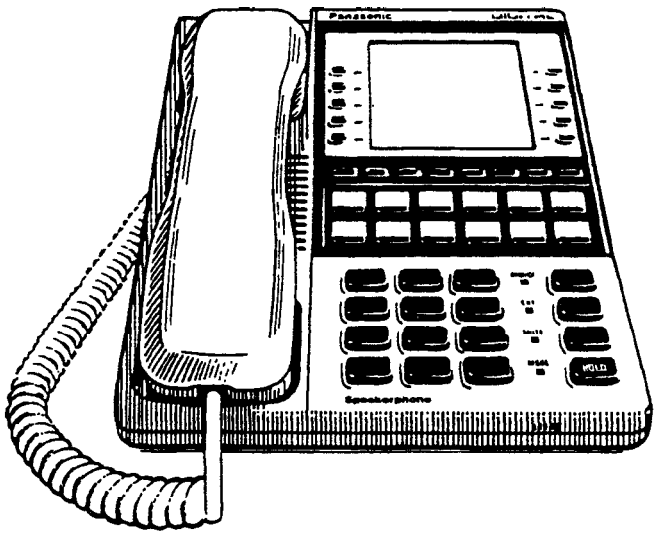
Panasonic”

DBS
Digital Business System

Section 400 Programming



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About This Section

This ***Section*** 400 is intended for use as a technical reference manual for DBS programming via the FF keys on a DBS key phone. (Other programming methods are described in Appendix B of this section.)

Structure

Section 400 is structured according to FF key numbering. For example, Chapter 1 covers **FF1** programs; Chapter 2 covers FF2 programs; and so on. The FF keys categorize the programs by subject -- each FF key represents a group of related programs as follows:

Chapter 1 FF1 -- System
Chapter 2 FF2 -- Trunks
Chapter 3 FF3 -- Extensions
Chapter 4 FF4 -- Ring Assignments & Hunt/Call Coverage Groups
Chapter 5 FF5 -- FF Key Features
Chapter 6 FF6 -- Displayed Names & Messages
Chapter 7 FF7 -- Toll Restriction
Chapter 8 FF8 -- Least Cost Routing
Chapter 9 FF9 -- Program Copy
Chapter 10 FF10 -- Speed Dial Numbers

FF Key Programming

FF key programming is accomplished by entering programming mode, then punching in each program's address (press the FF key, then enter a string of numbers that are separated by the pound #key). The phone's LCD display will show prompts while you are punching in the string, to guide you through the programming. Within each address string (usually at the end of it), you have a choice of numbers to press in order to set the program; the number you press determines the program setting.

Once you've entered programming mode and punched in an FF key address, you do not have to keep pressing the FF key to go to the next [sequential] address -- the DBS will automatically display the next prompt after you set the **first** one (or press # to accept the displayed setting). To jump to an address in another FF key, simply press that FF key while still in programming mode.

Program Sequence

Although FF key programming separates DBS programs into groups, it is important to note that the numerical sequence of the FF keys and the addresses within them, does not necessarily represent a logical progression for programming a particular feature or application. For example, some DID settings are in **FF1** (System), while others are in FF2 (Trunks), FF3 (Extensions) and FF6 (Names and Messages).

In Section 400, each program explanation includes related information about the feature or application it affects (if any). Also, the forms in ***Section 450*** of the DBS Manual provide a more concise view of programming DBS features.

Introduction to DBS Programming

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

The following table summarizes the topics contained in this introduction.

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 system, make sure you have completed the following steps:

1. Confirm that the DBS features meet customer requirements. See Section ***700-Feature Operation*** for DBS feature descriptions.

2. Confirm that you have the DBS hardware required for the end user. See ***Section 300-Installation*** for details.

3. Use ***Forms and Tables (Section 450)*** 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 system, you must first initialize the software to default values (see **"Initializing DBS Systems",** next page). If you are performing an upgrade and the system is using a CPC-B card, you must first perform the New Function Reset procedure **(see "Upgrading CPC-B Software"** on page Intro-5).

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

Initializing DBS Systems (RAMCLR)

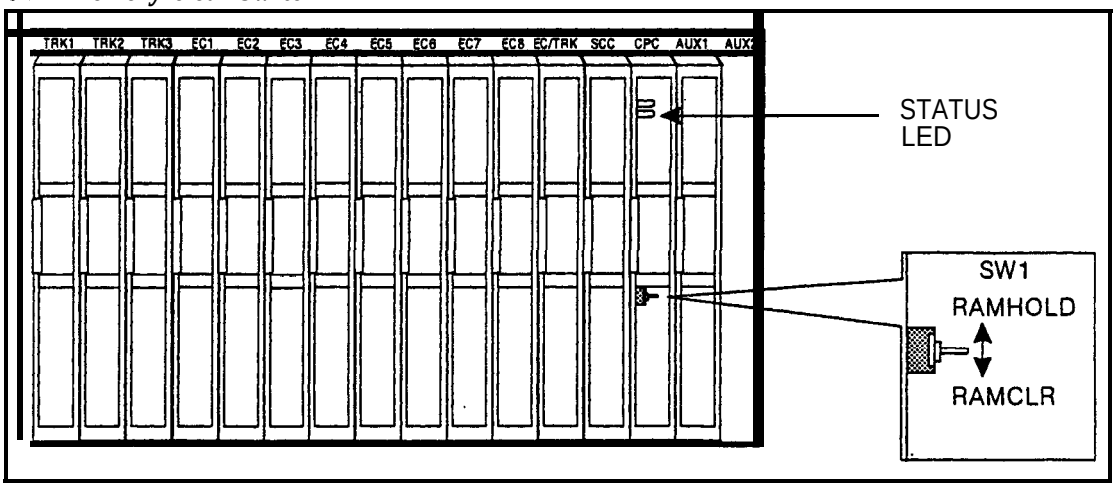
After installing a new DBS system, or when upgrading to Version 7.0, you must initialize the CPC (Central Processing Card) before programming the system.

IMPORTANT: This procedure **must** be performed before you program the DBS system. Failure to initialize the CPC before programming may cause operational problems.

The procedure described below re-initializes the entire DBS memory, and resets all programs to their default values. This means that all programs used, as well as features set on individual extensions, must be reprogrammed. If you have PCAS, you can download existing settings (thru CPC Version 4.0) and upload them to the new version. The new features introduced in CPC Versions 5.0 thru 6. lx. as well as the Permanent Call Forwarding feature, must be manually reprogrammed.

1. Power-off the DBS (set power switch to OFF).
2. Slide the CPC's SW1 switch to "RAMCLR".
3. Power-on the DBS. Wait until the bottom status LED on the CPC card stops flashing (this takes less than a minute).
4. Slide SW 1 back to "RAMHOLD".
5. From any display phone, verify the software version by pressing ON/OFF. CONF 7777

Figure 1. CPC memory clear switch



Upgrading CPC-B Software (New Function Reset)

Perform the following procedure when upgrading CPC-B software to a new version. **Exception:** If upgrading to Version 7.0, the system must be initialized instead: see **"'Initializing DBS Systems (RAMCLR)".** previous page.

IMPORTANT: Perform New Function Reset if upgrading to a new release -- from 5.0 to 6.0, for example. It is not necessary for a "point" release (e.g., from 5.0 to 5.2).

New Function Reset clears unused registers and adds new programs, but retains all current DBS settings. If you are upgrading from a CPC-B version prior to 3.1, New Function Reset will also clear any existing DID numbers that are extension-based.

1. Power-off the DBS. Remove the CPC-B card.

2. Replace the existing EPROMs l-4 with new EPROMs.

3. Re-install the CPC-B card, then power the system back on.

4. If upgrading to a new release (e.g., from 5.0 to 6.0), perform New Function Reset as shown below:

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

0=Do not perform New Function Reset.
1=Perform New Function Reset.

NOTE: If you enter "1" (to reset), the following displays:

```
CONFIRM
0:NO  1:YES
```

This is to confirm that you want to reset the data before the DBS actually performs the reset. Press one of the following:

0=Do not complete the reset.
l=Complete the reset.

5. Power-off the system, wait at least 3 seconds, then power it back on.

Understanding FF Key Programming

Program Structure

Program entries for the DBS are organized into 10 primary groups, which are listed in Table 1 below. Each group has its own Flexible Function (FF) key on the phone. These keys can be identified by the LED on the left side of the key. On key telephones, the FF keys are numbered left-to-right, starting on the bottom row.

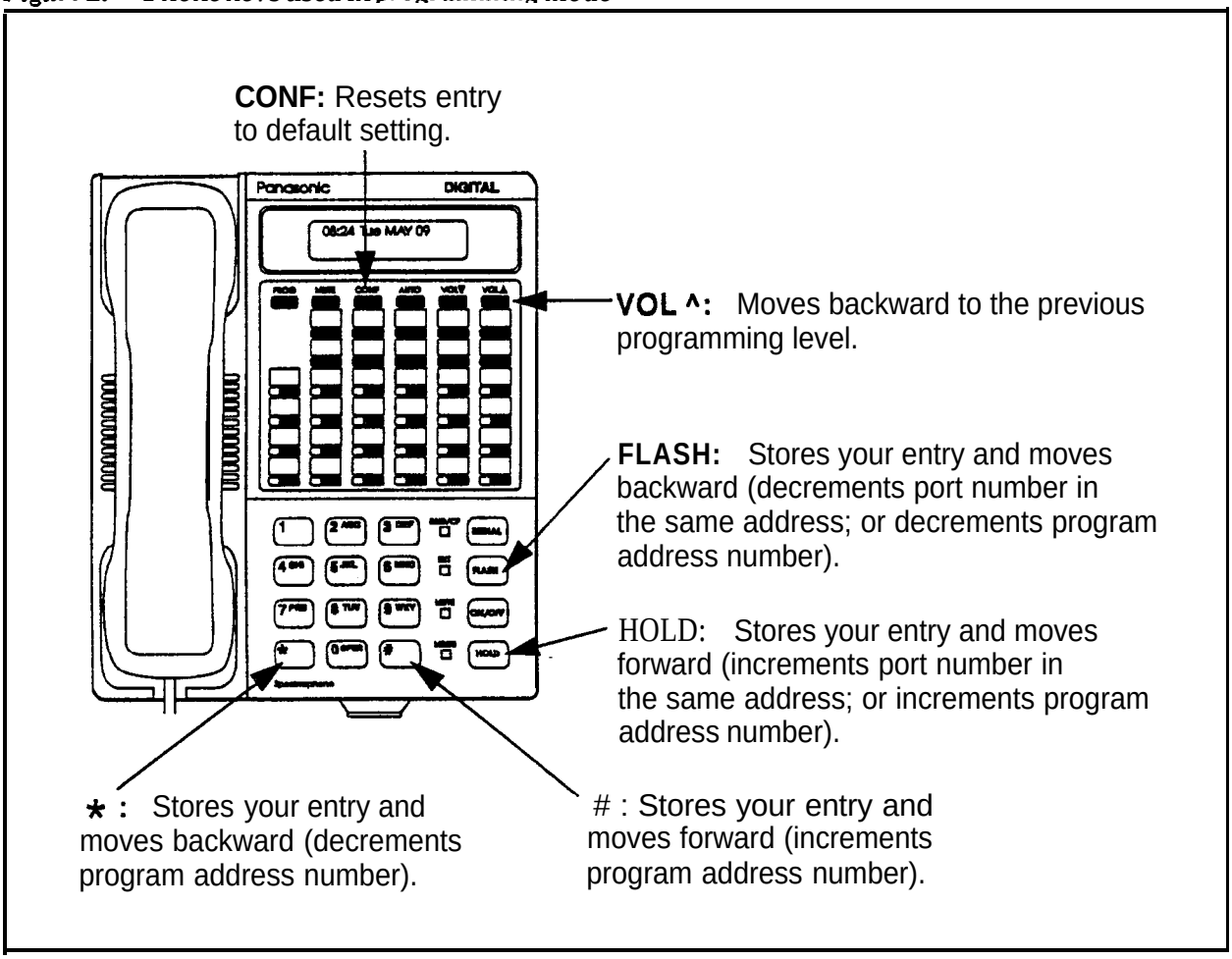
After you enter the programming mode **(see "How to Enter the Programming Mode",** next page), press the desired FE key to start programming the entries ("addresses") of the group. The phone's LCD display will prompt you through the addresses.

Table 1. JIBS program structure

FF Key	Programming Group
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, some 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 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 an Attendant display phone. The phone connected to extension port 1, assigned extension number 100 is automatically the Primary Attendant phone. By default, extension port 2 (extension number 101) is the Second Attendant phone (although this extension assignment can be reprogrammed). Up to two other phones can also be programmed as Third and Fourth Attendant phones. Programming is also possible from other extensions (see ***"From a Non-Attendant Port",*** next page).

To enter the programming mode from any Attendant phone, press:

ON/OFF PROG ## [desired FF key]

Notes:

- Name settings can only be programmed from the Attendant phone or a DSS console connected to it.
- When you enter the programming mode on the Attendant phone -- and the DBS is set for only one Attendant -- the system will automatically change to the "Night" mode. After you exit the programming mode (by pressing ON/OFF), the system will return to the appropriate mode according to the system clock and the mode's start time.

From a non-Attendant port . . .

When programming from a display phone other than an Attendant, press:

ON/OFF #98 [NNNN] PROG ## [desired FF key]

(where "[NNNN]" is the programming authorization code -- "9999" by default)

Notes:

- In CPC-A versions prior to 3.3, if a non-Attendant phone is used for programming, you must enter the programming authorization code twice -- once to begin programming, and once to exit programming. Otherwise, other non-Attendant extensions cannot enter the programming mode.
- Beginning with CPC-A Version 3.3, and CPC-B versions, a non-Attendant phone only has to enter the authorization code once, to begin programming. As soon as programming is complete, any other non-Attendant phone can enter the programming mode.

From the Test Terminal port . . .

You can also program from a phone connected to the test terminal (CN3) of the main DBS cabinet:

1. Slide the SW1 switch on the cabinet to 'Test" mode. This will provide a direct connection to ports 7 and 8 (if the DBS is already in service, make sure beforehand that placing ports 7 and 8 out of service is acceptable).

2. Press: **ON/OFF #98 [NNNN] PROG ### [desired FF key]**
(where "[NNNN]" is the programming authorization code -- "9999" by default)

When you are finished programming, be sure to return SW1 to the "ST" position.

Example Programming Entry

To set the DBS time and date from an Attendant phone, press:

ON/OFF PROG ##
("Program Mode" is displayed on line 1, "MAIN MODE" on line 2)

FF1
("System Program" is displayed on line 1, "SELECT SUB MODE" on line 2)

1#
("SELECT TIME MODE" is displayed on line 1; "1:DATE 2:TIME" on line 2)

1#
("DATE SET MODE" is displayed on line 1; "MONTH/DAY/YEAR" on line 2)

MMDDYY
(Enter new date in MMDDYY format)

 # ON/OFF
(to store the program change and exit programming mode; the new date should now be displayed on all LCD phones)

Default Program Settings

The following table shows the default settings for all DBS 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 DBS 96 + DBS 96 configuration with a CPC-B card. For the acceptable ranges in other configurations, see *Section 300-Installation.*

Table 2. Default settings

Program Address	Topic	Default	Page
FF1: System Settings			1-1
FF1 1#: Date and Time Settings			1-3
FF1 1# 1# (MMDDYY)#	Day/Date Setting	Sun JAN 1	1-3
FF1 1# 2# (HHMM)#	Time Setting	12:00	1-4
FF1 2# 1#: General System Settings			1-5
FF1 2# 1# 1# (0 or 1)#	Call Duration Display	1 (Displayed)	1-5
FF1 2# 1# 2# (0-2)#	SMDR Display Start Timer for CO Calls	0 (Begins after 5 sec)	1-6
FF1 2# 1# 3# (0 or 1)#	Least Cost Routing (LCR) Access	0 (Pooled trunk)	1-7
FF1 2# 1# 4# (SSD)#	Override Toll Restriction With SSD Numbers	No TRS Override	1-8

Program Address	Topic	Default	Page
FF1 2# 1# 5# (0 or 1)#	SSD Display Restriction	0 (Display DBS dialed digits)	I-9
FF1 2# 1# 6# (0 or 1)#	Auto Flash Redial	1 (REDIAL sends flash)	I-10
FF1 2# 1# 7# (0 or 1)#	One Touch Dial	1 (Enabled)	1-11
FF1 2# 1# 8# (0 or 1)#	Onhook Transfer	1 (Enabled)	1-12
FF1 2# 1# 9# (0 or 1)#	Kev Bank Hold	0 (Disabled)	1-13
FF1 2# 1# 10# (0 or 1)#	/Non-Appearing Trunk Hold	1 (System hold)	1-14
FF1 2# 1# 11# (0 or 1)#	SLT Flash Control	1 (Retrieves held call)	I-15
FF1 2# 1# 12# (0 or 1)##	Extension Number Digits	1 (3 digits)	I-17
FF1 2# 1# 13# (0 or 1)#	Alternate Attendant (CPC-A/B prior to 2.0)	1 (Enabled)	I-18
FF1 2# 1# 14# (0 or 1)#	Attendant Intercom Calling	1 (Voice)	1-19
FF1 2# 1# 15# (0 or 1)#	Extension Intercom Calling	1 (Voice)	1-20
FF1 2# 1# 16# (0 or 1)#	Alert Tone for Voice Calls	1 (Enabled)	1-21
FF1 2# 1# 17# (0 or 1)#	Alert Tone for BUSY Override & OHVA	0 (Disabled)	I-22
FF1 2# 1# 18# (0 or 1)#	System Installation Area Code	1 (1+Area)	I-23
FF1 2# 1# 19# (0 or 1)#	SSD Name Display	0 (5 names)	I-24
FF1 2# 1# 20# (2-9 or 2-18)#	API/AEC Slot Assianment	Noassianment	I-25
FF1 2# 1# 21# (0 or 1)#	Voice Mail Busy Tone	0 (Silence)	I-26
FF1 2# 1# 22# (0-6)#	Analog Transfer Ring Pattern (CPC-A 3.21 or higher)	0 (.4 sec on/ 3.6 sec off)	1-27
FF1 2# 1# 22# (1-15)#	Attendant Overflow for Primary Attendant (CPC-B 1.0 only)	8 (maximum 8 stacked calls)	1-28
FF1 2# 1# 23# (0 or 1)#	Delayed Ring (CPC-AII/B)	0 (Disabled)	1-29
FF1 2# 1# 23# (0-15)#	AEC Disconnect Signal Duration (CPC-A 3.3 or higher)	0 (No signal)	1-30
FF1 2# 1# 24# (11-69 or 101-699)#	Second Attendant Position	Ext.11 or 101	I-31
FF1 2# 1# 25# (11-69 or 101-699)#	Third Attendant Position	None	1-32
FF1 2# 1# 26# (11-69 or 101-699)#	Fourth Attendant Position	None	1-33
FF1 2# 1# 27# (11-69 or 101-699)#	Attendant Transfer Extension	None	1-34
FF1 2# 1# 28# (0 or 1)#	Attendant Override	1 (Enabled)	1-35
FF1 2# 1# 29# (0 or 1)#	Attendant LED Alarm Indication (CPC-B 2.09 thru 4.0 with AFP)	1 (can assign alarm)	I-36
FF1 2# 1# 30# (0 or 1)#	Extension (BLF) Delayed Ring	0 (Disabled)	I-37
FF1 2# 1# 31# (0-6)#	Analog Transfer Ring Pattern (CPC-AII/B)	0 (.5 sec on/ 3.5 sec off)	1-38
FF1 2# 1# 32# (0 or 1)#	Multiple DID/DNIS (CPC-B 4.0 or higher)	0 (Disabled)	1-39
FF1 2# 1# 33# (0 or 1)#	Page Duration	0 (Unlimited)	1-41
FF1 2# 1# 34# (0 or 1)#	SLT DISA Ring Pattern	0 (1 sec on/ 3 secoff)	1-42
FF1 2# 1# 35# (0-15)#	AEC Disconnect Signal Duration (CPC-AII/B 5.0 or higher)	0 (No signal sent)	1-43

Program Address	Topic	Default	Page
FF1 2# 1# 36# (0-2)#	DID/DNIS to a Voice Mailbox (CPC-B 6.0 or higher)	0 (No DID/DNIS digits transmitted)	1-44
FF1 2# 1# 37# (6 char.)#	DID/DNIS Answer Code (CPC-B 6.0 or higher)	None	I-46
FF1 2# 1# 38# (0-2)#	LCD Timer for Caller ID (CPC-AII/B 6.1 or higher)	0 (5 sec)	1-48
FF1 2# 1X 39# (0 or 1)#	Internal Hold Tone (CPC-AII/B 7.0 or higher)	0 (Disabled)	1-49
FF1 2# 1# 40# (0 or 1)#	Door Opener Access Code Required (CPC-AII/B 7.0 or higher)	0 (Not required)	1-50
FF1 2# 1X (41 or 42)# 1X (0 or 1)#	API Port Type (CPC-AII/B 7.0 or higher)	0 (Standard API)	1-51
FF1 2# 1# (41 or 42)P 2# (0 or 1)#	API Baud Rate (CPC-AII/B 7.0 or higher)	0 (9600 bps)	1-52

Program Address	Topic	Default	Page
FF1 2# 2#: Serial Port Parameters (TTY Settings)			1-53
FF1 2# 2% 1# (0 or 1)#	Parity Check	1 (On)	I-53
FF1 2# 2# 2# (0 or 1)#	Odd/Even Parity	1 (Even)	I-54
FF1 2# 2# 3# (1-4)#	Baud Rate	4 (9600 bps)	I-55
FF1 2# 2# 4# (1-3)#	Stop Bit Length	1 (1 bit)	I-56
FF1 2# 2# 5# (3 or 4)#	Data Length	4 (8 bits)	I-57
FF1 2# 2# 6# (0 or 1)#	SMDR Printing Mode 1: Outbound and Inbound	1 (Outbound and Inbound)	1-58
FF1 2# 2# 7# (0 or 1)#	SMDR Printing Mode 2: Long-Distance and Local Calls	1 (Long-distance and local)	I-59
FF1 2# 2# 8# (0 or 1)#	SMDR Printing Mode 3: Header Title	0 (No header titles)	I-60
FF1 2# 2# 9# (0 or 1)#	Serial Port Flow Control (XON / XOFF)	1 (No DBS flow control)	1-61
FF1 2# 2# 10# (0 or 1)#	RAI Baud Rate	0 (300 bps)	I-62
FF1 2# 3#: PBX Settings			1-63
FF1 2# 3# (1-8)# (O-999 or 0*-99*)#	PBX Access Code(s)	None	1-63
FF1 2# 3# (9-18)# (1-3)#	Automatic Pause Position for PBX Access Codes	None	I-64
FF1 2# 4#: External (UNA) Relay Control			1-66
FF1 2# 4# 1# (0 or 1)#	Ring Patterns for UNA Terminals (M, C and B)	0 (1 sec on/ 3 sec off)	I-66
FF1 2# 4# (2-9)# (0 or 1)#	External Page Interface Control for Paging Groups	0 (Internal paging only)	I-67
FF1 2# 5#: Class of Service			1-68
FF1 2# 5# (1-8)# (1-21)# (0 or 1)#	Extension Class of Service	0 (All features disabled)	1-68

Program Address	Topic	Default	Page
FF1 3# 15# (0-3)#	CO Ring Cycle Detection Timer	1 (6 sec)	I-107
FF1 3# 16# (0-15)#	Inbound Ring Cycle Expansion Timer	7 (350 ms)	1-108
FF1 3 X 17# (0-15)#	Dial Pause Timer	1 (1.5 sec)	1-109
FF1 3# 18# (0-10)#	PBX Flash Timer	7 (.8 sec)	1-110
FF1 3# 19# (0-15)#	Call Forward-No Answer Timer	2 (After 12 sec)	1-111
FF1 3# 20# (1-8)#	Outbound Ground Start Detection Timer (CPC-B only)	4 (4 sec)	1-112
FF1 3# 21# (1-8)#	Inbound Ground Start Detection Timer (CPC-B only)	4 (4 sec)	1-113
FF1 3# 22# (0-12)#	Attendant Hold Recall Timer for Intercom Calls	1 (20 sec)	1-114
FF1 3# 23# (0-12)#	Extension Hold Recall Timer for Intercom Calls	7 (140 sec)	1-115
FF1 3# 24# (0-12)#	Attendant Transfer Recall Timer for Intercom Calls	1 (20 sec)	1-116
FF1 3# 25# (0-12)#	Extension Transfer Recall Timer for Intercom Calls	7 (140 sec)	I-117
FF1 3# 26# (0-15)#	CO Delayed Ring Timer	2 (After 12 sec)	1-118
FF1 3# 27# (0-15)#	Extension (DSS/BLF) Delayed Ring Timer	2 (After 12 sec)	1-120
FF1 3# 28# (0-15)#	Hunt Group No Answer Timer	2 (After 12 sec)	1-122
FF1 3# 29# (HHMM)#	Automatic Day Mode Start Time	Not set	1-123
FF1 3# 30# (HHMM)#	Automatic Night 2 Mode Start Time	Not set	1-125
FF1 4# thru 7#: Programming and DISA Codes			**1-127**
FF1 4# (0000-9999)#	Remote Programming ID Code	9999	1-127
FF1 5# (0000-9999)#	DISA Inbound Call ID Code	Not set	1-128
FF1 6# 1# (0000-9999)#	DISA Outbound Call ID Code 1	1111	1-129
FF1 6# 2# (0000-9999)#	DISA Outbound Call ID Code 2	9999	1-130
FF1 7# (0000-9999)#	ID Code for System Programming	9999	1-131

