line key being used for the call

The line LED flashes green, and the phone issues intercom dial tone

“Hold TRK ##XX” (where “XX” is the outside line number) appears on the display

#### **To retrieve a call from Exclusive Hold**

Press the line key on which the call is held

The line LED stops flashing and remains green

“CO TALK TRK #XX” (where “XX” is the outside line number) appears on the display if the call held on the line was released

### ***Related Programming***

- FF1 (System) Attendant Hold Recall Timer for CO Calls
- FF1 (System) Attendant Hold Recall Timer for Intercom Calls
- FF1 (System) Extension Hold Recall Timer for CO Calls
- FF1 (System) Extension Hold Recall Timer for Intercom Calls

- FF1 (System) Key Bank Hold
- FF1 (System) Non-Appearing Trunk Hold

## **Considerations**

- When using an outside line for which there is no line key on your extension, press the HOLD key to place the call on hold, and then press a vacant line key Release the held call by pressing HOLD again (System programming determines whether the call will be placed on Exclusive Trunk Hold or System Trunk Hold )
- A held call will recall if it is not retrieved before the Hold Recall Timer expires “Hold Recall #XX” (where “XX” is the outside line number) appears on the display if a call has been held beyond the time limit
- If you press the HOLD key during a conference with two outside lines, both outside lines will be placed on hold
- If your system is set for **onhook** transfer and you have placed an outside call on hold, and you then make an Intercom Call, make sure the other extension hangs up before you do If you hang up before the other extension, *the held outside line will be transferred to that extension* (Pressing FLASH releases the extension )
- The DBS 824 can provide music-on-hold to callers placed on hold See “Music-On-Hold” (page 1-24) for more information

## **System Hold**

### **Description**

Using System Hold, you can place either an outside call or an Intercom Call on hold

A call placed on System Hold can be retrieved from any extension

### **Operation**

#### **To place a call on System Hold**

Press the HOLD key

- The line LED being used for the call flashes green

- The phone issues intercom dial tone
- “Hold TRK #XX” (where “XX” is the outside line number) appears on the display

### **To release a call placed on System Hold from the extension that placed it there**

Press the line key that is flashing green

- The line LED stops flashing and remains lit
- “CO TALK #XX” (where “XX” is the outside line number) appears on the display

### **To release a call placed on System Trunk Hold from a different extension**

Press the line key that is flashing red

- The line LED turns green and stops flashing
- “CO TALK TRK #XX” (where “XX” is the outside line number) appears on the display

## ***Related Programming***

- FF1 (System) Attendant Hold Recall Timer for CO Calls
- FF1 (System) Attendant Hold Recall Timer for Intercom Calls
- FF1 (System) Extension Hold Recall Timer for CO Calls
- FF1 (System) Extension Hold Recall ~~Timer~~ for Intercom Calls
- FF1 (System) Key Bank Hold
- FF1 (System) Non-Appearing Trunk Hold

## ***Considerations***

- When using an outside line for which there is no line key on your extension, press the HOLD key to place the call on hold and then press a vacant line key. Release the held call by pressing HOLD again (System programming determines whether the call will be placed on Exclusive Trunk Hold or System Trunk Hold )

- If the Automatic Outside Line Hold feature is programmed for your system, pressing any other line key will place your original call on System Hold
- A held call will recall if it is not retrieved before the Hold Recall Timer expires “Hold Recall ##XX” (where “XX” is the outside line number) appears on the display if a call has been held beyond the time limit
- If you press the HOLD key during a conference with two outside lines, both outside lines will be placed on hold
- If your system is set to **onhook** transfer and you have placed an outside call on hold, and you then make an Intercom Call, make sure the other extension presses the FLASH key or hangs up before you do **If you hang up before the other extension, *the held outside line will be transferred to that extension***
- If there is no response to the Hold Recall, the tone is issued at the Attendant Phone (extension 100 or 10) However, no tone is issued at the Attendant Phone if Night Mode is activated or if the call is on a Private Line
- An error tone is issued if you attempt to place more than one intercom call on hold at the same time
- The DBS 824 can provide Music-on-Hold to callers placed on hold See “Music-On-Hold” (page 1-24) for more information

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## Call Park

(CPC-S and CPC-M)

### ***Description***

You can use the Call Park function to transfer a call, even if you cannot locate the intended recipient of the call Simply park the call, and then page the person you want to transfer to That person can answer the call from any extension by dialing the number of the extension that parked the call

### ***Operation***

#### **To park a call**

- 1 Press the HOLD key

2 Dial “75 ”

“Park Hold” appears on the display

**To retrieve a parked call**

1 Pick up the handset

The phone issues intercom dial tone

2 Dial “76 ”

3 Dial the number of the extension that parked the call

“CO TALK TRK #XX” (where “XX” is the line number) appears on the display

***Related Programming***

- FF1 (System) Attendant Park Hold Recall Timer
- FF1 (System) Extension Park Hold Recall Timer

***Considerations***

- An alarm tone is issued if a parked call is not released before the Recall Timer expires (determined by system programming) If this happens, the user that parked the call can retrieve it by simply picking up the handset. If no one retrieves the call after the Recall Timer expires, a second alarm will sound at an attendant phone(s)
- You cannot park more than one outside line at a time
- The Attendant Phone cannot use this feature The Attendant must use the Attendant Call Park feature
- The Call Park Recall Timer is similar to the Recall Timer, except that when the Call Park Recall Timer is set for “0” a call is recalled automatically in three minutes
- You can store “75” on an FF key and use it as a Call Park key After placing an outside call on hold, press the Call Park key to park the call The Call Park LED will light while the call is parked and then go off when the call is released

# Call Pickup

(CPC-S and WC-M)

The DBS 824 provides both directed and group call pickup

## Direct Call Pickup

### *Description*

A call to any extension can be answered from another extension using the Direct Call Pickup feature. The Direct Call Pickup feature can be programmed into a One-Touch key.

### *Operation*

- 1 Pick up the handset  
The phone issues intercom dial tone
- 2 Dial “79 ”
- 3 Enter the number of the ringing extension
  - The extension number or the outside line number of the caller appears on the display
  - The EXT LED lights on the MCO or ML key
- 4 Complete the call and replace the handset.  
The EXT LED goes off

### *Related Programming*

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

### *Considerations*

- If more than one caller is attempting to reach the ringing extension, the Direct Call Pickup feature answers the call that arrives first

Once the call has been picked up, other extensions that attempt to pick up



the call receive busy tone

- You can answer incoming calls, intercom calls (both tone and voice), call waiting, paging, transferred calls, or recalls using the Direct Call Pickup feature. You cannot answer alarm incoming calls or callbacks with this feature.

## Group Call Pickup

### *Description*

Using the Group Call Pickup feature, you can answer calls to other extensions in your Paging Group without entering the number of the ringing extension. Group Call Pickup can also be programmed into an FF key.

### *Operation*

- 1 Pick up the handset.

The phone issues intercom dial tone.

- 2 Dial “70 ”

- The extension number or the outside line number of the caller appears on the display.
- The EXT LED lights.

- 3 Complete the call and replace the handset.

The EXT LED goes off.

### *Related Programming*

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Page Group (O-7) Extensions
- FF5 (FF Keys) FF Key Assignments for Extensions

### *Considerations*

- If more than one call is arriving at the Paging Group, the Group Call Pickup feature will answer the call to the lowest port number first.

- If the called extension belongs to more than one Paging Group, the Group Call Pickup Feature will answer the call to the lowest numbered Paging Group first
- You can answer incoming calls, Intercom Tone Calling, or Intercom Voice Calling using the Group Call Pickup feature You cannot answer Paging or Callback with this feature

---

## Call 'Transfer

(CPC-S and CPC-M)

The DBS 824 provides two call transfer methods blind transfer and screened transfer

### Blind Transfer

#### *Description*

Blind transfer allows the transfer of a call directly to an extension, without waiting for the called extension to answer

#### *Operation*

- 1 Press the **HOLD** key to place the outside call on hold
  - The line LED for the outside line on hold flashes green
  - The phone issues intercom dial tone
  - "Hold #XX" (where "XX" is the line number) appears on the display
- 2 Dial the extension number to which the call is to be transferred  
"Call-EXT XXX" (where "XXX" is the extension number) appears on the display
- 3 Replace the handset before the other party answers
  - You can also replace the handset after the third party answers
  - The LED for the original outside line turns red when the call has been transferred

- “Transf XXX #YY” (where “XXX” is the extension and “YY” is the line) appear on the display
- The third party need only pick up the handset to speak to the outside line

### ***Related Programming***

- FF1 (System) Onhook Transfer
- FF1 (System) Extension Transfer Recall Timer for CO Calls
- FF1 (System) Extension Transfer Recall Timer for Intercom Calls
- FF1 (System) Attendant Transfer Recall Timer for CO Calls
- FF1 (System) Attendant Transfer Recall Timer for Intercom Calls

### ***Considerations***

- For users to transfer calls by pressing HOLD, dialing the extension, and going onhook, the Onhook Transfer feature must be enabled in system programming
- If Onhook Transfer is disabled, blind transfer is performed by pressing HOLD, dialing the extension number, pressing PROG, and then going onhook
- If Onhook Transfer is enabled, users can transfer calls by pressing PROG before going onhook
- The Attendant can transfer calls while the handset is still in place, even if the system is not set for Onhook Transfer
- You cannot transfer a call to an extension that has Do Not Disturb or Absence Message activated
- You can transfer a call to an extension that has Call Forwarding activated. The transferred call will follow the call forwarding path of the extension it is transferred to.

For example, if extension “A” is forwarded to extension “B,” calls that are transferred to extension “A” will be forwarded to extension “B ”

- When you transfer a call to an extension that is busy or does not answer and does not have Call Forwarding activated, the transfer will recall to your extension after the Transfer Recall Timer expires. The other extension’s number and the number of the transferred CO line or extension will appear on your display.

(For example, if you transfer an outside call on line 1 to extension 135 and that extension does not answer, the call will return to your extension and “Recall 135 #01” will appear on the display )

## Screened Transfer

### *Description*

Using the Screened Transfer feature, you can contact a third party and announce the call before the transfer

### *Operation*

#### **To use Screened Transfer when your system is set for Onhook Transfer**

- 1 Press the HOLD key to place the call on hold
  - The line LED for the outside line on hold flashes green
  - The phone issues intercom dial tone
  - “Hold TRK #XX” (where “XX” is the line number) appears on the display
- 2 Dial the extension number to which the call is to be transferred
- 3 When your call is answered, inform the third party of the transfer
  - The EXT LED stops flashing and remains lit
  - “Talk-EXT XXX” (where “XXX” is the extension) appears on the display
- 4 Hang up the handset,
  - The line LED for the original outside line turns red
  - The third party need only pick up the handset to speak to the outside line

#### **To use Screened Transfer when Onhook Transfer is disabled**

- 1 Press the HOLD key to place the outside call on hold

- The line LED for the outside line on hold flashes green
  - The phone issues intercom dial tone
  - “Hold TRK #XX ’ (where “XX” is the line number) appears on the display
- 2 Dial the extension number to which the call is to be transferred
  - 3 When your call is answered, inform the third party of the transfer
    - The EXT LED stops flashing and remains lit
    - “Talk-EXT XXX” (where “XXX” is the extension) appears on the display
  - 4 Press the PROG key or dial “8 ”
    - The line LED for the original outside line turns red
    - “TRF XXX TRK #YY” (where “XXX” is the extension and ‘YY” is the line) appears on the display
    - The third party need only pick up the handset to speak to the outside line
  - 5 Hang up to complete the transfer

### ***Related Programming***

- FF1 (System) Onhook Transfer
- FF1 (System) Extension Transfer Recall Timer for CO Calls
- FF1 (System) Extension Transfer Recall Timer for Intercom Calls
- FF1 (System) Attendant Transfer Recall Timer for CO Calls
- FF1 (System) Attendant Transfer Recall Timer for Intercom Calls

### ***Considerations***

- The Attendant can transfer calls while the handset is still in place, even if the system is not set for Onhook Transfer
- You cannot transfer a call to an extension that has Do Not Disturb or Absence Message activated

- You can transfer a call to an extension that has Call Forwarding activated. The transferred call will follow the call forwarding path of the extension it is transferred to.

For example, if phone “A” is covered to phone “B,” calls that are transferred to phone “A” will be forwarded to phone “B.”

- When you transfer a call to an extension that is busy or does not answer and does not have Call Forwarding activated, a call tone is issued at your extension after Transfer Recall Timer expires. The other extension’s number and the number of the transferred CO line or extension then appear on your display and the call is returned to your extension.

(For example, if you transfer an outside call on line 1 to extension 135 and that extension is busy or does not answer, the call will return to your extension and “Recall 135 #01” will appear on the display.)

---

## Call Waiting

(CPC-S and CPC-M)

### **Description**

You can send a Call Waiting signal, followed by a brief LED message, to a busy extension. The party receiving the message need only replace the handset and then pick it up again to be automatically connected to the message sender’s extension.

The following messages can be sent using the Call Waiting feature.

**Table 3-4 Call Waiting Text Messages**

Message Code	Message
5	“Visitor Here”
6	“Need Help”
<b>I 7</b>	“Important”
8	“Urgent”
<b>I 9</b>	“Emergency”

Message codes O-4 are not available.

Users can also respond to call waiting by sending a text message See “Call Waiting/OHVA Text Reply” on page 3-28

## **Operation**

### **To set Call Waiting**

- 1 **Press the ON/OFF** key
- 2 Dial the extension number  
The phone issues busy tone

### **3 Press “3 ”**

- The **EXT** LED flashes
  - “Call Wait XXX” (where “XXX” is the extension) appears on the display
- 4 If you want to send a text message, dial the desired message code (5-9)  
The corresponding message displays on the called party’s phone (If the called party does not have a display, the party continues to hear a call waiting signal )
  - 5 Remain on the line until the called party picks up

### **To answer Call Waiting**

- 1 The **EXT** LED flashes, indicating Call Waiting has been sent  
“Call Wait XXX” (where “XXX” is the extension number) appears on the display
- 2 Replace the handset.
  - The current call is disconnected
  - ‘Call Wait-XXX’ appears on the display
- 3 Pick up the handset.
  - You are automatically connected to the extension sending the Call Waiting
  - “Talk-EXT XXX” appears on the display

Note: To answer a call waiting tone, you may flash the switchhook rather than hang up. If you flash the switchhook, you are immediately connected to the waiting party.

### **To answer Call Waiting using the Talk Back key**

A “Talk Back” key can be assigned to an FF key. The Talk Back key allows you to answer a waiting call without disconnecting the original call.

- 1 The LED of the Talk Back key flashes red, indicating Call Waiting has been sent.
- 2 Press the Talk Back key to answer Call Waiting.
  - The LED of the Talk Back key flashes green.
  - The current call is held automatically.
- 3 Press the Talk Back key again to return to the original call.

The LED of the Talk Back key goes off.

### ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Call Waiting/OHVA
- FF5 (FF Key Settings) FF Key Assignments for Extensions

### ***Considerations***

- Message code 8 cannot be used from an SLT (The digit “8” is used to transfer calls on SLTs.)
- Call Waiting can be used without the user entering a message code.
- Call Waiting is cancelled when the sender replaces the handset.
- If the called extension has DND activated, has a call on hold, is ringing (from another call), or is engaged in a conference call, Call Waiting cannot be sent.
- A call on an outside line can be placed on hold before Call Waiting is answered to avoid terminating the original call. An Intercom Call, however, must be terminated before Call Waiting can be answered.



- If Onhook Call Transfer has been enabled and you have placed an outside line on hold to answer Call Waiting, replace the handset after the other extension hangs up *If the caller hangs up first, the held call will be transferred to the called extension*
- Call Waiting cannot be sent to an ML key

---

## Call Waiting/OHVA Text Reply

(CPC-S and CPC-M)

### **Description**

When a busy party receives an indication of incoming intercom call, the busy party can respond by sending a text message back to the caller

The text message can be sent after any of these intercom call indications

- Call waiting tone
- Call waiting tone followed by a text message
- An offhook voice announce

### **Operation**

When you are on a call and receive an indication of a incoming intercom call press **CONF** and then dial 1-5

The following table shows the default text associated with messages 1-5

Message Number	Message Definition
1	Take A Message
2	Please Hold
3	Will [REDACTED]
4	Tran [REDACTED]
5	Unavailable

Messages 1-5 can be changed through system programming

### **Programming**

- FF6 (Names and Messages) Call Waiting/OHVA Text Reply

## **Considerations**

- Text messages 1-5 can be changed from an attendant phone or a DSS/72

---

# Camp-on

(CPC-S and CPC-M)

## **Description**

If you reach a busy extension, the Camp-on feature will alert you with a ring when the extension becomes free. You will then be able to pick up your handset to automatically dial the extension.

## **Operation**

### **To activate the Camp-on feature**

- 1 Pick up the handset
- 2 Dial the desired extension number  
  
If the extension is busy, your phone issues busy tone
- 3 Press “3 ”
  - The phone issues ringback tone
  - If the Camp-on feature cannot be set, the phone continues to issue busy tone
- 4 Replace the handset after you hear the ringback tone
- 5 Wait for the extension callback ring

### **To answer the callback ring**

- 1 Pick up the handset when you hear the callback ring
  - “Camp-on Call” appears on the display
  - The EXT LED flashes
  - The system automatically dials the called extension

## ***Related Programming***

- FF3 (Extension) Call Waiting/OHVA

## ***Considerations***

- The callback ring must be answered within sixteen seconds or it will be canceled
- A Camp-on request will only be accepted *after* Call Waiting status
- The callback ring cannot be accepted by an extension that has Call Forwarding activated
- An extension can only have one call camped on at a time For example, if Extension 152 camps on to Extension 153, another extension cannot camp on to 153, as long as 152 is camped on
- An extension that has initiated a camp-on cannot receive a camp-on For instance if Extension 200 has camped on to Extension 300, another extension cannot camp on to 200

---

# **CO Line Key Trunk Access**

(CPC-S and CPC-M)

## ***Description***

You can access an outside line by pressing a CO line key

## ***Operation***

- 1 Press an unlit line key
  - The phone issues outside dial tone
  - The line LED lights green
  - “CO TALK #XX” (where “XX” is the line) appears on the display
- 2 Dial the telephone number

The dialed number appears on the display
- 3 Complete the call and replace the handset.