Program Address	Topic	Default	Page
FF1 8# 1# and **2#: New** Function Reset **(CPC-B only, 4.0 or higher)**			I-132
FF1 8# 1# (0 or 1)#	New Function Reset	0 (Do not reset)	I-132
FF1 8# 2# (0 or 1)#	Confirm New Function Reset	0 (Do not complete reset)	1-132
FF1 8# 3# thru 7#: DID/DNIS and T1 Settings (CPC-B only, 4.0 or higher)			**1-133**
FF1 8# 3# (0000-9999)# (10-69 or 100-699)#	Inbound DID Dial Numbers	Not set	1-133
FF1 8# 4# 1# 1# (0-8)#	System Configuration	0 (DBS 40)	1-135
FF1 8# 4# 1# 2# (1-3)#	Sync Source 1	3 (Free run)	1-141
FF1 8# 4# 1# 3# (0-3)#	Sync Source 2	0 (None)	1-143
FF1 8# 4# 1# 4# (0-3)#	Sync Source 3	0 (None)	1-144
FF1 8# 4# 2# 1# (0-25)#	Network Re-Sync Timer	25 (No retries)	1-145
FF1 8# 4# 2# 2# (0-12)#	Disconnect Timer	1 (200 ms)	1-146

Program Address	Topic	Default	Page
FF1 8# 4# 2# 3# (0-15)#	Guard Timer	6 (1200 ms)	1-147
FF1 8# 4# 2# 4# (0-15)#	Release Acknowledge Timer	9 (240 sec)	1-148
FF1 8# 4# 2# 5# (0-8)#	Outpulse Delay Timer	2 (500 ms)	1-149
FF1 8# 4# 2# 6# (0-15)#	Wink Timeout Timer	15 (5500 ms)	1-150
FF1 8# 4# 2# 7# (0-15)#	Incoming Detection Timer	7 (90 ms)	1-151
FF1 8# 4# 2# 8# (0-8)#	Answer Supervision Timer	3 (600 ms)	1-152
FF1 8# 4# 2# 9# (0-15)#	Immediate Glare Timer	3 (60 ms)	1-153
FF1 8# 4# 2# 10# (0-15)#	Wink Glare Timer	3 (60 ms)	1-154
FF1 8# 4# 3# (1-12)# (0-30)#	Digital Pad Settings	16 (-2 dB)	1-155
FF1 8# 4# (4/5)# 1# 1# (0 or 1)#	Trunk Configuration (CPC-B 4.0 to 6.02)	0 (Analog)	1-158
FF1 8# 4# (4/5)# 1# 2# (0-24)#	Number of T1 Channels	0 (None)	1-159
FF1 8# 4# (4/5)# 1# 3# (0 or 1)#	Frame Format	0 (Superframe)	1-160
FF1 8# 4# (4/5)# 1# 4# (0 or 1)#	Line Coding	0 (AMI)	1-161
FF1 8# 4# (4/5)# 1# 5# (0 or 1)#	Failure Mode	0 (T1 continues to operate after error detected)	1-162
FF1 8# 4# (4/5)# 1# 6# (0 or 1)#	Remote Loopback	Reserved for future use	1-163
FF1 8# 4# (4/5)# 1# 7# (0 or 1)#	Yellow Alarm Send	1 (Yes)	1-164
FF1 8# 4# (4/5)# 1# 8# (0 or 1)#	Flash Key Operation	0 (Release and reseize)	1-165
FF1 8# 4# (4/5)# 2# 1# (0-5)#	Red Alarm Detection	2 (8)	1-166
FF1 8# 4# (4/5)# 2# 2# (0-15)#	Yellow Alarm Detection	1 (50 ms)	1-167
FF1 8# 4# (4/5)# 2# 3# (0-15)#	Yellow Alarm Recovery	1 (10 ms)	1-169
FF1 8# 4# (4/5)# 2# 4# (0-15)#	Other Alarms Detection	1 (250 ms)	1-171
FF1 8# 4# (4/5)# 2# 5# (0-15)#	Other Alarms Recovery	1 (250 ms)	1-173
FF1 8# 4# (4/5)# 3# 1# (0-9000)#	Frame Loss Counter	9000	1-174
FF1 8# 4# (4/5)# 3# 2# (0-9000)#	Slip Counter	9000	1-175
FF1 8# 4# (4/5)# 3# 3# (0-9000)#	Red Alarm Counter	9000	1-176
FF1 8# 4# (4/5)# 3# 4# (0-9000)#	Loss of Signal Counter	9000	1-177
FF1 8# 4# (4/5)# 3# 5# (0-9000)#	Sync Loss Counter	9000	1-178
FF1 8# 4# (4/5)# 3# 6# (0-9000)#	Yellow Alarm Counter	9000	1-179
FF1 8# 4# (4/5)# 4# 1# (0 or 1)#	Yellow Alarm Relay	0 (Off)	1-180
FF1 8# 4# (4/5)# 4# 2# (0 or 1)#	Red Alarm Relay	0 (Off)	1-181
FF1 8# 4# (4/5)# 4# 3# (0 or 1)#	Sync Loss Relay	0 (Off)	1-182
FF1 8# 4# (4/5)# 4# 4# (0 or 1)#	Frame Loss Relay	0 (Off)	1-183
FF1 8# 4# (4/5)# 4# 5# (0 or 1)#	AIS Relay	0 (Off)	1-184
FF1 8# 4# (4/5)# 4# 6# (0 or 1)#	Relay Reset	0 (Automatically cleared)	1-185
FF1 8# 4# 6# (1-64)# 1# (0-3)#	T1 Trunk Type Emulation	3 (E&M)	1-186
FF1 8# 4# 6# (1-64)# 2# (0-2)#	DID/DNIS	0 (Neither)	1-187
FF1 8# 4# 6# (1-64)# 3# (0-2)#	Outgoing Signaling Type	0 (Immediate start)	1-188

Program Address	Topic	Default	Page
FF1 8# 4# 6# (1-64)# 4# (0 or 1)#	Incoming Signaling Type	0 (Immediate start/ringdown)	1-189
FF1 8# 4# 6# (1-64)# 5# (0 or 1)#	Trunk Mode	0 (Incoming and outgoing)	1-190
FF1 8# 4# 6# (1-64)# 6# (0 or 1)#	Robbed Bit Setting	1 (On)	1-191
FF1 8# 48 6# (1-64)# 7# (0 or 1)#	Incoming Dialing Method	1 (DTMF)	1-192
FF1 8# 4# 6# (1-64)# 8# (0 or 1)#	Dial Tone Transmission	Reserved for future use	1-193
FF1 8# 4# 6# (1-64)# 9# (0 or 1)#	Busy Tone Transmission	Reserved for future use	1-194
FF1 8# 4# 6# (1-64)# 10# (0 or 1)#	Dial Tone Receive	0 (Off)	1-195
FF1 8# 4# 6# (1-64)# 11# (0 or 1)#	Ringback Tone Transmission	0 (Off)	1-196
FF1 8# 4# 7# (0000-9999)# (10-699 or 100-699)#	DNIS Number Setting	No assignment	1-197
FF1 8# 5# (0000-9999)# (10-69 or 100-699)# (0000[00]-1111[11])#	DID Flexible Ringing Assignments	1100 or 111000 (Ringing enabled; Delayed ringing disabled)	1-198
FF1 8# 6# (0000-9999)P (10-69 or 100-699)# (0000[00]-1111[11])#	DNIS Flexible Ringing Assignments	1100 or 111000 (Ringing enabled: Delayed ringing disabled)	I-198
FF1 8#7# (1/2)# (1-4)# (1-8)# (0 or 1)#	T1 Trunk Closure	0 (Open)	I-200

Program Address	Topic	Default	Page
FF2: Trunk Settings			2-1
FF2 (1-64)# 1# (0 or 1)#	Trunk Port Operation	0 (In service)	2-3
FF2 (1-64)# 2# (0 or 1)#	DTMF/Pulse Dialing for Trunks	0 (DTMF)	2-4
FF2 (1-64)# 3# (0 or 1)#	Pooled Trunk Access for Group "9"	1 (Trunk is included)	2-5
FF2 (1-64)# (4-9)# (0 or 1)#	Pooled Trunk Access for Gr[redacted]	unk is not cluded)	2-6
FF2 (1-64)# 10# (1 or 2)#	Trunk Port Type	0 trunk)	2-7
FF2 (1-64)# 11# (0 or 1)#	DISA Auto Answer	0 (DISA tone not provided)	2-8
FF2 (1-64)# 12# (1-144)#	Private Trunk Line	Not set	2-9
FF2 (1-64)# 13# (0 or 1)#	Automatic Pause for PBX Line	1 (Disabled)	2-10
FF2 (1-64)# 14# (0 or 1)#	Dial Tone Detection	0 (Digits out-pulsed after Dial Pause Timer)	2-11
FF2 (1-64)# 15# (1-3)#	Outbound DTMF Signal Duration for Auto-Dialed Dioits	1 (75 ms on/ 50 ms off)	2-I 2
FF2 (1-64)# 16# (0 or 1)#	Unsupervised Trunk Conference	0 (Disabled on trunk)	2-13

Program Address	Topic	Default	Page
FF2 (1-64)# 17# (0-9)#	Inbound Ring Pattern	0 (Determined by CO)	2-14
FF2 (1-64)# 18# (0-15)#	Trunk Disconnect Detection Timer	7 (over 350 ms)	2-15
FF2 (1-64)# 19# (HHMM)#	DISA Start Time	Not set	2-16
FF2 (1-64)# 20# (HHMM)#	DISA End Time	Not set	2-17
FF2 (1-64)# 21# (0-4)#	Trunk Circuit Type	0 (Loop start)	2-18
FF2 (1-64)# 22# (0 or 1)#	DID Immediate or Wink Start	0 (Wink start)	2-21
FF2 (1-64)# 23# (0-15)#	Wink Start Timer	3 (200 ms)	2-22
FF2 (1-64)# 24# (0-15)#	Time Out for Dialed DID Digits	4 (18 sec)	2-23
FF2 (1-64)# 25# (0-15)#	DID Interdigit Timeout	5 (80 ms)	2-24
FF2 (1-64)# 26# (4-8)#	Trunk Port Class	Automatically set	2-25

Program Address	Topic	Default	Page
FF3: Extension Settings			3-1
FF3 (l-l 44)# 1# (1 O-69 or 1 00-699)#	Extension Numbers .	10/100 (Port 1) 11/101 (Port 2) ... etc.	3-3
FF3 (1-144)# 2# (1-48)#	Terminal Type	4 (34-button key phone)	3-5
FF3 (1-144)# 3# (1-144)#	EM/24 Port Assignment	No assignment	3-7
FF3 (1-144)# 4# (0 or 1)#	Forced Least Cost Routing	0 (Disabled)	3-8
FF3 (1-l 44)# 5# (0-2)#	Forced Account Codes	0 (Voluntary)	3-9
FF3 (l-l 44)# 6# (0000-9999)#	Extension Lockout Code	Not set	3-10
FF3 (1-144)# 7# (0 or 1)#	Offhook Signal (CO)	0 (Disabled) 1 (Enabled for Primary Attendant only)	3-11
FF3 (1-144)# 8# (0 or 1)#	Call Waiting/OHVA	1 (Enabled)	3-12
FF3 (1-144)# 9# (0 or 1)#	Busy Override Send	0 (Disabled)	3-13
FF3 (1-144)# 10# (Oor 1)#	Busy Override Receive	1 (Enabled)	3-14
FF3 (1-144)# 11# (0 or 1)#	Prime Line Pickup	0 (Disabled)	3-15
FF3 (1-144)# 12# (0 or 1)#	Auto Pickup (Ringing Line)	1 (Enabled)	3-16
FF3 (1-144)# 13# (0 or 1)#	Unsupervised Conference	0 (Disabled)	3-17
FF3 (1-144)# 14# (Oor 1)#	Station Message Detail Recorder (SMDR) Report	1 (Extension is included in SMDR report)	3-18
FF3 (1-144)# 15# (0-4)#	Offhook Signal Volume	2 (Mid-level)	3-19
FF3 (1-144)# 16# (Oor 1)#	Offhook Signal Pattern	0 (Repeated tone burst)	3-20
FF3 (1-144)# 17# (0 or 1)#	PSD Name Display on Large-Sized LCD Phones	0 (5 PSD names)	3-21
FF3 (1-144)# (18-25)# (0 or 1)#	Page Group Extensions	0 (None)	3-22
FF3 (l-l 44)# 26# (0-24/39)#	Display When Idle	0 (Prev. menu)	3-23

Program Address	Topic	Default	Page
FF3 (1-144)# 27# (0-24/39)#	Display During Intercom Dial Tone	0 (Prev. menu)	3-25
FF3 (1-144)# 28# (0-24/39)#	Display When Calling an Extension	0 (Prev. menu)	3-27
FF3 (1-144)# 29# (0-24/39)#	Display When Accessing CO Dial Tone	0 (Prev. menu)	3-29
FF3 (1-144)# 30# (0-24/39)#	Display When Conversing on a CO Trunk	0 (Prev. menu)	3-31
FF3 (1-144)# 31# (0-24/39)#	Display When Receiving a Page	0 (Prev. menu)	3-33
FF3 (1-144)# 32# (0-24/39)#	Display After Receiving a Call Waiting Tone	0 (Prev. menu)	3-35
FF3 (l-l 44)# 33# (0-24/39)#	Display When Dialing a Busy Extension	0 (Prev. menu)	3-37
FF3 (1-144)# 34# (0 or 1)#	Extension Directory Display (CPC-Ail; CPC-B 2.0 or higher)	0 (5 names)	3-39
FF3 (1-72)# 34# (0 or 1)#	VAU Port Assignment (CPC-A 3.3 or higher)	(see page 3-56)	
FF3 (1-144)# 35# (0-8)#	Extension Class of Service Assignment (CPC-All; CPC-B 3.1 or higher)	0 (Class 0; all features allowed)	3-40
FF3 (l-1 44)# 35# (0000-9999)#	Inbound DID Dial Numbers (CPC-B 2.0 only)	No assignment	3-41
FF3 (1-72)# 35# (0 or 1)#	AEC Disconnect (CPC-A 3.3 or higher)	0 (Disabled)	3-41
FF3 (1-1 44)# 36# (0-2)#	Ringback Tone From ML Keys	0 (Ringback, then busy tone)	3-42
FF3 (l-l 44)# 37# (l-2 or 7-8)#	Station Port Class (CPC-84.0 or higher)	Automatically assianed	3-43
FF3 (1-144)# 38# (0 or 1)#	SLT Hookflash (CPC-B 3.1 or higher)	0 (Broker's hold)	3-45
FF3 (1-144)# 39# (0-9)#	Extension Ring Pattern	0 (Determined by CO)	3-46
FF3 (1-144)# 40# (0 or 1)#	Digital SLT Receiving Volume	0 (Normal)	3-48
FF3 (1-144)# 41# (0001-9999)#	Auto Set Relocation Code	Not set	3-49
FF3 (1-144)# 42# (0-3)#	Permanent Call Forward Type	cl (Off)	3-51
FF3 (l-l 44)# 43# (1 O-69 or 100-699)#	Permanent Call Forward Extension	No assignment	3-52
FF3 (1-144)# 44# (0 or 1)#	ML/MCO Separation	0 (MCO keys)	3-53
FF3 (1-144)# 45# (0 or 1)#	VAU Hunting Priority	0 (No priority)	3-54
FF3 (1-144)# 46# (0 or 1)#	AEC Disconnect	0 (Disabled)	3-55
FF3 (1-144)# 47# (0 or 1)#	VAU Port Assignment	0 (Off)	3-56
FF3 (1-l 44)# 48# (0 or 1)#	Hot Dial Pad (CPC-All/B 7.0 or higher)	0 (Disabled)	3-57
FF3 (1-144)# 49# (0 or 1)#	[Auto-Redial on Extensions (CPC-All/B 7.0 or higher)	1 (Enabled)	3-58

Program Address	Topic	Default	Page
FF4: Ringing and Hunt Groups			4-1
FF4 1# (1-73/145)# (1-64)# (0 or 1)#	CO Day Ring Assignments	0 (No ring)	4-3
FF4 1# (79-86 or 151-158)# (1-64)# (0 or 1)#	CO Day Ring Assignments for Hunt Groups	0 (No ring)	4-4
FF4 2# (1-73/145)# (1-64)# (0 or 1)#	CO Night Ring Assignments	0 (No ring)	4-5
FF4 2# (79-86 or 151-158)# (1-64)# (0 or 1)#	CO Night Ring Assignments for Hunt Groups	0 (No ring)	4-6

Program Address	Topic	Default	Page
FF4 3# (1-8)# 1# (11-69 or 101-699)#	Hunt Group Pilot Numbers (CPC-All;CPC-B 2.0 or higher)	No assignment	4-7
FF4 3# (1-8)# 1# (0 or 1)#	Terminal/Circular Hunt Groups (CPC-A; CPC-B prior to 2.0)	0 (Terminal hunting)	4-9
FF4 3# (1-8)# 2# (0-2)#	Hunt Group Type (CPC-All; CPC-B 2.0 or higher)	0 (Terminal hunting)	4-11
FF4 3# (1-8)# 2# (1-8)#	Call Next Hunt Group (CPC-A; CPC-B prior to 2.0)	No assignment	4-13
FF4 3# (1-8)# (3-10)# (IO-690r 100-699)#	Hunt Group Members (CPC-A; CPC-B prior to 2.0)	No assignment	4-14
FF43#(1-8)#3# (1 O-69 or 100-699)#	Transfer Extension (CPC-All; CPC-B 2.0 or higher)	000	4-15
FF4 3# (1-8)# 4# (0-32)#	Hunt Group Transfer Timer (CPC-All; CPC-B 2.0 or higher)	2 (2 sec)	4-16
FF4 3% (1-8)# (5-12/20)# (10-69 or 100-699)#	Hunt Group Members (CPC-All; CPC-B 2.0 or higher)	No assignment	4-I 7
FF4 4# (1-16)# (1-8)# (IO-690r 100-699)#	Call Coverage Group Members	No assignment	4-I 8
FF4 5# (1-73/145)# (1-64)# (0 or 1)#	CO Delayed Day Ring Assionments	0 (No ring)	4-20
FF4 5# (79-86 or 151-158)# (1-64)# (Oorl)#	CO Delayed Day Ring Assignments for Hunt Groups	0 (No ring)	4-21
FF4 6# (1-73/145)# (1-64)# (0 or 1)#	CO Delayed Night Ring Assignments	0 (No ring)	4-22
FF4 6# (79-86 or 151-158)# (1-64)# (0 or 1)#	CO Delayed Night Ring Assignments for Hunt Groups	0 (No ring)	4-23
FF4 7# (1-144)# (1-144)# (0 or 1)#	Extension Ring Table	0 (No ring)	4-25
FF4 8# (1-144)# (1-144)# (0 or 1)#	Extension Delayed Ring Table	0 (No ring)	4-26
FF4 9# 1# (1-73/145)# (I-64)f (Oorl)#	CO Night 2 Ring Assignments (CPC-All/B 7.0 or higher)	0 (No ring)	4-27
FF4 9# 1# (79-86 or 151-158)# (1-64)# (0 or 1)#	CO Night 2 Ring Assignments for Hunt Groups (CPC-All/B 7.0 or higher)	0 (No ring)	4-28
FF4 9# 2# (1-73/145)# (1-64)# (0 or 1)#	CO Delayed Night 2 Ring Assignments (CPC-All/B 7.0 or higher)	0 (No ring)	4-29
FF4 9# 2# (79-86 or 151-158)X (1-64)# (0 or 1)#	CO Delayed Night 2 Ring Assignments for Hunt Groups (CPC-All/B 7.0 or higher)	0 (No ring)	4-30

Program Address	Topic	Default	Page
FF5: FF Key Programming			5-1
FF5 (1-144)# (1-24)# CONF (Code)#	FF Kev Assignments for Extensions	No assignment	5 - 3
FF5 (73-76 or 145-I 48)# CONF (1-72)# (Code)#	FF Key Assignments for DSS Consoles	No assignment	5-8
FF5 (149-152)# (1-32)# CONF (Code)#	Attendant Feature Package Key Assignments (CPC-B 2.0 to 4.0 with AFP)	No assignment	5-10

Program Address	Topic	Default	Page
FF6: Name and Message Assignments			6-1
FF6 1# (1-144)# CONF (up to 10 char.)#	Extension Name	No assignment	6-3
FF6 2# (00-89 or 000-l 99)# CONF (up to 16 char.)%	System Speed Dial Names	No assignment	6-4
FF6 3# (1-144)# (90-99 or 900-909)# CONF (up to 16 char.)#	Personal Speed Dial Names	No assignment	6-5
FF6 4# (5-9)# CONF (up to 15 char.)%	Absence Messages	No assignment	6-6
FF6 5# (1-64)# CONF (up to 6 char.)#	Trunk Name Assignment	No assignment	6-8
FF6 6# (1-8)# CONF (up to 10 char.)#	Hunt Group Name Assignment	No assignment	6-9
FF6 7# (1-5)# CONF (up to 15 char.)#	Call Waiting/OHVA Text Reply	No assignment	6-l 0
FF6 8/9# (1-200)# (1 or 2)# (0000-9999)R (up to 6 char.)#	DID/DNIS Text Name Assignment **(CPC-B 5.0 or higher)**	No assignment	6-l 1

Program Address	Topic	Default	Page
FF7: Toll Restrictions			7-1
FF7 1# 1# (0 or 1)#	International Calling For TRS Types 3-6	0 (Deny/Check Country Code Table)	7-5
FF7 1# 2# (0 or 1)#	DTMF Signaling During Incoming Calls for TRS Types O-6	1 (Enable DTMF signaling during incoming calls)	7-6
FF7 1# 3# (1-15)#	Maximum Dialed Digits For TRS Types 3-6	* (Unlimited)	7-7
FF7 1# (4-11)# (0 or 1)#	3-Digit Toll Restriction For TRS Types 2-6	0 (Allow)	7-8
FF7 1#(12-16)# (0 or 1)#	7-Digit Toll Restriction For TRS Types 2-6	1 (Check 7-digit table)	7-9
FF7 1# 17# (0 or 1)#	Dialing Plan Switch **(CPC-AII/B 6.0 or higher)**	0 (Old dial plan)	7-l 0
FF7 1# 18X (1-144)# (0 or 1)#	Operator Access **(CPC-AII/B 6.0 or higher)**	0 (Deny)	7-l 1
FF7 1# 19# (1-144)# (Oor 1)#	international Calling on Extensions **(CPC-AII/B 6.0 or higher)**	0 (Deny)	7-l 2
FF7 1# 20# (1-10)# (0-999)#	Country Code Table **(CPC-AII/B 6.0 or higher)**	No assignment	7-13
FF7 1# 21# (0 or 1)#	Equal Access Code Format **(CPC-AII/B 6.0 or higher)**	0 (Old 10XXX format)	7-14
FF7 1# 22# (1-10)# (000-999)#	Office Code Restriction Table For TRS Types 2-6 **(CPC-AII/B 6.0 or higher)**	No assignment	7-l 5
FF7 2% (3-6)# (000-999)# (0 or 1)#	Area Code Table For TRS Types 3-6	0 (Allow) for TRS types 5 and 6 1 (Deny) for TRS types 3 and 4	7-l 6
FF7 3# (3-6)# (000-999)# (0 or 1)#	Office Code Table For TRS Types 3-6	0 (Allow) for TRS types 4-6 1 (Deny) for TRS type 3	7-l 7

Program Address	Topic	Default	Page
FF7 4# (1-4)# (000-999)#	Special Area Code Table For TRS Types 3-6	No assignment	7-18
FF7 5# (1-4)# (000-999)# (0 or 1)#	Special Office Code Table For TRS Types 3-6	0 (Allow) for Sp. A/Cs 3-4 1 (Deny) for Sp. A/Cs 1-2	7-19
FF7 6# (1-50)# (7-digitNo.)#	Special 7-Digit Table For TRS Types 2-6	No assignment	7-20
FF7 7# (1-144)# (1-33/65)# (0-7)#	Day TRS Types 0-7 for Trunks	7 (TRS type 7-- all calls allowed)	7-21
FF7 8# (1-144)# (1-33/65)# (0-7)#	Night TRS Types 0-7 for Trunks	7 (TRS type 7-- all calls allowed)	7-22
FF7 9# (1-4)# (0 or 1)#	Area Code Table For TRS Types 3-6 (Global Copy)	0 (Allow) for TRS types 5 and 6 1 (Deny) for TRS types 3 and 4	7-23
FF7 9# (5-8)# (0 or 1)#	Office Code Table For TRS Types 3-6 (Global Copy)	0 (Allow) for TRS types 4, 5 & 6 1 (Deny) for TRS type 3	7-24
FF7 9# (9-12)# (0 or 1)#	Area & Office Code Table for TRS Types 3-6 (Global Copy)	0 (Allow) for TRS types 4, 5 & 6 1 (Deny) for TRS type 3	7-25
FF7 9# (13-16)# (0 or 1)#	Special Office Code Table For TRS Types 3-6 (Global Copy)	0 (Allow) for Sp. A/Cs 3 and 4 1 (Deny) for Sp. A/Cs 1 and 2	7-26

Program Address	Topic	Default	Page
FF8: Least Cost Routing			**8-1**
FF8 1# (1-15)# (000-999)# (0 or 1)#	LCR Area Codes	No assignment	8-6
FF8 2# (1-15)# (000-999)# (0 or 1)#	LCR Office Codes	No assignment	8-7
FF8 3# (1-4)# (000-999)#	Special LCR Area Codes	No assignment	8-8
FF8 4# (1-4)# (1-15)# (000-999)# (0 or 1)#	Special LCR Off ice Code Tables	No assignment	8-9
FF8 5# (1-15)# (1-48)# (1-8)#	Time Priority Route Tables	No assignment	8-10
FF8 6# (1-8)# (1-8)# (1-64)#	LCR Trunk Groups	No assignment	8-12
FF8 7# (1-8)# (up to 16 digits)#	LCR Delete Tables	No assignment	8-13
FF8 8# (1-8)# (up to 16 digits)#	LCR Add Tables	No assignment	8-14

1. System Programming (FF1)

This chapter describes DBS system settings using programming key FF1.