- The line LED changes from green to red and then goes off
- The time and date reappears on the display

### ***Related Programming***

- FF1 (System) SMDR Start Timer for CO Calls
- FF1 (System) Call Duration Timer
- FF5 (FF Keys) FF Key Assignments for Extensions

### ***Considerations***

- The duration of a call appears on the display while the call is in progress
- The SMDR Start Timer can be set to start at 5, 16, or 30 seconds after the last digit of the telephone number is dialed

---

# Conference Calls

(CPC-S and CPC-M)

### ***Description***

Conference Calls allow an extension user to add a party to an existing conversation

Extension users can create the following types of Conference Calls

- One outside line and two extensions
- Two outside lines and one extension
- One outside line and three extensions
- Two outside lines and two extensions
- Three extensions
- Four extensions

## **Operation**

### **To establish a Conference Call**

- 1 Press **HOLD** or the line key of your current call to place it on hold

The extension number, outside line number, or name of the party on hold appears on the display

- 2 Press an unlit line key or dial the number of the extension you wish to add to the call

- The line LED lights green
- The phone issues outside dial tone
- “CO TALK #XX” (where “XX” is the line number) appears on the display

- 3 If you pressed an unlit line key in step 2, dial the number of the party you wish to add to the call

The number appears on the display

- 4 Press the **CONF** key when your call is answered

If you are now conducting a three-way Conference Call involving two outside lines, “CONF #XX #YY” (where “XX” is the first line and “YY” is the second line) appears on the display

- 5 Repeat steps 1-4 to add a fourth party to a three-party Conference Call

### **To add an extension to an outside call**

- 1 Press the **CONF** key during the outside call
- 2 The party at the extension who wishes to join the call must pick up the handset
- 3 The party joining the call must press the line key of the call in progress (The line key LED is lit red )

Steps 2 and 3 must be completed within five seconds of each other

- 4 Pick up the handset.

The three parties can now speak to one another

- 5 Repeat steps 1-4 to add another extension to a three-party Conference Call

### ***Considerations***

- The DBS 824 provides 3 four-party conference circuits
- Press FLASH or hang up to exit a Conference Call
- The Call Hold feature cannot be used during a four-party Conference Call

---

## **Delayed Ringing**

(CPC-S and CPC-M)

### ***Description***

Delayed ringing causes a call that is unanswered at a primary extension to ring at a secondary extension

CO delayed ringing causes an incoming outside call to ring at a designated extension or extensions if it is not answered within a certain period of time  
CO delayed ringing is also available for hunt group pilot numbers

Extension delayed ringing causes any type of call, outside or intercom, to ring at a designated extension or extensions if it is not answered within a certain period of time  
The phones receiving the delayed call must have a DSS/BLF key assigned to the extension originally intended to receive the call

### ***Considerations***

- The following timers have been implemented
- The Central Office Delayed Ring Timer controls delayed ringing for outside calls
- The Extension Delayed Ring Timer controls delayed ringing for extension calls

# Dial "0" for Attendant

(CPC-S and CPC-M)

## **Description**

The Attendant can be called from any extension by simply pressing "0"

If multiple attendants are assigned, a dial "0" call goes to the first Attendant first. If the first attendant is busy, the call goes to the second Attendant. The call will continue to transfer to the next attendant in the attendant group if necessary.

Up to four attendants can be assigned.

## **Operation**

- 1 Pick up the handset or press ON/OFF

The phone issues intercom dial tone

- 2 Press "0"
- "Talk-EXT 100" appears on the display if your extension is set for Voice Calling
  - "Call-EXT XXX" (where "XXX" is the extension) appears on the display if your extension is set for Tone Calling

## **Related Programming**

- FF1 (System) Second Attendant Position
- FF1 (System) Third Attendant Position
- FF1 (System) Fourth Attendant Position
- FF1 (System) Attendant Transfer Extension
- FF6 (Names and Messages) Extension Name

## **Considerations**

- If the Attendant's name has been stored it appears on the display instead of the extension number

# Do-Not-Disturb (DND)

(CPC-S and CPC-M)

## ***Description***

An extension can be made unavailable by activating Do-Not-Disturb (DND). When DND is activated at an extension, calls to that extension receive busy tone.

## ***Operation***

### **To activate DND**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “73 ”
  - The **DND/CF** LED lights
  - “DND Set” appears on the display
- 3 Press the ON/ OFF key  
The ON/OFF LED lights

### **To cancel DND**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “73 ”
  - The **DND/CF** LED lights
  - “DND Canceled” appears on the display
- 3 Press the ON/ OFF key  
The ON/OFF LED goes off



## ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

## ***Considerations***

- Callback Queuing will ring an extension in DND
- A Private Line will ring an extension in DND
- Calls to an extension with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls  
Intercom calls receive busy tone, trunk calls are routed to the extension defined in permanent call forwarding

The following types of incoming trunk calls will follow permanent call forward settings

- Direct trunk calls
- Transferred trunk calls
- Attendant Phones can activate DND
- The Attendant can activate or cancel this feature on an extension using FF key LEDs on a DSS console
- The DND feature cannot be activated from an extension selected to receive call forwarding

---

# **EM/24 Console**

(CPC-S and CPC-M)

## ***Description***

Connecting an EM/24 console to your extension adds twenty-four FF keys. By assigning extensions to its FF keys, you can use an EM/24 console as a BLF (Busy Lamp Field).

## ***Related Programming***

- FF3 (Extension) Terminal Type

- FF3 (Extension) EM/24 Port Assignment

## **Considerations**

- An EM/24 console can be connected to any key phone

---

# **Flexible Function (FF) Keys**

(CPC-S and CPC-M)

## **Description**

You can assign frequently used functions to programmable keys on key phones, DSS consoles, and EM/24 consoles. All keys not already assigned as line or Speed Dialing keys are available for programming.

Up to twelve dial keys or six digits can be stored in an FF key. (The LED of the FF key will not light when digits are stored in the key.)

You can also store the PROG, CONF, AUTO, REDIAL (for redialing only, not for inserting a pause), and FLASH features.

Also, you can assign External Call Forwarding, combined with either a Personal Speed Dial code or a System Speed Dial code, to an FF key. You can also assign a pilot extension number as a Call Forwarding destination by storing Call Forwarding, combined with the pilot extension number (0, 10-69, or 100-699), in an FF key.

## **Operation**

### **To assign pre-programmed codes to an FF key**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the PROG key

“F” appears on the display
- 3 Press the FF key to be programmed

“Enter Code” appears on the display

- 4 Enter the code to be programmed (see Table 3-5)

The programmed code appears on the display

- 5 **Press the HOLD** key

“Code Stored” appears on the display

- 6 Repeat steps 2-5 to program additional keys

- 7 **Press the ON/OFF** key

The **ON/OFF** LED goes off

### To assign digits to an FF key

- 1 Press the **ON/OFF** key

- 2 **Press the PROG** key

- 3 Press the FF key to be programmed

“Enter Code” appears on the display

- 4 **Press the PROG** key

- 5 Enter up to six digits

- 6 **Press the HOLD** key

### To assign Call Forwarding external to an FF key

- 1 Press the **ON/OFF** key

- 2 **Press the PROG** key

- 3 Press the FF key to be programmed

“Enter Code” appears on the display

- 4 Enter “72 ”

- 5 Enter the forward type (0- All calls, **1**- Busy/No Answer, **2**-Busy, **4**-No Answer)

- 6 **Press the AUTO** key

- 7 Enter the Speed Dial code (System Speed dial 00-89 or 000-199 or Personal Speed dial 90-99 or 900 - 939)

Note: The speed dial code must include the CONF key (to indicate a trunk call), the appropriate trunk access code, and the outside number

- 8 Press the HOLD key

### **To assign a Hunt Group pilot number or an extension number to an FF key**

- 1 Press the ON/OFF key
- 2 Press the PROG key
- 3 Press the FF key to be programmed  
“Enter Code” appears on the display
- 4 Enter “72 ”
- 5 Enter the Call Forwarding code (0, 1, 2, or 4)
- 6 Enter the Hunt Group pilot number or an extension number
- 7 Press the HOLD key

### **To erase a code stored in an FF key**

Note: FF keys assigned as CO lines cannot be cleared using the following procedure CO line keys can only be cleared through system programming

- 1 Press the ON/OFF key
- 2 Press the PROG key
- 3 Press the FF key to be programmed  
“Enter Code” appears on the display
- 4 Press the HOLD key  
“Code Cleared” appears

### **To check a programmed FF key**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights

- 2 Press the **CONF** key
  - “C” appears in the display
- 3 Press the FF key to be checked
  - The programmed data appears on the display
- 4 Press the **ON/OFF** key
  - The **ON/OFF** LED goes off
  - The date and time appear on the display

### **Related Programming**

- FF5 (FF Keys) FF Key Assignments for Extensions
- FF9 (Copy Program) FF Key Copy

### **Considerations**

- The following functions can be assigned to FF keys

**Table 3-5 Feature access codes for FF key assignments**

<b>Feature</b>	<b>Code to be entered</b>
Call Attendant	0
Intercom Call	Extension number (10-69) or (100-699)
Outside Line	88, outside line number (01-08)
Pooled Trunk Access	Outside line group number (9, 81-86) <b>Note:</b> “9” can used as an outside line group number if it is not used for LCR
LCR	9
Paging	#, Paging Group number (00-07)
Call Park	<b>75</b>
Caller ID Log Key	*6
DND Activate/Cancel	73
Absence Message Acti- vate/Cancel	71
Call Forwarding	<b>72</b>
Alarm Activate/Cancel	#4
Station Lockout	74, lockout code (max 4 digits)

Feature	Code to be entered
Dial Tone On/Off	#50
Direct Call Pickup	79
Group Call Pickup	70
Account Code 1	#79, account code (max 6 digits)
Account Code 2	AUTO, #, account code (max 6 digits)
Speed Dialing	AUTO, speed dial number(00-99, 000-199, 900-939)
Night Service On/Off	#521 (Day), #522 (Night1) or #523 (Night2) (Attendant only)
Intercom	#8
Message Clear	AUTO, FLASH
Message Call	AUTO, <b>REDIAL</b>
Headset On/Off	#51
BGM On/Off	#53
Answer Key	*1
Release Key	“2
Talk Back Key	*3
Paging Meet-Me Answer	77
Universal Answer Pickup	78
Save Dial Call	AUTO, *
Register Save Dial	AUTO, AUTO
MUTE Key	*#
FLASH key	FLASH
One-Touch VM Access	<p style="text-align: center;"> </p> <p style="text-align: center;">           Voice mail pilot number      Password (optional)         </p> <p>Note: If a password is used, it can be from 1 to 3 digits. If the password is over 3 digits, it must be assigned to a personal or system speed dial number (00-99, 000-199 or 900-939)</p>

- If a new code is programmed into a key, the previously programmed code is erased
- To erase a code programmed into a key, press the **HOLD** key when the display reads “Enter Code ” “Code Cleared” then appears on the display
- The system can be programmed so that Pooled Trunk Access calls automatically use LCR when 9 is selected
- Night Service, DND, and BGM can be activated through FF keys without lifting the handset.
- When you are making a call using the Speed Dialing feature, the **FLASH** key stored in Speed Dialing becomes the PBX flash feature

---

## Handsfree Answerback

(CPC-S and CPC-M)

### ***Description***

Use the Handsfree Answerback feature to answer a call without lifting the handset Your extension must be programmed for Voice Calling for you to use this feature If your extension is not set for Voice Calling, the caller must press “1” during a call to switch from Tone Calling to Voice Calling

### ***Operation***

- 1 Confirm that the **MUTE** LED is off  
If it is lit, press the **MUTE** key to turn it off
- 2 Speak into the microphone

### ***Related Programming***

- FF1 (System) Extension Intercom Calling

### ***Considerations***

- Stay within three feet of the microphone
- The **MUTE** feature can be selected from the Menu screen on large display phones With other DBS 824 key phones, the **MUTE** function is assigned to a fixed key

---

# Handsfree Operation

(CPC-S and CPC-M)

## ***Description***

Handsfree operation is available with all speakerphones. This type of operation allows you to use all available DBS 824 features without lifting the handset.

## ***Operation***

To initiate handsfree operation, press the **ON/OFF** key. This takes the phone offhook and provides access to the full range of calling features.

---

# Headset Operation

(CPC-S and CPC-M)

## ***Description***

Headset operation allows you to handle calls with a headset instead of with the handset or speakerphone.

## ***Operation***

- 1 Pick up the handset or press **ON/OFF**
- 2 Dial **#53**

If headset mode is already on, these steps turn it off, if headset mode is off, these steps turn it on.

---

# Intercom Calling

(CPC-S and CPC-M)

## ***Descriptions***

The DBS 824 provides two methods of intercom calling: voice calling and tone calling.



**Voice Calling** With voice calling, intercom calls are connected immediately, without a ringing tone

**Tone Calling** With tone calls, a ringing tone is sent to the called extension

System programming determines whether the DBS 824 uses voice or tone calling as a default. If voice calling is the default, dialing "1" after the extension number changes the call to a tone call. If tone calling is the default, dialing "1" results in a voice call.

## Operation

### To make a Voice Call

- 1 Pick up the handset.

The phone issues intercom dial tone

**Note:** If you are calling from an extension programmed for Prime Line Preference, press the FF key programmed for intercom operation

- 2 Dial the extension number (10-69) or (100-699)
- 3 If the system default is tone calling, dial "1"
  - "Talk-EXT XXX" (where "XXX" is the extension) appears on the display. If the extension name has been stored, that name appears on the display after "Talk" instead of "-EXT XX"
  - The EXT LED lights
- 4 Complete the call and replace the handset

The EXT LED goes off

### To transfer a call using Voice Calling

- 1 Press the HOLD key
  - The EXT LED flashes
  - "Hold-EXT XXX" (where "XXX" is the extension) appears on the display
- 2 Dial the number of the extension to which the call will be transferred
- 3 If the system default is tone calling, dial "1"

“Talk-EXT XXX” (where “XXX” is the extension) appears on the display

- 4 Replace the handset

### To make an Tone Call

- 1 Pick up the handset.

The phone issues intercom dial tone

Note: If you are calling from an extension programmed for prime line preference, press the FF key programmed for intercom operation

- 2 Dial the extension number
- 3 If the system default is voice calling, dial “1 ”
  - “Call-EXT XXX” (where “XXX” is the extension) appears on the display If the extension name has been stored, that name appears, rather than the extension number
  - The called extension rings and the EXT LED flashes
  - When the call is answered, Talk-EXT XXX” (where “XXX” is the extension) appears on the display If the extension name has been stored, that name appears on the display after “Talk” instead of “-EXT x x x ”
- 4 Complete the call and replace the handset.

The EXT LED goes off

### To transfer a call using Tone Calling

- 1 Press the HOLD key
  - The EXT LED flashes
  - “Hold-EXT XXX” (where “XXX” is the extension) appears on the display
- 2 Dial the number of the extension to which the call will be transferred
- 3 If the system default is voice calling, dial “1 ”

“Call-EXT XXX” (where “XXX” is the extension) appears on the display

- 4 Replace the handset

### ***Related Programming***

- FF1 (System) Extension Intercom Calling
- FF1 (System) Alert Tone for Voice Calls
- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

### ***Considerations***

- When an extension's calling mode is set to voice calling, a "splash" tone can be sent to alert the extension to the voice call System programming determines if the splash tone is provided
- If an extension is *offhook*, it will receive tone calls
- Calls to OPX and analog SLT extensions are always tone calls, regardless of system programming
- The voice calling feature is not available for incoming DISA calls
- Voice calls do not forward if Cover No Answer is turned on

---

## **Last Number Redial**

(CPC-S and CPC-M)

### ***Description***

The last outside number dialed may be **redialed** automatically by pressing the **REDIAL** key

### ***Operation***

- 1 Press an unlit line key
  - The phone issues outside dial tone
  - The line LED lights green

- “CO TALK #XX” (where “XX” is the line number) appears on the display
- 2 **Press the REDIAL** key  
The last number dialed appears on the display
  - 3 Complete the call and replace the handset.  
The line key LED changes from green to red and then goes off

### Considerations

- If the Auto Flash Redial feature is set, you can flash the outside line once by pressing the **REDIAL** key at the busy tone. You can then **redial** the last number dialed.
- The Last Number Redial feature can redial a number up to sixteen digits long.
- A maximum of five Speed Dialing codes can be redialed.

## Line Appearances

(CPC-S and CPC-M)

The DBS 824 provides up to four types of line appearances

The following table summarizes how each type of line appearance is used

**Table 3-6 MCO and ML key definitions**

Key	Definition
DSS/BLF Appearances	DSS/BLF keys provide one-touch dialing, direct station selection (DSS), and busy lamp fields (BLF) for extensions
Direct Line (DL) Appearances	DL keys are used to originate and receive calls over specific trunk numbers
Multi-CO (MCO) Appearances	MCO keys are used to originate and receive CO calls
Multi-Line (ML) Appearances	ML keys are used to originate and receive CO line calls and intercom calls

## DSS/BLF Appearances

(CPC-S and CPC-M)

### *Description*

When a DSS/BLF key is programmed, it automatically provides direct station selection and busy lamp field for the assigned extension number. If desired, the DSS/BLF key can also provide ring monitor.

For example, you can set extension A as a DSS/BLF key on extension B. When extension A rings, the LED of the DSS/BLF key on extension B flashes. If extension B answers the call by pressing the DSS/BLF key, the LED on extension A goes off and the call remains only on the DSS/BLF key of extension B.

Ringling can be set on either one or both extensions. If the extensions are not set for ringling, the LED of the DSS/BLF key will flash red. If the extensions are set for ringling, the LED will flash green.