This chapter covers the following FF1 addresses:

Date and Time Settings

Day/Date Setting

Software Version: All Versions
Address: FF1 1# 1# (MMDDYY)#

Description

This program sets the date in the DBS 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 010193.

Time Setting

Software Version: All Versions
Address: FF1 1# 2# (HHMM)#

Description

This program sets the time in the DBS system clock. The time appears on key phones that have LCDs. The time is also recorded 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: All Versions
Address: FF1 2# 1# 1# (0 or 1)#

Description

This program determines whether call duration will be displayed on telephones with LCDs. By default, call duration will display.

Programming

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

0=Call duration is not displayed.
1=Call duration is displayed.

Related Programming

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

LCD Timer for Caller ID: FF1 2# 1# 38# (0, 1 or 2)#

Notes

No Interaction With SMDR Records. This setting does not affect SMDR record generation.

Timing of Call Duration Display. In CPC-AII/B Version 6.1 or higher using Caller **ID,** the **LCD Timer for Caller** ID address (FF1 2# 1# 38#) determines the delay before call duration is displayed, so that Caller ID information can appear first. In versions prior to 6.1, the **SMDR Display Start Timer for** CO **Calls** (see next address) controls the delay.

SMDR Display Start Timer for CO Calls

Software Version: All Versions
Address: FF1 2# 1# 2# (0, 1, or 2)#

Description

This address determines the delay between the start of a call and the beginning of the SMDR record (5 seconds by default). In CPC-AII/B versions prior to 6.1, it also controls the delay before call duration is displayed on LCD phones.

- **For Incoming Calls:** An incoming call starts when the extension user answers an incoming trunk call. If the user hangs up before the Timer ends, the system will not generate an SMDR record for the call.
- **For Outgoing Calls:** An outgoing call starts after the extension user dials the outgoing phone number. This allows time for the CO to connect the call, or the called party to answer, before beginning the SMDR record.

Programming

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

0= SMDR record begins after 5 seconds.
1= SMDR record begins after 16 seconds.
2= SMDR record begins after 30 seconds.

Related Programming

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

SMDR Communications Parameters: FF1 2# 2# (1# thru 9#)

SMDR Report (including the extension in): FF3 (ExtPort)# 14# (0 or 1)#

Notes

Caller ID Interaction. In CPC-AII/B Version 6.1 or higher using Caller ID, the SMDR Display Start Timer does not control when call duration starts displaying on LCD phones. Instead, the **LCD Timer for Caller ID** address controls when the display begins.

Settings In Older DBS Versions. In CPC-A and CPC-B versions prior to 3.1, the SMDR Display Start Timer has only two settings -- "0" (16 seconds) or "1" (30 seconds).

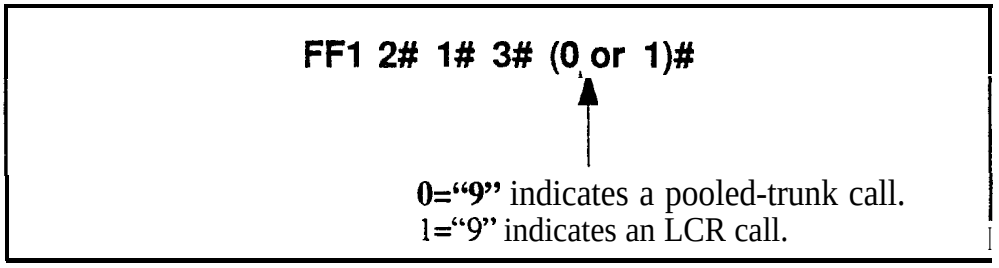
Least Cost Routing (LCR) Access

Software Version: All Versions
Address: FF1 2# 1# 3# (0 or 1)#

Description

This program specifies whether Least Cost Routing (LCR) is used when "9" is dialed to make an outside call.

Prdgramming



Related Programming

Forced Least Cost Routing: FF3 (ExtPort)# 4# (0 or 1)#

LCR Settings: all FF8 programs

Notes

Restriction With Call Forward-Outside Feature (in CPC-AII and CPC-B Version 7.0 ***and above).*** LCR will not work with the Call Forward-Outside feature. If LCR is activated (the above address is set to "l"), extensions set to Call Forward-Outside must use trunk groups l-6 (trunk group "9" cannot be used). See ***Section 700-Feature Operation*** for more information.

Required Hardware Setting. Cut strap S 1 on the CPC card to enable LCR. ***See Section 300-Installation*** for instructions.

FCC Registration. If strap S 1 is cut, a different FCC registration number should be used to identify the DBS system. Both registration numbers -- one for the DBS as a PBX system (Sl is cut), and one for the DBS as a KSU (S1 is not cut) -- are printed on a label in the main cabinet. See ***Section 300-Installation*** for more information.

Override Toll Restriction With SSD Numbers

Software Version: All Versions
Address: FF1 2# 1# 4# (SSD)#

Description

This address allows you to set a range of System Speed Dial (SSD) codes that will override Toll Restriction Service (TRS) types 2-6.

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

Programming

To set a range of SSD numbers to override TRS settings (enter the lowest SSD code in the range) . . .

FF1 2# 1# 4# (00-89 or 000-199)#

Lowest SSD Code that will override TRS
(all SSDs above this number will also override TRS)

00-89=SSD code range for CPC-A (all versions), CPC-AII and CPC-B versions prior to 7.0

000-199=SSD code range for CPC-AII and CPC-B Version 7.0 or higher

To reset to the default value . . .

By default, SSD numbers do not override TRS types 2-6. To reset to default:

FF1 2# 1# 4# CONF ON/OFF

Related Programming

TRS Settings: all FF7 programs

SSD Numbers: FF10 1# (SSD)# (PhoneNo.)#

Notes

SLT Audio Delay. If "Override Toll Restriction With SSD Numbers" is executed on an SLT phone, there is a 15-second delay before audio is passed to the receiver.

SSD Display Restriction

Software Version: All Versions
Address: FF1 2# 1# 5# (0 or 1)#

Description

This address determines whether the telephone's LCD will display the phone number actually sent by the DBS when an SSD code is dialed (or redialed with the REDIAL key). By default, the phone number will display.

This address affects SSD codes 80-89 (or 160-199, in CPC-AII/B Version 7.0 or higher). The phone numbers associated with SSD codes 00-79 (or 000-159) will always display during dialing, regardless of the setting here.

If SSD Display Restriction is enabled (set to "1" in this address), the text assigned to the SSD code will display, but the dialed digits will not.

Programming

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

0=DBS-dialed digits of SSD are displayed.
1 =DBS-dialed digits are not displayed (only the SSD name is displayed).

SSD Codes Affected By This Address --
80-89 (all CPC versions prior to 7.0)
or 160-199 (CPC-AII/B Version 7.0 or higher)

Related Programming

Override TRS With SSD Numbers: FFI 2# 1# 4# (SSD)#

SSD Name Display: FF1 2# 1# 19# (0 or 1)#

SSD Names: FF6 2# (SSD)# CONF (Name)#

SSD Numbers: FF10 1# (SSD)# (PhoneNo.)#

Auto Flash Redial

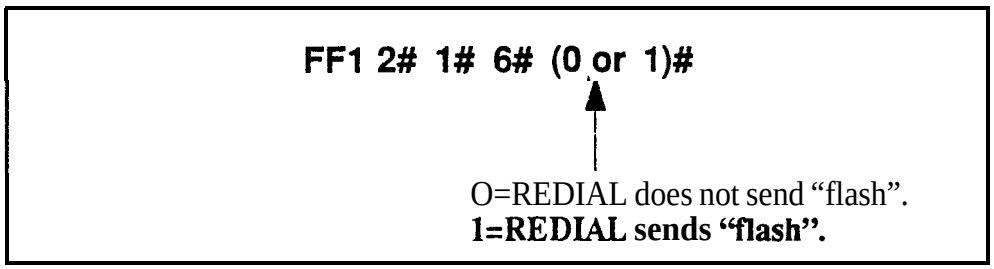
Software Version: All Versions
Address: FF1 2# 1# 6# (0 or 1)#

Description

This address determines whether the DBS will send a "flash" signal to the CO on loop-start trunks when the REDIAL key is pressed. By default, the REDIAL key sends a flash before redialing a number.

If your DBS system is connected to a PBX, set this address to "0" (sending a flash may place the line to the PBX on hold).

Programming



Related Programming

CO Flash Timer: FF1 3# 13# (0-15)#

PBX Flash Timer: FF1 3# 18# (0-10)#

Trunk Port Type: FF2 (Trunk)# 10# (1 or 2)#

Notes

Flash Timing. The CO Flash Timer (FF1 3# 1 1#) determines the duration of a flash when REDIAL is pressed.

Ground-Start Trunk Restriction. The Flash and Redial features are not functional for ground-start trunks. See *Technote 13* (March 1992) for more information.

One Touch Dial

Software Version: All Versions
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

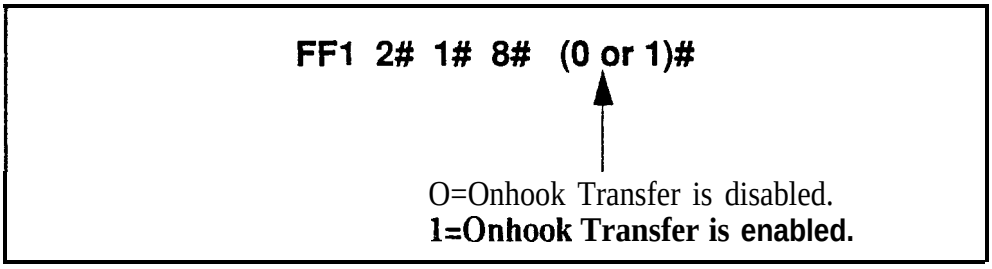
Software Version: All Versions
Address: FF1 2# 1# 8# (0 or 1)#

Description

This address determines whether a call can be transferred without pressing the PROG key.

- If Onhook Transfer is enabled (default setting), the user can transfer a call by placing the call on hold, dialing the extension number, and then hanging UP-
- If Onhook Transfer is disabled, the user places the call on hold, dials the extension number, then presses PROG (or "8" if using an SLT or DSLT phone) and hangs up to transfer the call.

Programming



Related Programming

Attendant Transfer Recall Timer for CO Calls: FF1 3# 4# (0-12)#

Extension Transfer Recall Timer for CO Calls: FF1 3# 5# (0-12)#

Attendant Transfer Recall Timer for Intercom Calls: FF1 3# 24# (0-12)#

Extension Transfer Recall Timer for Intercom Calls: FF1 3# 25# (0-12)#

Notes

Call Transfer Limitation With CPC-A. In CPC-A versions, only trunk calls can be onhook-transferred to other extensions. In CPC-AII and CPC-B, both trunk and intercom 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. Timing for the attendant transfer is controlled by the Attendant Call Reversion Timer (FF1 3# 10# 0-12#).

VAU Interaction. If a VAU (Voice Announce Unit) is used, enable Onhook Transfer to allow the VAU to transfer calls.

Key Bank Hold

Software Version: All Versions
Address: FF1 2# 1# 9# (0 or 1)#

Description

Use this address to enable or disable the Key Bank Hold feature in the DBS 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.
  - an Attendant phone can press a DSS/BLF key to automatically transfer a trunk call to an extension without pressing HOLD first.

  In both cases, the DBS will automatically place the current trunk call on System Hold (anyone can pick up the call) 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: All Versions
Address: FF1 2# 1# 10# (0 or 1)#

Description

This address determines who can pick up trunk calls that are on hold. It applies to DBS phones 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).

Choose one of the following:

- **Exclusive Hold:** The call can be retrieved only on the extension where it was placed on hold.
- **System Hold (default setting):** Any extension can pick up the call.

Programming

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

O=Exclusive Hold is used for non-appearing trunk calls.
l=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.

VAU Interaction. If a VAU (Voice Announce Unit) is used, set Non-Appearing Trunk Hold to "Exclusive Hold" to prevent other extensions from picking up calls being handled by the VAU.

SLT Flash Control

Software Version: All Versions
Address: FF1 2# 1# 11# (0 or 1)#

Description

This address determines how the DBS will respond to a second hookflash during a call transfer on an SLT (Single-Line Telephone). By default, the second hookflash will retrieve the held call.

To transfer a call on an SLT, the user hookflashes to place the call on hold, then dials the extension number to transfer the call to. If the extension is busy or not answered, the SLT user can hookflash again to either return to dial tone or retrieve the held call. depending on the setting ("0" or "1", respectively) in this address.

The following table further explains the SLT call transfer process for both settings:

Table l-l. SLT Hookflash Control Settings

If SLT Flash Control is Set to "0" . . .	If SLT Flash Control Is Set to "1" . . .
-- The user hookflashes to place a call on hold.	-- The user hookflashes to place a call on hold.
-- The.user dials an extension number to transfer the call. The extension is busy or does not answer.	-- The user dials an extension number to transfer the call. The extension is busy.
-- The user hookflashes a second time to receive dial tone.	**-- The user hookflashes a second time to retrieve the held call.**
-- The user dials another extension*.	-- The user can then hookflash a third time to place the call on hold and receive dial tone.
-- When the extension rings, the user hangs up to transfer the held call.	-- The user dials another extension.
* Or, the user can hookflash a third time to retrieve the held call.	-- When the extension rings, the user hangs up to transfer the held call.

NOTE: This 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)#

O=A second SLT hookflash results in dial tone.
1=A second SLT hookflash retrieves a held call.

Extension Number Digits

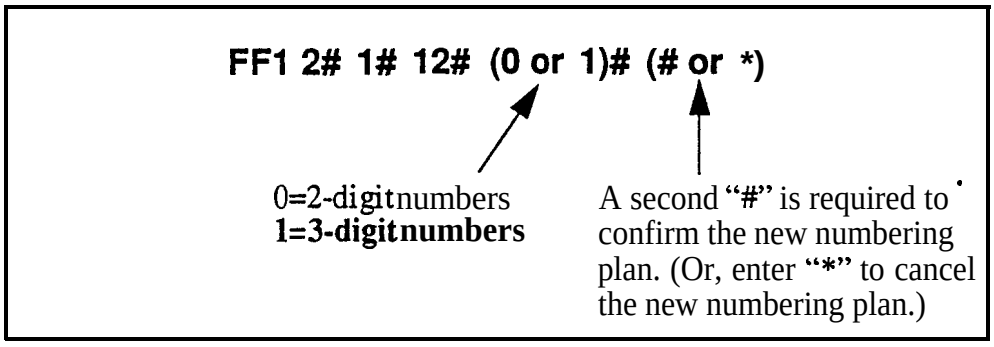
Software Version: All Versions
Address: FF1 2# 1# 12# (0 or 1)##

Description

This address determines whether the DBS 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 (default setting), a maximum of 600 extension numbers are available. Number Range: 100 thru 699.

Programming



Related Programming

Extension Numbers: FF 3 (ExtPort)# 1# (10-69 or 100-699)#

Notes

Interaction With Larger Systems. If more than 60 phones are installed in your system, use 3-digit extension numbers. Sites with fewer than 60 phones can use either 2-digit or 3-digit extension numbers.

Interaction With Voice Mail. If your system uses Voice Mail, use 3-digit numbers in order to match extensions with Voice Mail boxes.

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

Alternate' Attendant

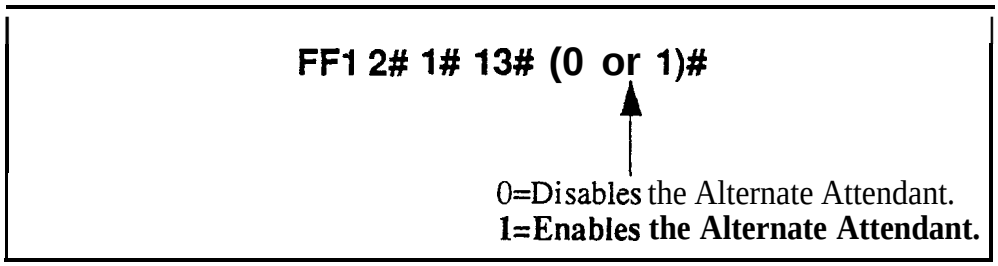
Software Version: CPC-A and CPC-B Versions Prior to 2.0
Address: FF1 2# 1# 13# (0 or 1)#

Description

Use this address to enable or disable the use of an Alternate Attendant phone. By default, the Alternate Attendant is enabled.

When enabled, the Alternate Attendant phone receives overflow intercom calls from the Primary Attendant. The Alternate Attendant also has full access to Attendant features.

Programming



Related Programming

Attendant Overflow for Primary Attendant (CPC-B Version 1.0 only):
FF1 2# 1# 22# (1-15)#

Extension Numbers (assigning to ports): FF3 (ExtPort)# 1# (ExtNo.)#

Terminal Type: FF3 (ExtPort)# 2# (Type)#

Notes

Alternate Attendant Phone Settings In Later DBS Versions. In CPC-B Version 2.0 and above, and in all CPC-AII versions, you can program Second, Third, and Fourth Attendant phones instead of just one Alternate Attendant. See FF1 2# 1# 24# thru 26# for more information.

Limitations on Assigning Attendant Phones. The DBS system always recognizes the Primary Attendant location at extension port 1, with extension number 10 or 100; this cannot be changed. However, you can change the assignment of the Alternate Attendant -- but it is recommended that you leave its default extension number at 11 or 101, so that a DSS/BLF console can be used with it. (The Alternate Attendant is assigned by default to port 2, but it can be reassigned to another port -- as long as extension 11 or 101 is assigned to the new port.)

Attendant Intercom Calling

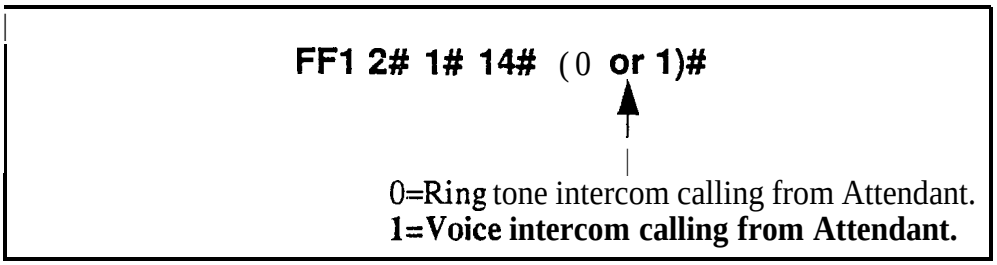
Software Version: All Versions
Address: FF1 2# 1# 14# (0 or 1)#

Description

Use this address to determine how intercom calls from an Attendant phone are announced at extension phones -- by ringing the extension, or by immediately establishing a voice path over the extension loudspeaker. By default, a voice path is established when an Attendant dials an extension.

After the connection is established, the Attendant can change from voice to ring (or vice versa) by dialing "1".

Programming



Related Programming

Alert Tone for Voice Calls: FF1 2# 1# 16# (0 or 1)#

Notes

Interaction With VAU. If this address is set to "Voice intercom 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: All Versions
Address: FF1 2# 1# 15# (0 or 1)#

Description

Use this address to determine how intercom calls from another extension will be announced at extension phones -- by ringing the extension, or by imrnediately establishing a voice path over the extension loudspeaker. By default, a voice path is established when an extension dials another extension -- the called party can hear and talk to the caller without lifting the handset.

After the connection is established, the caller can switch from voice to ring (or vice versa) by dialing "1".

Programming

FF1 2# 1# 15# (0 or 1)#

O=Tone intercom calling from extension.
l=Voice intercom calling from extension.

Related Programming

Alert Tone for Voice Calls: FF1 2# 1# 16# (0 or 1)#

Notes

Interaction With VAU. If this address is set to "Voice intercom 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

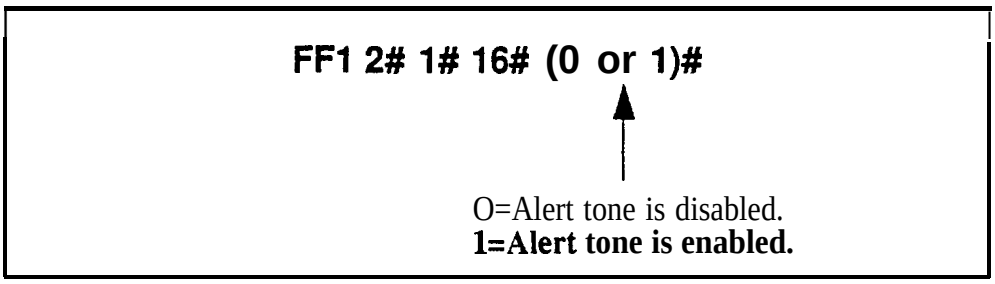
Software Version: All Versions
Address: FF1 2# 1# 16# (0 or 1)#

Description

Use this address to determine whether voice intercom calls are preceded by an initial alert ("splash") tone. By default, the alert tone is enabled.

The alert tone (if enabled) will be sounded for 0.5 seconds before the caller's voice path is established.

Programming



Related Programming

Attendant Intercom Calling: FF1 2# 1# 14# (0 or 1)#

Extension Intercom Calling: FF1 2# 1# 15# (0 or 1)#

Alert Tone for Busy Override & OHVA

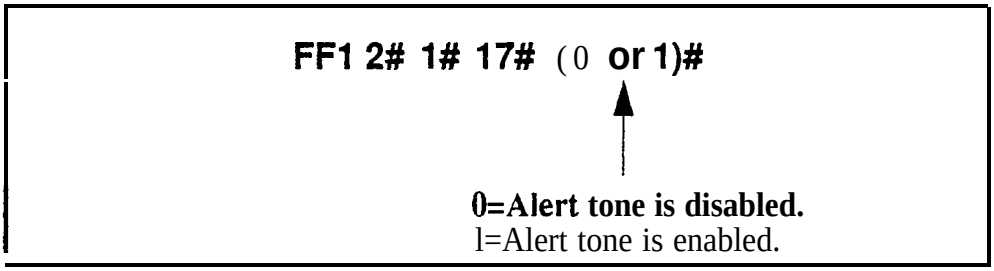
Software Version: All Versions
Address: FF1 2# 1# 17# (0 or 1)#

Description

This address determines if Attendant Override, Busy Override, and Offhook Voice Announce (OHVA) calls are preceded by an alert tone. By default, the alert tone is disabled.

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

Programming



Related Programming

Busy Override Send: FF3 (ExtPort)# 9# (0 or 1)#

Busy Override Receive: FF3 (ExtPort)# 10# (0 or 1)#

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

System Installation Area Code

Software Version: All Versions
Address: FF1 2# 1# 18# (0 or 1)#

Description

This address determines if the DBS site requires a "1" to be dialed before the area code to make long-distance calls. This setting will affect the way the DBS 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# 18# (0 or 1)#

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

Related Programming

Toll Restrictions: FF7

Least Cost Routing: FF8

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.

SSD Name Display

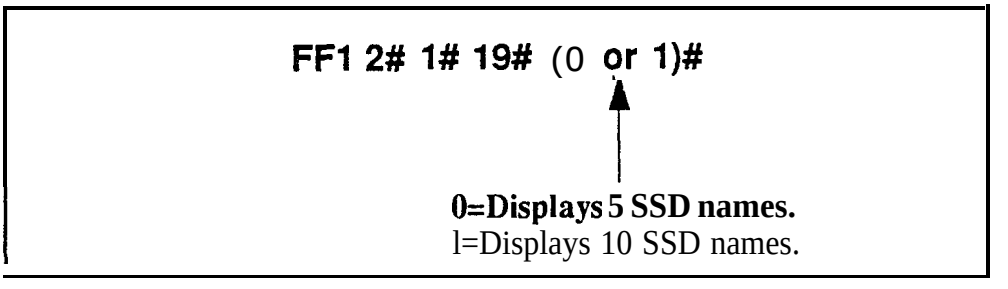
Software Version: All Versions
Address: FF1 2# 1# 19# (0 or 1)#

Description

Use this address to determine how many SSD (System Speed Dial) names can be displayed at a time on large-display phones, whenever an SSD menu is displayed.

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 5 characters.

Programming



Related Programming

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

SSD Display Restriction: FF1 2# 1# 5# (0 or 1)#

SSD Menu display during call states: FF3 (ExtPort)# 26# thru 33# 3#

System Speed Dial Names: FF6 2# (SSD)# CONF (Name)#

System Speed Dial Numbers: FF10 1# (SSD)# (DialedNo.)#

API/AEC Slot Assignment

Software Version: CPC-A Version 3.3 or higher; CPC-AII; and CPC-B Version 5.0 or higher
Address: FF1 2# 1# 20# (2-9 or 2-18)#

Description

This program is only used with third-party API applications. Its purpose is to designate which Analog Extension Card (AEC) is used for voice channel connections to the API product.

Programming

FF1 2# 1# 20# (2-9 or 2-18)#

Analog Extension Slot used for voice paths to a third-party API product.

NOTE: Do not set this to "1" (slot 1 must be a digital port).

Valid Ranges --
CPC-A and CPC-AII: 2-9
CPC-B: 2-18

Default: ** (no assignment)

Related Programming

Voice Mail Busy Tone: FF1 2# 1# 21# (0 or 1)#

Terminal Type: FF3 (ExtPort)# 2# (21-28, 31-38 or 41-48)#

Notes

Third-Party Voice Mail Systems Not Integrated With the DBS. In these systems, the API card is not required. Set up Call Forward ID codes so that the DTMF codes will be sent to the appropriate Voice Mail box (ON/OFF - PROG - AUTO - * - [Ext] - [up to 16 char.] - HOLD). See ***Section 700-Feature Operation*** for more information.