When extension A is in use, the LED of the DSS/BLF key on extension B will light red. If one extension has the Absence Message, Call Forwarding, or Do-Not-Disturb feature activated, the DSS/BLF key will light green.

### *Operation*

#### **To assign a DSS/BLF key**

- 1 Press the **ON/OFF** key
- 2 Press the **PROG** key
- 3 Press the FF key to be assigned the DSS/BLF appearance
- 4 Dial the extension number
- 5 Press **HOLD** key
- 6 Press the **ON/OFF** key

#### **To make an intercom call using the DSS/BLF key**

Press the idle DSS/BLF key

### To pick up a call on a DSS/BLF key

Press the flashing DSS/BLF key

### **Related Programming**

- FF1 (System) Extension (BLF) Delayed Ring
- FF4 (Ringing and Hunt Groups) Extension Ring Table
- FF5 (FF Keys) FF Key Assignments for Extensions

### **Considerations**

- Ringing assignments for DSS/BLF keys are assigned through system programming
- If several calls arrive at an Extension Line key, the calls are queued and ring on a first-in, first-out basis
- You cannot assign the same DSS/BLF appearance to more than one DSS/BLF key

## Direct Line (DL) Appearances

(CPC-S and CPC-M)

### **Description**

Direct Line keys for making and receiving outside line calls can be assigned to any one of eight CO lines. Direct Line keys have priority over Multi-Line keys for outgoing and incoming outside line calls.

The LED for a Direct Line key will flash green on an incoming call if the CO line is set to ring. It will flash red if the CO line is not set to ring. If another extension answers the call, the LED on the telephone will steadily light red.

## Operation

Operation	Action
To originate a trunk call	Press an idle DL key The key blinks (green) as the call is made
To place a call on Exclusive Trunk Hold (page 3-29)	Press the DL key
To place a call on System Trunk Hold (page 3-15)	<b>Press the HOLD</b> key
To transfer a call	<b>Press HOLD</b> , dial the destination extension, and then press <b>PROG</b>

## Related Programming

- FF1 (System) Least Cost Routing (LCR) Access
- FF1 (System) Alert Tone for Busy Override and OHVA
- FF1 (System) Extension Class of Service Setting
- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Group “81-86”
- FF3 (Extension) Forced Least Cost Routing
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Busy Override Send
- FF3 (Extension) Busy Override Receive
- FF3 (Extension) Page Group (O-7) Extensions
- FF5 (Keys) FF Key Assignments (all)
- FF8 (LCR) LCR Setting (all)

## Considerations

- Users can barge into a busy Direct Line (DL) and create a three-party conference To barge into a busy Direct Line, the user presses the DL key (The DL key will be lit red )
- “Barge-in for Direct Lines” is controlled by the program settings for Busy Override For instance, if an extension with a DL key does not want the DL broken into, that extension must have “Busy Override Receive” turned off

- Both extensions must belong to the same paging group (1-7) Paging group 0 does not allow override
- Barge-in for Direct Lines cannot override a DL under the following conditions
  - When the DL is in a conference call
  - When the DL is holding a call
  - When the phone that will be barged into is holding a trunk that does not appear on an FF key

For example, if extension 200 wants to barge into a DL that appears on extension 201, extension 200 cannot barge into the DL if 201 is holding a trunk that does not appear on an FF key

## Multi-CO (MCO) Appearances

(CPC-S and CPC-M)

### *Description*

MCO keys will only ring for incoming calls if programmed using the “Ring Assignments” When outside calls come in, the MCO key flashes green If a second outside call comes in, the second MCO key flashes green If another extension answers an outside call, then the MCO key will stop flashing and becomes idle

You can make and receive CO line calls using a Multi-CO (MCO) key

An MCO key can be assigned to any of the pooled trunk groups See “Pooled Trunk Access” on page 3-68 for more information

See “ML/MCO Separation” (page 3-53) for information on assigning both ML and MCO keys to the same system



## Operation

Operation	Action
To originate a trunk call	Press an idle <b>MCO</b> key The key blinks (green) as the call is made
To place a call on Exclusive Trunk Hold (page 3-29)	Press the <b>MCO</b> key
To place a call on System Trunk Hold (page 3-15)	<b>Press the HOLD</b> key
To transfer a call	<b>Press HOLD</b> , dial the destination extension, then press <b>PROG</b>

## Related Programming

- FF1 (System) Least Cost Routing (LCR) Access
- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Groups “81-86”
- FF3 (Extension) Forced Least Cost Routing
- FF4 (Ringing) Ringing and Hunt Groups (all)
- FF5 (Keys) FF Key Assignments (all)
- FF8 (LCR) LCR Settings [all]

## Considerations

- When all trunks in a group are busy, all of the corresponding **MCO** keys light red
- If LCR is enabled, **MCO** keys can be assigned for trunk group 89  
However, the FF keys will not light
- Trunk lines flash red
- There are seven groups of outside lines 9 and 81-86
- Press the **MCO** key that flashes green to answer an outside call
- If there are multiple outside calls, lift the receiver (or ON/OFF) to speak to the first one  
If more than one call comes in from an extension, then the second receives busy tone

## Multi-Line (ML) Appearances

(CPC-S and CPC-M)

### Description

You can make and receive both CO line calls and Intercom Calls using a Multi-Line (ML) key

See “ML/MCO Separation” (page 3-54) for information on assigning both ML and MCO keys to the same system

### Operation

Operation	Action
To originate an intercom or trunk call	Press an idle <b>MCO</b> key The key blinks (green) as the call is made
To place a call on Exclusive Hold (page 3-29)	Press the <b>MCO</b> key
To place a call on System Hold (page 3-15)	Press the <b>HOLD</b> key
To transfer a call	<b>Press HOLD</b> , dial the destination extension, then press <b>PROG</b>

### Related Programming

- FF1 (System) Least Cost Routing (LCR) Access
- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Group “8 1-86”
- FF3 (Extension) Forced Least Cost Routing
- FF5 (Keys) FF Key Assignment (all)
- FF8 (LCR) LCR Settings (all)

### Considerations

- A Multi-Line key will ring for incoming CO calls, Intercom Calls, recall calls, and call-forward calls
- When a CO call or an Intercom Call arrives, a search begins for a **Multi-**line key not in use The lower numbered FF keys will be searched first When a free Multi-Line key is found, the LED flashes green and the extension rings

- If another phone answers an incoming trunk call, the ML LED on your extension goes off and the ringing stops, indicating that the Multi-Line key on your telephone is no longer in use
- When dialing an extension number with ML keys, the system automatically selects the free Multi-Line key with the lowest number and flashes its LED green. If a second call comes in from another extension, the next lowest ML key flashes green (if present)
- If the CO line or held extension does not respond before the Recall Timer expires, the extension rings and the Multi-Line key flashes green
- If LCR is enabled, ML keys can be assigned for trunk group 89. However, the FF keys will not light

---

## ML/MCO Separation

(CPC-S and CPC-M)

### *Description*

Each extension can have either MCO or ML keys

- FF3 (Extension) ML/MCO Separation
- FF5 (Keys) FF Key Assignments (all)

### *Considerations*

- The initial setting for all extensions (except first attendant phone) is MCO
- The initial setting for the first attendant phone (port 1) is ML

---

## Meet-Me Answer

(CPC-S and CPC-M)

### *Description*

You can answer a Paging call from any extension using the Meet-Me Answer feature

**Operation**

- 1 Pick up the handset from any extension at which you hear the Paging call  
The phone issues intercom dial tone
- 2 Press “77 ”
  - Paging ceases and you are connected to the party trying to reach you
  - The EXT LED lights

**Related Programming**

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

**Considerations**

- The Meet-Me Answer feature cannot be used with Paging Group 00
- You can only use the Meet-Me Answer feature at an extension that does not have an incoming call
- If an external paging system or a Universal Answer system has been installed, use Group Call Pickup to respond to the Paging call
- If you are at a speakerphone, you can press the ON/OFF key instead of picking up the handset to answer the Paging Call You can then speak to the party trying to reach you using the phone’s built-in speaker and microphone

---

## Message Waiting/Callback Request

(CPC-S and CPC-M)

**Description**

If you try to call an extension that is busy or does not answer, you can leave a message requesting a return call

## **Operation**

### **To leave a Callback Request**

- 1 Press the ON/OFF key
- 2 Dial the extension number  
  
“Call-EXT XXX,” “Busy-EXT XXX” or “Talk-EXT XXX” (where “XXX” is the extension) appears on the display
- 3 Dial “2” at the busy tone or while the telephone is still ringing  
  
“Accept Message” appears on the display
- 4 Press the ON/OFF key  
  
The Message Waiting lamp flashes at the called extension

### **To answer a Callback Request**

- 1 Pick up the handset.  
  
The phone issues intercom dial tone
- 2 Press the AUTO key
- 3 Press the **REDIAL** key
  - Your telephone automatically dials extension that left Callback Request
  - If extension 135 left the Callback Request and your extension is set for Tone Calling, “Call-EXT XXX” (where “XXX” is the number of the extension that left the Callback Request) appears on the display
  - If extension 135 left the Callback Request and your extension is set for Voice Calling, “Talk-EXT XXX” (where “XXX” is the number of the extension that left the Callback Request) appears on the display
  - When your call is answered, the EXT LED lights and the Message Waiting lamp goes off

### **To view the most recent Callback Request**

Callback Requests are normally viewed in the order received To view the most recent callbacks first

- 1 Press the ON/OFF key

- The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 Press the **CONF** key twice  
The most recent Callback Request appears on the display
  - 3 Press the **ON/OFF** key  
The **ON/OFF** LED goes off
  - 4 Repeat steps 2 and 3 to view other Callback Requests

### **To cancel a Callback Request**

- 1 Press the **ON/OFF** key
  - The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 Press the **AUTO** key
- 3 Press the **FLASH** key  
“Call Back Cancel” appears on the display
- 4 Press the **ON/OFF** key  
The **ON/OFF** LED goes off

### ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

### ***Considerations***

- When your extension has received several Callback Requests, the number of requests appears on the left side of the display
- Up to four Callback Requests can be sent to any one extension. The order of the messages can then be changed by the party receiving the requests
- If you call the same extension a second time and the party answers, any Callback Requests you sent earlier will be cancelled

- If a Callback Request is sent to an extension for which Call Forwarding is set, the Callback Request will be automatically forwarded to the designated extension
- You can send a Callback Request to an extension that has Do Not Disturb or Absence Message activated

---

## Non-Appearing Outside Lines

(CPC-S and CPC-M)

### *Description*

Non-appearing outside lines are trunks that are not assigned to a dedicated FF key or to a trunk group key on your extension. The DBS 824 allows you to use non-appearing outside lines.

### *Operation*

#### **Answering a Non-Appearing Outside Line Call**

To answer a non-appearing outside line call at your extension, lift the receiver or press **ON/OFF**.

#### **Selecting a Non-Appearing Outside Line**

- 1 Pick up the receiver or press **ON/OFF**
- 2 **Dial 88**
- 3 Dial the outside line number (01-08)
- 4 Dial the telephone number

#### **Holding a Non-Appearing Outside Line**

Instead of an FF key, the EXT indicator flashes when you hold a non-appearing outside line.

# Offhook Signaling

(CPC-S and CPC-M)

## ***Description***

Offhook signaling sends a tone to a busy extension to indicate that another CO call has arrived

## ***Operation***

When you receive an **offhook** signal during a call, do the following

- 1 Put the first call on hold
- 2 Press the flashing FF key for the CO line of the incoming call

For details about handling multiple calls, see “Call Hold” on page 3-14

## ***Related Programming***

- FF3 (Extensions) Offhook Signal
- FF3 (Extensions) Offhook Signal Volume
- FF3 (Extensions) Offhook Signal Pattern

## ***Considerations***

- The system does not send the **offhook** signal under the following conditions
  - During a conference call
  - While the called extension is on hold
  - During a call on a CO line for which there is no line key on the called extension



# Offhook Voice Announce (OHVA)

(WC-S and CPC-M)

## **Description**

You can interrupt a busy extension when making an Intercom Call, and then use the Offhook Voice Announce (OHVA) feature make an announcement that only the called party can hear You can also transfer a held call to a busy extension after making the announcement using this feature

## **Operation**

### **To make an OHVA**

- 1 Pick up the handset
- 2 Dial the desired extension number  
  
If the extension is busy, your phone issues busy tone
- 3 Press “5 ”
  - “CONFXXX YYY” (where “XXX” is the calling extension and “YYY” is the receiving extension) appears on the display if you call a busy extension
  - “CONF XX YYY” (where “XX” is the line number and “YYY” is the extension) appears on the display if you call an extension that is speaking with an outside line
  - The **EXT** LED flashes
  - “Voice Announce” appears on the called extension’s display
  - The Talk Back key flashes red
- 4 Make your announcement

### **To answer an OHVA**

- 1 Press the Talk Back key (must be programmed in an FF key)  
  
The Talk Back key flashes red
- 2 To return to the previous call, press the Talk Back key again

**To transfer a call using OHVA**

- 1 Press the HOLD key to place the call to be transferred on hold
- 2 Dial the number of the extension to which the call will be transferred

If the extension is already engaged in a call, your phone issues busy tone

- 3 Press "5" and announce the call to be transferred

If the transferred call is not accepted by the called extension, press the FLASH key to cancel the transfer

If the transferred call is accepted, and Onhook Transfer is enabled for your extension hang up

If Onhook Transfer is not enabled, press PROG and then hang up

Note: Attendant console phones transfer by pressing the RELEASE key

**To answer a call after it has been announced using OHVA**

- 1 Replace the handset  
Your extension rings
- 2 Pick up the handset

***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Call Waiting/OHVA

***Considerations***

- The held call is transferred as soon as the extension sending the OHVA hangs up
- If the transferred call is not answered immediately, it will queue for a set time limit, then return to the extension sending the OHVA (The recall time can be set in the Transfer-Recall Timer )
- When receiving an OHVA, an extension's Talk Back key's LED will flash red When the Talk Back key is pressed to answer an OHVA, the LED will flash green

- You cannot receive a Call Waiting message during an OHVA (“Denied” will appear on the display of the extension trying to send the Call Waiting message )

---

# One-Touch Keys

(CPC-S and CPC-M)

## ***Description***

One-Touch Keys can be used to store telephone numbers, speed dial numbers, or feature access codes

To dial the stored number, the user goes offhook and presses the desired key

## ***Operation***

### **To program a One-Touch key for Pooled Access**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the PROG key
- 3 Press the One-Touch key to be programmed
- 4 Press the CONF key
- 5 Enter the number of the outside line group to be stored (See Table 3-7 )
- 6 Enter the telephone number to stored
- 7 Press the HOLD key

### **To assign System Speed Dial numbers to One-Touch keys**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights

- 2 **Press the PROG** key
  - 3 Press the One-Touch key to be programmed
  - 4 **Press the AUTO** key
  - 5 Enter the System Speed Dial Number to be programmed
  - 6 **Press the HOLD** key
  - 7 **Press the ON/OFF** key
- The **ON/OFF** LED goes off

**To assign two System Speed Dial numbers to a single One-Touch key**

- 1 Press the **ON/OFF** key
    - The phone issues intercom dial tone
    - The **ON/OFF** LED lights
  - 2 **Press the PROG** key
  - 3 Press the One-Touch key to be programmed
  - 4 **Press the AUTO** key
  - 5 Enter the Speed Dial number for the access code
  - 6 **Press the REDIAL** key
- This inserts a pause between the access code and the telephone number
- 7 **Press the AUTO** key
  - 8 Enter the Speed Dial number for the telephone number
  - 9 **Press the HOLD** key
- Both the access code and the telephone number are programmed on the One-Touch key
- 10 Press the **ON/OFF** key
- The **ON/OFF** LED goes off

**To assign access codes to a One-Touch key**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the PROG key
- 3 Press the One-Touch key to be programmed
- 4 Enter the access number
- 5 Press the REDIAL key

This inserts a pause between the access code and the telephone number
- 6 Press the HOLD key
- 7 Press the ON/OFF key

The ON/OFF LED goes off

**To check a programmed One-Touch key**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the CONF key

“C” appears in the display
- 3 Press the One Touch key to be checked

The programmed data appears on the display
- 4 Press the ON/OFF key
  - The ON/OFF LED goes off
  - The date and time appears on the display

**Considerations**

- If the pause following an access code is too short, press the REDIAL key more than once

- A One-Touch key can be programmed to automatically access a CO line before dialing a personal speed dial number
- Select an outside line group when you program a One-Touch key A free line is selected from that group when you dial out (Group 9 can be programmed to select LCR automatically) The following table shows the available outside line groups and their corresponding code numbers

**Table 3-7 One-touch access codes for trunk group numbers**

Trunk Group Number	Code Number to be entered
81	1
82	2
83	3
84	4
85	5
86	6
9	9

- One-Touch keys cannot be checked while Station Lockout is set

## One-Touch VM Access

(CPC-S and CPC-M)

### **Description**

One-Touch VM Access simplifies voice message retrieval for personal mailboxes as well as attendant transfer of incoming calls to extension mailboxes

For instructions on attendant usage of the VM key, see “One-Touch VM Access” on page 3-65

One-Touch VM Access allows a user to program an FF key, DSS key, or One-Touch key to automatically dial voice mail The extension number for voice mail as well as the user’s password can be stored under the key

If the voice mail key is assigned to an FF key or DSS key, the voice mail key and the MSGE lamp will flash red when the user has a message (With a One-Touch key, only the MSGE lamp flashes ) To access his or her mailbox, the user simply presses the voice mail key

If, for security reasons, the user prefers to manually dial the password the voice mail key can be used to store the voice mail extension number only. With this option, the user presses the VM key, then dials the password before accessing the mailbox.

Note: The VM key is assigned differently, depending on whether it is used for personal message retrieval or attendant transfer. See the following "Operation" section for instructions.

## *Operation*

### **To assign a voice mail key**

Note: You cannot program this feature if trunks are assigned to the key. First clear the trunk assignments, then use the following procedures to assign the VM key.