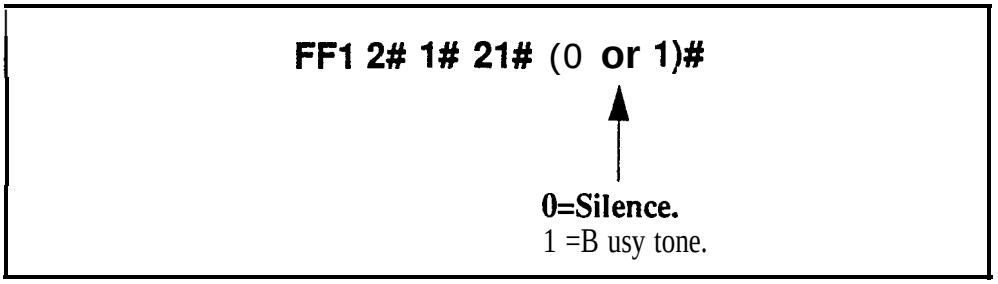
Voice Mail Busy Tone

Software Version: All-Versions
Address: FF1 2# 1# 21# (0 or 1)#

Description

This address determines what is sent to a voice-mail port at the conclusion of a call -- either silence or a busy tone. By default, the DBS sends silence.

Programming



Related Programming

API/AEC Slot Assignment: FF1 2# 1# 20# (2-18)#

Analog Transfer Ring Pattern

Software Version: CPC-A Only (Version 3.21 or higher)
Address: FF1 2# 1# 22# (0-6)#

Description

This address determines which ringing pattern is used for transferred calls to devices connected to analog extension ports. By default, the ringing pattern is .4 seconds on / 3.6 seconds off.

This setting is typically used to assign specific ringing patterns for calls transferred to a modem, or for SLTs that require distinctive ringing for transferred calls.

Programming

FF1 2# 1# 22# (0-6)#

Setting (in seconds):
0= .4 on / 3.6 off
1= .8 on / .2 off / .8 on / .2 off / .8 on / .2 off / 1 off
2= .8 on / .2 off / .8 on / 2.2 off
3= .8 on / 2.2 off
4= .8 on / 3.2 off
5= .8 on / 5.2 off
6= .8 on / 3.2 off / .8 on / 7.2 off

Notes

Analog Transfer Ring Pattern Setting for CPC-AN and CPC-B. The Analog Transfer Ping Pattern for CPC-AI1 (all versions) and CPC-B (Version 2.11 or higher) is set in FF1 2# 1# 31#.

Attendant Overflow for Primary Attendant

Software Version: CPC-B Version 1 .O only
Address: FF1 2# 1# 22# (1-15)#

Description

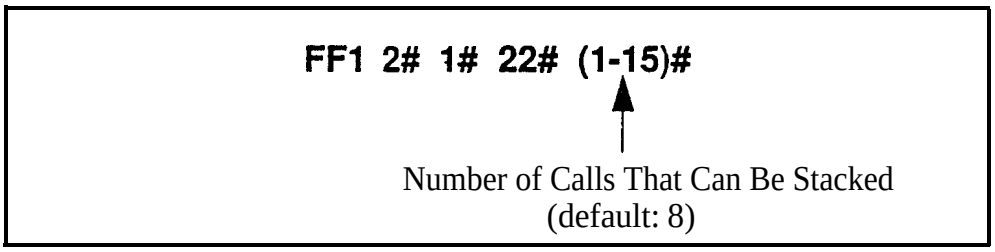
This address determines the maximum number of trunk calls that can be stacked at the Primary Attendant phone. By default, up to 8 calls can be stacked at a time.

Calls exceeding the set limit are automatically transferred to other extensions. To determine which extensions receive ovefflow trunk calls, use the Day and Night Delayed Ring tables (FF4 5#, FF4 6#, and FF4 9# 2#).

The following types of calls can be stacked at the Primary Attendant:

- Incoming trunk calls.
- Hold recalls.
- Transferred recalls.
- Hunt group recalls.
- Call reversions.

Programming



Related Programming

Attendant Hold Recall Timer: FF1 3# 2# (0-12)#

Extension Hold Recall Timer: FF1 3# 3# (0-12)#

Attendant Transfer Recall Timer: FF1 3# 4# (0-12)#

Extension Transfer Recall Timer: FF1 3# 5# (0-12)#

Attendant Hunt Group Recall Timer: FF1 3# 6# (0- 12)#

Extension Hunt Group Recall Timer: FF1 3# 7# (0-12)#

Attendant Call Reversion Timer: FF1 3# 10# (0-12)#

Notes

Overflow Intercom ***Calls.*** Intercom calls will automatically ovefflow to the Alternate Attendant, if enabled in FF1 2# 1# 13#.

Delayed Ring

Software Version: CPC-All (all versions) and CPC-B Version 2.0 or higher
Address: FF1 2# 1# 23# (0 or 1)#

Description

This address determines if delayed ringing is allowed for CO trunks. By default, delayed ringing is disabled.

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

FF1 2# 1# 23# (0 or 1)#

0=Delayed ringing is disabled.
1=Delayed ringing is enabled.

Related Programming

CO Delayed Ring Timer (CPC-AII and CPC-B Ver 3.1 or higher): FF1 3# 26# (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)#

AEC Disconnect Signal Duration

Software Version: CPC-A Version 3.3 or higher
Address: FF1 2# 1# 23# (0-15)#

Description

Use this address to set the AEC card (VB-43621A) to provide a positive disconnect signal, and determine the duration of the signal. By default, the disconnect signal is not sent.

If set, analog extension ports will provide a disconnect signal (open loop) upon hangup. Sending this signal allows quick disconnect from third-party voice mail systems.

Programming

FF1 2# 1# 23# (0-15)#

0=No disconnect signal.
1=100 ms signal will be sent.
2=200 ms signal will be sent.
3=300 ms signal will be sent.
4=400 ms signal will be sent.
5=500 ms signal will be sent.
6=600 ms signal will be sent.
7=700 ms signal will be sent.
8=800 ms signal will be sent.
9=900 ms signal will be sent.
lO=l-second signal will be sent.
11=1.5-second signal will be sent.
12=2-second signal will be sent.
13=2.5-second signal will be sent.
14=3-second signal will be sent.
15=3.5-second signal will be sent.

Related Programming

AEC Disconnect (CPC-A 3.3 or higher): FF3 (ExtPort)# 35# (0 or 1)#

AEC Disconnect (CPC-AII/B 5.0 or higher): FF3 (ExtPort)# 46# (0 or 1)#

Notes

AEC Disconnect Signal Duration for CPC-B Versions. For CPC-B Version 5.0 and higher, the AEC Disconnect Signal Duration is set in **FF1 2# 1# 35#.**

Second Attendant Position

Software Version: CPC-All (all versions) and CPC-B Version 2.0 or higher
Address: FF1 2# 1# 24# (11-69 or 101-699)#

Description

This address assigns an extension number as the Second Attendant position. By default, the Second Attendant position is extension 101.

When all line appearances at the Primary 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 position . . .

FF1 2# 1# 24# (11-69 or 101 **to 699)#**

Extension Number
(default: **11** or 101)

To clear the Second Attendant position . . .

FF12# 1# **24#** CONF ON/OFF

Related Programming

Extension Number Digits: FF1 2# 1# 12# (0 or 1)##

Third Attendant Position: FF1 2# 1# 2% (11-69 or 101-699)#

Fourth Attendant Position: FF12# 1# 26# (1 l-69 or 101-699)#

Attendant Transfer Extension: FF12# 1# 27# (1 l-69 or 101-699)#

Extension Numbers (assigning to ports): FF3 (ExtPort)# 1# (ExtNo.)#

Notes

Programming Restrictions. A telephone must be plugged into the Second Attendant port before its extension number can be programmed or cleared. Also, use another phone to program or clear its extension number (e.g., you can't use ext. 101's phone to program ext. 101 as the Second Attendant position).

Limitations on Assigning Attendant Phones. It is recommended that you leave the Second Attendant at the default assignment (extension 11 or 101), so that a DSS/BLF console can be used. System default for the Primary Attendant phone is extension 10 or 100, assigned to port 1 -- and Primary Attendant assignments cannot be changed.

Third Attendant Position

Software Version: CPC-Ail (all versions) and CPC-8 Version 2.0 or higher
Address: FF1 2# 1# 25# (11-69 or 101-699)#

Description

This address assigns an extension number as the Third Attendant position. By default, no extension is assigned as the Third Attendant.

When all line appearances at the Primary 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 position . . .

FF1 2# 1# 25# (11-69 or 101 to 699)#

Extension Number
(default: **no Third Attendant assigned)**

To clear the Third Attendant position . . .

FF1 2# 1# 25# CONF ON/OFF

Related Programming

Extension Number Digits: FF1 2# 1# 12# (0 or 1)##
Second Attendant Position: FF 1 2# 1# 24# (1 l-69 or 101-699)#
Fourth Attendant Position: FF1 2# 1# 26# (11-69 or 101-699)#
Attendant Transfer Extension: FFI 2# 1# 27# (11-69 or 101-699)#
Extension Numbers (assigning to ports): FF3 (ExtPort)# 1# (ExtNo.)#

Notes

Programming Restrictions. A telephone must be plugged into the Third Attendant port before its extension number can be programmed or cleared. Also, use another phone to program or clear its extension number (e.g., you can't use ext. 102's phone to program ext. 102 as the Third Attendant position).

Limitation on Assigning the Third Attendant. The DBS system will not allow you to assign extension 10 or 100 as the Third Attendant position. This is the system default for the Primary Attendant phone, which cannot be changed.

Fourth Attendant Position

Software Version: CPC-All (all versions) and CPC-B Version 2.0 or higher
Address: FF1 2# 1# 26# (11-69 or 101-699)#

Description

This address assigns an extension number as the Fourth Attendant position. By default, no extension is assigned as the Fourth Attendant.

When all line appearances at the Primary 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 position . . .

FF1 2# 1# 26# (11-69 or 101 to 699)#

Extension Number
(default: **no Fourth Attendant assigned)**

To clear the Fourth Attendant position . . .

FF1 2# 1# 26# CONF ON/OFF

Related Programming

Extension Number Digits: FF1 2# 1# 12# (0 or 1)##
Second Attendant Position: FF1 2# 1# 24# (1 l-69 or 101-699)#
Third Attendant Position: FF1 2# 1# 25# (11-69 or 101-699)#
Attendant Transfer Extension: FF1 2# 1# 27# (11-69 or 101-699)#
Extension Numbers (assigning to ports): FF3 (ExtPort)# 1# (ExtNo.)#

Notes

Programming Restrictions. A telephone must be plugged into the Fourth Attendant port before its extension number can be programmed or cleared. Also, use another phone to program or clear its extension number (e.g., you can't use ext. 103's phone to program ext. 103 as the Fourth Attendant position).

Limitation on Assigning the Fourth Attendant. The DBS system will not allow you to assign extension 10 or 100 as the Fourth Attendant position. This is the system default for the Primary Attendant phone, which cannot be changed.

Attendant Transfer Extension

Software Version: CPC-All (all versions) and CPC-B Version 2.09 or higher
Address: FF1 2# 1# 27# (11-69 or 101-699)#

Description

If all line appearances are busy on all Attendants (Primary, Second, Third and Fourth), calls will transfer to the extension assigned in this address.

Programming

To assign an Attendant Transfer Extension . . .

FF1 2# 1# 27# (11-69 or 101-699)#

Extension Number
(default: **no Transfer Extension assigned)**

To clear the Attendant Transfer Extension . . .

FF1 2# 1# 27# CONF ON/OFF

Notes

Pilot Number Restriction. The overflow position must be an installed extension -- it cannot be a hunt group pilot number.

Attendant Override

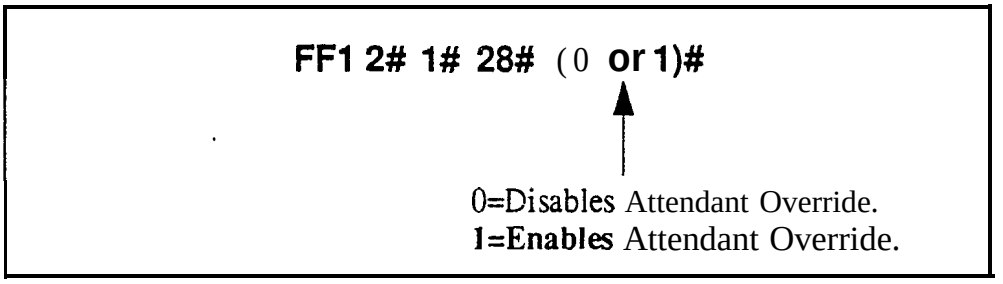
Software Version: CPC-All (all versions) and CPC-B Version 2.09 or higher
Address: FF1 2# 1# 28# (0 or 1)#

Description

Use this address to enable or disable the Attendant Override feature. which allows an Attendant phone to "barge into" a trunk or intercom call in progress on any extension -- even if the extension has been programmed to block barge-ins. By default, Attendant Override is enabled.

When a barge-in occurs, all three parties can hear and talk to each other.

Programming



Related Programming

klert Tone for Busy Override & OHVA: FF1 2# 1# 17# (0 or 1)#

Attendant LED Alarm Indication

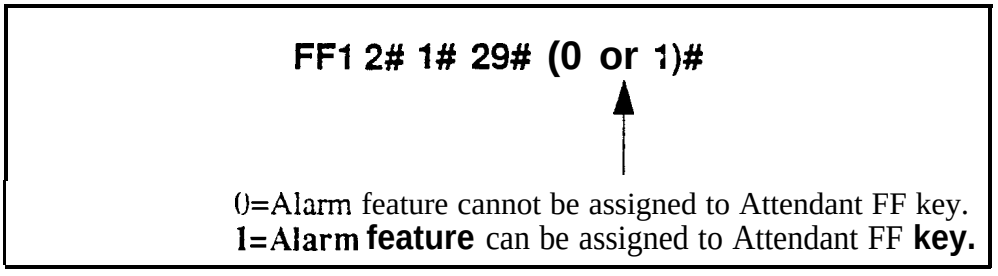
Software Version: CPC-B Versions 2.09 to 4.0 (requires Attendant Feature Package)
Address: FF1 2# 1# 29# (0 or 1)#

Description

Use this address to allow or disallow the Alarm feature (LED lights to indicate an alarm condition) to be assigned to an FF key on an Attendant phone. By default, the Alarm feature can be assigned.

NOTE: The Attendant Feature Package (AFP) was discontinued in CPC-B Version 5.0.

Programming



Related Programming

AFP Key Assignn tents: FF5 (1 49-152)# (1-72)# (FF 12 4)#

Notes

Installing AFP. Installation of the AFP software requires the replacement of EPROM Chip 1 on the CPC-B card with an AFP chip. Make sure the new chip is installed in the proper direction. See *Technote 4 (September 1991)* for complete information.

Extension (BLF) Delayed Ring

Software Version: CPC-All (all versions) and CPC-B Version 2.0 or higher
Address: FF1 2# 1# 30# (0 or 1)#

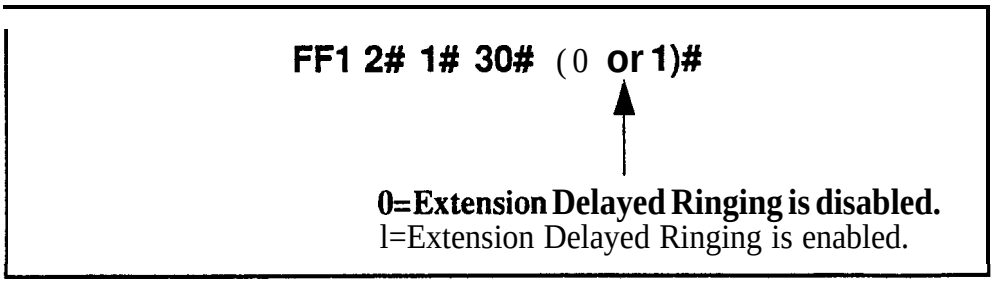
Description

Use this address to enable or disable Delayed Ringing for intercom calls. By default, Extension (BLF) Delayed Ringing is disabled.

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



Related Programming

Extension Delayed Ring Table: FF4 8# (ExtPort)# (ExtPort)# (0 or 1)#

Extension Delayed Ring Timer (CPC-B 2.0 or higher): FF1 3# 27# (0-15)#

Call Forward-No Answer Timer (CPC-B prior to 2.0): FF1 3# 19# (0-lS)#

Analog Transfer Ring Pattern

Software Version: CPC-All (all versions) and CPC-B Version 2.11 or higher
Address: FF1 2# 1# 31# (0-6)#

Description

Use this address to choose a distinctive ringing pattern for calls transferred to analog SLT phones. This setting is typically used for calls transferred to a modem, or for SLT phones requiring distinctive ringing for transferred calls,

There are 7 different patterns (numbered **O-6)** to choose from. The pattern for each setting depends on the analog connection --

* an SLT phone connected directly to an AEC card;
- an SLT phone connected to an OPX Adapter; or
- an SLT phone connected to an SLT-A (4-port Adapter).

Programming

FF1 2# 1# 31# (0-6)#

Transfer Ring Pattern setting
(see table below)

Table 1-2. Analog Transfer Ring Patterns (vary depending on analog connection)

Address Setting	Ring Pattern (no. of seconds on/off) for SLT phones connected to . . .		
	AEC Card	OPX Adapter	SLT Adapter (SLT-A)
0	.5 on / 4 off	.5 on / 3.5 off	.25 on / .25 off / .25 on / 3.5 off
1	1 on / .25 off / 1 on / .25 off / 1 on / 2 off	3 on / 1 off	.25 on / 3.5 off
2	1 on / .25 off / 1 on / 3 off	2 on / 2 off	1 on / 3.5 off
3	1 on / 2 off	1 on / 2 off	1 on / 3 off
4	1 on / 3 off	1 on / 3.5 off	1 on / 7 off
5	1 on / 6 off	1 on / 5 off	.5 on / 7 off
6	1 on / 4 off / 1 on / 7 off	1 on / 7 off	.25 on / .25 off / .25 on / 7 off

Related Programming

Analog Transfer Ring Pattern (CPC-A 3.21 or higher): FF1 2# 1# 22# (0-6)#
Terminal Type: FF3 (ExtPort)# 2# (Type)#
Extension Ring Pattern: FF3 (ExtPort)# 39# (0-9)#

Multiple DID/DNIS

Software Version: CPC-B Version 4.0 **or higher**
Address: FF1 2# 1# 32# (0 or 1)#

Description

Use this address to enable or disable Multiple DID for analog trunks, or Multiple DID and DNIS for T1 trunks. By default. Multiple DID/DNIS is disabled.

With Multiple DID/DNIS enabled, one DID or DNIS number can be assigned to multiple extensions, which will simultaneously ring when an outside caller dials the DID or DNIS number.

- DID stands for "Direct Inward Dialing." DID can be used only in systems using analog trunks exclusively (no other types of trunks are used in the system). Up to 500 DID numbers can be assigned to extension numbers in FF1 8# 3# (0000-9999)# (ExtNo.)#.
- DNIS stands for "Dialed Number Identification Service." DNIS is available only with the T1 Interface. You can use DID and DNIS simultaneously in a T1 system. Up to 500 DNIS numbers can be assigned to extension numbers in FF1 8# 4# 7# (0000-9999)# (10-69 or 100-699)#, in addition to the 500 DID numbers allowed.

Programming

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

0=Disables Multiple DID/DNIS ringing.
1=Enables Multiple DID/DNIS ringing.

Related Programming

Inbound DID Dial Numbers: FF1 8# 3# (0000-9999)# (100-699)#

DID/DNIS (enabling trunks for): FF1 8# 4# 6# (Trunk)# 2# (0-2)#

DNIS Number Setting: FF1 8# 4# 7# (0000-9999)# (10-69 or 100-699)#

DID Flexible Ringing Assignments: FF1 8# 5# (DIDNo.)# (ExtNo.)# (000000-111111)#

DNIS Flexible Ringing Assignments: FF1 8# 6# (DNISNo.)# (ExtNo.)# (000000-111111)#

Extension Numbers (assigning to ports): FF3 (ExtPort)# 1# (ExtNo.)#

Notes

Restriction Far ***CPC-B Version 3.1.*** This address is also present in CPC-B Version 3.1; however, it only controls Multiple DID (DMS cannot be used with this version).

DID Hardware and Power Requirements. The DID trunk card is required: each card provides 8 ports. The card requires dial-pulse dialing and an external, -48V power supply. See *Section 300-Installation* for cabling instructions.

DID/DNIS Digit Length Requirement. The DBS only supports 4-digit DID/DMS numbers.

Central Office Requirement. When the CO sends a DID/DNIS call to the DBS, it first receives a wink from the DBS before sending the digits. Once the wink is received, the CO should wait at least 200 ms before sending the digits.

Trunk Requirement. Individual trunks must be enabled for DID or DMS (see FF 1 8# 4# 6# Trunk# 2#).

Simultaneous Ringing. If Multiple DID/DNIS is enabled, all extensions assigned the same DID/DNIS number will ring for the incoming DID/DNIS call. If you later disable Multiple DID/DNIS, only the extension at the lowest-numbered'port will ring for the DID/DNIS call.

Call Forwarding Interaction.. If Multiple DID/DNIS is enabled, and the DID/DNIS extensions are programmed to call-forward to different extensions. the simultaneous ringing will also apply to the call-forward destination extensions. In other words, all call-forward paths will be followed simultaneously for the same DID/DNIS call, until someone picks it up. If you later disable Multiple DID/DNIS, only the call-forwarding path assigned to the extension at the lowest-numbered port will be followed.

Page Duration

Software Version: CPC-All (all versions) and CPC-B Version 3.1 or higher
Address: FF1 2# 1# 33# (0 or 1)#

Description

This address determines whether the DBS system will automatically close the paging circuit 60 seconds after a page is initiated. By default, the paging circuit is left open indefinitely, until the paging person closes the circuit by hanging up.

Programming

FF1 2# 1# 33# (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-All (all versions) and CPC-B Version 3.1 or higher
Address: FF1 2# 1# 34# (0 or 1)#

Description

Use this address to specify a distinctive ring pattern for DISA calls on SLT phones, or follow the Analog Transfer Ring Pattern setting. By default, the pattern is 1 second on / 3 seconds off.

Programming

FF1 2# 1# 34# (0 or 1)#

0=1 second on / 3 seconds off.
1=Same as the Analog Transfer Ring Pattern.

Related Programming

Analog Transfer Ring Pattern (CPC-AII and CPC-B): FF1 2# 1# 31# (0-6)#

AEC Disconnect Signal Duration

Software Version: CPC-All (all versions) and CPC-B Version 5.0 or higher
Address: FF1 2# 1# 35# (0-15)#

Description

Use this address to set the duration of a positive disconnect signal sent from analog extension ports (VB-43621A version of the AEC card). Sending this signal allows quick disconnect from third-party voice mail systems. By default, no disconnect signal is sent.

This address applies to CPC-AI1 and CPC-B. The AEC Disconnect Signal Duration address for CPC-A (Version 3.3 or higher) is FF1 2# 1# 23# (0-15)#.

The sending of the AEC disconnect signal can be enabled or disabled on individual extensions using FF3 (ExtPort)# 46#.

Programming

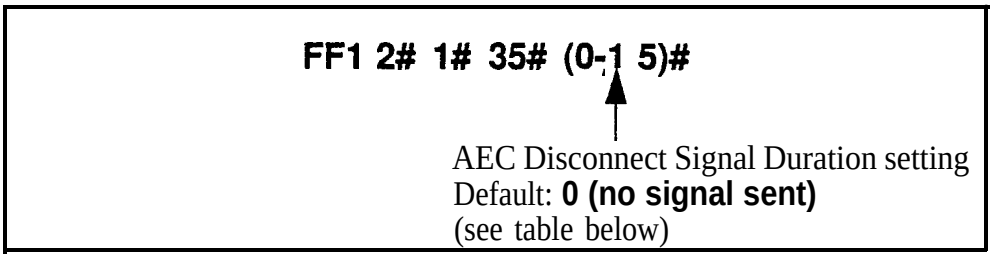


Table 1-3. AEC Disconnect Signal Duration values

Setting	Value
0	**No disconnect signal sent**
1	100 ms
2	200 ms
3	300 ms
4	400 ms
5	500 ms
6	600 ms
7	700 ms
8	800 ms
9	900 ms
10	1 second
11	1.5 seconds
12	2 seconds
13	2.5 seconds
14	3 seconds
15	3.5 seconds

DID/DNIS to a Voice Mailbox

Software Version: CPC-B Version 6.0 or higher
Address: FF1 2# 1# 36# (0, 1 or 2)#

Description

This address determines whether (and how many) final digits of a DID/DNIS phone number are transmitted to Voice Mail, in cases where the DID/DNIS trunk is assigned to ring directly to Voice Mail (not to a DBS extension phone). This address allows DID/DNIS calls to be routed to a Voice Mailbox system that is not connected to a physical extension.

To implement this feature, assign the DID/DNIS trunks to ring at the Voice Mail system (using FF4 ring assignment addresses). Once Voice Mail answers, the DBS sends a DID/DNIS Answer Code that signals the Voice Mail system to open the appropriate mailbox, plus the final DID/DNIS digits (if any) specified in this address.

Programming

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

0=No DID/DNIS digits are transmitted (only the Answer Code).
1=Answer Code, then final 4 DID/DNIS digits are transmitted.
2=Answer Code, then final 3 DID/DNIS digits are transmitted.