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the PROG key
- 3 Press the FF key, DSS key, or One-Touch key
- 4 Press the CONF key
- 5 Press the AUTO key
- 6 Dial the voice mail pilot number
- 7 If the key is for personal message retrieval, enter a password (XXX or AUTO 00-99), if desired. If the key is for attendant transfer to voice mail, do not enter a password, but include any special codes (\* or #, for example) if they are required by the voice mail system.

Note: If a password is used, it can be from 1 to 3 digits. If the password is over 3 digits long, it must be assigned to a personal or system speed dial number (00-99,000-199 or 900-939).

- 8 Press the HOLD key

### **To use a Voice Mail key**

When the VM key flashes, the user presses it to connect to the mailbox.

## ***Related Programming***

- FF5 (Keys) FF Key Assignment for Extensions
- FF5 (Keys) FF Key Assignments for DSS Consoles

## ***Considerations***

- If the voice mail password is over three digits long, assign the password to a personal or system speed dial number (00-99,000-199 or 900-939)
- If you are using 2-digit dialing with a third-party voice mail, the password can be up to 4 digits long before it must be stored as a speed dial number
- With third-party voice mail, you must make sure a voice channel is assigned for message waiting control in order for the MSGE lamp and VM key to light.
- The FF Key Copy program (FF9 3# 1-8# 1-8#) should not be used to copy VM keys that include passwords because the passwords as well as the voice mail extension number will be copied. In addition, pressing a key containing someone else's password will result in an "invalid password" message from voice mail.

---

# **Onhook Dialing**

(CPC-S and CPC-M)

## ***Description***

Onhook Dialing is a standard feature for DBS 824 key phones. To dial onhook, the user simply presses the ON/OFF key.

Users can dial onhook using the dialpad, one-touch keys, or FF keys.



# Pooled Trunk Access

(CPC-S and CPC-M)

## **Description**

The DBS 824 system supports up to eight outside lines. These lines can be divided into seven Pooled Trunk groups. If you assign an FF key as an MCO or ML key, the DBS 824 can automatically select an open line from the Pooled Trunk group assigned to that key.

Even if all the outside lines assigned to an extension are busy, you can access a free line by choosing an outside line group number. Group numbers 9 and 8 1-86 are available.

## **Operation**

### **To select a Pooled Trunk group using a pre-programmed FF key**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the ML or MCO key
  - The LED of the Pooled Trunk key lights green
  - The phone issues outside dial tone
  - “CO TALK #XX” (where “XX” is the line number) appears
- 3 Dial the telephone number

The number appears on the display
- 4 Complete the call and replace the handset

The LED of the ML or MCO key goes off

### **To select a Pooled Trunk group that is not assigned to an FF key**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone

- The ON/OFF LED lights
- 2 Enter the desired group number (81-86, 9)
  - The phone issues outside dial tone
  - “CO TALK #XX” (Where “XX” is the line number) appears on the display
- 3 Dial the telephone number

The number appears on the display
- 4 Complete the call and replace the handset.

### ***Related Programming***

- FF1 (System) Least Cost Routing (LCR) Access
- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Group “8 1-86”
- FF3 (Extension) Forced Least Cost Routing
- FF5 (Keys) FF Key Assignment
- FF8 (LCR) LCR Settings (all)

### ***Considerations***

- The LED of the ML or MCO key lights red and the phone issues busy tone when all lines in the same group are busy (Those lines cannot be accessed )
- If a ML or MCO key is assigned line group number 9 and LCR has been activated, LCR is selected automatically
- Press the ML or MCO key that flashes red to answer incoming calls
- If one group is set aside for data lines, this feature can be used when a line is needed for operations such as data transmission via modem

# Prime Line Preference

(CPC-S and CPC-M)

## ***Description***

Prime Line Preference allows a user to place an outside call by simply picking up the handset. When the user goes **offhook**, the trunk or trunk group assigned to **FF1** is automatically accessed (Be sure to program one of the other FF keys as an intercom key )

## ***Operation***

- 1 Pick up the handset.
  - The phone issues outside dial tone
  - The LED of the accessed line key lights green
  - “CO TALK #XX” (where “XX” is the line number) appears on the display
- 2 Dial the telephone number

The number appears on the display

## ***Related Programming***

- FF1 (System) Least Cost Routing (LCR) Access
- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Groups “81-86”
- FF3 (Extension) Forced Least Cost Routing
- FF5 (Keys) FF Key Assignment
- FF3 (Extension) Prime Line Pickup

## ***Considerations***

- To make an Intercom Call, press the FF key programmed as an intercom key and then dial the extension number

- If a member of the trunk group assigned to FF1 is also assigned to a Direct Line key, Prime Line Pickup will access the Direct Line key instead of FF1

---

## Private Line

(CPC-S and CPC-M)

### ***Description***

An outside line can be reserved for exclusive access by one extension, eliminating the need for the extension user to wait for a free outside line during busy periods

### ***Operation***

- 1 Press the CO line key designated as a Private Line
  - The phone issues outside dial tone
  - The line LED lights green
  - “CO TALK #XX” (where “XX” is the line number) appears on the display
- 2 Dial the telephone number

The number appears on the display
- 3 Complete the call and replace the handset

The line LED goes off

### ***Related Programming***

- FF2 (Trunks) Private Trunk Line
- FF1 (System) Least Cost Routing (LCR) Access
- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Groups “81-86”
- FF3 (Extension) Forced Least Cost Routing
- FF5 (Keys) FF Key Assignment

## **Considerations**

- Calls to Private Lines cause extensions to ring even if the DND or the Absence Message feature is activated for them
- Calls to Private Lines are not forwarded, even if Call Forwarding is activated on the associated extensions
- No warning tone sounds at the Attendant Phone, no matter how long a call on a Private Line is on hold, even if the overtime warning tone is ignored
- When a private line is assigned to an extension, the Toll Restriction assignment for the private line changes to “0” for all other extensions. Ringing assignments for the private line are also removed from all other extensions

---

# **Reminder Call**

(CPC-S and CPC-M)

## **Description**

Your telephone can act as an alarm clock with the Reminder Call feature

## **Operation**

### **To set the Reminder Call feature**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press “#4”

“Enter Time HHMM” appears on the display
- 3 Enter the time you wish the Reminder Call to sound. Enter the desired time in 12-hour format, followed by a “1” for am or a “2” for p m
- 4 Press the ON/OFF key
  - The ON/OFF LED goes off

- “Alarm XX XX” (where “XX XX” is the time) appears on the display along with an am /p m indicator

### **To cancel the Reminder Call feature**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The **ON/OFF** LED lights
- 2 Dial “#4 ”  
“Enter Time HHMM” appears on the display
- 3 Press the ON/OFF key
  - The ON/OFF LED goes off
  - The time disappears from the bottom line of the display

### **Considerations**

- A sixteen-second alarm tone will be issued at the specified time
- One Reminder Call may be set for each telephone
- To change the Reminder Call, simply enter a new time
- If the extension is in use when the reminder call is scheduled, the reminder call is issued as soon as the extension becomes available

---

## **Ringing Line Preference**

(CPC-S and CPC-M)

### **Description**

Ringing Line Preference enables an extension to answer an incoming CO call, hold recall, or transfer call by simply picking up the handset or pressing ON/OFF

### **Related Programming**

- FF3 (Extensions) Auto Pickup (Ringing Line)

# Saved Number Redial

(CPC-S and CPC-M)

## ***Description***

You can save a previously dialed number for later redialing. Unlike the Last Number Redial feature, the Saved Number Redial feature allows you to redial the stored number even if it was not the last number dialed.

Saved Number Redial works for outside numbers, but not for extension numbers.

## ***Operation***

### **To save a number**

- 1 Press the AUTO key twice before replacing the handset.
- 2 Press “\* ”  
“Dial Stored” will appear on the display and the number will be saved.
- 3 Replace the handset.

### **To redial a saved number**

- 1 Press an unlit line key
  - The phone issues outside dial tone
  - The line LED lights green
  - “CO TALK #XX” (where “XX” is the line) appears on the display
- 2 Press the AUTO key
- 3 Press “\* ”  
The dialed number appears on the display.
- 4 Complete the call and replace the handset.  
The line LED changes from green to red and then goes off.

## ***Considerations***

- Any previously saved number is erased when a new number is saved
- The Saved Number Redial feature can store a number up to sixteen digits long
- Up to five Speed Dialing codes can be stored and redialed

---

# **Speed Dialing**

(CPC-S and CPC-M)

## **Personal Speed Dialing**

### ***Description***

Extension users can store frequently called numbers using the Personal Speed Dial feature With CPC-S and CPC-M in the standard mode, users can store up to 10 Personal Speed Dial numbers at each extension (90-99) With CPC-M set in the add-on mode, users can store up to 40 Personal Speed Dial numbers at each extension (900-939)

Users can also enter names of up to sixteen characters for each of the Speed Dial numbers This allows Personal Speed Dial numbers to be confirmed by name rather than by number

Extension users can program their own personal speed dial numbers using One-Touch keys, or they can be programmed from a key phone

### ***Operation***

#### **To assign Personal Speed Dialing to a One-Touch Key**

- 1 Press ON/OFF
- 2 Press PROG
- 3 Press a One-Touch key
- 4 If you want to include a trunk access code in the number, press CONF then 9 or 1-6 (1-6 = trunk groups 81-86)



If you enter a trunk access code in the speed dial number, you do not have to open a trunk before using the number

- 5 Dial the number
- 6 Press HOLD
- 7 Press ON/OFF

### **To use a programmed Personal Speed Dial key**

- 1 If the Speed Dial key includes a trunk access code, simply press the key

If the Speed Dial key does not include an access code, press an unlit line key before pressing the Speed Dial key

- The phone issues outside dial tone
- The line LED lights green
- “CO TALK #XX” (where “XX” is the line number) appears on the display

- 2 Complete your call and replace the handset

The line LED changes from green to red and then goes off

### **To check a programmed Personal Speed Dial key**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights

- 2 Press the CONF key
  - “C” appears on the display

- 3 Press a Personal Speed Dial key
  - The programmed data appears on the display

- 4 Press the ON/OFF key
  - The ON/OFF LED goes off

**To assign a name to a Personal Speed Dial number**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Press the PROG key
- 3 Press “#1 ”

“Speed Dial Name” appears on the display
- 4 Press the AUTO key
- 5 Enter the Personal Speed Dial code
- 6 Press **AUTO** to backspace and erase the existing name
- 7 Use the **dialpad** sequences shown in Table 2-1 on page 2-8 to enter letters and/or numbers
  - Press **FLASH** after each letter
  - Press **CONF** to switch between numbers and letters
- 8 To complete the entry, press **HOLD**

**To delete a Personal Speed Dial number**

- 1 Press ON/OFF
- 2 Press PROG
- 3 Press the One-Touch key
- 4 Press HOLD
- 5 Press ON/OFF again

***Related Programming***

- FF7 (Toll Restrictions) Toll Restrictions (all)
- FF10 (Speed Dialing) Personal Speed Dial Numbers



- . “CO TALK #XX” (where “XX” is the line number) appears on the display
- 2 **Press the AUTO** key
  - “A” appears on the display
- 3 Enter the System Speed Dial code (00-89 or 000-199)
  - The number and corresponding name appear on the display
- 4 Complete your call and replace the handset
  - The line LED changes from green to red and then goes off

### **To check a programmed System Speed Dial key**

- 1 **Press the ON/OFF** key
  - . The phone issues intercom dial tone
  - . The **ON/OFF** LED lights
- 2 **Press the CONF** key
  - “C” appears in the display
- 3 **Press AUTO**
- 4 Press a System Speed Dial key
  - The programmed data appears on the display
- 5 **Press the ON/OFF** key
  - . The **ON/OFF** LED goes off
  - . The date and time appear on the display

### ***Related Programming***

- . FF1 (System) Override Toll Restriction With SSD Numbers
- . FF10 (Speed Dialing) System Speed Dial Numbers

## Considerations

- If numbers do not appear on the display when you use System Speed Dial codes (00-89 or 000-199), your extension is not programmed to display that data
- The system can be programmed to allow System Speed Dial Numbers to override toll restrictions
- You can make outside calls using this feature, even if your extension is assigned to Toll Restriction type 2-6
- Speed Dial code cannot be checked while Station Lockout is activated

## Speed Dial Linking

(CPC-S and CPC-M)

### Description

You can link together up to five SSD or PSD numbers to handle telephone numbers longer than 16 characters

### Operation

Complete the following steps to chain speed dial numbers

- 1 Pick up the receiver or press **ON/OFF**
- 2 If necessary, access an outside line
- 3 Do one of the following

If	Then
You are using a PSD number	Press the one-touch key for the first part of the number
You are using a SSD number	Press <b>AUTO</b> Dial the code for the first part of the number

- 4 Use the one-touch keys or system speed dial codes to dial the parts of the phone number until it is completed

## ***Considerations***

- Before linking, you must enter the parts of the telephone number into one-touch keys or system speed dial codes. For example, program the first part into one-touch key #1, the second part into one-touch key #2, etc.

---

# **Station Lockout**

(CPC-S and CPC-M)

## ***Description***

Use the Station Lockout feature to dial a Station Lockout code that prevents other users from using your phone.

### **To activate Station Lockout**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “74 ”

“Enter Code #” appears on the display
- 3 Dial the Station Lockout code
- 4 Press the ON/OFF key

“Set Sta Lock” appears on the display

### **To deactivate Station Lockout**

- 1 Press the ON/OFF key
  - The phone issues intercom dial tone
  - The ON/OFF LED lights
- 2 Dial “74 ”

“Enter Code #” appears on the display
- 3 Dial the Station Lockout code

- 4 Press the ON/OFF key
  - “Set Sta Lock” disappears from the display

### ***Related Programming***

- FF3 (Extensions) Extension Lockout Code

### ***Considerations***

- A locked extension can be used for Intercom Calls
- Station Lockout key codes can only be set from an attendant phone or a key phone
- You cannot confirm Speed Dialing or set Speed Dialing while Station Lockout is activated
- If you enter an incorrect key code and then try to dial, the phone will issue a busy tone

---

# **Trunk-to-Trunk Transfer**

(CPC-S and CPC-M)

## ***Description***

Trunk-to-trunk transfer allows an extension to transfer one outside party to another outside party

Before completing the transfer, the extension can hold a three-way conference with the two outside parties

## ***Operation***

- 1 Press the HOLD key during an outside call
  - Your current call is put on hold
  - “Hold #XX” (where “XX” is the line number) appears on the display
- 2 Press an unlit CO key
  - The phone issues outside dial tone

- “Talk #XX” [where “XX” is the selected line number) appears on the display
- 3 Dial the telephone number of the party you want to connect to your original call
  - 4 After the call goes through, press the CONF key
    - A three-party Conference Call is initiated
    - “Conf #XX #YY” (where “XX” is the first line and “YY” the second line) appears on the display
  - 5 Press one of the CO keys
    - The two outside lines are connected
    - “Hold #XX #YY” (where “XX” is the first line and “YY” the second line) appears on the display

### ***Related Programming***

- FF1 (System) Unsupervised Conference Timer
- FF2 (Trunks) Supervised Trunk Line Conference
- FF3 (Extensions) Unsupervised Conference

### ***Considerations***

- After the Trunk-to-Trunk Transfer is completed, you cannot add another party to create a three-party Conference Call
- When the call is finished, the conference information disappears from the display and your extension returns to normal operation
- When the Unsupervised Conference Timer expires, the call is automatically disconnected



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# Chapter 4. DSLT Features

This chapter describes features that are available with the Digital Single Line Telephone (DSLST)

This chapter covers the following topics

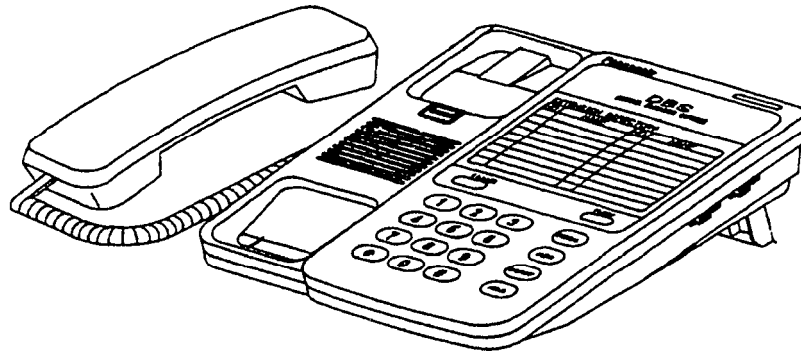
Topic	Page
DSLST	<b>I 4-3 I</b>
Absence Message	<b>4-3</b>
Busy Override	<b>4-5</b>
Call Forwarding	<b>4-6</b>
Call Hold	4-9
Call Park	<b>4-10</b>
Call Pickup	<b>4-12</b>
Call Transfer	<b>4-14</b>
call waiting	4-16
Camp-on	4-18
Conference Calls	<b>4-20</b>
Dial "0" for Attendant	4-21
Direct Trunk Access	4-21
Do-Not-Disturb (@ND)	<b>4-22</b>
Intercom Calling	<b>4-23</b>
Last Number Redial	<b>4-24</b>
Meet-Me Answer	<b>4-25</b>
Message Waiting/Callback Request	<b>4-26</b>
Off-Hook Voice Announce (OHVA)	<b>4-27</b>
Onhook Dialing	4-29
Pooled Trunk Access	4-29
Reminder Call	<b>4-30</b>
Saved Number Redial	4-31
Speed Dialing	<b>4-32</b>



# DSL T

Figure 4-1 illustrates the DSL T For more information on DSL T operation, see the *Digital SL T User s Guide (Section 790)*

**Figure 4-1 Digital Single Line Telephone (DSL T)**



## Absence Message

(CPC-S and CPC-M)

### Description

DSL T users can leave text messages on their phones when they are away

When the unattended extension is called by a display phone, the text message appears on the caller's phone

One of the following messages can be selected Messages 5 to 9 can be changed through system programming

**Table 4 1 Absence Messages**

Message No	Message Text
0	In Meeting
1	At Lunch
2	Out of Office
3	Vacation
4	Another Office
5	User Defined

6	User Defined
7	User Defined
8	User Defined
9	User Defined

## ***Operation***

### **To Set an Absence Message**

- 1 Lift the handset or press ON/OFF
- 2 Dial “71 ”
- 3 Enter a message code between 0 and 9 (See Table 4-1)
- 4 Enter the time you will return (optional) See Table 4-2 for examples
- 5 Replace the handset or press ON/OFF

### **To Cancel an Absence Message**

- 1 Lift the handset or press ON/OFF
- 2 Dial “71 ”
- 3 Replace the handset or press ON/OFF

## ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF6 (Names and Messages) Absence Messages

## ***Considerations***

- Extensions without displays get a busy signal, rather than the Absence Message
- If an extension user selects a message code number 5-9 that has not been set up with a message, “Absence,” followed by the code number, appears on the caller’s display
- Absence Message return times can be entered as shown in Table 4-2

**Table 4-2 Example Return Times for Absence Messages**

<b>Input</b>	<b>Display</b>
No input	Return
9	Return 9 00
1 11	Return 1 100
6 15	Return 6 15
10 35	Return 10 35

Four-digit numbers can also be entered (0000-9999 = Hours & Minutes or Month & Date)

DND and Absence Messages cancel Call Forwarding Calls to an extension with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls Intercom calls receive busy tone, trunk calls are routed to the extension defined in Permanent Call Forwarding The following types of incoming trunk calls follow Permanent Call Forward settings

- Direct trunk calls
- Transferred trunk calls

# Busy Override

(CPC-S and CPC-M)

## Description

Extensions in the same Paging Group (1-7) can break into one another's outside or intercom calls to relay information or to create three-party Conference Calls

## Operation

- 1 Pick up the handset.  
The phone issues intercom dial tone
  - 2 Dial the extension number
  - 3 When you hear busy tone, dial "4"
- Both phones issue an alert tone (system programming required)

## Related Programming

- FF1 (System) Alert Tone for Busy Override and OHVA
- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Busy Override Send
- FF3 (Extension) Busy Override Receive
- FF3 (Extension) Page Group (O-7) Extensions

## Considerations

- You cannot break in on three-party conference calls
- The default for the override alert tone is “off” If the override alert tone is enabled, the tone is sent to both parties when a call is overridden

---

# Call Forwarding

(CPC-S and CPC-M)

## Description

Call Forwarding allows users to send their calls to another extension, to an outside line, or to voice mail The following table shows the call forwarding features available

**Table 4-3 DBS 824 Call Forwarding features**

Feature
Call Forwarding--All Calls
Call Forwarding--No Answer
Call Forwarding--Busy
Call Forwarding--Busy/No Answer
Permanent Call Forwarding

**Call Forwarding--All Calls** When this feature is activated, all incoming calls to an extension are immediately forwarded

**Call Forwarding-No Answer** When this feature is activated, unanswered calls ring until the Call Forward No Answer timer expires. When the timer expires, the unanswered calls are forwarded.

**Call Forwarding--Busy** When this feature is activated, all incoming calls to a busy extension are forwarded.

**Call Forwarding--Busy/No Answer** When this feature is activated, all incoming calls to an extension that is busy or does not answer are forwarded.

**Permanent Call Forwarding** Permanent call forwarding is assigned through system programming. Permanent call forwarding is usually used to forward calls to a voice mail system.

Extension user can invoke other forms of call forwarding (no answer, busy all calls) to override the permanent call forwarding destination.

Permanent call forwarding can be used with busy, no answer, or busy/no answer.

Any system speed dial number (00-89 or 000-199) or personal speed dial number (90-99 or 900-939) can be used to store an outside number for call forwarding.

## Operation

### To activate Call Forwarding

- 1 Lift the handset or press **ON/OFF**.  
The phone issues intercom dial tone.
- 2 Dial "72 "
- 3 Dial the appropriate call forwarding code.

Call Forward Type	Code
All	0
Busy/no answer	1
Busy	2
No answer	4

- 4 If you are forwarding to an extension, enter the extension number. If you are forwarding to an outside number, press **AUTO** plus the appropriate speed dial number.

**Note:** Outside numbers used for call forwarding must already be programmed into speed dialing (See page 4-32 for instructions )

- 5 Replace the handset or press ON/OFF

### To cancel Call Forwarding

- 1 Lift the handset or press ON/OFF
- 2 Dial “72 ”
- 3 Replace the handset or press ON/OFF

### **Related Programming**

- FF1 (System) Call Forward -- No Answer Timer
- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Permanent Call Forward Type
- FF3 (Extension) Permanent Call Forward Extension
- FF10 (Speed Dialing) System Speed Dial Numbers
- FF10 (Speed Dialing) Personal Speed Dial Numbers

### **Considerations**

- Calls can be forwarded to extensions that have call forwarding activated For example, phone “A” can be forwarded to phone “B,” even if phone “B” is forwarded to voice mail
- Extensions receiving forwarded trunk calls display “CFWD NNN XXXXXX,” where “NNN” = the extension that forwarded the call and “XXXXXX” = the trunk name or number

Calls to an extension with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls  
Intercom calls receive busy tone, trunk calls are routed to the extension defined in permanent call forwarding

The following types of incoming trunk calls follow permanent call forward settings

- Direct trunk calls



- Transferred trunk calls
- Voice calls do not forward when Call Forwarding--No Answer is used
- To forward to an external number, the number must first be pre-programmed in personal or system speed dialing Forwarding to an outside number requires the use of pooled trunks (9, 8 1-86) However, dial "9" trunk access is not available for use when Least Cost Routing is active
- Extensions for which Call Forwarding to an external number has been set cannot
- Be in the middle of an outside call when the feature is activated
- Have a toll restriction setting that prohibits outside calls
- Calls can be forwarded to a third-party voice mail by using the "Call Forward ID Code" described on page 1- 12
- For an extension to be permanently call forwarded to the pilot number of a hunt group, the hunt group pilot number must be 24.4 or above For example, if extension 200 is assigned as the pilot number of a hunt group, hunting will work properly when 200 is dialed However, permanent call forwarding will not work for any extension that is permanently call forwarded to the hunt group pilot number

## **Call Hold**

(CPC-S and CPC-M)

### ***Description***

The HOLD key provides either exclusive or system hold, depending on system programming With Exclusive Hold, only the extension that held the call can retrieve it With System Hold, another extension can retrieve the call

### ***Operation***

- . .. .

## ***Related Programming***

- FF1 (System) Non-appearing Central Office Line Hold
- FF1 (System) Recall Timer for Extension-Held Intercom Calls
- FF1 (System) Recall Timer for Extension-Held CO Calls
- FF1 (System) Trunk Line Automatic Hold (Key Bank Hold)

## ***Considerations***

- A held call will recall if it is not retrieved before the Hold Recall Timer expires
- If there is no response to the Hold Recall tone, the tone is issued at the Attendant Phone However, no tone is issued at the Attendant Phone if Night Mode is activated
- If your system has onhook transfer activated, and you have placed an outside call on hold and then made an Intercom Call, make sure the other extension presses the FLASH key or hangs up before you do If you hang up before the other extension, *the held outside line will be transferred to that extension*
- An error tone is issued if you attempt to hold more than one call at once
- The DBS can provide Music-on-Hold to callers placed on hold See “Music-On-Hold” (page 1-24) for more information

---

# **Call Park**

(CPC-S and CPC-M)

## ***Description***

You can use the Call Park function to transfer a call even if you cannot locate the intended recipient of the call Simply park the call and then page the person to whom you want to transfer the call That person can answer the call from any extension by dialing the number of the extension that parked the call

## ***Operation***

### **To park a call**

- 1 Press the HOLD key
- 2 Dial “75 ”

### **To retrieve a parked call**

- 1 Lift the handset  
The phone issues intercom dial tone
- 2 Dial “76 ”
- 3 Dial the number of the extension that parked the call

## ***Related Programming***

- FF1 (System) Attendant Park Hold Recall Timer
- FF1 (System) Extension Park Hold Recall Timer

## ***Considerations***

- An alarm tone is issued if a parked call is not released before the Park Recall Timer expires. If this happens, the user that parked the call can retrieve it by picking up the handset. If no one retrieves the call after the Park Recall Timer expires, a second **alarm** is issued at the attendant phone(s).
- You cannot park more than one outside line at a time.
- The Call Park Recall Timer is similar to the Recall Timer, except that when the Call Park Recall Timer is set for “0” a call automatically recalls in three minutes.

# Call Pickup

(CPC-S and CPC-M)

DSLTTs can use both directed and group call pickup

## Direct Call Pickup

### *Description*

A call to an extension can be answered from any other extension with the Direct Call Pickup feature

### *Operation*

- 1 Lift the handset
- 2 Dial “79 ”
- 3 Enter the number of the ringing extension

### *Related Programming*

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

### *Considerations*

- If more than one caller is attempting to reach the ringing extension, the Direct Call Pickup feature answers the call that arrives **first**

Once the call has been picked up, other extensions that attempt to pick up the call receive busy tone

- You can answer incoming calls, intercom calls (both tone and voice), call waiting, paging, transferred calls, or recalls using the Direct Call Pickup feature You cannot answer callbacks with this feature

# Group Call Pickup

## *Description*

Use the Group Call Pickup feature, to answer calls to other extensions within your Paging Group (01-07) without entering the number of the extension that is ringing

## *Operation*

- 1 Lift the handset
- 2 Did "70 "

## *Related Programming*

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Extension Page Group

## *Considerations*

- If more than one call is arriving at the Paging Group, the Group Call Pickup feature will answer the call to the lowest-numbered port first
- If the called extension belongs to more than one Paging Group, the Group Call Pickup Feature will answer the call to the lowest-numbered Paging Group first
- You can answer incoming calls, Intercom Tone Calling, or Intercom Voice Calling using the Group Call Pickup feature You cannot answer Paging or Callback with this feature
- Group Call Pickup cannot be used to pick up a ringing phone in Paging Group 00 For example, if an extension is a member of Paging Groups 00 and 06, the extension can use Group Call Pickup to answer ringing calls in Group 06, but not in Group 00

---

# Call Transfer

(CPC-S and CPC-M)

The DBS 824 provides two call transfer methods blind transfer and screened transfer

## Blind Transfer

### *Description*

Blind transfer allows the transfer of a call directly to an extension, without waiting for the called extension to answer

### *Operation*

- 1 Press the **HOLD** key to place the call on hold
- 2 Dial the extension number to which the call is to be transferred
- 3 Replace the handset before the other party answers
  - You can also replace the handset after the third party answers
  - The third party need only pick up the handset to speak to the outside line

### *Related Programming*

- FF1 (System) **Onhook** (Automatic) Transfer
- FF1 (System) Extension Transfer Recall Timer for CO Calls
- FF1 (System) Attendant Transfer Recall Timer for CO Calls

### *Considerations*

- For users to transfer calls by pressing **HOLD**, dialing an extension, and going **onhook**, the **Onhook** Transfer feature must be enabled
- You cannot transfer a call to an extension that has Do Not Disturb or Absence Message activated

- You can transfer a call to an extension that has Call Forwarding activated. The transferred call will follow the call forwarding path of the extension it is transferred to.

For example, if extension “A” is forwarded to extension “B,” calls that are transferred to extension “A” will be forwarded to extension “B.”

- When you transfer a call to an extension that does not answer and does not have Call Forwarding activated, the transfer recalls your extension after the Transfer Recall Timer expires.

## Screened Transfer

(CPC-S and CPC-M)

### ***Description***

Use the Screened Transfer feature to contact a third party and announce the call before transferring it.

### **To use Screened Transfer when your system is set for Onhook Transfer**

- 1 Press the HOLD key to place the call on hold.  
The phone issues intercom dial tone.
- 2 Dial the extension number to which the call is to be transferred.
- 3 When your call is answered, inform the third party of the transfer.
- 4 Replace the handset.

The third party need only pick up the handset to speak to the outside line.

### **To use Screened Transfer when Onhook Transfer is disabled**

- 1 Press the HOLD key to place the outside call on hold.  
The phone issues intercom dial tone.
- 2 Dial the extension number to which the call is to be transferred.
- 3 When your call is answered, inform the third party of the transfer.  
The EXT LED stops flashing and remains lit.

4 Dial “8 ”

The third party need only pick up the handset to speak to the outside line

5 Replace the handset.

### ***Related Programming***

- FF1 (System) Onhook (Automatic) Transfer
- FF1 (System) Recall Timer for Extension -Transferred CO Calls
- FF1 (System) Recall Timer for Extension -Transferred CO Calls

### ***Considerations***

- You cannot transfer a call to an extension that has Do Not Disturb or Absence Message activated
- You can transfer a call to an extension that has Call Forwarding activated  
The transferred call will follow the call forwarding path of the extension it is transferred to

For example, if phone “A” is covered to phone “B,” calls that are transferred to phone “A” will be forwarded to phone “B ”

- When you transfer a call to an extension that does not answer and does not have Call Forwarding activated, the transfer recalls to your extension after the Transfer Recall Timer expires

---

## **Call Waiting**

(CPC-S and CPC-M)

### ***Description***

You can send a Call Waiting signal, followed by a brief LCD message, to a busy extension. The party receiving the message need only replace the handset and then pick it up again to be automatically connected to your extension.

The following messages can be sent using the Call Waiting feature



**Table 4-4 Call Waiting Text Messages**

Message Code	Message
5	“Visitor Here”
6	“Need Help”
7	“Important”
9	“Emergency”

Message codes 0-4 cannot be used

## Operation

### To Set Call Waiting

- 1 Lift the handset
- 2 Dial the extension number
- 3 Upon hearing busy tone, press “3 ”
- 4 If you wish to send a text message, dial the desired message code (5-7 or 9)

The message appears on the called party’s phone if the called party has a display phone (If the extension does not have a display, it will continue to issue a call waiting tone )

- 5 Remain on the line until the called party picks up

### To answer Call Waiting (after disconnecting the current call)

- 1 Replace the handset.  
The current call is disconnected
- 2 Pick up the handset

You are automatically connected to the extension sending the Call Waiting

### To answer Call Waiting (without disconnecting the current call)

#### 1 Press HOLD

- . The current call is disconnected

- . The new call is connected automatically
- 2 Press HOLD again to retrieve the first call

### ***Related Programming***

- . FF1 (System) Extension Class of Service Setting
- . FF3 (Extension) Extension Class of Service Assignment
- . FF3 (Extension) Call Waiting/OHVA

### ***Considerations***

- . Call Waiting can be used without entering a message code
- . An extension that has DND activated, has a call on hold, is ringing (from another call), or is engaged in a conference call cannot receive Call Waiting messages
- . An extension that has call forwarding activated cannot receive call waiting messages unless it has an available ML key

---

## **Camp-on**

(CPC-S and CPC-M)

### ***Description***

If you reach a busy extension, you can use the Camp-on feature to alert you with a ring when the extension becomes free. You can then pick up your handset to automatically dial the extension.

### ***Operation***

#### **To activate the Camp-on feature**

- 1 Lift the handset.
- 2 Dial the desired extension number
- 3 Upon hearing busy tone, press “3 ”
  - . The phone issues a ringback tone

- If the Camp-on feature is not available, the phone continues to issue busy tone
- 4 Replace the handset after you hear the ringback tone

### **To answer the callback ring**

Pick up the handset when you hear the callback ring

The system automatically dials the called extension

### ***Related Programming***

- FF3 (Extension) Call Waiting/OHVA

### ***Considerations***

- The callback ring must be answered within sixteen seconds or it will be canceled
- A Camp-on request will only be accepted *after* Call Waiting status
- Camp-on cannot be activated by an extension that has call forwarding turned on
- An extension can only have one call camped on at a time For example, if Extension 152 camps on to Extension 153, another extension cannot camp on to 153, as long as 152 is camped on
- An extension that has initiated a camp-on cannot receive a camp-on For instance, if Extension 200 has camped on to Extension 300, another extension cannot camp on to 200
- For CPC-S and CPC-M, callbacks are not forwarded For example, if Extension 200 is call forwarded to Extension 300, Extension 200 can register a callback request to Extension 400 When the callback request is returned, it will ring Extension 200 and will not follow call forwarding

# Conference Calls

(CPC-S and CPC-M)

## ***Description***

Conference Calls allow an extension user to add a party to an existing conversation

DSLTT users can create the following types of Conference Calls

- One outside line and two extensions (three-party Conference Call)
- Two outside lines and one extension (three-party Conference Call)
- Three extensions (Intercom Conference Call)

## ***Operation***

### **To add an extension**

- 1 Press the HOLD key to place the current call on hold
- 2 Dial the number of the extension you wish to add to the call
- 3 Press CONF when your call is answered

### **To add an outside number**

- 1 Press the HOLD key to place the current call on hold
- 2 Call the outside number
- 3 Press CONF when your call is answered

## ***Considerations***

- Press the FLASH key to exit a Conference Call
- The Hold feature cannot be used during a three-party conference

# Dial “0” for Attendant

(CPC-S and CPC-M)

## ***Description***

The Attendant can be called from any extension by pressing “0”

If multiple attendants are assigned, dial “0” calls goes to Attendant “1” first  
If attendant “1” is busy, the call then goes to Attendant “2” The call continues to transfer to the next attendant in the attendant group, if necessary

A maximum of four attendants can be assigned

## ***Operation***

- 1 Lift the handset.
- 2 Press “0”

## ***Related Programming***

- FF1 (System) Second Attendant Position
- FF1 (System) Third Attendant Position
- FF1 (System) Fourth Attendant Position
- FF1 (System) Attendant Transfer Extension

---

# Direct Trunk Access

(CPC-S and CPC-M)

## ***Description***

Extension users can access specific trunks for outgoing calls Extension users can also use Direct Trunk Access to test trunks or to access data trunks

## ***Operation***

- 1 Lift the handset.