Related Programming

DID/DNIS Answer Code: FF1 2# 1# 37# (NNNNNN)#
DID/DNIS (enabling trunks for): FF1 8# 4# 6# (Trunk)# 2# (0-2)#
Inbound DID Dial Numbers: FF1 8# 3# (0000-9999)# (100-699)#
DMS Number Setting: FF1 8# 4# 7# (0000-9999)# (10-69 or 100-699)#
Terminal Type: FF3 (ExtPort)# 2# (Type)#
Ringing Assignments (trunks to extensions): FF4 addresses

Notes

DID/DNIS Digit Transmission. The DID/DNIS digits are sent only to ports that are assigned as Voice Mail.

Voice Mail Ports and Hunt Groups. The DID/DNIS digits can be sent to a specific Voice Mail port or a Voice Mail hunt group.

Second Hunt Group. If the DID/DNIS call rings into a hunt group that is programmed to transfer calls to a second hunt group, the DID/DNIS call will not be transferred to the second hunt group.

Third-Party Voice Mail. This feature can be used with Panasonic's Voice Mail system or with third-party Voice Mail systems. If the feature is used with third-party Voice Mail systems, the Voice Mail can be connected through analog extension ports or OPX ports.

Call Forward ID Code for DID/DNIS Calls To An Extension. If a DID/DNIS call is assigned to ring an extension, and the extension is programmed to forward to Voice Mail, only the Call Forward ID Code will be transmitted to Voice Mail (the DID/DNIS digits will not).

DID/DNIS Data Transmission. The DID/DNIS digits are transmitted over the API link using the existing API key code packet.

DID/DNIS Answer Code

Software Version: CPC-B Version 6.0 or higher
Address: FF1 2# 1# 37# (Code)#

Description

Use this address to specify a DID/DNIS Answer Code. The Answer Code is used for routing DID/DNIS calls to a Voice Mailbox system that is not connected to a physical extension.

To implement this feature, assign DID/DNIS trunks to ring directly to the Voice Mail system using FF4 ring assignment addresses. Once Voice Mail answers, the DBS sends the DID/DNIS Answer Code, which signals the Voice Mail system to open the appropriate mailbox.

Programming

FF1 2# 1# 37# (NNNNNN)#

DID/DNIS Answer Code
(up to 6 characters)

Valid Entries: O-9, *, #, or REDIAL (pause)

Related Programming

DID/DNIS to a Voice Mailbox: FF1 2# 1# 36# (0, 1 or 2)#

DID/DNIS (enabling trunks for): FF1 8# 4# 6# (Trunk)# 2# (0-2)#

Inbound DID Dial Numbers: FF1 8# 3# (0000-9999)# (100-699)#

DNIS Number Setting: FF1 8# 4# 7# (0000-9999)# (10-69 or 100-699)#

Terminal Type: FF3 (ExtPort)# 2# (Type)#

Ringing Assignments (trunks to extensions): FF4 addresses

Notes

Assigning the DID/DNIS Answer Code When Not In Programming Mode. The DID/DNIS Answer Code may be entered from an Attendant phone, or from a key phone where the programming access code has been entered. Press PROG **#95** NNNNNN HOLD -- where **"NNNNNN"** is the Answer Code of up to 6 characters, including O-9, *, #, or REDLAL (for "pause").

DIDIDNIS Digit Transmission. The DID/DNIS digits are sent only to ports that are assigned as Voice Mail.

Voice Mail Ports and Hunt Groups. The DID/DNIS digits can be sent to a specific Voice Mail porr or a Voice Mail hunt group.

Second Hunt Group. If the DID/DNIS call rings into a hum group that is programmed to transfer calls to a second hunt group, the DID/DNIS call will not be transferred to the second hunt group.

Third-Party Voice Mail. This feature can be used with Panasonic's Voice Mail system or with third-party Voice Mail systems. If the feature is used with third-party Voice Mail systems, the Voice Mail can be connected through analog extension ports or OPX ports.

Call Forward ID Code for DZDIDNZS Calls To An Extension. If a DID/DNIS call is assigned to ring an extension, and the extension is programmed to forward to Voice Mail, only the Call Forward ID Code will be transmitted to Voice Mail (the DID/DNIS digits will not).

DID/DNIS Data Transmission. The DID/DNIS digits are transmitted over the API link using the existing API key code packet.

LCD Timer for Caller ID

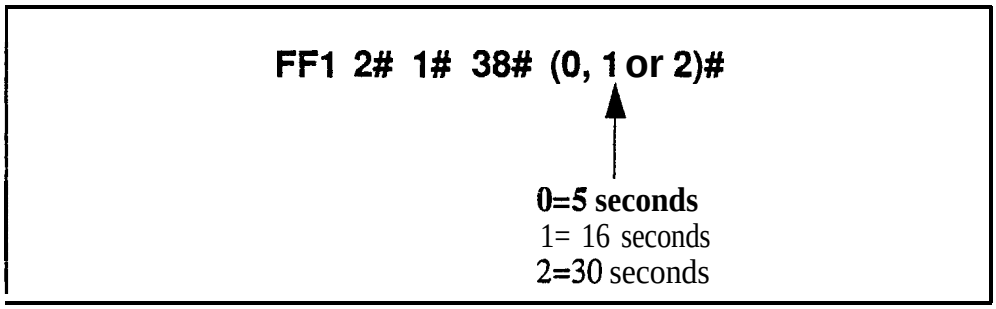
Software Version: CPC-All and CPC-B, Version 6.1 or higher
Address: **FF1 2# 1# 38# (0, 1 or 2)#**

Description

The LCD Timer determines how long the DBS waits before displaying call duration timing on the phone's LCD. This Timer allows Caller ID information (if available) to appear before the call duration timing is displayed.

For example, if the LCD Timer is set to 5 seconds (default), call duration timing will start displaying on the phone's LCD 5 seconds after an outgoing number is dialed, or 5 seconds after an incoming call is answered.

Programming



Related Programming

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

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

Notes

SMDR Interaction. The LCD Timer only affects the ***display*** of call duration. The system begins the actual SMDR recording of the call according to the SMDR Start Timer address (FF1 2# 1# 2#). In order for call duration to be displayed, the LCD Timer has to ***expire*** after the SMDR Start Timer -- which means the LCD Timer setting must be equal to or greater than the SMDR Start Timer.

Caller ID Interaction. The LCD 'Timer setting will be the actual length of time that Caller ID information is displayed before the LCD changes to call duration timing. However, the Timer also controls when call duration display begins for all types of trunk calls, not just Caller ID calls.

Internal Hold Tone

Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 2# 1# 39# (0 or 1)#

Description

Use this address to enable or disable Internal Hold Tone, which is a double-beep heard every 7 seconds by a caller on hold.

Programming

FF1 2# 1# 39# (0 **or 1)#**

0=Disabled (no Internal Hold Tone)
1=Enabled (Internal Hold Tone heard)

Notes

MOH Override. Internal Hold Tone (if enabled) will override any MOH (Music-On-Hold) sound source installed.

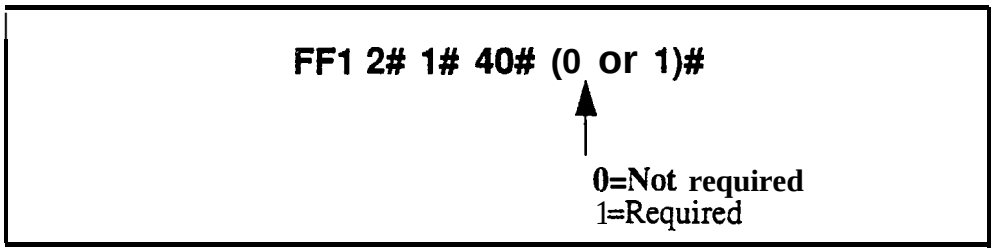
Door Opener Access Code Required

Software Version: CPC-All and CPC-8, Version 7.0 or higher
Address: FF1 2# 1# 40# (0 or 1)#

Description

This address determines whether a Door Opener Access Code must be entered on an extension to unlock the Door Box. This applies to Door Boxes connected to digital extension ports (not trunk ports).

Programming



Related Programming

Door Phone Extensions: FF1 2# 9# (1-4)# 1# (ExtPort)#

Door Opener Access Code: FF1 2# 9# (1-4)# 3# (0000-9999)#

Notes

Unlocking the Door Box During a Door Phone Call. If this address is set to "1" (Required), an extension user answering a door phone call would unlock the door by pressing **#3** NNNN * (where NNNN=Access Code). If set to "0" (Not required), the extension user answering the door phone call would simply press **#3***.

Unlocking the Door Box From Another Extension. The door can also be unlocked from any other extension not engaged in a door phone call. If this address is set to "1" (Required), dial ON/OFF **#3** XXX NNNN * on any extension (where XXX=Door Box extension number, and NNNN=Access Code) to unlock the door. If set to "0" (Not required), dial ON/OFF **#3** XXX * to unlock the door.

Hardware Requirement. The Door Opener Access Code applies to door phone devices connected to the VB-437 11 Door Phone Adaptor, which connects the Door Box to a digital extension port Door Boxes connected to trunk ports use another Adaptor (VB-43701), and do not utilize the Access Code.

API Port Type

Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 2# 1# (41 or 42)# 1# (0 or 1)#

Description

Use this address to configure the appropriate API port for TSAPI protocol. Only one API port should be configured for TSAPI.

Programming

FF1 2# 1# (41 or 42)# 1# (0 or 1)#

API Port Number:	Port Type:
41=API Port 1	0=Standard API protocol
42=API Port 2	1=TSAPI protocol

Related Programming

API Baud Rate: FF1 2# 1# (41 or 42)# 2# (0 or 1)#

API Baud Rate

Software Version: **CPC-All** and CPC-B, Version 7.0 or higher
Address: **FF1 2#** 1# (41 or **42)# 2#** (0 or **1)#**

Description

The baud rate for the TSAPI port can be set to either 9600 or 19200 bps.

Programming

FF1 2# 1# (41 **or 42)# 2#** (0 **or 1)#**

API Port Number:	Baud Rate:
41=API Port 1	**0=9600** bps
42=API Port 2	1=19200 bps

Related Programming

API Port Type: FF1 2# 1# (41 or 42)# 1# (0 or 1)#

Notes

*Using **Both API Ports.*** If both API ports are being used, both baud rates must be set to 9600 bps.

Serial Port Parameters (TTY Settings)

Parity Check

Software Version: All Versions
Address: FF1 2# 2# 1# (0 or 1)#

Description

This address determines whether the DBS checks parity over serial port CN6. By default, parity checking is turned on.

If parity checking is activated, select the parity count -- "Even" or "Odd" -- in FF1 2# 2# 2#.

Serial Port CN6 is normally used for SMDR.

Programming

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

0=Turns off the parity check.
1=Turns on the parity check.

Related Programming

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

Notes

Checking Communications Parameters. If you later change this address value, be sure to check all Serial Port addresses -- FF1 2# 2# 1# thru 9# -- to make sure they are set properly.

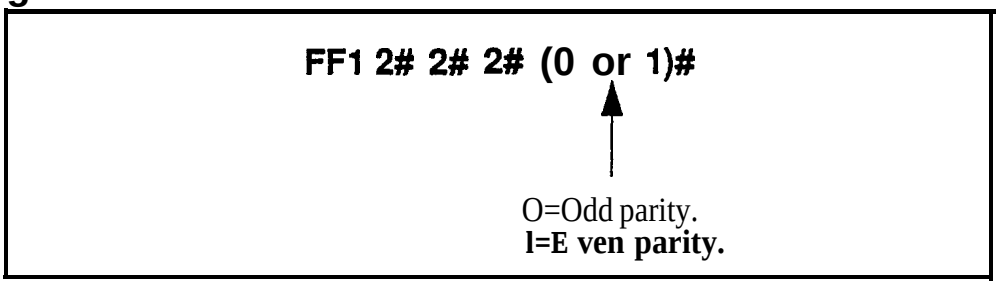
Odd/Even Parity

Software Version: All Versions
Address: FF1 2# 2# 2# (0 or 1)#

Description

If parity checking for Serial Port CN6 was activated in FF1 2# 2# 1#, this address (Odd/Even Parity) determines whether the check is based on an even count or an odd count. By default, the parity count is even.

Programming



Notes

Checking Communications Parameters. If you later change this address value, be sure to check all Serial Port addresses -- FF1 2# 2# 1# thru 9# -- to make sure they are set properly.

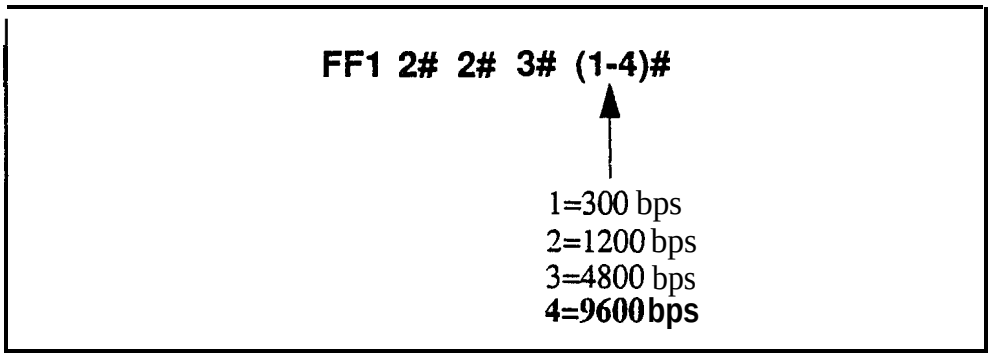
Baud Rate

Software Version: All **Versions**
Address: **FF1 2# 2# 3# (1-4)#**

Description

Use this address to set data transmission speed (baud rate) between Serial Port CN6 and the peripheral equipment attached to it. By default, baud rate is set at 9600 bits per second.

Programming



Notes

Checking Communications Parameters. If you later change this address value, be sure to check all Serial Port addresses -- FF1 2# 2# 1# thru 9# -- to make sure they are set properly.

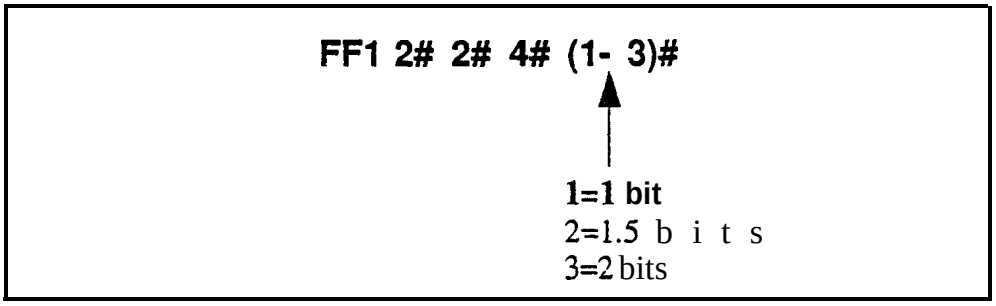
Stop Bit Length

Software Version: All Versions
Address: FF1 2# 2# 4# (1-3)#

Description

This address sets the length of the stop-bit parameter for transmitted data over Serial Port CN6. By default, the stop bit length is set to 1 bit.

Programming



Notes

Checking Communications Parameters. If you later change this address value, be sure to check all Serial Port addresses -- FF1 2# 2# 1# thru 9# -- to make sure they are set properly.

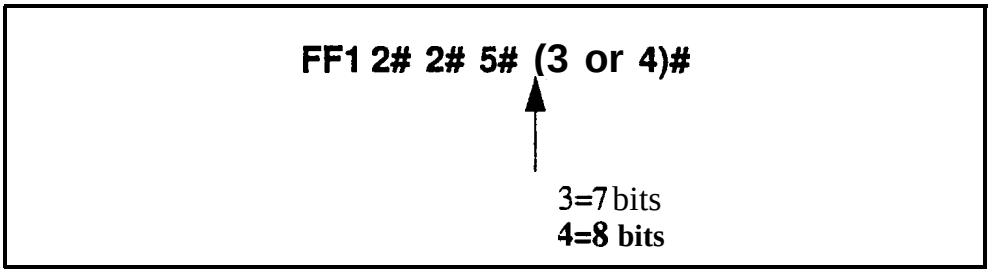
Data Length

Software Version: All Versions
Address: FF1 2# 2# 5# (3 or 4)#

Description

This address sets the length of the transmitted data string over Serial Port CN6. By default, data length is set to 8 bits.

Programming



Notes

Checking Communications Parameters. If you later change this address value, be sure to check all Serial Port addresses -- FF1 2# 2# 1# thru 9# -- to make sure they are set properly.

SMDR Printing Mode 1: Outbound and Inbound

Software Version: All Versions
Address: FF1 2# 2# 6# (0 or 1)#

Description

The SMDR data sent to Serial Port CN6 can be programmed to include both outbound and inbound calls, or it can be limited to outbound calls only. By default, both outbound and inbound calls are recorded.

Programming

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

0=Include outbound calls only.
1=Include both inbound and outbound calls.

Notes

Bus Monitor Mode Interaction. If the DBS is switched to Bus Monitor mode for troubleshooting, the SMDR mode must be reactivated to resume SMDR output. The SMDR mode can be reactivated from any Attendant phone by pressing ON/OFF - #93 - ON/OFF.

SMDR Printing Mode 2: Long-Distance and Local Calls

Software Version: All Versions
Address: FF1 2# 2# 7# (0 or 1)#

Description

The SMDR data sent to Serial Port CN6 can be pro&rarnmed to include both local and long-distance calls. or it can be limited to long-distance calls only. By default, both local and long-distance calls are included.

Programming

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

0=Include long-distance calls only.
1=Include local and long-distance calls.

Notes

Bus Monitor Mode Interaction. If the DBS is switched to Bus Monitor mode for troubleshooting, the SMDR mode must be reactivated to resume SMDR output. The SMDR mode can be reactivated from any Attendant phone by pressing ON/OFF - #93 - ON/OFF.

SMDR Printing Mode 3: Header Title

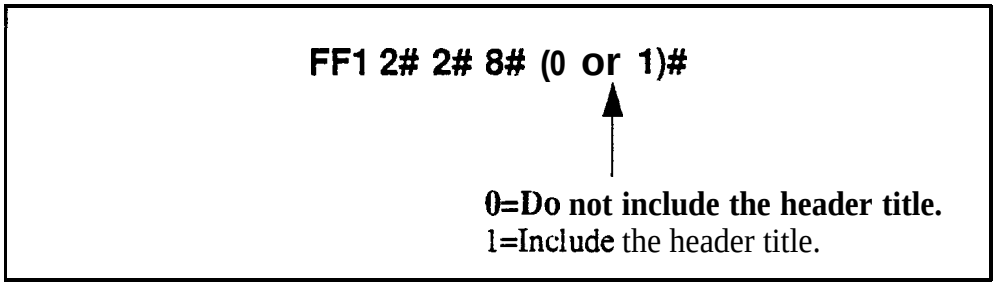
Software Version: All Versions
Address: FF1 2# 2# 8# (0 or 1)#

Description

The SMDR data sent to Serial Port CN6 can be programmed to include a header title (inserted every 60 lines on the SMDR report); or the header title can be excluded from the report. By default, the header title is excluded.

The header title identifies the SMDR information in each column on the report -- "Time," "Duration," "COW, etc.

Programming



Notes

Bus Monitor Mode Interaction. If the DBS is switched to Bus Monitor mode for troubleshooting, the SMDR mode must be reactivated to resume SMDR output, The SMDR mode can be reactivated from any Attendant phone by pressing ON/OFF - #93 - ON/OFF.

Serial Port Flow Control (XON / XOFF)

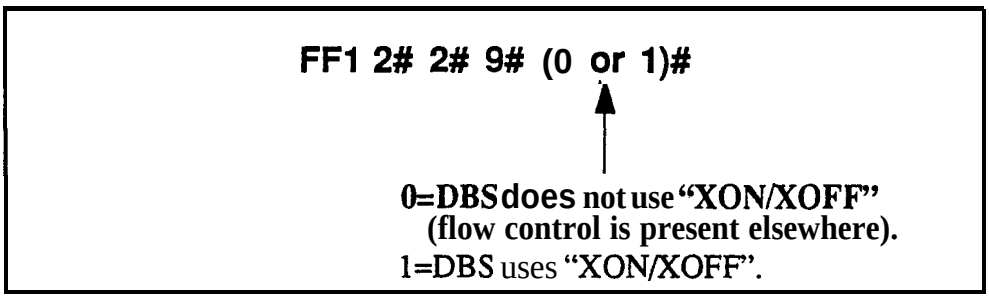
Software Version: All Versions
Address: FF1 2# 2# 9# (0 or 1)#

Description

If "XON/XOFF" is activated in this address, the DBS 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 Buffer Size. The size of the DBS buffer for SMDR is 8 kB. This is the maximum amount of data that the system can hold while the SMDR device is emptying its buffer.

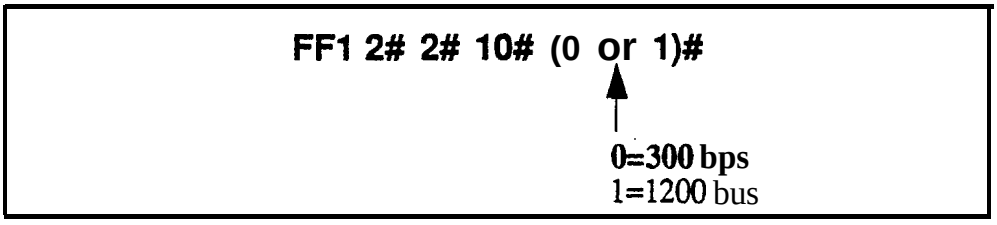
RAI Baud Rate

Software Version: CPC-All (all versions); CPC-B Version 1.0 or higher
Address: FF1 2# 2# 10# (0 or 1)#

Description

The baud rate used for the DBS's internal RAI modem can be set to 300 or 1200 bps. By default, 300 bps is used for remote programming.

Programming



Related Programming

Remote Programming ID Code: FF1 4# (0000-9999)#

Notes

Modem Card Requirement for Remote Programming. Remote programming is provided through a modem card installed on the SCC card. Two versions of the Remote Administration Interface (RAI) modem card are available: RAI-A and RAI-B. The following table shows the transmission rate of each card, along with the SCC version with which it can be used:

Table 14. RAI Modem Card Compatibility

RAI Version/Part No.	Transmission Rate	SCC Compatibility
RAI-A (VB-43706)	300 bps	SCC-A or SCC-B
RAI-B (VB-43707)	300 or 1200 bps	SCC-B only

Restrictions for Two-Cabinet Systems Using Voice Mail. In dual-cabinet DES systems that have a Voice Mail system connected to an analog extension port, the RAI card's baud rate must be set *to 300* bps. *See* ***Technote*** *3 (April* 1991) for complete information.

RAI Data Communications Parameters. When using the RAI card with CPC-A, set the Serial Port parameters as follows:

- Parity: None
- Data Length: 8 bits
- Stop Bit Length: 1 bit

In CPC-B configurations, the DBS will automatically set these parameters for the RAI card.

PBX Settings

PBX Access Code(s)

Software Version: All Versions-
Address: FF1 2# 3# (1-8)# (O-999 or 0*-99*)#

Description

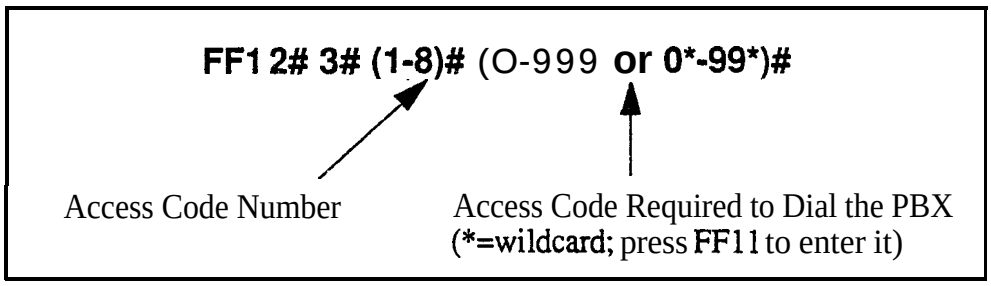
Use this address to program PBX Access Codes for DBS systems installed behind a PBX or Centrex, with Toll Restriction (TRS) enabled. By default, no PBX Access Codes are created.

Creating a PBX Access Code in this address will "activate" the PBX feature; the DBS will recognize the fist dialed digits as the PBX Access Code (separate from the outgoing phone number being dialed). Otherwise, the DBS will regard the Access Code as part of the outgoing phone number.

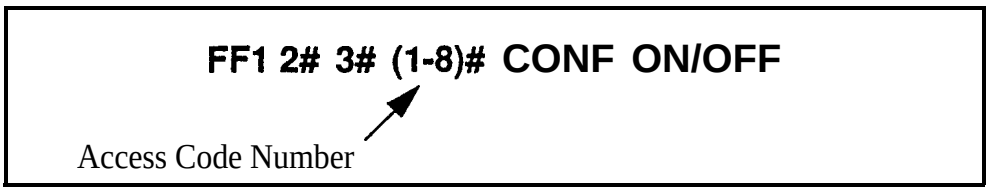
The DBS can use as many as 8 different PBX Access Codes. Each Access Code can be one, two, or three digits long.

Programming

To program a PBX Access Code . . .



To reset PBX Access Codes to default (* no codes created) . . .**



Related Programming

Automatic Pause Position for PBX Access Codes: FF1 2# 3# (9-18)# (1-3)#
Trunk Port Type: FF2 (Trunk)# 10# (1 or 2)#

Automatic Pause Position For PBX Access Codes

Software Version: All Versions
Address: FF1 2# 3# (9-18)# (1-3)#

Description

Use this address to insert 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 CO before the DBS sends the PBX any digits. If the pause is inadequate, the DBS 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 . . .

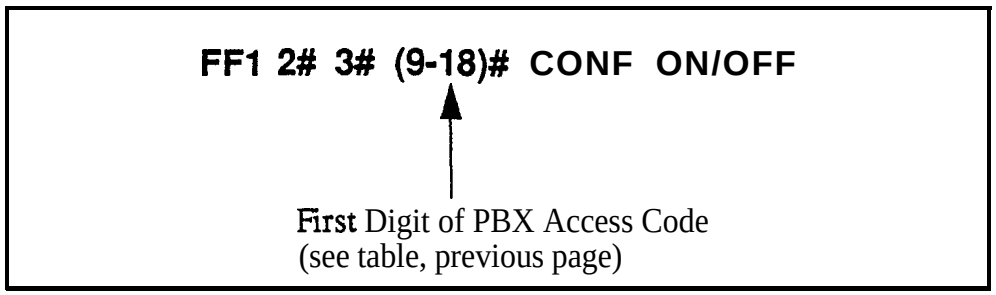
FF1 2# 3# (9-18)# (1-3)#

First Digit of PBX Access Code (see table below)

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

Address No.	*Dialed Digit*
9	1
10	2
11	3
12	4
13	5
14	6
15	7
16	8
17	9
18	0

To clear an Automatic Pause from a PBX Access Code . . .



Programming Examples

Insetting a pause after PBX Access Code "9X" . . .

To insert a pause after the PBX access code "9X" is dialed, enter this address ("X" represents the numbers O-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 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# 12# (0-15)#

Automatic Pause for PBX Line: FF2 (Trunk)# 13# (0 or 1)#

External (UNA) Relay Control

Ring Patterns For UNA Terminals (M, C and B)

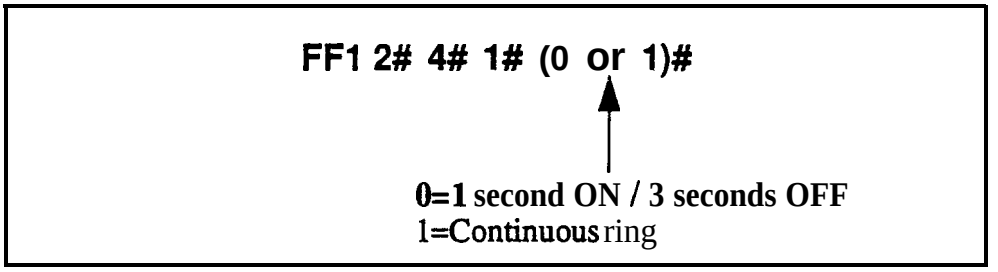
Software Version: All Versions
Address: FF1 2# 4# 1# (0 or 1)#

Description

Use this address to set the ring pattern for incoming trunk calls sent to Universal Night Answer (UNA), where calls ring over a loudspeaker or amplifier. By default, the ring pattern is 1 second on / 3 seconds off.

This address controls the UNA relay terminals labeled "M", "C" and "B" on the DBS Connector Panel. A bell or tone device can be attached to these relay terminals to transmit incoming ring over the loudspeaker. See *Section 300-Installation* for more information about UNA.

Programming



Related Programming

CO Ring Assignments: FF4 addresses

CO Ping Cycle Detection Timer: FF1 3# 15# (0-3)#

Notes

Port Assignments for UNA Ringing (FF4). With CPC-A and CPC-AII, use extension port 73 to assign ringing to UNA -- with CPC-B, use extension port 145.

External Page Interface Control For Paging Groups

Software Version: All Versions
Address: FF1 2# 4# (2-9)# (0 or 1)#

Description

Use this address to activate external paging (e.g., loudspeaker installed in ceiling) for paging groups 00-04. Paging groups 05-07, although included in this address, cannot be activated for external paging.

Internal paging, where a page is announced on the speakers of extension phones belonging to the page group dialed, is activated with either setting.

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 Paging is activated ("1" selected above) ...	
		Relay Contacts on DBS Connector Panel	Audio Path
2	00	Z0 activated	"M", "B" and "C" contacts are activated.	Audio path is established via CN4 (to which amplifier is connected).
3	01	Z1 activated		
4	02	22 activated		
5	03	23 activated		
6	04	Z4 activated		
7	05	Internal Paging Only (not used with Extemai Paging)		
8	06			
9	07			

Related Programming

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

Notes

Puging Control. When a page is initiated, either ***zone*** paging or ***general*** paging occurs. For external paging, this is determined by the hardware connections to the DBS Connector Panel's CN2 terminal block (see ***Section 300-Installation*** for instructions). For internal paging, this is determined by programming (assigning extensions to page groups in FF3 ExtPort#18-25#).

Page Group 00. Pages to group 00 will be heard in ***all*** paging zones.

Class of Service

Extension Class Of Service

Software Version: CPC-All (all versions); CPC-B Version 3.1 or higher
Address: FF1 2# 5# (1-8)# (1-21)# (0 or 1)#

Description

This address allows you to define up to 8 different Classes of Service, by enabling or disabling the phone features of each. Up to 21 features are available (see table below). The definable Classes of Service are numbered 1-8. An additional Class of Service "0" automatically enables all features and cannot be changed.

Classes of Service are assigned to extensions using FF3 ExtPort# 35# (0-8)#.

Programming

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

- (1-8)# — Class of Service
- (1-21)# — Class of Service Features (see table below)
- (0 or 1)# — **&Off (disabled)** **1=On** (enabled)

Note: All features are defaulted to "Off' for Classes of Service l-8.

Table 1-5. Class of Service features

Setting	Value (Feature Description)
1	Dial Tone On/Off (#50)
2	Head/Handset Exchange (#51)
3	BGM On/Off (#53)
4	Absence Message Set/Reset (7 1)
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 Forward--Outside (723) Note: This item controls external call forwarding for internal calls in CPC-B Version 5.0 to 6.x (prior to 7.0).

Related Programming

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

Notes

Interaction with Extension Class of Service Assignment. By default, every extension is assigned to Class of Service "0" (all 21 features are enabled). To restrict feature usage on the extension, assign another Class of Service (l-8) to it.

Caution When Changing A Class of Service Feature Setting. If *you* disable a previously enabled feature for a Class of Service, make sure the feature is not currently being used on the extension(s) assigned that Class of Service. Otherwise, the extension user may not be able to deactivate the feature.

For example, if you reset Feature No. 3 to "0" (disabled) while an extension has Background Music turned on, the extension user will not be able to turn it off. (If this occurs, re-enable Feature No. 3 for the Class of Service, then turn Backgound Music off at the extension -- then disable Feature No. 3 again.)

Call Forward--Outside (21) Feature Expansion. Beginning with CPC-AII and CPC-B Version 7.0, any call (not just internal calls) can be call-forwarded to an outside number.

Account Codes

Verified Forced Account Codes

Software Version: CPC-All (all versions); CPC-B Version 3.1 or higher
Address: FF1 2# 6# (1-100)# 1# (0001-9999)#

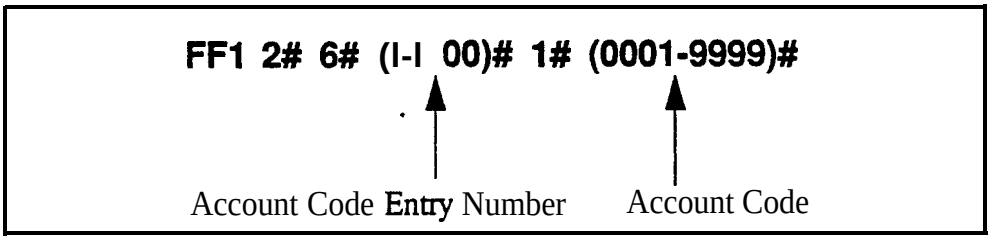
Description

Use this address to assign up to 100 four-digit verified account codes. Once the account codes are assigned, use address FF1 2# 6# (1-100)# 2# (0-7)# to assign a Toll Restriction Setting (TRS) value to the account code.

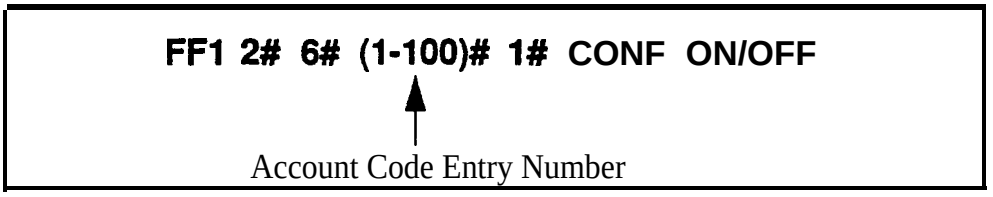
Forcing the use of account codes, as well as system verification of the entered account code, can be enabled or disabled on individual extensions (see FF3 ExtPort# 5#). After verifying the entered account code, the DBS will allow or disallow an outgoing call based on the TRS type assigned to the account code. However, if the system does not find a match for the account code in this address, or if the TRS type restricts it, the user cannot make the call.

Programming

To assign an Account Code . . .



To clear an Account Code (reset to ** default) . . .**



Programming 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: FF12# 6# (1-100)# 2# (0-7)#

Forced Account Codes: FF3 (ExtPort)# 5# (0 or 1)#

Toll Restriction Settings: FF7 addresses

Notes

Forced Unverified Account Codes. With CPC-AII and CPC-B versions prior to 6.0, Unverified Account Codes can only be used on a voluntary basis -- Forced Unverified is not available. However, beginning with Version 6.0, Forced Unverified Account Codes can be used. See FF3 (ExtPort)# 5# (0-2)# for more information.

TRS Interaction. 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 Account Code will restrict outside dialing.

Assignment Restriction. "0000" cannot be assigned as an Account Code.

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.

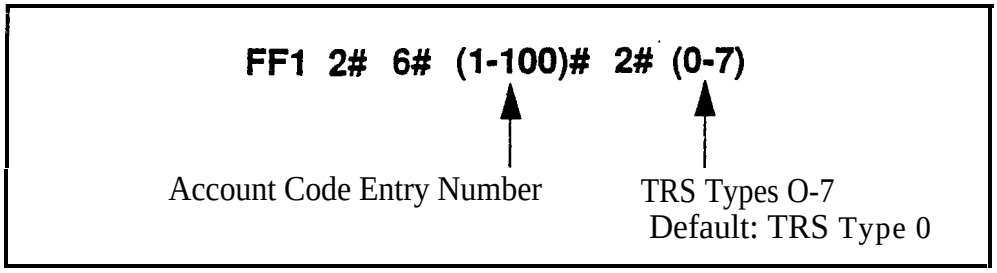
Toll Restriction For Verified Forced Account Codes

Software Version: CPC-All (all versions); CPC-B Version 3.1 or higher
Address: FF1 2# 6# (1-100)# 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, 1 or 2)#

Toll Restriction Settings: FF7 addresses

Notes

TRS Interaction. 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.

Flexible Function Screens

Flexible Function Screen Soft-Key Assignment

Software Version: CPC-All and CPC-B, Version 6.0 or higher
Address: FF1 2# 7# 1# (Screen)# (SoftKey)# (Feature)#

Description

Use this program to create up to 15 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.

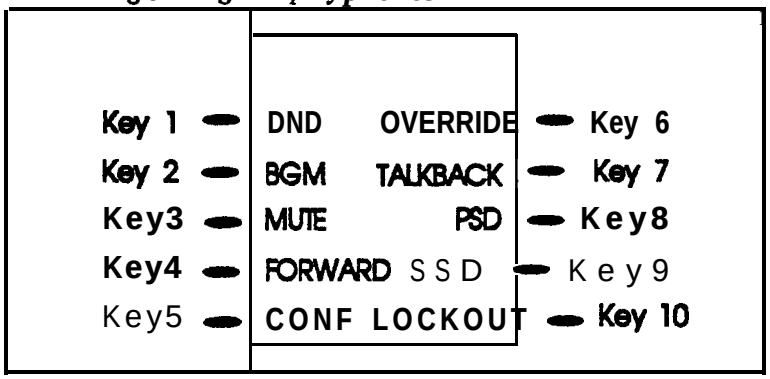
When creating these flexible function screens, you are programming the soft keys to perform one of the following special functions while the screen is displayed:

- ***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 the flexible function 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 screens, keep in mind that the DBS system already has 24 preprogrammed menus (see Appendix A) that can also be assigned to display during different call states.

Figure l-l. Soft key numbering on large-display phones



Programming

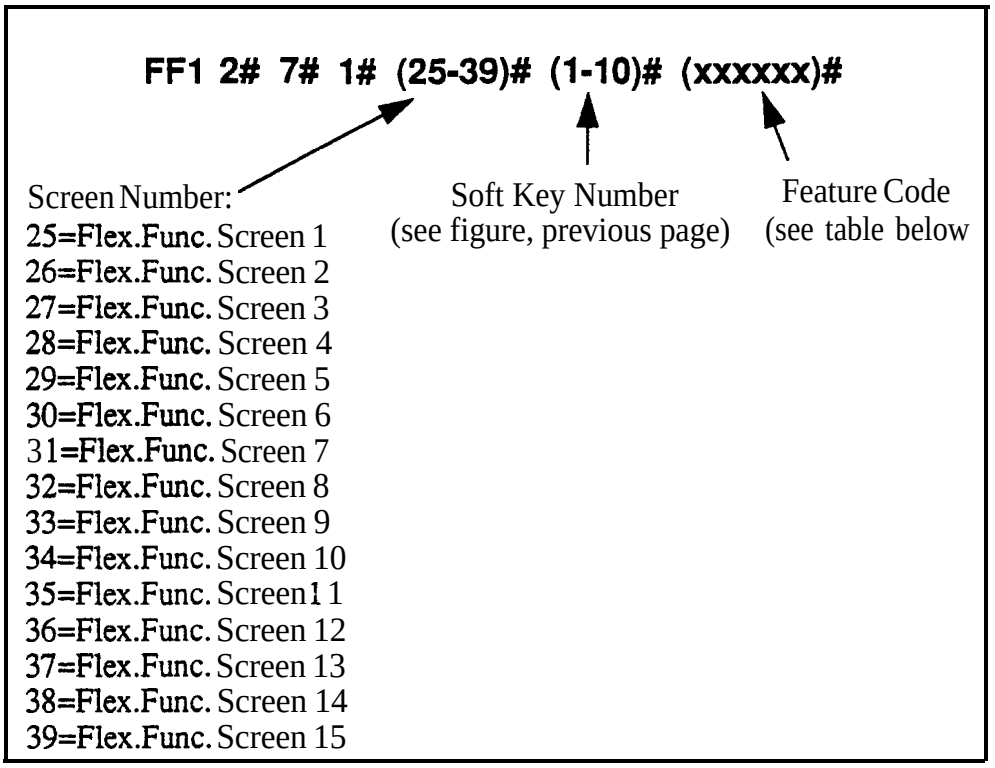


Table 1-6. Feature codes for Flexible Function Screen soft keys

Feature	Code to be assigned to soft key (FF11 enters an asterisk *) (FF12 enters a pound sign #)
Absence Message	71
Account Code	FF12 7 (if using SLT or DSLT) or AUTO FF12 (all other phones)
Answer Key	FF11 1
Any Key	PROG PROG XXXXXX **Note: The** "Any Key" feature allows you to store digits other than extension numbers, CO trunks, or feature codes. For example, Any Key can be used to store an account code or a Voice Mail password.
Attendant Park Hold	75 (00-09)
BGM (Background Music) On/Off	FF12 53
Busy Override	PROG PROG 4
Call Forward--Outside (CPC-AII/B versions prior to 7.0)	723

Feature	Code to be assigned to soft key (FF11 enters an asterisk *) (FF12 enters a pound sign #)
Call Forward Call Forward--All Calls Call Forward--Busy/No Answer Call Forward--Busy Call Forward--No Answer	72 720 721 722 724 **Note:** Beginning with CPC-AII/B Version 7.0, you can call-forward to an outside phone number. Use an existing PSD or SSD code as the destination phone number, with a "CX-PhoneNo." format (where C is the CONF key, and X is l-6 or 9 for trunk group 8 l-86 or 89).
Call Park	75
Call Pickup	79
Call Waiting	PROG PROG 3
Caller ID Log	FF11 6
Day Mode	FF12 521
Day/Night/Night:! Mode Toggle (CPC-AII/B Version 7.0 or higher)	FF12 520 **Note:** The FF key LED will be off during Day mode: red during Night mode: and green during Night 2 mode.
Dial Tone Off	FF12 50
DND (Do Not Disturb)	73
DP to DTMF Signal Conversion	PROG PROG FF1 1 -or- PROG PROG FF 12
DSS/BLF Key (internal calls)	PROG (10-69 or 100-699)
Extension Directory	900002
Extension Lockout	74
Group Call Pickup	70
Headset	FF12 51
Intercom Key	FF12 8
Internal Dial Tone	FF12 50
MCO or ML Keys	(8 1-86 or 89) **Note: See** "ML/MCO Separation" (FF3 ExtPort# 44#) to determine which type of key is available with your software.
Meet-Me Answer	77
Message Waiting Answer	AUTO REDIAL
Mute	FF11 FF12
Night Mode	FF 12 52 (CPC-AII/B versions prior to 7.0) FF12 522 (CPC-AII/B Version 7.0 or higher)
Night 2 mode (CPC-AII/B Version 7.0 or higher)	FF12 523

Feature	**Code to be assigned to soft key** **(FF11 enters an asterisk *)** **(FF12 enters a pound sign #)**
Offhook Voice Announce	PROG PROG 5
Offhook Voice Announce Answer	FF11 3
Page	FFt2 (00-07)
Park Hold	75
PSD (Personal Speed Dial) Directory	900000
PSD (Personal Speed Dial) Number	AUTO (90-99 or 900-909)
Release	FF11 2
Reminder	FF12 4
Save Number Redial Access	AUTO FF11
Save Number Redial Set	AUTO AUTO FF11
SSD (System Speed Dial) Directory	90000 1
SSD (System Speed Dial) Number	AUTO (00-89 or 000- 199)
Tl Alarms -- Frame Loss Red Alarm Signal Loss Slips Sync Loss Yellow Alarm	(Master or Slave) (101 or 121) FF12 (103 or 123) FF12 (104 or 124) FF12 (102 or 122) FF12 (105 or 125) FF12 (107 or 127) FF12
Talkback	FF11 3
Tone/Voice Calling	PROG PROG 1
Transfer	PROG PROG PROG
Trunk Group Selection (same as "MCO or ML Keys")	(81-86 or 89)
Trunk Queuing	PROG PROG 2
Trunk Selection	(01-64)
UNA Pickup	78
Voice Mail One-Touch Access (CPC-B Version 5.0 or higher)	**PROG AUTO NNN (XXX or AUTO SSD/PSD) #** VM Pilot Number — Password (optional) — Press the # key to register the string. **Note:** The password (if used) can be 1 to 3 digits long. If the password is over 3 digits, it must be assigned as a speed-dial code (be sure to include an ending pound **#** sign after the password when creating the speed-dial code).
Voice Mail Transfer	PROG AUTO AUTO NNN (NNN=VM Pilot Number)

Related Programming

Flex.Func. Screen Text: FF1 2# 7# 2# (Screen)# (Key)# (Text)#

Flex.Func. Screen Default: FF1 2# 7# 3# (Screen)# (0 or 1)#

Flex.Func. 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. The * and # phone keys are used as movement keys (for scrolling through addresses) while in programming mode. Therefore, when programming feature codes for soft keys, FF11 and FF12 are used instead to represent * and # (FF11 enters *; FF12 enters #). The phone will not display the symbol when you press FF11 or FF12, but it will register * or # as part of the feature code.

Initial Displays. The 15 flexible function screens are blank by default.

Displaying Feature Codes. To display an existing feature code assignment for a soft key, use the same address (FF1 2# 7# 1# Screen# SoftKey#).

Flexible Function Screen Text

Software Version: CPC-All and CPC-B, Version 6.0 or higher
Address: FF1 2# 7# 2# (Screen)# (SoftKey)# (Text)#

Description

Use this program to create the text that identifies the soft keys on a flexible function 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 address.

Programming

FF1 2# 7# 2# (25-39)# (1-1 0)# (xxxxxxxx)#

Screen Number:
25=Flex.Func. Screen 1
26=Flex.Func. Screen 2
27=Flex.Func. Screen 3
28=Flex.Func. Screen 4
29=Flex.Func. Screen 5
30=Flex.Func. Screen 6
31=Flex.Func. Screen 7
32=Flex.Func. Screen 8
33=Flex.Func. Screen 9
34=Flex.Func. Screen 10
35=Flex.Func. Screen 11
36=Flex.Func. Screen 12
37=Flex.Func. Screen 13
38=Flex.Func. Screen 14
39=Flex.Func. Screen 15

Soft Key Number (see Figure 1-1 on page 1-71)

Text (up to 8 char.)

Related Programming

Flex.Func. Screen for Soft Keys: FF1 2# 7# 1# (Screen)# (Key)# (Code)#

Flex.Func. Screen Default: FF1 2# 7# 3# (Screen)# (0 or 1)#

Flex.Func. Screens Default (All): FF1 2# 7# 4# (0 or 1)#

Display Screens During Call States: FF3 (ExtPort)# (26-33)# (Screen)#

Flexible Function Screen Default

Software Version: CPC-All and CPC-B, Version 6.0 or higher
Address: FF1 2# 7# 3# (Screen)# (0 or 1)#

Description

Use this program to reinstate individual flexible function 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=Flex.Func. Screen 1
26=Flex.Func. Screen 2
27=Flex.Func. Screen 3
28=Flex.Func. Screen 4
29=Flex.Func. Screen 5
30=Flex.Func. Screen 6
3 1 =Flex.Func. Screen 7
32=Flex.Func. Screen 8
33=Flex.Func. Screen 9
34=Flex.Func. Screen 10
35=Flex.Func. Screen 11
36=Flex.Func. Screen 12
37=Flex.Func. Screen 13
38=Flex.Func. Screen 14
39=Flex.Func. Screen 15

0=Do not return to default setting.
1=Return to default setting.

Related Programming

Flex.Func. Screen for Soft Keys: FF1 2# 7# 1# (Screen)# (Key)# (Code)#

Flex.Func. Screen Text: FF1 2# 7# 2# (Screen)# (Key)# (Text)#

Flex.Func. Screens Default (All): FF1 2# 7# 4# (0 or 1)#

Display Screens During Call States: FF3 (ExtPort)# (26-33)# (Screen)#

Flexible Function Screens Default (All)

Software Version: CPC-All and CPC-B, Version 6.0 or higher
Address: FF1 2# 7# 4# (0 or 1)#

Description

Use this program to reinstate all 15 flexible function screens to the default value (blank; RO features assigned to soft keys).

Programming

FF1 2# 7# 4# (0 **or 1)#**

0=Do not return to default setting.
1=Return to default setting.

Related Programming

Flex.Func. Screen for Soft Keys: FF1 2# 7# 1# (Screen)# (Key)# (Code)#

Flex.Func. Screen Text: FF1 2# 7# 2# (Screen)# (Key)# (Text)#

Flex.Func. 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-All and CPC-B, Version 6.1 or higher
Address: FF1 2# 8# (1-10)# (PhoneNo.)#

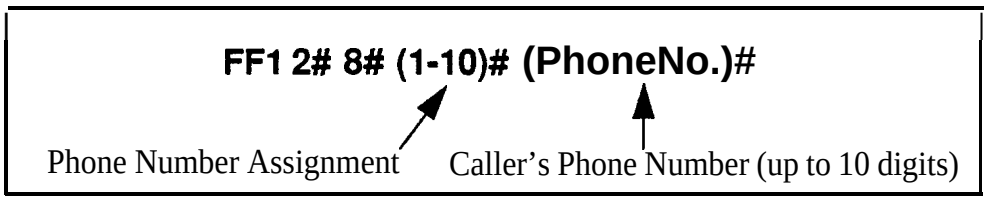
Description

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 system must have a Caller ID package installed. ***See Caller ID Installation and Operation (Section 510)*** for more information.

Programming



Notes

Matching The Caller's Phone Number. The caller's phone number entered in this address must exactly match the phone number received by Caller ID (usually 10 digits).

Enabling DISA on Trunks. If the Caller ID Automatic DISA feature is used, do not enable DISA on any trunks (see FF2 Trunk# 11#). The Caller ID feature will automatically switch the trunk to DISA based on the originating phone number.

Hardware Requirement For DZSA. MFR Card VB-4343 1 is required for Caller ID Automatic DTSA, so that the system can interpret DTMF tones entered via the DISA connection.

Door Phones

A "Door Phone" (also called "Door Box") is an intercom with a single button, installed on building entrance doors, that allows visitors to announce their presence by pressing the button. It is used with a Door Opener (not sold by Panasonic), which is an electronic lock that can be unlocked from an extension phone inside.

The DBS supports two types of door phone connections -- one to trunk ports (using a VB-43701 Door Phone Adaptor) and the other to digital extension ports (using a VB-43711 Door Phone Adaptor). The extension port connection is supported beginning with CPC-AIIICPC-B Version 7.0, and is controlled by the FF1 2# 9# addresses below.

Door Phone Extensions

Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 2# 9# (DoorPhone)# 1# (ExtPort)#

Description

Use this address to establish the extension ports that are connected to door phones. Up to 4 door phones can be assigned (one per extension port).

Programming

FF1 2# 9# (1-4)# 1# (3-72 or 3-144)#

Door Phone Number (1-4)

Extension Port
CPC-AII: 3-72
CPC-B: 3- 144

NOTE: Do not assign Extension Port 1 or 2 to a door phone.