- 2 Dial "88" followed by the desired trunk number (01-08)
- 3 Dial the outside number

---

## Do-Not-Disturb (DND)

(CPC-S and CPC-M)

### **Description**

An extension can be made unavailable by activating Do-Not-Disturb (DND)  
Calls to extensions with DND activated receive busy tone

### **Operation**

#### **To activate DND**

- 1 Lift the handset or press ON/OFF
- 2 Dial "73 "
- 3 Replace the handset or press the ON/ OFF key

#### **To cancel DND**

- 1 Lift the handset or press ON/OFF
- 2 Dial "73 "
- 3 Replace the handset or press ON/ OFF

### **Related Programming**

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

### **Considerations**

- Callback Queuing can ring an extension in DND
- DND and Absence Messages cancel Call Forwarding

Calls to an extension with DND or Absence Message turned on are treated

differently, depending on whether they are trunk or intercom calls  
Intercom calls receive busy tone, trunk calls are routed to the extension defined in permanent call forwarding

The following types of incoming trunk calls will follow permanent call forward settings

- Direct trunk calls
- Transferred trunk calls
- The DND feature cannot be activated at an extension selected to receive Call Forwarding

---

## Intercom Calling

(CPC-S and CPC-M)

### *Descriptions*

The DBS 824 provides two methods of intercom calling voice calling and tone calling

**Voice Calling** With voice calling, intercom calls are connected immediately, without a ringing tone

**Tone Calling** With tone calls, a ringing tone is sent to the called extension

System programming determines whether the DBS 824 uses voice or tone calling as a default If voice calling is the default, dialing a “1” after the extension number will change the call to a tone call If tone calling is the default, dialing a “1” will result in a voice call

### *Operation*

#### **To make a Voice Call**

- 1 Lift the handset.
- 2 Dial the extension number
- 3 If the system default is tone calling, dial a “1 ”

## To make an Tone Call

- 1 Lift the handset
- 2 Dial the extension number
- 3 If the system default is voice calling, dial a “1 ”  
The called extension rings

## *Related Programming*

- FF1 (System) Extension Intercom Calling
- FF1 (System) Alert Tone for Voice Calls
- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

## *Considerations*

- When an extension’s calling mode is set to voice calls, a “splash” tone can be sent to alert the extension to the voice call System programming determines if the splash tone is provided
- If an extension is **onhook**, it will receive tone calls
- The voice calling feature is not available for DISA incoming calls
- Voice calls do not forward if Cover No Answer is turned on

---

# Last Number Redial

(CPC-S and CPC-M)

## *Description*

The last outside number dialed may be **redialed** automatically by pressing the REDIAL key

## *Operation*

- 1 Lift the handset.



- 2 Dial a trunk access code (81-86 or 9)
- 3 Press the REDIAL key

### ***Considerations***

- If the Auto Flash Redial feature is set, you can flash the outside line once by pressing the REDIAL key at the busy tone. The last number dialed can then be redialed.
- The Last Number Redial feature can redial a number up to sixteen digits long.
- A maximum of five Speed Dialing codes can be redialed.

---

## **Meet-Me Answer**

(CPC-S and CPC-M)

### ***Description***

You can answer a Paging call from any extension using the Meet-Me Answer feature.

### ***Operation***

- 1 Pick up the handset from any extension at which you hear a Paging call
- 2 Press “77 ”

Paging ceases and you are connected to the paging party.

### ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

### ***Considerations***

- The Meet-Me Answer feature cannot be used with Paging Group 00.
- You can only use the Meet-Me Answer feature at an extension that does not have an incoming call.

- If an external paging system or a Universal Answer system has been installed, use Group Call Pickup to respond to the Paging call

---

# Message Waiting/Callback Request

(CPC-S and CPC-M)

## ***Description***

If you call an extension that is busy or does not answer, you can leave a message requesting a return call

## ***Operation***

### **To leave a Callback Request**

- 1 Lift the handset
- 2 Dial the extension number
- 3 Dial “2” at the busy tone or while the telephone is still ringing
- 4 Replace the handset.

### **To answer a Callback Request**

- 1 Pick up the handset.

The phone issues intercom dial tone

- 2 Press the AUTO key
- 3 Press the REDIAL key

Your telephone automatically dials the extension that left the Callback Request

### **To cancel a Callback Request**

- 1 Lift the handset or press ON/OFF
- 2 Press the AUTO key
- 3 Press the FLASH key

- 4 Replace the handset or press the ON/OFF key

### ***Related Programming***

- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Setting

### ***Considerations***

- Up to four Callback Requests can be sent to one extension
- If you call the same extension a second time and the party answers, Callback Requests you sent earlier will be cancelled
- If a Callback Request is sent to an extension that has Call Forwarding enabled, the Callback Request is automatically forwarded to the designated extension
- You can send a Callback Request to an extension that has Do Not Disturb or Absence Message activated
- Making a blind transfer to an extension to which you have previously sent a callback request does not cancel your callback request

---

## **Off-Hook Voice Announce (OHVA)**

(CPC-S and CPC-M)

### ***Description***

You can use the Off-Hook Voice Announce (OHVA) feature to interrupt a busy extension and then make an announcement that only the called party can hear. You can also transfer a held call to a busy extension after making the announcement using this feature.

### ***Operation***

#### **To make an OHVA**

- 1 Lift the handset
- 2 Dial the desired extension number

- 3 Upon hearing busy tone, press “5”

### **To transfer a call using OHVA**

- 1 Press the HOLD key
- 2 Dial the number of the extension to which the call will be transferred

Your phone issues a busy tone if the extension is already on a call

- 3 Press “5” and announce the call to be transferred

If the transferred call is not accepted by the called extension, press the FLASH key to cancel the transfer

- 4 Press “8 ”
- 5 Replace the handset

### **To answer the call from a DSLTT**

- 1 Press CONF to speak with the announcing party
- 2 Press CONF again to disconnect the announcing party and return to the original call

## ***Related Programming***

- FF1 (System) Onhook (Automatic) Transfer
- FF1 (System) Alert Tone for Busy Override & OHVA
- FF1 (System) Extension class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Call Waiting/OHVA

## ***Considerations***

- If Onhook Transfer is enabled, the held call is transferred as soon as the extension sending the OHVA hangs up
- If the transferred call is not answered immediately, it will queue for a specified time and then return to the extension sending the OHVA (The recall time is set in the Transfer-Recall Timer )
- You cannot receive a Call Waiting message during an OHVA

- You cannot toggle back and forth between two calls during an OHVA

---

# Onhook Dialing

(CPC-S and CPC-M)

## *Description*

To use onhook dialing, press the ON/OFF key

The DSLTT does not have a microphone, so the user must lift the handset to talk

---

# Pooled Trunk Access

(CPC-S and CPC-M)

## *Description*

The DBS 824 system is designed to accept from 4 to 8 outside lines. These lines can be divided into seven Pooled Trunk groups. The groups are numbered 9 and 81-86.

To select a free outside line, choose a pooled trunk group number. The DBS automatically selects a free line from the group.

## *Operation*

- 1 Lift the handset.  
The phone issues an intercom dial tone.
- 2 Dial the desired trunk group number (81-86 or 9)
- 3 Dial the outside number

## *Related Programming*

- FF1 (System) Least Cost Routing (LCR) Access
- FF2 (Trunks) Pooled Trunk Access for Group “9”
- FF2 (Trunks) Pooled Trunk Access for Groups “8 1-86”

- FF3 (Extension) Forced Least Cost Routing
- FF8 (LCR) LCR Settings (all)

### ***Considerations***

- There are seven groups of outside lines 9 and 8 1-86 Some additional outside lines may not be assigned to a group
- Dialing “9” activates LCR if the LCR option is enabled

---

## **Reminder Call**

(CPC-S and CPC-M)

### ***Description***

With the Reminder Call feature, your telephone can act as an alarm clock

### ***Operation***

#### **To Set the Reminder Call feature**

- 1 Lift the handset or press ON/OFF  
The phone issues intercom dial tone
- 2 Press “#4 ”
- 3 Enter the time you wish the Reminder Call to be issued Enter the desired time in **12-hour** format, followed by a “1” for am or a “2” for p m
- 4 Replace the handset or press the ON/OFF key

#### **To Cancel the Reminder Call feature**

- 1 Lift the handset or press ON/OFF  
The phone issues intercom dial tone
- 2 Dial “#4 ”
- 3 Replace the handset or press ON/OFF

## **Considerations**

- A sixteen-second alarm tone will be issued at the specified time
- One Reminder Call may be set for each telephone
- To change the Reminder Call, enter a new time
- If the extension is in use when the reminder call is scheduled, the reminder call is sent as soon as the extension becomes available

---

# **Saved Number Redial**

(CPC-S and CPC-M)

## **Description**

You can save a previously dialed number for later redialing. Unlike the Last Number Redial feature, the Saved Number Redial feature allows you redial the stored number, even if it is not the last number dialed.

Saved Number Redial can only be used for outside numbers,

## **Operation**

### **To save a number**

- 1 Press the AUTO key twice before replacing the handset
- 2 Press “\* ”
- 3 Replace the handset.

### **To redial a saved number**

- 1 Lift the handset.
- 2 Dial a trunk access code (81-86 or 9)
- 3 Press the AUTO key
- 4 Press “\* ”

## **Considerations**

- Any previously saved number is erased when a new number is saved
- The Saved Number **Redial** feature can redial a number up to sixteen digits long
- A maximum of five Speed Dialing codes can be stored

---

## Speed Dialing

(CPC-S and CPC-M)

### Personal Speed Dialing

#### *Description*

Frequently called numbers can be stored using the Personal Speed Dial feature. With the CPC-S and CPC-M in the standard mode, up to 10 Personal Speed Dial numbers can be programmed at individual extensions. With the CPC-M in the add-on mode, up to 40 Personal Speed Dial numbers can be programmed at individual extensions.

Extension users can program their own personal speed dial numbers, or they can be programmed from a key phone.

#### *Operation*

##### **To assign Personal Speed Dial Numbers**

- 1 Lift the handset or press ON/OFF
- 2 Press \*
- 3 Dial "80 "
- 4 Dial a personal speed dial code (90-99 or 900-939)
- 5 Dial the **number** you want to store
  - To include a trunk access code in the number, press CONF then dial 9 or 1-6 (1-6 = trunk groups 81-86 )
  - To include a pause, press REDIAL
  - To include a flash, press FLASH



- 6 Press HOLD
- 7 Replace the handset or press ON/OFF

### **To delete a Personal Speed Dial number**

- 1 Lift the handset or press ON/OFF
- 2 Press \*
- 3 Dial "80 "
- 4 Dial the personal speed dial number (90-99 or 900-939)
- 5 Press HOLD
- 6 Replace the handset or press ON/OFF

### ***Related Programming***

- FF7 (Toll Restrictions) Toll Restrictions (all)
- FF10 (Speed Dialing) Personal Speed Dial Numbers

### ***Considerations***

- Personal speed dial numbers for DSLTs can also be entered from an attendant phone
- Personal Speed Dial numbers can contain up to sixteen digits
- Storing a new number erases any previously stored data
- Speed Dialing cannot be checked while Station Lockout is enabled

## **System Speed Dial**

### ***Description***

***Operation*****To dial a system speed dial number**

- 1 Pick up the handset.
- 2 If necessary, access an outside line
- 3 Press AUTO
- 4 Dial the system speed dial code (00-89 or 000-199)

***Related Programming***

- . FF1 (System) Override Toll Restriction with SSD Numbers
- . FF10 (Speed Dialing) System Speed Dialing

---

# Chapter 5. SLT Features

This chapter describes features that are available with single-line telephones (SLTs)

Single-line telephones are industry-standard 2500 sets (touch tone required) SLTs are not equipped with feature keys or line keys, so basic telephone operations are performed by pressing dialpad keys and/or using the switchhook

This chapter covers the following topics

<b>Topic</b>	<b>Page</b>
Absence Message	5-3
Busy Override	5-6
Call Forwarding	5-7
Call Hold	5-10
Call Park	5-11
Call Pickup	5-12
Call Transfer	5-14
Call waiting	5-17
Camp-on	5-19
Conference Calls	5-20
Dial "0" for Attendant	5-21
Direct Trunk Access	5-22
Do-Not-Disturb (@ND)	5-23
Intercom Calling	5-24
Last Number Redial	5-25
Meet-Me Answer	5-26
Message Waiting/Callback Request	5-27
Offhook Voice Announce (OHVA)	5-28
Pooled Trunk Access	5-29
Speed Dialing	5-30



---

# Absence Message

(CPC-S and CPC-M)

## ***Description***

SLT users can leave text messages on their phones when they are away

When the unattended extension is dialed by a key phone, the text message appears on the caller's phone

One of the following messages can be selected Messages 5 to 9 can be changed through system programming

***Table 5-1 Absence Messages***

<b>Message No</b>	<b>Message Text</b>
<b>0</b>	<b>In Meeting</b>
<b>1</b>	<b>At Lunch</b>
<b>2</b>	<b>Out of Office</b>
<b>3</b>	<b>Vacation</b>
<b>4</b>	<b>Another Office</b>
<b>5</b>	<b>User Defined</b>
<b>6</b>	<b>User Defined</b>
<b>7</b>	<b>User Defined</b>
<b>8</b>	<b>User Defined</b>
<b>9</b>	<b>User Defined</b>

## ***Operation***

### **To Set an Absence Message**

- 1 Lift the handset.
- 2 Dial "7 1"
- 3 Enter a message code between 0 and 9 (See Table 5-1)
- 4 Enter the time you will return (optional) See Table 5-2 for examples
- 5 Replace the handset.

### To Cancel an Absence Message

- 1 Lift the handset
- 2 Dial “71 ”
- 3 Replace the handset

### Related Programming

- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment
- FF6 (Names and Messages) Absence Messages

### Considerations

- Extensions without displays get a busy signal, rather than the Absence Message
- If a message code number that has not been assigned a text message is selected, “Absence,” followed by the code number, appears on the caller’s display
- Absence Message return times can be entered as shown in Table 5-2

Table 5 2 Example Return Times **for** Absence Messages

Input	Display
No input	Return
9	Return 9 00
11	Return 11 00
615	Return 6 15
1035	Return 10 35

Four-digit numbers can also be entered (0000-9999 = Hours & Minutes or Month & Date)

- DND and Absence Messages cancel Call Forwarding

Calls to extensions with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls  
Intercom calls receive busy tone, trunk calls are routed to the extension defined in permanent call forwarding

The following types of incoming trunk calls follow permanent call forward

settings

- Direct trunk calls
- Transferred trunk calls

---

## Auto Redial

(CPC-S and CPC-M)

### ***Description***

If the Redial key is pressed when the extension is idle or receiving dial tone, the last intercom or outside number is automatically redialed

### ***Related Programming***

- FF3 (System) Auto-Redial on Extensions
- FF1 (System) Extension Class of Service Setting
- FF3 (Extension) Extension Class of Service Assignment

---

## Auto-Repeat Dial

(CPC-S and CPC-M)

### ***Description***

When a called outside party is busy, pressing the REDIAL key while hearing busy tone automatically redials the number. The system will keep redialing the number until the called party answers, you hang up or the Auto-Repeat Dialing Count is reached.

### ***Related Programming***

- FF1 (System) Auto-Repeat Dialing Count
- FF1 (System) Wait Timer for Auto-Repeat Dialing
- FF1 (System) Busy Tone Detection Timer

- FF1 (System) Dial Tone Detection Timer
- FF2 (Trunk) CO Busy Tone Detection

---

## Busy Override

(CPC-S and CPC-M)

### ***Description***

Extensions in the same Paging Group (1-7) can break into one another's outside calls or intercom calls to relay information or to create three-party Conference Calls

### ***Operation***

Press "4" when you hear the busy tone

An alert tone is issued at both phones

### ***Related Programming***

- FF1 (System) Alert Tone for Busy Override & OHVA
- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Busy Override Send
- FF3 (Extension) Busy Override Receive
- FF3 (Extension) Extension Page Group

### ***Considerations***

- You cannot break in on three-party conference calls
- The default for the override alert tone is "off" **If** the override alert tone is enabled, the tone will be sent to both parties when a call is overridden



# Call Forwarding

(CPC-S and CPC-M)

Call Forwarding allows users to send their calls to another extension, to an outside line, or to voice mail. The following table shows the call forwarding features available.

**Table 5-3 DBS Call Forwarding features**

Feature
Call Forwarding--All Calls
Call Forwarding--No Answer
Call Forwarding--Busy
Call Forwarding--Busy/No Answer
Permanent Call Forwarding

**Call Forwarding--All Calls** When this feature is activated, all incoming calls to an extension are forwarded immediately.

**Call Forwarding--No Answer** When this feature is activated, an unanswered call rings until the Call Forward No Answer timer expires. When the timer expires, the unanswered call is forwarded.

**Call Forwarding--Busy** When this feature is activated, all incoming calls to a busy extension are forwarded to a designated extension.

**Call Forwarding--Busy/No Answer** When this feature is activated, all incoming calls to an extension that is off-hook or does not answer are forwarded to a designated extension. Similarly, if the extension is busy, the calls are forwarded to the designated extension.

**Permanent Call Forwarding** Permanent call forwarding is assigned through system programming. Permanent call forwarding is usually used to forward calls to a voice mail system.

Extension users can invoke other forms of call forwarding (no answer, busy, all calls) to override the permanent call forwarding destination.

Permanent call forwarding can be used with busy, no answer, or busy/no answer.

## Operation

### To activate Call Forwarding

- 1 Lift the handset.  
The phone issues intercom dial tone
- 2 Dial “72 ”
- 3 Dial the appropriate call forwarding code

Call Forward Type	Code
All	0
Busy/no answer	1
Busy	2
No answer	4

- 4 If you’re forwarding to an extension, enter the number of the extension you want to receive your calls If you’re forwarding to an outside number, dial “0” plus the appropriate speed dial number

Note: To forward to an outside number, you must have already programmed the number into personal or system speed dialing You can forward to any speed dial number (system or personal) This requires pooled trunk access (9, 81-86) However, dial “9” trunk access cannot be used when Least Cost Routing is active

- 5 Replace the handset.

### To cancel Call Forwarding

- 1 Lift the handset
- 2 Dial “72 ”
- 3 Replace the handset.

## Related Programming

- FF1 (System) Call Forward--No Answer Timer
- FF1 (System) Extension Class of Service

- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Permanent Call Forward Type
- FF3 (Extension) Permanent Call Forward Extension
- FF10 (Speed Dialing) System Speed Dial Numbers
- FF10 (Speed Dialing) Personal Speed Dial Numbers

## **Considerations**

- Calls can be forwarded to extensions that have call forwarding activated For example, phone “A” can be forwarded to phone “B,” even if phone “B” is forwarded to voice mail
- Extensions receiving forwarded trunk calls display “CFWD NNN XXXXXX,” where “NNN” = the extension that forwarded the call and “XXXXXX” = the trunk name or number
- DND and Absence Messages cancel Call Forwarding

Calls to an extension with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls  
Intercom calls receive busy tone, trunk calls are routed to the extension defined in permanent call forwarding

The following types of incoming trunk calls follow permanent call forward settings

- Direct trunk calls
- Transferred trunk calls
- Voice calls do not forward when Call Forwarding--No Answer is used
- Extensions for which Call Forwarding to an external number has been set cannot
- Be in the middle of an outside call when the feature is activated
- Have a toll restriction setting that prohibits outside calls
- Calls can be forwarded to a third-party voice mail with the “Call Forward ID Code” described on page 1- 12
- For an extension to be permanently call forwarded to the pilot number of a hunt group, the hunt group pilot number must be 244 or above For example, if extension 200 is assigned as the pilot number of a hunt group, hunting will work properly when 200 is dialed However, permanent call

forwarding will not work for any extension that is permanently call forwarded to the hunt group pilot number

## **Call Hold**

(CPC-S and CPC-M)

### ***Description***

Call Hold provides either exclusive or system hold, depending on system programming With Exclusive Hold, only the extension that held the call can retrieve it With System Hold, another extension can retrieve the call

### ***Operation***

#### **To place a call on Hold**

Flash the switchhook

#### **To release the call**

Flash the switchhook again

### ***Related Programming***

- FF1 (System) Non-appearing Central Office Line Hold
- FF1 (System) Extension Hold Recall Timer for CO Calls
- FF1 (System) Extension Hold Recall Timer for Intercom Calls
- FF1 (System) SLT Onhook Flash Timer

### ***Considerations***

- A held call recalls if it is not retrieved before the Hold Recall Timer expires
- If there is no response to the Hold Recall, the call transfers to the Attendant Phone, however, no tone sounds at an Attendant Phone if Night Mode is activated
- If you flash the switchhook during a conference call, the flash is ignored

- If your system is set to *onhook* transfer, and you have placed an outside call on hold and then made an intercom call, make sure the other extension hangs up before you do. If you hang up before the other extension, *the held outside line will be transferred to that extension*.
- The DBS 824 can provide Music-on-Hold to callers placed on hold. See “Music-On-Hold” (page 1-24) for more information.

---

## Call Park

(CPC-S and CPC-M)

### ***Description***

Use the Call Park function to transfer an outside call when you cannot locate the intended recipient of the call. Park the call and then page the person to whom you want to transfer the call. That person can answer the call from any extension by dialing the number of the extension that parked the call.

### ***Operation***

#### **To park an outside call**

- 1 Flash the switchhook
- 2 Dial “75 ”**

#### **To retrieve a parked call**

- 1 Lift the handset.  
  
The phone issues intercom dial tone
- 2 Dial “76 ”**
- 3 Dial the number of the extension that parked the call

### ***Related Programming***

- FF1 (System) Park Recall Timer

## ***Considerations***

- The parked call recalls if it is not retrieved before the Recall Timer expires. If this happens, the user that parked the call can retrieve it by picking up the handset. If no one retrieves the call after the Park Recall Timer expires, the call reverts to the attendant.
- You cannot park more than one outside line at a time.
- The Park Recall Timer is similar to the Recall Timer, except that when the Park Recall Timer is set for “0” calls are automatically recalled in three minutes.

---

# **Call Pickup**

(CPC-S and CPC-M)

SLTs can use both direct and group call pickup.

## **Direct Call Pickup**

### ***Description***

A call to an extension can be answered from any other extension with the Direct Call Pickup feature.

### ***Operation***

- 1 **Lift** the handset.
- 2 Dial “79 ”
- 3 Enter the number of the ringing extension.

### ***Related Programming***

- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment

## ***Considerations***

- If more than one caller is attempting to reach the ringing extension, the Direct Call Pickup feature will answer the call that arrives first

Once the call has been picked up, other extensions that attempt to pick up the call receive busy tone

- You can answer incoming calls, intercom calls (both tone and voice), call waiting, paging, transferred calls, or recalls using the Direct Call Pickup feature. You cannot answer camp-on callbacks with this feature.

## **Group Call Pickup**

### ***Description***

Using the Group Call Pickup feature, you can answer calls to other extensions within your Paging Group (01-07) without entering the number of the ringing extension.

### ***Operation***

- 1 Lift the handset,
- 2 Dial “70 ”

### ***Related Programming***

- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Extension Page Group

### ***Considerations***

- If more than one call is arriving at the Paging Group, the Group Call Pickup feature will answer the call to the lowest port number first.
- If the called extension belongs to more than one Paging Group, the Group Call Pickup Feature will answer the call to the lowest-numbered Paging Group first.

- You can answer incoming calls, Intercom Tone Calling, or Intercom Voice Calling using the Group Call Pickup feature. You cannot answer Paging or Callback with this feature.
- Group Call Pickup cannot be used to pick up a ringing phone in Paging Group 00. For example, if an extension is a member of Paging Groups 00 and 06, the extension can use Group Call Pickup to answer ringing calls in Group 06, but not in Group 00.

---

## Call Transfer

(CPC-S and CPC-M)

The DBS 824 provides two call transfer methods: blind transfer and screened transfer.

SLTs can transfer trunk and intercom calls.

### Blind Transfer

#### *Description*

Blind transfer allows the transfer of a call directly to an extension, without waiting for the called extension to answer.

#### *Operation*

- 1 Flash the switchhook to place the call on hold.
- 2 Dial the number of the extension to which the call is to be transferred.
- 3 Replace the handset before the other party answers.
  - You can also replace the handset after the third party answers.
  - The third party need only pick up the handset to speak to the outside line.

#### *Related Programming*

- FF1 (System) Onhook (Automatic) Transfer
- FF1 (System) Extension Transfer Recall Timer for CO Calls



- FF1 (System) Extension Transfer Recall Timer for Intercom Calls

### ***Considerations***

- In order for users to transfer calls by flashing the switchhook, dialing the extension, and going **onhook**, the **Onhook Transfer** feature must be enabled
- You cannot transfer a call to an extension that has Do Not Disturb or Absence Message activated
- You can transfer a call to an extension that has Call Forwarding activated. The transferred call will follow the call forwarding path of the extension it is transferred to.

For example, if extension “A” is covered to extension “B,” calls that are transferred to extension “A” will be forwarded to extension “B.”

- When you transfer a call to an extension that is busy or does not answer and does not have Call Forwarding activated, the transfer will recall your extension after the Transfer Recall Timer expires.

## **Screened Transfer**

### ***Description***

Using the Screened Transfer feature, you can contact a third party via an extension before transferring a call to that party.

### ***Operation***

#### **Transfer      To use Screened Transfer when your system is set for Onhook**

- 1 Flash the switchhook to place the call on hold.  
The phone issues intercom dial tone.
- 2 Dial the extension number to which the call is to be transferred.
- 3 When your call is answered, inform the third party of the transfer.
- 4 Replace the handset.

The third party need only pick up the handset to speak to the outside line.

**To use Screened Transfer when Onhook Transfer is disabled**

- 1 Flash the switchhook to place the outside call on hold  
The phone issues intercom dial tone
- 2 Dial the extension number to which the call is to be transferred
- 3 When your call is answered, inform the third party of the transfer  
The EXT LED stops flashing and remains lit
- 4 Dial “8 ”  
The third party need only pick up the handset to speak to the outside line
- 5 Replace the handset.

***Related Programming***

- FF1 (System) Onhook (Automatic) Transfer
- FF1 (System) Extension Transfer Recall Timer for CO Calls
- FF1 (System) Extension Transfer Recall Timer for Intercom Calls

***Considerations***

- You cannot transfer a call to an extension that has Do Not Disturb or Absence Message activated
- You can transfer a call to an extension that has Call Forwarding activated  
The transferred call will follow the call forwarding path of the extension it is transferred to

For example, if phone “A” is covered to phone “B,” calls that are transferred to phone “A” will be forwarded to phone “B ”

- When you transfer a call to an extension that is busy or does not answer and does not have Call Forwarding activated, a recall tone sounds at your extension after Transfer Recall Timer expires

---

# Call Waiting

(CPC-S and CPC-M)

## ***Description***

You can send a Call Waiting signal, followed by a brief LCD message, to a busy extension. The party receiving the message need only replace the handset and then pick it up again to be automatically connected to your extension.

The following messages can be sent using the Call Waiting feature.

**Table 5-4 Call Waiting Text Messages**

Message Code	Message
5	“Visitor Here”
6	“Need Help”
7	“Important”
9	“Emergency”

Message codes 0-4 are not available.

## ***Operation***

### **To Set Call Waiting**

- 1 Lift the handset
- 2 Dial the extension number
- 3 Upon hearing busy tone, press “3 ”
- 4 If you wish to send a text message, dial the desired message code (5-7 or 9)

The message displays on the called party’s phone if the called party has a key phone. (If the called party does not have a display, the extension continues to issue a call waiting tone.)

- 5 Remain on the line until the called party picks up

**To answer Call Waiting (and disconnect the current call)**

- 1 Replace the handset

The current call is disconnected

- 2 Pick up the handset.

You are automatically be connected to the extension sending the Call Waiting

**To answer Call Waiting (without disconnecting the current call)**

- 1 Flash the switchhook

- The current call is disconnected
- The new call is connected automatically

- 2 Flash the switchhook again to retrieve the original call

***Related Programming***

- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment
- FF3 (Extension) Call Waiting/OHVA

***Considerations***

- Call Waiting can be used without entering a message code
- Extensions that have DND activated, have a call on hold, are ringing (from another call), or are engaged in a conference call cannot receive Call Waiting
- Call Waiting cannot be sent to an ML key

# Camp-on

(CPC-S and CPC-M)

## ***Description***

If you reach a busy extension, you can use the Camp-on feature to alert you with a ring when the extension becomes free. You can then pick up your handset to automatically dial the extension.

## ***Operation***

### **To activate the Camp-on feature**

- 1 Lift the handset
- 2 Dial the desired extension number
- 3 Upon hearing busy tone, press “3”
  - The phone issues ringback tone
  - If the Camp-on feature is not available, the phone continues to issue a busy tone
- 4 Replace the handset after you hear the ringback tone
- 5 Wait for the callback ring

### **To answer the callback ring**

Pick up the handset when you hear the callback ring.

The system automatically dials the called extension.

## ***Related Programming***

- FF3 (Extension) Call Waiting/OHVA

## ***Considerations***

- The callback ring must be answered within sixteen seconds or it is canceled.
- A Camp-on request will only be accepted after Call Waiting status.

- Camp-on cannot be activated to an extension that has call forwarding turned on
- If an extension with call forwarding camps on to a busy extension, its camp-on reply is not forwarded
- An extension can only have one call camped on at a time For example, if Extension 152 camps on to Extension 153, another extension cannot camp on to 153, as long as 152 is camped on
- An extension that has initiated a camp-on cannot receive a camp-on For instance, if Extension 200 has camped on to Extension 300, another extension cannot camp on to 200
- Callbacks are not forwarded For example, if Extension 200 is call forwarded to Extension 300, Extension 200 can register a callback request to Extension 400 When the callback request is returned, it rings Extension 200 and does not follow call forwarding

---

# Conference Calls

(CPC-S and CPC-M)

## ***Description***

Conference Calling allows extension users to add a party to an existing conversation

SLT users can create the following types of Conference Calls

- One outside line and two extensions
- Two outside lines and one extension
- Three extensions

## ***Operation***

### **To add an extension**

- 1 Flash the switchhook to place the current call on hold
- 2 Dial the **number** of the extension you wish to add to the call
- 3 Dial “7” when your call is answered

**To add an outside number**

- 1 Flash the switchhook to place the current call on hold
- 2 Dial a trunk group number (81-86 or 9)
- 3 Dial the outside number
- 4 Flash the switchhook when your call is answered

***Related Programming***

- . FF3 (Extension) Single Line Telephone Hookflash

***Considerations***

- . Call Waiting responses cannot be made during conference calls
- . A switchhook flash is ignored during a conference call
- . Calls forwarded externally cannot create a conference
- . The Hold feature cannot be used during a three-party conference

---

# Dial “0” for Attendant

(CPC-S and CPC-M)

***Description***

Users can call the Attendant from any extension by pressing “0 ”

If multiple attendants are assigned, a dial “0” call goes to Attendant “1” first. If attendant “1” is busy, the call goes to Attendant “2 ”. The call continues to transfer to the next attendant in the attendant group if necessary.

A maximum of four attendants can be assigned.

***Operation***

- 1 Lift the handset
- 2 Press “0 ”

***Related Programming***

- FF1 (System) Second Attendant Position
- FF1 (System) Third Attendant Position
- FF1 (System) Fourth Attendant Position
- FF1 (System) Attendant Transfer Extension

---

## DTMF Stations

(CPC-S and CPC-M)

### *Description*

The DBS 824 supports DTMF extensions on SLTA analog extension ports  
Dial Pulse extensions are not supported by the SLTA

### **Related Programming**

- FF2 (Trunk) DTMF/Pulse Dialing for Trunks

### *Considerations*

- DP to DTMF Signal Conversion allows DTMF extensions to use either dial pulse or DTMF trunks

---

## Direct Trunk Access

(CPC-S and CPC-M)

### *Description*

Extensions can access a specific trunk for outgoing calls Extensions can also use Direct Trunk Access to test trunks or to access data trunks

### *Operation*

- 1 Lift the handset.
- 2 Dial “88” followed by the desired trunk number (01-08)



- 3 Dial the outside number
- 4 Replace the handset.

---

## Do-Not-Disturb (DND)

(CPC-S and CPC-M)

### ***Description***

An extension can be made unavailable by activating Do-Not-Disturb @ND) When DND is activated at an extension calls to that extension receive busy tone

### ***Operation***

#### **To activate DND**

- 1 Lift the handset.
- 2 Dial “73 ”
- 3 Replace the handset.

#### **To cancel DND**

- 1 Lift the handset.
- 2 Dial “73 ”
- 3 Replace the handset.

### ***Related Programming***

- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment

### ***Considerations***

- Callback Queuing will not ring an extension in DND When DND is cancelled, the callback queuing request *is* indicated by stutter dial tone

- DND and Absence Messages cancel Call Forwarding

Calls to an extension with DND or Absence Message turned on are treated differently, depending on whether they are trunk or intercom calls  
Intercom calls receive busy tone trunk calls are routed to the extension defined in permanent call forwarding

The following types of incoming trunk calls will follow permanent call forward settings

- Direct trunk calls
- Transferred trunk calls
- The DND feature cannot be activated at an extension selected to receive Call Forwarding

---

## Intercom Calling

(CPC-S and CPC-M)

### *Descriptions*

The DBS 824 provides two methods of intercom calling voice calling and tone calling

**Voice Calling** With voice calling, intercom calls are connected immediately, without a ringing tone

**Tone Calling** With tone calls, a ringing tone is sent to the called extension

System programming determines whether the DBS 824 uses voice or tone calling as a default If voice calling is the default, dialing a “1” after the extension number changes the call to a tone call If tone calling is the default, dialing a “1” results in a voice call

### *Operation*

#### **To make a Voice Call**

- 1 Lift the handset.
- 2 Dial the extension number
- 3 If the system default is tone calling, dial a “1 ”

### **To make an Tone Call**

- 1 Lift the handset.
- 2 Dial the extension number
- 3 If the system default is voice calling, dial a “1 ”

The called extension will ring

### ***Related Programming***

- . FF1 (System) Extension Intercom Calling
- . FF1 (System) Alert Tone for Voice Calls
- . FF1 (System) Extension Class of Service
- . FF3 (Extension) Extension Class of Service Assignment

### ***Considerations***

- . When an extension’s calling mode is set for voice calls, a “splash” tone can be sent to alert the extension to the voice call System programming determines if the splash tone is provided
- . If an extension is onhook, it will receive tone calls
- . The voice calling feature is not available for DISA incoming calls
- . Voice calls do not forward if Cover No Answer is turned on

---

## **Last Number Redial**

(CPC-S and CPC-M)

### ***Description***

The last outside number dialed may be redialed automatically

### ***Operation***

- 1 Lift the handset.
- 2 Dial a trunk access code (81-86 or 9)

- 3 Flash the switchhook
- 4 Dial “89 ”

### ***Considerations***

- The Last Number Redial feature can redial a number up to sixteen digits long
- A maximum of five Speed Dialing codes can be redialed

---

## **Meet-Me Answer**

(CPC-S and CPC-M)

### ***Description***

You can answer a Paging call from any extension using the Meet-Me Answer feature

### ***Operation***

- 1 Pick up the handset from any extension at which you hear the Paging call
- 2 Press “77 ”

Paging ceases and you are connected to the party trying to reach you

### ***Related Programming***

- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment

### ***Considerations***

- The Meet-Me Answer feature cannot be used with Paging Group 00
- You can only use the Meet-Me Answer feature at an extension that does not have an incoming call
- If an external paging system or a Universal Answer system has been installed, use Group Call Pickup to respond to a Paging call

# Message Waiting/Callback Request

(CPC-S and CPC-M)

## ***Description***

If you try to **call** an extension that is busy or does not answer, you can leave a message requesting a return call

## ***Operation***

### **To leave a Callback Request**

- 1 Lift the handset.
- 2 Dial the extension number
- 3 Dial “2” at the busy tone or while the telephone is still ringing
- 4 Replace the handset.