Related Programming

Door Phone Access Code Required: FF1 2# 1# 40# (0 or 1)#

Door Phone Ring Assignments: FF1 2# 9# (1-4)# 2# (ExtPort)# (0 or 1)#

Door Opener Access Code: FF1 2# 9# (1-4)# 3# (0000-9999)#

Door Phone Tone Type: FF1 2# 9# (1-4)# 4# (0 or 1)#

Door Phone Ring Timer: FF1 2# 9# (1-4)# 5# (0-15)#

Door Phone Ring Pattern: FF1 2# 9# (1-4)# 6# (0-5)#

Door Opener Relay Timer: FF1 2# 9# (1-4)# 7# (0-5)#

Extension Numbers: FF3 (ExtPort)# 1# (ExtNo.)#

Notes

Reset Requirement. After setting FF1 2# 9# addresses, activate the door phones by unplugging them from their extension ports, then plugging them back in.

Restrictions for Door Phones:

- Door phones cannot be Attendants (ports 1 or 2).
- Door phones cannot be included in a conference call.
- Door phones cannot be members of a hunt group or call coverage group.
- Door phone calls are not subject to barge-ins (Busy Override), regardless of the extension's program settings.
- It is not possible to Call Forward to a door phone.
- It is not possible to Auto-Redial to a door phone.
- Door phone calls have the same priority as intercom extension calls.
- All calls to a door phone are established as voice calls, regardless of the extension's program settings.
- The DTMF path is disabled during a door phone call. When the extension user dials the access code to unlock the door, the visitor will not hear the DTMF digits.

Calling a Door Phone from an Internal Extension. Any extension can establish a call to a door phone by dialing the door phone's extension number. Extension numbers can be assigned to door phone ports using the **"Extension Numbers"** address, FF3 (ExtPort)# 1# (ExtNo.)#.

Door Phone Ring Assignments

Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 2# 9# (DoorPhone)# 2# (ExtPort)# (0 or 1)#

Description

Use this address to determine which extension(s) will ring when a door phone caller initiates a call. This applies to door phones connected to digital extension ports only (not trunk ports).

It is possible to assign several or all extensions to ring for a door phone call.

Programming

FF1 2# 9# (1-4)# 2# (1-72 or 1-144)# (0 or 1)#

Door Phone Number	Extension Port	0=Do not ring.
(1-4)	CPC-AII: 1-72	1=Ring.
	CPC-B: 1- 144	

Related Programming

Door Opener Access Code Required: FF1 2# 1# 40# (0 or 1)#

Door Phone Extensions: FF1 2# 9# (1-4)# 1# (ExtPort)#

Door Opener Access Code: FF1 2# 9# (1-4)# 3# (0000-9999)#

Door Phone Tone Type: FF1 2# 9# (1-4)# 4# (0 or 1)#

Door Phone Ring Timer: FF1 2# 9# (1-4)# 5# (0-15)#

Door Phone Ring Pattern: FF1 2# 9# (1-4)# 6# (0-5)#

Door Opener Relay Timer: FF1 2# 9# (1-4)# 7# (0-5)#

Notes

Power-Cycling Requirement. In order for changes to this parameter to take effect, the system must be turned off, then back on.

Programming Restriction. Programming an extension to ring for a door phone call must be performed from another extension.

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).

Restrictions for Door Phone Calls:

- Door phones cannot be included in a conference call.
- Door phones cannot be members of a hunt group or call coverage group.
- Door phone calls are not subject to barge-in (Busy Override), regardless of the extension's program settings.
- Door phone calls have the same priority as intercom extension calls.
- The DTMF path is disabled during a door phone call. When the extension user dials the access code to unlock the door, the visitor will not hear the DTMF digits.

Receiving a Door Phone Call. When a visitor presses the door phone button, an intercom call is generated automatically to the extension(s) assigned to ring for a door phone call.

- If the extension is on-hook, the visitor will hear ringing tones. The tones will stop when the extension user answers the door phone call.
- If the extension is busy, the door phone call will ring in as a normal call (for example, the extension user will hear a "beep" in the receiver, indicating another call) -- and the visitor will hear silence. When the extension user hangs up, a call will be established between the door phone and the extension (it will either ring or establish an intercom voice path, depending on the extension's programming).

Door Opener Access Code

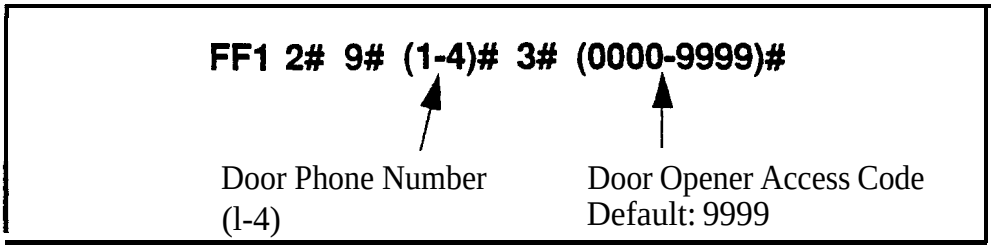
Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 2# 9# (DoorPhone)# 3# (0000-9999)#

Description

Use this address to establish a 4-digit door opener access code that can be entered on any extension phone to unlock the door. This applies to door phones connected to digital extension ports only (not trunk ports).

NOTE: To require the use of the access code to unlock the door, address **FF1 2# 1# 40#** must be enabled.

Programming



Related Programming

Door Opener Access Code Required: **FF1 2# 1# 40#** (0 or 1)#

Door Phone Ring Assignments: **FF1 2# 9# (1-4)# 2# (ExtPort)#** (0 or 1)#

Door Opener Relay Timer: **FF1 2# 9# (1-4)# 7# (0-5)#**

Notes

Unlocking the Door With the Access Code. ***If*** Access Code NNNN is established in this address, and **"Door Opener Access Code Required"** is enabled, the extension user receiving the door phone call can press **#3** xxxx • (while still engaged in the call) to unlock the door. Or, from any other extension not engaged in a door phone call, press **ON/OFF #3 XXX NNNN** * (where "XXX" is the extension number assigned to the door phone port).

Unlocking the Door Without the Access Code. ***If*** an access code is not established (and its use is not required), extension users can still unlock the door by pressing **#3*** (if engaged in a door phone call) -- or, **ON/OFF #3** XXX • (from another extension).

Setting the Amount of Time the Door Will Remain Unlocked Use the **"Door Opener Relay Timer"** address (**FF1 2# 9# 1-4# 7#**) to set the number of seconds the door will remain open after it is unlocked.

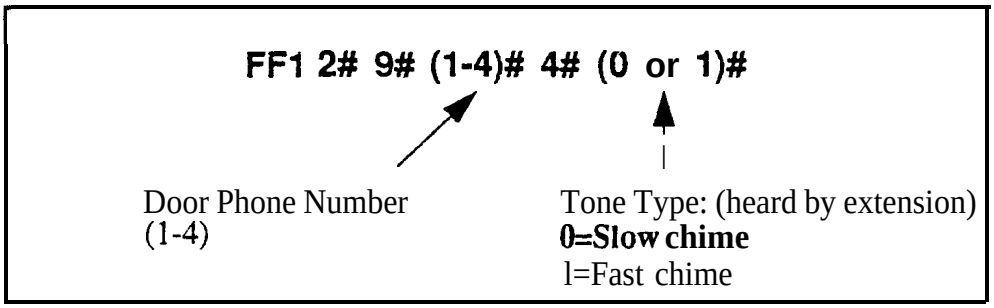
Door Phone Tone Type

Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 2# 9# (DoorPhone)# 4# (0 or 1)#

Description

This address specifies the type of tone heard by the called extension when a visitor presses the door phone button. This appiies to door phones connected to digital extension ports only (not trunk ports).

Prdgramming



Related Programming

Door Phone Ring Assignments: FF1 2# 9# (DoorPhone)# 2# (ExtPort)# (0 or 1)#

Door Phone Ring Timer: FF1 2# 9# (DoorPhone)# 5# (C- 15)#

Door Phone Ring Pattern: FF1 2# 9# (DoorPhone)# 6# (0-5)#

Notes

Reset ***Requirement.*** 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 Timeout Timer

Software Version: CPC-All and CPC-6, Version 7.0 or higher
Address: FF1 2# 9# (DoorPhone)# 5# (0-15)#

Description

This address sets the amount of time (in seconds) that a door phone will ring an extension before it goes on-hook (extension stops ringing). This applies to door phones connected to digital extension ports only (not trunk ports).

If the door phone caller re-initiates the call before this Timer is up, the Timer will automatically reset and the extension will begin ringing again.

Programming

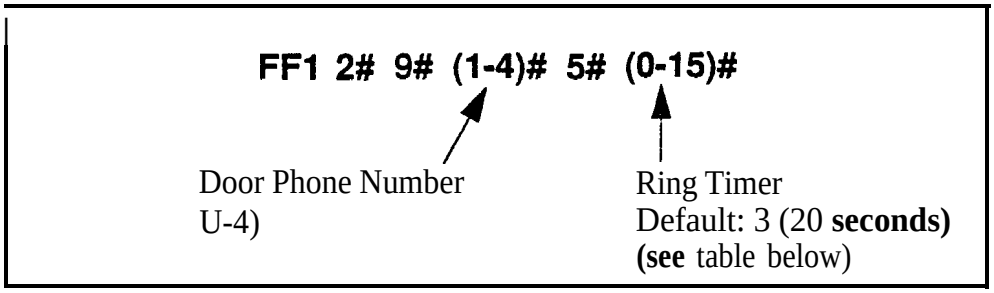


Table l-7. Door phone ring timer values

Setting	Value	Setting	Value
0	5 seconds	8	45 seconds
1	10 seconds	9	50 seconds
2	15 seconds	10	55 seconds
3	20 seconds	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: FF1 2# 9# (DoorPhone)# 6# (0-5)#

Notes

Reset ***Requirement.*** 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-All and CPC-8, Version 7.0 or higher
Address: FF1 2# 9# (DoorPhone)# 6# (0-5)#

Description

This address specifies the ring pattern heard at the extension receiving a door phone call. This applies to door phones connected to digital extension ports only (not trunk ports).

This address specifies the ***number of seconds*** between rings (4 seconds by default). The ring itself has a fixed duration of approximately 3 seconds.

Programming

FF1 2# 9# (1-4)# 6# (0-5)#

Door Phone Number (1-4)

Number of Seconds Between Rings:
O=Rings one time only (no repeat ringing)
1=4 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 2# 9# (DoorPhone)# 5# (0-15)#

Notes

Reset Requirement. 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

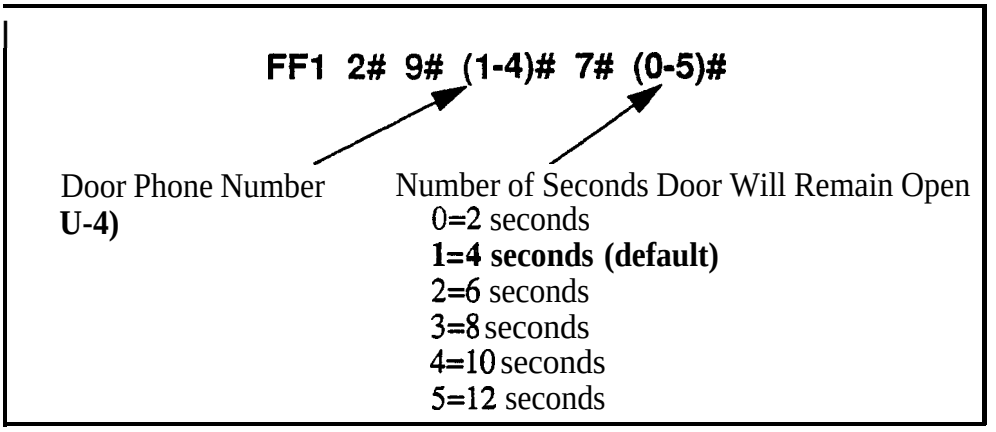
Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 2# 9# (DoorPhone)# 7# (0-5)#

Description

Use this address to determine the number of seconds a "buzzing" (unlocked) door will remain unlocked for the visitor to enter the building (4 seconds by default). This applies to door phones connected to digital extension ports only (not trunk ports).

This Relay Timer begins immediately after an extension enters the appropriate codes (#3*, #3 NNNN *, #3 XXX *, or #3 XXX NNNN *) to unlock the door.

Programming



Related Programming

Door Opener Access Code Required: FF1 2# 1# 40# (0 or 1)#

Door Opener Access Code: FF1 2# 9# (1-4)# 3# (0000-9999)#

System Timers

Automatic Night Mode Start Time

Software Version: All Versions
Address: FF1 3# 1# (0000-2359)#

Description

Set the time when the DBS will automatically switch from Day to Night mode. Use the 24-hour military time format (e.g.. enter "1700" for 5:00 pmj.

You can program trunks to ring incoming calls at different extensions when the system is in Night mode (see FF4 addresses). And different TRS types can be programmed to be used during Night mode (see FF8 addresses).

NOTE: Starting with Version 7.0 of the CPC-AII and CPC-B cards, a second Night mode is also available -- see FF1 3# 30# for more information.

Programming

To set the Automatic Night Mode start time . . .

FF1 3# 1# (0000-2359)#

Night Mode Start Time
(in 24-hour military format)

To clear the start time (disable Automatic Night Mode) . . .

FF1 3# 1# CONF ON/OFF

Related Programming

Time Setting: FF1 1# 2# HHMM#

Automatic Day Mode Start Time: FF1 3# 29# HHMM#

Automatic Night 2 Mode Start Time: FF1 3# 30# HHMM#

CO Ring Assignments: FF4 addresses

Toll Restriction: FF8 addresses

Notes

System Clock. The Automatic Night Mode start time depends on the DBS system clock being set correctly.

NIGHT Key Operation. If only one of the Auto Mode Start Times is set, the Attendant NIGHT key can be used to manually switch to another mode. For instance, if Night mode has been activated automatically, the Attendant can press the NIGHT key to go into Day mode. (However, the Attendant must wait at least 3 minutes after the mode is automatically activated, before using the NIGHT key to switch the mode again.)

In CPC-AII/B versions prior to 7.0, if both Auto Day and Auto Night Mode Start Times are set, the Attendant NIGHT key cannot be used to manually switch modes. (However, it will work in Version 7.0 or higher; or press #520 to toggle between Day, Night and Night 2 modes.)

SUGGESTION (for versions prior to 7.0): Set only the Auto Night Mode Start Time, so that the DBS will automatically switch to Night mode each night -- and each morning the Attendant phone user can press the NIGHT key to manually switch to Day mode.

Required Intervals Between Auto Day and Night Modes. If ***you*** set both Auto Mode Start Times, it is recommended that the start times differ by at least 1 hour.

Attendant Hold Recall Timer for CO Calls

Software Version: All Versions
Address: FF1 3# 2# (0-12)#

Description

This timer determines how long a trunk call can be held by an Attendant phone before it will recall (20 seconds by default).

Programming

FF1 3# 2# (0-12)#

Attendant Hold Recall Timer setting for CO calls
Default: 1 (20 **seconds) (see** table below)

Table 1-8. Attendant Hold Recall Timer values for CO calls

Setting	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# 22# (0-12)#

Extension Hold Recall Timer for CO Calls

Software Version: **All** Versions
Address: **FF1 3# 3# (0-12)#**

Description

This timer determines how long a trunk call remains on hold at an extension before it recalls (starts ringing the extension again; 140 seconds by default).

Programming

FF1 3# 3# (0-12)#

Extension Hold Recall Timer setting for CO calls
Default: 7 (140 seconds) (see table below)

Table 1-9. Extension Hold Recall Timer values for CO calls

Setting	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 Call Reversion Timer for CO Calls: FF1 3# 10# (0-12)#

Notes

Recall Treatment for CO ***Calls.*** If a trunk recall is unanswered, it will revert to the Attendant phone after ringing for the amount of time set in the Attendant Call Reversion Timer.

Attendant Transfer Recall Timer for CO Calls

Software Version: All Versions
Address: FF1 3# 4# (0-12)#

Description

When an Attendant phone 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 (20 seconds by default).

Programming

FF1 3# 4# (0-12)#

Attendant Transfer Recall Timer setting for CO calls
Default: **1 (20 seconds) (see** table below)

Table 1-10. Attendant Transfer Recall Timer values for CO calls

Setting	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 Transfer Recall Timer for Intercom Calls: FF1 3# 24# (0-12)#

Extension Transfer Recall Timer for CO Calls

Software Version: All Versions
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 (140 seconds by default).

Programming

FF1 3# 5# (0-12)#

Extension Transfer Recall Timer setting for CO calls
Default: 7 (140 **seconds)** (see table below)

Table I-l.!. Extension Transfer Recall Timer values for CO calls

Setting	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 Call Reversion Timer for CO Calls: FF13#10# (O-l 2)#

Notes

Recall Treatment for CO Calls. If a trunk recall is unanswered, it will revert to the Attendant phone after ringing for the amount of time set in the Attendant Call Reversion Timer.

Attendant Hunt Group Recall Timer

Software Version: All Versions
Address: FF1 3# 6# (0-12)#

Description

When an Attendant phone transfers a trunk call to a hunt group, the transferred call will recall to the Attendant if it is not answered, This timer determines how long the call will go unanswered before it recalls (20 seconds by default).

Programming

FF1 3# 6# (0-12)#

Attendant Hunt Group Recall Timer setting
Default: **1 (20 seconds) (see** table below)

Table l-12. Attendant Hunt Group Recall Timer values for CO calls

Setting	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 Hunt Group Recall Timer

Software Version: All Versions
Address: FF1 3# 7# (0-12)#

Description

When an extension transfers a trunk call 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 (140 seconds by default).

Programming

FF1 3# 7# (0-12)#

Extension Hunt Group Recall Timer setting
Default: 7 (**140** seconds) (see table below)

Table I-13. Extension Hunt Group Recall Timer values for CO calls

Setting	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

Attendant Park Hold Recall Timer

Software Version: All Versions
Address: FF1 3# 8# (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 7500-7509. Anyone can pick up the call by dialing 7600-7609.

This address determines how long a parked call will be held before it recalls (20 seconds by default).

Programming

FF1 3# 8# (0-12)#

Attendant Park Hold Recall Timer setting
Default: 1 (**20 seconds) (see** table below)

Table l-14. Attendant Park Hold Recall Timer values

Setting	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: All Versions
Address: FF1 3# 9# (0-12)#

Description

If an extension parks a trunk call, the parked call will recall (start ringing at the extension) if it is not picked up. This address determines how long the parked call remains on hold before it recalls (140 seconds by default).

Programming

FF1 3# 9# (0-12)#

Extension Park Hold Recall Timer setting
Default: 7 (140 **seconds)** (see table below)

Table I-15. Extension Park Hold Recall Timer values

Setting	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 Call Reversion Timer for CO Calls: FF1 3# 10# (0-12)#

Notes

Recall Treatment for CO ***Calls.*** If a trunk recall is unanswered. it will revert to the Attendant phone after ringing for the amount of time set in the Attendant Call Reversion Timer.

Attendant Call Reversion Timer for CO Calls

Software Version: All Versions
Address: FF1 3# 10# (O-l 2)#

Description

By default, the DBS will ultimately revert unanswered trunk recalls on extensions to the Attendant phone. This timer determines how long an unanswered trunk recall will ring at the last possible answering position (extension) before it reverts to the Attendant phone (180 seconds by default). This applies to trunk calls in the following states:

- Hold recalls that are unanswered on the holding extension.
- Transfer recalls that are unanswered by the transferring extension.
- Park recalls that are unanswered by the parking extension.

Programming

FF1 3# 10# (O-1 2)#

Attendant Call Reversion Timer setting
Default: 9 **(180 seconds) (see** table below)

Table l-16. Attendant Call Reversion Timer values

Setting	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

Extension Hold Recall Timer for CO Calls: FF1 3# 3# (0-12)#
Extension Transfer Recall Timer for CO Calls: FF1 3# 5# (0-12)#
Extension Park Hold Recall Timer: FF1 3# 9# (0-12)#

Notes

Night Mode Restriction. This feature is not available when the DBS is in "Night" or "Night 2" mode.

Unsupervised Conference Timer

Software Version: All Versions
Address: FF1 3# 11# (0-15)#

Description

This address determines how long a conference call can continue between two trunks after the DBS extension drops out of the conference (10 minutes by default). When the timer expires, the DBS will automatically disconnect the conferenced trunks.

This timer also determines how long outbound trunk calls made through DISA can last.

Programming

FF1 3# 11# (0-15)#

Unsupervised Conference Timer setting
Default: 2 **(10 minutes j (see** table below)

Table l-17. Unsupervised Conference Timer values

Setting	Value
0	Unlimited (DBS will not disconnect the two conferenced trunks)
1	5 minutes
2	**10 minutes**
3	15 minutes
4	**20** minutes
5	25 minutes
6	**30** minutes
7	**35 minutes**
8	40 minutes
9	**45** minutes
10	50 minutes
11	55 minutes
12	60 minutes
13	**65** minutes
14	70 minutes
15	**75** minutes

Related Programming

Unsupervised Trunk Conference: FF2 (Trunk)# 16# (0 or 1)#
Unsupervised Conference: FF3 (ExtPort)# 13# (0 or 1)#

Automatic Pause Timer

Software Version: All Versions
Address: FF1 3# 12# (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 address determines the length of each pause inserted by the **REDIAL** programming key (3.5 seconds by default).

Programming

FF1 3# 12# (0-15)#

Automatic Pause Timer setting
Default: 7 (3.5 **seconds)** (see table below)

Table 1-18. Automatic Pause Timer values

Setting	Value
0	No pause
1	.5 seconds
2	1 seconds
3	1.5 seconds
4	*2* seconds
[redacted]	*2.5* seconds
[redacted]	*3* seconds
[redacted]	***3.5* seconds**
8	*4.0* seconds
9	*4.5* seconds
10	*5* seconds
11	5.5 seconds
12	*6* seconds
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: FF12# 3# (1-8)# (O-999 or 0*-99*)#
Automatic Pause Position for PBX Access Codes: FF12# 3# (9-18)# (1-3)#
Speed Dial Programming: FF10 addresses

CO Flash Timer

Software Version: All Versions
Address: FF1 3# 13# (0-15)#

Description

A DBS 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 the flash will last if FLASH or REDIAL is depressed (1 second by default).

Exceptions: 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.) Also, if you are using a PBX or Centrex line, the FLASH key will place the call on hold.

Programming

FF1 3# 13# (0-15)#

CO Flash Timer setting
Default: 9 (1 **second)** (see table below)

NOTE: Settings 11 to 15 are available with CPC-A Version 3.3 or higher, and CPC-AII/B 5.0 or higher. These settings require Loop-S tart Trunk Card VB-435 1 OA or VB -435 11 A.

Table I-19. CO Flash Timer values

Setting	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	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# 18# (0- 10)#

Auto Flash Redial: FF1 2# 1# 6# (0 or 1)#

Trunk Circuit Type: FF2 (Trunk)# 21# (0 or 1)#

Dialing Restriction During Inbound Trunk Calls for TRS Types 3-6: FF7 1# 2# (0 or 1)#

Notes

Circuit Card Requirements. Timer settings 1 1- 15 are only available with the loop-start trunk card (Part No. VB-435 10A or VB-435 11A).

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.

FLASH and REDZAL Restriction. FLASH and REDIAL features are not available with ground-start trunks. ***See Technote 13 (March 1992)*** for further information.

SLT Flash Operation. Single-line telephones must press the hookswitch and dial "87" to activate this feature.

Using FLASH Key With PBX or Centrex Lines. If you are using a PBX or Centrex line, the FLASH key places the call on hold. See PBX Flash Timer address (FF1 3# 18#) for more information.

SLT Onhook Flash Timer

Software Version: All Versions
Address: FF1 3# 14# *(0-6)#*

Description

This timer determines how long an SLT user must hold down the switchhook before the DBS recognizes a hookflash (200 ms by default). This address also includes a setting that prevents hookflashes from being performed on SLTs.

If you change this setting, you must turn the system off, then back on to activate the change.

Programming

FF1 3# 14# (0-6)#

SLT Onhook Flash Timer setting
Default: 4 **(valid flash=200 to 1500 ms)**
(see table below)

Table l-20. SLT Onhook Flash Timer values

Address Setting	Flash Treatment		
	No Detection	*Valid Flash*	*Disconnect*
0	**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	**Less than 200 ms**	**200 to 1500 ms**	**Greater than 1500 ms**
5	Less than 200 ms	None	Greater than 200 ms
6	**Less than 200** ms	200-500 ms	Greater than 500 ms

Notes

Power-Cycling Requirement. In order for changes to this program to take effect, the system must be turned off, then back on.

CO Ring Cycle Detection Timer

Software Version: All Versions
Address: FF1 3# 15# (0-3)#

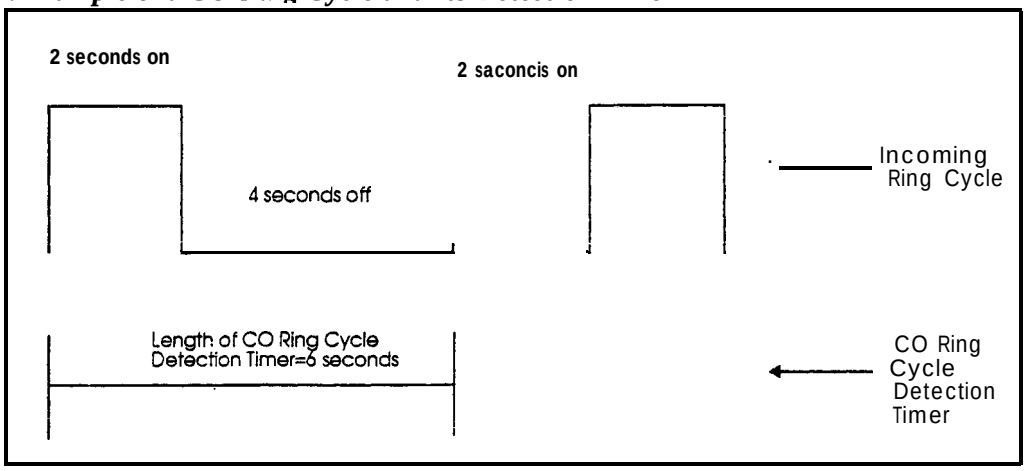
Description

This timer determines how long the DBS attempts to detect an incoming CO ring cycle (6 seconds by default).