### **To answer a Callback Request**

- 1 Pick up the handset.  
  
The phone issues intercom dial tone from the handset.
- 2 Dial “##”  
  
Your telephone automatically dials the extension that left the Callback Request

### **To cancel a Callback Request**

- 1 Lift the handset.
- 2 Dial “#\*”
- 3 Replace the handset.

## ***Related Programming***

- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment

## ***Considerations***

- Up to four Callback Requests can be sent to any one extension
- If you call the same extension a second time and the party answers, a Callback Request you sent earlier will be cancelled
- If a Callback Request is sent to an extension for which Call Forwarding is set, the Callback Request is automatically forwarded to the designated extension
- You can send a Callback Request to an extension that has Do Not Disturb or Absence Message activated
- Making a blind transfer to an extension to which you have previously sent a callback request will not cancel your callback request

---

# **Offhook Voice Announce (OHVA)**

(CPC-S and CPC-M)

## ***Description***

Use the Offhook Voice Announce (OHVA) feature to interrupt a busy extension and then make an announcement that only the called party can hear

## ***Operation***

### **To make an OHVA**

- 1 Lift the handset.
- 2 Dial the desired extension number
- 3 Upon hearing busy tone, press “5”

## ***Related Programming***

- FF1 (System) Onhook (Automatic) Transfer
- FF1 (System) Alert Tone for Busy Override & OHVA
- FF1 (System) Extension Class of Service
- FF3 (Extension) Extension Class of Service Assignment

- FF3 (Extension) Call Waiting/OHVA

### **Considerations**

- If **Onhook** Transfer is enabled, the held call is transferred as soon as the extension sending the OHVA hangs up The transferred call is held until the extension that received the OHVA completes the current call
- The extension interrupted by the OHVA cannot receive a Call Waiting message during an OHVA
- You cannot toggle back and forth between two calls during an OHVA
- If you make an **Offhook** Voice Announcement to an SLT, the SLT user **and the other party** will hear the announcement

---

## **Pooled Trunk Access**

(CPC-S and CPC-M)

### **Description**

The DBS 824 system is designed to accept from 4 to 8 outside lines These lines can be divided into seven Pooled Trunk groups The groups are numbered 9 and 81-86

Selecting a pooled trunk access number automatically selects a free trunk from the group

### **Operation**

- 1 Lift the handset.  
The phone issues intercom dial tone
- 2 Dial the desired trunk group number (81-86 or 9)
- 3 Dial the outside number

### **Related Programming**

- FF1 (System) Least Cost Routing (LCR) Access
- FF2 (Trunks) Pooled Trunk Access for Group “9”

- FF2 (Trunks) Pooled Trunk Access for Group “8 1-86”
- FF3 (Extension) Forced Least Cost Routing
- FF8 (LCR) LCR Settings (all)

### ***Considerations***

- There are seven groups of outside lines 9 and 8 1-86 Some additional outside lines may not be assigned to a group
- Dialing “9” activates LCR if the LCR option is enabled

---

## **Speed Dialing**

(CPC-S and CPC-M)

### **Personal Speed Dial**

#### ***Description***

Frequently called numbers can be stored using the Personal Speed Dial feature Personal speed dial numbers are assigned to SLTs from attendant or key phones

#### ***Operation***

##### **To dial a Personal Speed Dial number**

- 1 Pick up the handset.
- 2 If necessary, access an outside line
- 3 Dial “80 ”
- 4 Dial the two-digit personal speed dial code (90-99 or 900-939)



# System Speed Dial

## *Description*

Frequently called numbers can be stored using the System Speed Dial feature. With CPC-S and CPC-M in standard mode, up to 90 System Speed Dial numbers (00-89) can be programmed at the Attendant Phone and can be used by any extension. With CPC-M in add-on mode, up to 200 System Speed Dial numbers (000-199) can be programmed at the Attendant Phone and can be used by any extension.

## *Operation*

### **To dial a system speed dial number**

- 1 Pick up the handset
- 2 If necessary, access an outside line
- 3** Dial “80 ”
- 4 Dial the two-digit system speed dial code (00-89 or 000-199)

## *Related Programming*

- . FF1 (System) Override Toll Restriction with SSD Numbers
- . FF10 (Speed Dialing) System Speed Dial Numbers

**A**

Absence message  
  attendant control 2 6  
  DSL 4 3  
  key telephone 3 3  
  SLT5 3  
Account codes  
  verified 1 4  
Alarm  
  DSL 4 30  
  key telephone 3 72  
Alternate attendant 2 3  
Answer supervision for voice mail 1 6  
Attendant features 2 1  
  absence message control 2 6  
  alternate attendant 2 3  
  assignment of speed dialing 2 3  
  busy override 2-4  
  call park 2 5  
  dial 0 for attendant 3 34 4 21 5 21  
  dial tone disable 2 10  
  DND control 2 6  
  DSS/72 2 11  
  feature package 2 9  
  groups of attendants 2 9  
  headset operation 2 13  
  one touch voice mail transfer 2 14  
  station lockout code assignment 2 17  
  system time and date control 2 18  
  text assignment 2 7  
  traffic measurement 2 20  
  walking class of service confirmation 2 22  
Auto  
  day mode 1 7  
  set relocation 1 8  
Auto Redial 3 6  
Auto Repeat Dial 3 7

**B**

Background music 1 10  
Barge into busy line 5 6  
Battery backup 1 12  
Blind transfer  
  DSL 4 14  
  key telephone 3 21  
  SLT5 14  
Busy override  
  attendant 2-4  
  DSL 4 5

SLT.5 6

**C**

Call  
  coverage groups 3 8  
  duration display 3 10  
  forward ID code for voice mail 1 12  
  forwarding  
    attendant control 2 6  
    DSL 4 6  
    key telephone 3 10  
    SLT5 7  
  hold  
    DSL 4 9  
    key telephone 3 14  
    SLT5 10  
  park  
    attendant 2 5  
    DSL 4 10  
    key telephone 3 17  
    SLT 5-11  
  pickup  
    direct 3 19 5 12  
    DSL 4 12  
    group 5-13  
    key telephone 3 19 3 20  
    SLT5 12  
  transfer  
    DSL 4 14  
    key telephone 3 21  
    SLT5 14  
  waiting  
    DSL 4 16  
    key telephone 3 25  
    SLT 5 17  
Call waiting/OHVA text reply 3 28  
Callback request  
  DSL 4 26  
  key telephone 3 55  
Camp on  
  DSL 4 18  
  key telephone 3 29  
  SLT5 19  
Centrex/PBX compatibility 1-13  
Class of service station 1 33  
CO line key trunk access 3 30  
Conference calls  
  DSL 4 20  
  key telephone 3 31  
  SLT 5 20

Coverage groups 3 8

## D

Date system 2 18

Day mode auto 1 7

Delayed ringing

key telephone 3 33

Dial

Auto Repeat 3 7

Dial 0 for attendant

DSL4 21

key telephone 3 34

SLT 5 21

Dial tone disable 2-10

Dialing onhook 4 29

Digital single line telephone

see DSLT features 4 1

Digital telephone features

see Key telephone features 3 1

Direct 1 14

Direct call pickup

DSL4 12

key telephone 3-19

SLT5 12

Direct inward system access

see DISA 1 14

Direct line appearances 3-47 3-49

Direct trunk access

DSL4 21

key telephone 1 17

SLT 5 22

DISA 1 14

Distinctive ringing 1 17

Distributed hunting 1 34

DND

attendant control 2 6

DSL4 4-22

key telephone 3 35

SLT 5 23

Do not disturb

see DND 4 22

Door box 1 18

DP 1 20

DP to DTMF signal conversion 1 20

DP/DTMF stations 1 20

DSL4 features 4 1

absence message 4-3

blind transfer 4 14

busy override 4 5

call forwarding 4 6

call hold 4 9

call park 4 10

call pickup 4 12

call transfer 4 14

call waiting 4 16

camp on 4 18

conference calls 4 20

dial 0 for attendant 4 21

direct call pickup 4 12

direct trunk access 4 21

DND 4 22

group call pickup 4 13

illustration 4 3

intercom calling 4 23

last number redial 4 24

meet me answer 4 2.5

message waiting/callback request 4 26

OHVA 4 27

onhook dialing 4 29

personal speed dialing 4 32

pooled trunk access 4 29

reminder call 4 30

saved number redial 4 31

screened transfer 4 15

speed dialing 4 32

system speed dial 4 33

DSS/72 2 11

DSS/BLF line appearances 3-47 3-48

DTMF to DP signal conversion 1 20

DTMF/DP stations 1 20

Duration display 3 10

## E

EM/24 console 3 36

Exclusive hold 3 14

Extension relocation 1 8

## F

FF key extender 3-36

FF keys

see Key telephone features 3 37

Figure 1 2 1 37

Flexible function keys

see FF keys 3 37

Forwarding

DSL4 4 6

key telephone 3 10

SLT 5-1

## G

Group call pickup

DSL4 13

key telephone 3 20

SLT 5 13

## H

## Handsfree

- answerback 3-42
- operation 3-4

## Headset operation

- at attendant 2 13
- key telephone 3-43

## Hold

- DSLT4 9
- exclusive 3-14
- key telephone 3 14
- SLT 5 10
- system 3 15

## Hunt Groups

- longest idle 1 34

## Hunt groups

- all versions 1-34
- distributed 1 34
- longest idle 1 34
- terminal 1 34

## Hunting priority for VAUs 1 21

|

## Independent timers

- call forwarding no answer 1 22
- CO delayed ring 1 22
- extension delayed ring 1 22
- hunt group no answer 1 22

## Intercom calling

- DSLT 4 23
- key telephone 3 43
- SLT 5 24

## K

## Key telephone features 3 1

- absencemessage 3
- blind transfer 3 21
- call coverage groups 3 8
- call duration display 3 10
- call forwarding 3 10
- call hold 3 14
- call park 3 17
- call pickup 3 19
- call transfer 3-21
- call waiting 3 25
- call waiting/OHVA text reply 3 28
- camp on 3 29
- CO line key trunk access 3 30
- conference calls 3 3 1
- delayed ringing 3 33
- dial 0 for attendant 3 34

- direct call pickup 3 19
- direct line appearances 3-49
- direct trunk access 1 17
- DND 3 35
- DSS/BLF appearances 3 48
- EM/24 console 3 36
- exclusive hold 3 14
- FFkeys337
- group call pickup 3 20
- handsfree answerback 3-42
- handsfree operation 3-43
- headset operation 3-43
- illustration 3 3
- intercom calling 3-43
- last number redial3-46
- line appearances 3-47
- meet-me answer 3 54
- message waiting/callback request 3 55
- ML/MCO separation 3 54
- multi CO (MCO) appearances 3 51
- multi line (ML) appearances 3 53
- non appearing outside lines 3 58
- offhook signaling 3 59
- OHVA 3 60
- one touch keys 3 62
- one touch voice mail access 3 65
- onhook dialing 3 67
- personal speed dialing 3 75
- pooled trunk access 3 68
- prime line preference 3 70
- private line 3 7 1
- reminder call 3-72
- ringing line preference 3 73
- saved number redial3 74
- screened transfer 3 23
- speed dial linking 3-80
- speed dialing 3 75
- station lockout 3-8 1
- system hold 3-15
- system speed dialing 3 78
- trunk-to trunk transfer 3 82

## L

## Last number redial

- DSLT 4 24
- key telephone 3-46
- SLT 5 25

## LCR 123

- Least cost routing
- see LCR 1 23

## Line appearances

- direct 3-49
- direct line 3-47

- DSS/BLF 3 47
- key telephone 3 47
- multi CO 3-47
- multi CO (MCO) 3 51
- multi line (ML) 3-47 3 53
- non appearing outside line 3 58

List of features xi

Lockout for extension 3 81

Longest idle hunting 1-34

## M

Maintenance

- remote 1 31

- remote programming mode 1 31

Meet-me answer

- DSLTL 4-25

- key telephone 3 54

- SLT 5-26

Message waiting/callback request

- DSLTL 4-26

- key telephone 3 55

- SLT 5 27

ML/MCO separation 3 54

Multi CO (MCO) appearances 3-47 3 51

Multi-line (ML) appearances 3-47 3 53

Music

- background 1 10

- on hold 1 24

## N

Naming trunks 1-41

Night

- mode 1 25

- service 1 25

Non appearing outside lines 3 58

## O

Offhook signaling 3 59

Offhook voice announce

- see OHVA 5 28

Off premises extension adaptor

- see OPX adaptor 1 27

OHVA

- DSLTL4 27

- key telephone 3 60

- SLT 5 28

OHVA/call waiting text reply 3-28

One touch

- keys 3 62

- voice mail access 3 65

- voice mail transfer 2-14

Onhook dialing

- DSLTL 4 29

- key telephone 3 67

OPX adaptor 1 27

Override busy line 5 6

## P

Paging 1 28

- meet me answer 3-54 4 25 5 26

Park

- attendant 2 5

- DSLTL4 10

- key telephone 3 17

- SLT5 11

PBX/centrex compatibility 1 13

Personal speed dialing

- DSLTL 4 32

- key telephone 3 75

- SLT 5 30

Pickup

- direct 3 19 5 12

- DSLTL4 12

- group 5 13

- key telephone 3 19 3 20

- SLTS 12

Pooled trunk access

- DSLTL 4 29

- key telephone 3 68

- SLT 5 29

Port assignment, VAU 1-45

Power failure

- transfer 1 29

- unit 1 29

Prime line preference 3 70

Private line 3 71

## R

Redial

- Auto 3 6

- DSLTL 4 24

- key telephone 3-46

- saved number 3 74 4 3 1

- SLT 5 25

Relocating extensions 1 8

Reminder call

- DSLTL 4 30

- key telephone 3 72

Remote

- maintenance 1 31

- programming mode 1 3 1

Ringling

- delayed 3 33

- distincove 1 17
  - line preference 3 73
- S**
- Saved number redial
  - DSL T 4 31
  - key telephone 3 74
- Screened transfer
  - DSL T4 15
  - key telephone 3 23
  - SL T5 15
- Signal conversion DP to DTMF 1 20
- Single **line** telephone
  - see SL T features 5 1
- SL T features 5 1
  - absence message 5 3
  - blind transfer 5 14
  - busy override 5 6
  - call forwarding** 5 7
  - call hold 5-10
  - call park** 5 11
  - call pickup 5-12
  - call transfer **5-14**
  - call waiting 5-17
  - camp on 5-19
  - conference calls 5-20
  - dial 0 for attendant 5-21
  - direct call pickup 5-12
  - direct trunk access 5 22
  - DND 5 23
  - group call pickup 5 13
  - intercom calling 5 24
  - last number **redial** 5 25
  - meet-me answer 5 26
  - message waiting/callback request 5-27
  - OHVA 5-28
  - personal speed dialing 5-30
  - pooled trunk access 5 29
  - screened transfer 5-15
  - speed dialing 5 30
  - system **speed dialing** 5-31
- SMDR 1 37
- Speed dialing
  - attendant assignment of 2 3
  - DSL T 4-32
  - key telephone 3-75
  - linking** numbers 3 80
  - personal 3-75 5 30
  - SL T 5-30
  - system 3 78 5-31
- Station 1-33
- Station class of service **1 33**
- Station hunting
  - all versions 1 34
  - distributed** 1 34
  - longest idle 1 34
- Station lockout 3 81
  - code assignment 2 17 3 8 1
- Station message detail recording
  - see SMDR 1 37
- System
  - hold 3 15
  - speed dialing
    - DSL T4 33
    - key telephone 3 78
    - SL T 5 31
  - time and dare control 2 18
- System features **1 1**
  - account codes 1 3
  - answer supervision for voice mail 1 6
  - auto day mode 1 7
  - auto set relocation 1 8
  - background music **1 10**
  - battery backup 1 12
  - call forward ID code for voice mail 1 12
  - centrex/PBX compatibility 1-13**
  - DISA 1 14
  - distinctive ringing 1 17
  - distributed hunting **1 34**
  - door box 1 18
  - DP to DTMF signal conversion **1-20**
  - DP/DTMF** stations **1-20**
  - hunting priority for **VAUs** 1 21
  - independent timers **1-22**
  - LCR 1-23
  - longest idle hunting 1-34
  - music-on-hold 1 24
  - night service **1-25**
  - OPX adaptor 1-27
  - paging 1-28
  - power failure transfer 1-29
  - remote maintenance 1-31
  - remote programming mode 1-31
  - SMDR **1 37**
  - station class of service 1-33
  - station hunting (all versions) 1 **34**
  - toll** resaction **1 38**
  - trunk** groups 140
  - trunk** name assignment 141
  - trunk** queuing 142
  - universal night answer 143
  - VAU 145
  - VAU port assignment **1-45**
  - verified account codes 14
  - voice mail ringing 144
  - walking **TRS** class of service 146

## T

Text assignment attendant control 2 7  
Time system 2 18  
Toll 1 38  
Toll restncdon 1 38  
    **walking** class of service 1-46  
Traffic **measurement** 2 20  
Transfer  
    blind 3 21 4 14 5 14  
    DSLT4 14  
    key telephone 3 21  
    screened 3 23 4 15 5 15  
    SLT 5 14  
    **trunk** to trunk 3 82

## Trunk

access  
    CO line key 3 30  
    direct 1 17 4 21 5 22  
    pooled 3 68 4-29 5-29  
groups 1-40  
name assignment 141  
queuing 142  
Trunk to trunk transfer 3 82

## U

UNA 143  
Universal night answer 143

## V

VAU 145  
    hunting priority 1 21  
    **port** assignment 145  
Verified account codes 1-4  
Voice announce unit  
    see VAU 1-45  
Voice mail  
    answer supervision 1 6  
    **call** forward CD 1-12  
    ringing 1-44

## W

### Walking

COS **confirmation** 2-22  
TRS class of service 146