To ensure that the DBS 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 DBS will not recognize valid CO 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 of a CO Ring Cycle and its Detection Timer



Programming

FF1 3# 15# (0-3)#
A
CO Ring Cycle Detection Timer setting:
0=4 seconds
1=6 seconds
2=8 seconds
3=10 seconds

Related Programming

Inbound Ring Cycle Expansion Timer: FF1 3# 16# (0-15)#

Inbound Ring Cycle Expansion Timer

Software Version: All Versions
Address: FF1 3# 16# (0-15)#

Description

If the incoming ring pattern for an extension (FF3 ExtPort# 39#) 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 received only part of the first "on" burst (see Figure l-2, previous page) 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 emulates the initial CO ring.

Programming

FF1 3# 16# (0-15)#

Inbound Ring Cycle Expansion Timer setting
Default: 7 (350 ms) (see table below)

. Table l-21. Inbound Ring Cycle Expansion Timer values

Setting	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	350 ms
8	400 ms
9	450 ms
10	500 ms
11	550 ms
12	600 ms
13	650 ms
14	700 ms
15	750 ms

Dial Pause Timer

Software Version: All Versions
Address: FF1 3# 17# (0-15)#

Description

Use this address to insert a pause (1.5 seconds by default) before outpulsing dialed digits, once a CO trunk is accessed.

The pause is used in speed-dialing (SSD and PSD) and in Least Cost Routing (LCR).

Programming

FF1 3# 17# (0-15)#

Dial Pause Timer setting
Default: **1 (1.5 seconds) (see** table below)

Table I-22. Dial Pause Timer values

Setting	Value
0	1.2 seconds
1	**1.5 seconds**
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: All Versions
Address: FF1 3# 18# (0-IO)#

Description

When a DBS trunk is defined as a PBX trunk, 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 (.8 seconds by default).

If the FLASH key is pressed and held down, the flash signal will last as long as the key is pressed.

Programming

FF1 3# 18# (0-10)#

PBX Flash Timer setting
Default: 7 **(.8 seconds) (see** table below)

Table 1-23. PBX Flash Timer values

Setting	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	1.1 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: All Versions
Address: FF1 3# 19# (0-15)#

Description

The Call Forward-No Answer Timer determines how long an unanswered call will ring at an extension before it is sent to a secondary destination (12 seconds by default).

NOTE: Although this address is present in all CPC versions, it controls different ringing features in different versions (see table below):

Table I-24. King control for Call Forward-No Answer Timer

Address	Ring Feature	CPC-A (all)	CPC-All (all)	CPC-B (prior to 3.1)	CPC-B (3.1 or higher)
FF1 3# 19#	CallForward-No Answer	YES	YES	YES	YES
FF1 3# 28#	Hunt Group-No Answer	YES	NO	YES	NO
FF1 3# 26#	CO Delaved Ring	(not available)	NO	YES	NO
FF1 3# 27#	Extension Delayed Ring	(not available)	NO	YES	NO

YES = The Call Forward-No Answer Tier controls this ring feature.
NO = The Call Forward-No Answer Timer does not control this feature -- it has its own address (see "Address" column).
(not available) = Control of this ring feature is not available in this CPC version.

Programming .

FF1 3# 19# (0-15)#

Call Forward-No Answer Timer setting
Default: **2 (After 12 seconds) (see** table below)

Table I-25. Call Forward-No Answer Timer values

Setting	Value	Setting	Value
0	After 4 seconds	9	After 40 seconds
1	After 8 seconds	10	After 44 seconds
2	**After 12 seconds**	11	After 48 seconds
3	After 16 seconds	12	After 52 seconds
4	After 20 seconds	13	After 56 seconds
5	After 24 seconds	14	After 60 seconds
6	After 28 seconds	15	After 64 seconds
7	After 32 seconds		
8	After 36 seconds		

Outbound Ground Start Detection Timer

Software Version: CPC-B Version 1.0 or higher
Address: FF1 3# 20# (1-8)#

Description

This timer determines how long the DBS waits for the CO to ground the Tip side of a trunk (4 seconds by default). before establishing a connection between the extension and the CO.

When an extension attempts to place an outgoing call on a ground-start trunk, the DBS grounds the Ring side of the trunk. In response, the CO grounds the Tip side of the trunk. When the DBS detects the Tip ground, it will establish the connection (the extension user will hear dial tone).

If the Tip ground is not received within the time set in this address, the DBS will treat the trunk as unavailable (the extension user will hear busy signal).

Programming

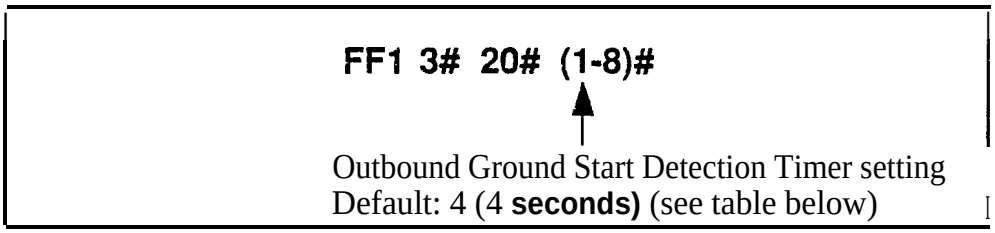


Table l-26. Outbound Ground Start Detection Timer values

Setting	Value
1	1 second
2	2 seconds
3	3 seconds
4	**4 seconds**
5	5 seconds
6	6 seconds
7	7 seconds
8	8 seconds

Related Programming

Inbound Ground Start Detection Timer: FF1 3# 21# (1-8)#

Trunk Circuit Type: FF2 (Trunk)# 21# (0-4)#

Inbound Ground Start Detection Timer

Software Version: CPC-B Version 1 .O or higher
Address: FF1 3# 21# (1-8)#

Description

This timer determines how long a CO Tip ground signal must be present before the DBS recognizes it as a valid incoming call (4 seconds by default).

When the CO sends a call to a ground-start DBS trunk, it signals the incoming call by grounding the Tip side of the trunk.

In most cases, this timer should be set to 3 seconds or longer. Otherwise, the DBS may generate false ringing when Tip ground is not quickly removed at the end of a call.

Programming

FF1 3# 21# (1-8)#

Inbound Ground Start Detection Timer setting
Default: 4 (4 **seconds) (see** table below)

Table l-27. Inbound Ground Start Detection Tinier values

Setting	Value
1	1 second
2	2 seconds
3	3 seconds
4	**4 seconds**
5	5 seconds
6	**6** seconds
7	7 seconds
8	**8** seconds

Related Programming

Outbound Ground Start Detection Timer: FF1 3# 20# (1-8)#

Trunk Circuit Type: FF2 (Trunk)# 21# (0-4)#

Attendant Hold Recall Timer for Intercom Calls

Software Version: CPC-All (all versions) and CPC-B Version 2.0 or higher
Address: FF1 3# 22# (0-12)#

Description

This timer determines how long an intercom call will remain on hold at an Attendant phone before it recalls (20 seconds by default).

Programming

FF1 3# 22# (0-12)#

Attendant Hold Recall Timer setting for Intercom Calls
Default: 1 (20 seconds) (see table below)

Table l-28. Attendant Hold Recall Timer values for intercom calls

Setting	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 CO Calls: FF1 3# 2# (0-12)#

Extension Hold Recall Timer for Intercom Calls

Software Version: CPC-All (ail versions) and CPC-B Version 2.0 or higher
Address: FF1 3# 23# (0-12)#

Description

This timer determines how long an intercom call will remain on hold at an extension phone before it recalls (140 seconds by default).

Programming

FF1 3# 23# (0-12)#

Extension Hold Recall Timer setting for intercom calls
Default: 7 (140 **seconds) (see** table below)

Table l-29. Extension Hold Recall Timer values for intercom calls

Setting	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

Recall Treatment for Intercom Calls. Unanswered recalls for intercom calls will ring indefinitely at the extension.

Attendant Transfer Recall Timer for Intercom Calls

Software Version: CPC-All (ail versions) and CPC-B Version 2.0 or higher
Address: FF1 3# 24# (0-12)#

Description

This timer determines how long an Attendant-transferred intercom call will ring at an extension before it recalls to the Attendant (20 seconds by default).

Programming

FF1 3# 24# (0-12)#

Attendant Transfer Recall Timer setting for intercom calls
Default: 1 (20 **seconds) (see** table below)

Table l-30. Attendant Transfer Recall Timer values for intercom calls

Setting	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 Transfer Recall Timer for CO Calls: FF1 3# 4# (0-12)#

Notes

Call Forward *Interaction.* 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 less than the Recall Timer.

Extension Transfer Recall Timer for Intercom Calls

Software Version: CPC-All (all versions) and CPC-B Version 2.0 or higher
Address: FF1 3# 25# (0-12)#

Description

This timer determines how long a transferred intercom call will ring at another extension before it recalls back to the transferring extension (140 seconds by default).

Programming

FF1 3# 25# (0-12)#

Extension Transfer Recall Timer setting for intercom calls
Default: 7 **(140 seconds)** (see table below)

Table l-31. Extension Transfer Recall Timer values for intercom calls

Setting	Value
0	No recall
1	*20* seconds
2	40 seconds
3	*60* seconds
4	*80* seconds
5	I 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

Extension Transfer Recall Timer for CO Calls: **FF1 3# 5#** (0- 12)#

Notes

Call Forward Interaction. 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 less than the Recall Timer.

CO Delayed Ring Timer

Software Version: CPC-All (all versions) and CPC-B Version 3.1 or higher
Address: FF1 3# 26# (0-15)#

Description

CO Delayed Ringing allows a second extension to ring when an incoming trunk call is not answered at the first extension. This timer determines how long a CO trunk call will ring at the first extension before it begins ringing at the second extension. (When the second extension begins ringing, the first extension will stop ringing.)

Programming

FF1 3# 26# (0-15)#

CO Delayed Ring Timer setting
Default: 2 **(after 12 seconds) (see** table below)

Table l-32. CO Delayed Ring Timer values

Setting	Value
0	After 4 seconds
1	After 8 seconds
2	**After 12 seconds**
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

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)#

Notes

CO Delayed Ring Control in Older CPC-B Versions. In CPC-B versions prior to 3.1, CO delayed ringing is controlled by the Call Forward-No Answer Timer (FF1 3# 19# 0-15#).

Extension (DSS/BLF) Delayed Ring Timer

Software Version: CPC-All (all versions) and CPC-B Version 3.1 or higher
Address: FF1 3# 27# (0-15)#

Description

Extension Delayed Ringing allows a second extension to ring when an intercom call is not answered at the first extension. This timer determines how long the intercom call will ring at the first extension before it begins ringing at the second extension. (When the second extension begins ringing, the first extension will stop ringing.)

Note: The covering station needs a DSS/BLF key.

Programming

FF1 3# 27# (0-15)#

Extension Delayed Ring Timer setting
Default: **2 (after 12 seconds) (see** table below)

Table l-33. Extension Delayed Ring Timer values

Setting	Value
0	After 4 seconds
1	After 8 seconds
2	**After 12 seconds**
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

Related Programming

Extension (BLF) Delayed Ring: FF1 2# 1# 30# (0 or 1)#

Extension Delayed Ring Table: FF4 8# (ExtPort)# (ExtPort)# (0 or 1)#

Notes

Extension Delayed Ring Control in Older CPC-B Versions. *In* CPC-B versions prior to 3.1, extension delayed ringing is controlled by the Call Forward-No Answer Timer (FF1 3#19# 0-15#).

Hunt **Group** No Answer Timer

Software Version: CPC-All (all versions) and CPC-B Version 3.1 or higher
Address: FF1 3# 28# (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 (12 seconds by default).

Programming

FF1 3# 28# (0-15)#

Hunt Group No Answer Timer setting
Default: 2 **(after 12 seconds) (see** table below)

Table l-34. Hunt Group No Answer Timer values

Setting	Value
0	After 4 seconds
1	After 8 seconds
2	**After 12 seconds**
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

Notes

Extension Delayed Ring Control in Older CPC-B Versions. *In* CPC-B versions prior to 3.1, extension delayed ringing is controlled by the Call Forward-No Answer Timer (FF1 3# 19# 0-15#).

Automatic Day Mode Start Time

Software Version: CPC-All (all versions) and CPC-B Version 4.0 or higher
Address: FF1 3# 29# HHMM#

Description

Setting the Automatic Day Mode Start Time allows the DBS to switch from Night mode to Day mode automatically.

You can program trunks to ring incoming calls at different extensions during Day or Night mode (see FF4 addresses). And different TRS types can be programmed for use in each mode (see FF8 addresses).

To set the automatic start time for Night mode, use FF1 3# 1# HHMM. A second Night mode is also available in Version 7.0 or higher of CPC-AII or CPC-B -- see FF1 3# 30# HHMM.

Programming

To set the Automatic Day Mode Start Time . . .

Enter the time using the 24-hour format. The following example sets the time to 8:30 a.m.:

FF1 3# 29# 0830#

Time Setting (8:30 a.m.)
(in 24-hour format)

To clear the Start Time (disable Day Mode) . . .

FF1 3# 29# CONF ON/OFF

Related Programming

Time Setting: FF1 1# 2# HHMM#

Automatic Night Mode Start Time: FF1 3# 1# HHMM#

Automatic Night 2 Mode Start Time: FF1 3# 30# HHMM#

CO Ring Assignments: FF4 addresses

Toll Restriction: FF8 addresses

Notes

System ***Clock.*** The Automatic Day Mode start time depends on the DBS system clock being set correctly.

NIGHT Key Operation. If only one of the Auto Mode Start Ties is set, the Attendant NIGHT key can be used to manually switch to another mode. For instance, if Night mode has been activated automatically, the Attendant can press the NIGHT key to go into Day mode. (However, the Attendant must wait at least 3 minutes after the mode is automatically activated, before using the NIGHT key to switch the mode again.)

In CPC-AII/B versions prior to 7.0, if both Auto Day and Auto Night Mode Start Times are set, the Attendant NIGHT key cannot be used to manually switch modes. (However, it will work in Version 7.0 or higher; or press #520 to toggle between Day, Night and Night 2 modes.)

SUGGESTION (for versions prior to 7.0): Set only the Auto Night Mode Start Time, so that the DBS will automatically switch to Night mode each night -- and each morning the Attendant phone can press the NIGHT key to manually switch to Day mode.

Required Intervals Between Auto Day and Night Modes. If you set both Auto Mode Start Times. it is recommended that the start times differ by at least 1 hour.

Automatic Night 2 Mode Start Time

Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF1 3# 30# HHMM#

Description

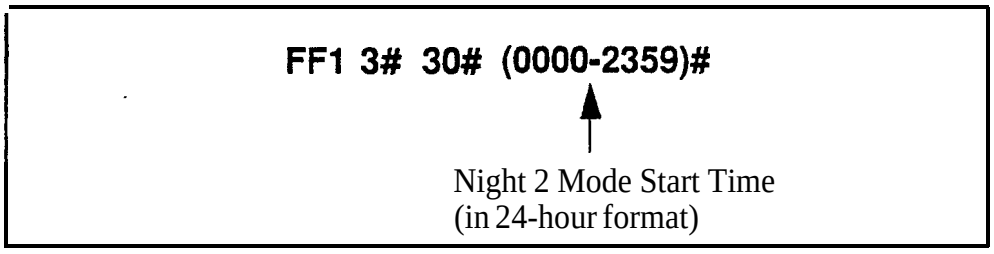
In this address, you can activate a second Night mode by setting the Automatic Night 2 Mode Start Time. This allows the DBS to switch from Night to Night 2 mode automatically at the time set in this address.

You can program trunks to ring incoming calls at different extensions during Day or Night mode (see FF4 addresses). And different TRS types can be programmed for use in each mode (see FF8 addresses).

To set the automatic start time for Night mode, use FF1 3# 1# HHMM. To set the Automatic Day Mode Start Time, use FF1 3# 29# HHMM.

Programming

To set the Automatic Night 2 Mode Start Time . . .



To clear the start. time (disable Night 2 Mode) . . .

FF1 3# 30# CONF ON/OFF

Related Programming

Time Setting: FF1 1# 2# HHMM#

Automatic Day Mode Start Time: FF1 3# 29# HHMM#

Automatic Night 1 Mode Start Time: FF1 3# 1# HHMM#

CO Ring Assignments: FF4 addresses

Toll Restriction: FF8 addresses

Notes

System ***Clock. The*** automatic start time for Night 2 depends on the DBS system clock being set correctly.

NIGHT* Key *Operation. If only one of the Auto Mode Start Times is set, the Attendant NIGHT key can be used to manually switch to another mode. For instance, if Night mode has been activated automatically, the Attendant can press the NIGHT key to go into Day mode. (However, the Attendant must wait at least 3 minutes after the mode is automatically activated, before using the NIGHT key to switch the mode again.)

In CPC-AII/B versions prior to 7.0, if both Auto Day and Auto Night Mode Start Times are set, the Attendant NIGHT key cannot be used to manually switch modes. (However, it will work in Version 7.0 or higher; or press #520 to toggle between Day, Night and Night 2 modes.)

SUGGESTION (for versions prior to 7.0): Set only the Auto Night Mode Start Time, so that the DBS will automatically switch to Night mode each night -- and each morning the Attendant phone can press the NIGHT key to manually switch to Day mode.

Required Intervals Between Auto Day and Night Modes. If you set both Auto Mode Start Times, it is recommended that the start times differ by at least 1 hour.

Programming and DISA Codes

Remote Programming ID Code

Software Version: All Versions
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 (CN6).

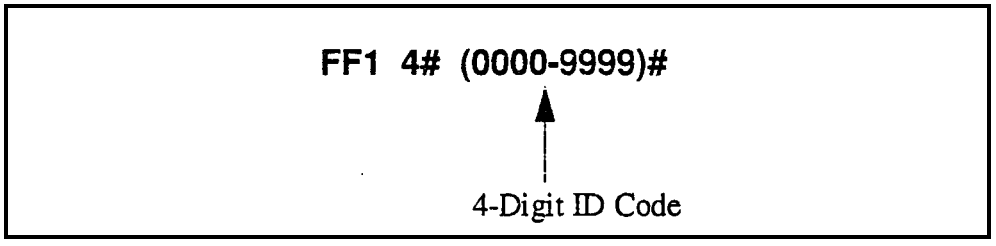
You can enter the remote programming mode through any of these three methods:

- 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 Remota Programming ID Code . . .



To reset the ID Code to the default (9999)...

DISA Inbound Call ID Code

Software Version: All Versions
Address: FF1 5# (0000-9999)#

Description

Use this address to set a valid ID code for inbound DISA (Direct Inward System Access) callers. By default, no ID code is defined. which means a caller who dials a DISA trunk will receive intercom dial tone immediately without entering an ID code.

If you define a DISA Inbound Call ID Code in this address, callers dialing in on the DISA trunk will receive a fast-busy tone. The caller must then dial the DISA Inbound Call ID Code to receive the intercom dial tone.

Programming

To set the DISA ID Code . . .

FF1 5# (0000-9999)#

J-Digit DISA Inbound ID Code
(Default: ****)

To clear the DISA ID Code . . .

FF1 5# CONF ON/OFF

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 lime: FF2 (Trunk)# 19# HHMM#

DISA End Time: FF2 (Trunk)# 20# HHMM#

DISA Auto Answer: FF2 (Trunk)# 1 1# HHMM#

DISA Outbound Call ID Code 1

Software Version: All Versions
Address: FF1 6# 1# (0000-9999)#

Description

Once a caller has dialed in on the DISA trunk and accessed intercom dial tone, he/she can access a trunk line by dialing #7, then the ID code set in this address (1111 by default), then 9 or 81-86 to access the MCO trunk.

Programming

To set DISA Outbound ID Code 1 . . .

FF1 6# 1# (0000-9999)#

4-Digit DISA Outbound ID Code 1
(Default: **1111)**

To reset DISA Outbound ID Code 1 to default "1111" . . .

FF1 6# 1# CONF ON/OFF

Reiated 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)#

Notes

DISA Limitations --

1) A 16-second timer is set between the dialing of the DISA Outbound ID Code. If a time-out results, the DISA call is treated as a normal call.

2) The DBS supports up to two valid 4-digit DISA Outbound ID Codes, so that you can track two different groups of DISA callers on SMDR reports.

3) Accessing trunks via DISA can take place only on trunk (MCO) groups.

4) LCR (Least Cost Routing) is not supported on DISA trunks.

5) Trunk calling with DISA will override all TRS.

DISA Outbound Call ID Code 2

Software Version: All Versions
Address: FF1 6# 2# (0000-9999)#

Description

Once a caller has dialed in on the DISA trunk and accessed intercom dial tone, he/she can access a trunk line by dialing **#7**, then the ID code set in this address (9999 by default), then 9 or 81-86 to access the MCO trunk.

Programming

To set DISA Outbound Call ID Code 2 . . .

FF1 6# 2# (0000-9999)#

4-Digit DISA Outbound ID Code 2
(Default: **9999**)

To reset DISA Outbound ID Code 2 to default "9999" . . .

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)#

Notes

DISA Limitations --

1) A 16-second timer is set between the dialing of the DISA Outbound ID Code. If a time-out results, the DISA call is treated as a normal call.

2) The DBS supports up to two valid 4-digit DISA Outbound ID Codes, so that you can track two different groups of DISA callers on SMDR reports.

3) Accessing trunks via DISA can take place only on trunk (MCO) groups.

4) LCR (Least Cost Routing) is not supported on DISA trunks.

5) Trunk calling with DISA will override all TRS.

ID Code For System Programming

Software Version: All Versions
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 (9999 by default).

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 . . .

FF1 7# (0000-9999)#

4-Digit ID Code for System Programming
(Default: 9999)

To reset the ID Code to default "9999" . . .

FF1 7# CONF ON/OFF

Notes

Entering the Programming Mode. Oniy one extension can be in programming mode at a particular time.

New Function Reset

New Function Reset

Software Version: CPC-B Only, Version 4.0 or higher
Address: FF1 8# 1# (0 or 1)# (to select the reset)
FF1 8# 2# (0 or 1)# (to complete the reset)

Description

Perform this address if you are upgrading CPC-B software to a new release (such as from 5.0 to 6.0). However, it is not necessary if you are upgrading to a "point" release (such as 6.0 to 6.1). New Function Reset should be performed immediately after changing-out the EPROM chips on the CPC-B card.

New Function Reset initializes SRAM (Static Random Access Memory). It clears unused registers and adds new programs, but retains all current DBS program settings. ***Exception:*** If you are upgrading from a CPC-B version prior to 3.1, New Function Reset will clear existing DID numbers (which are extension-based -- see FF3 ExtPort# 35#). Beginning with Version 3.1, DID numbers are stored in the 'Inbound DID Numbers" table (see FF1 8# 3# address). New Function Reset will erase extension-based DID numbers, but it will not erase the Inbound DID Numbers table.

Prdgramming

FF1 8# 1# (Oor 1)#

0=Do not perform New Function Reset.
1=Perform New Function Reset.

NOTE: If you enter "1" (to reset), the following displays:

```
CONFIRM
0:NO  1:YES
```

This is to confirm that you want to reset the data before the DBS actually performs the reset. Press one of the following:

0=Do not complete the reset.
1=Complete the reset.

Related Programming

CO Ring Assignments: FF4 addresses

CO Ring Cycle Detection Timer: FF1 3# 15# (0-3)#

DID/DNIS and T1 Settings

Inbound DID Dial Numbers

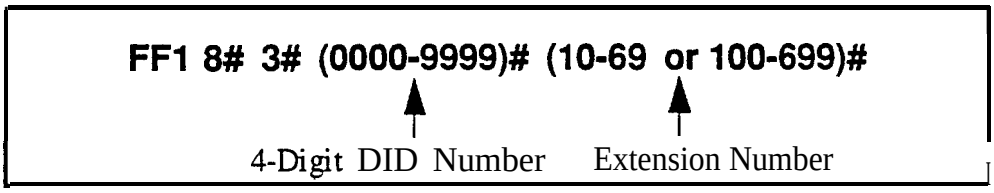
Software Version: CPC-B Version 3.1 or higher
Address: FF1 8# 3# (0000-9999)# (IO-69 or 100-699)#

Description

Use this address to assign DID number(s) to extension(s).

- Up to 500 DID numbers can be assigned.
- One DID number can be assigned to multiple extensions (this will take up only one entry in the 500 available entries).
- One extension can have multiple DID numbers assigned to it. (The number of entries taken up is equal to the number of DID numbers assigned to the extension.)

Programming



Related Programming

Multiple DID/DNIS: FF1 2# 1# 32# (0 or 1)#

DID/DNIS (enabling trunks for): FF1 8# 4# 6# (Trunk)# 2# (0-2)#

DID Flexible Ringing Assignments: FF1 8# 5# (DIDNo.)# (ExtNo.)# (0000[00]-1111[11])#

DID Immediate or Wink Start: FF2 (Trunk)# 22# (0 or 1)#

Wink Start Timer: FF2 (Trunk)# 23# (0-15)#

Time Out for Dialed DID Digits: FF2 (Trunk)# 24# (0-15)#

DID Interdigit Timeout: FF2 (Trunk)# 25# (0-15)#

Extension Numbers: FF3 (ExtPort)# 1# (ExtNo.)#

Notes

DID Number Assignment in Older CPC-B Version. In CPC-B Version 2.0, DID numbers were stored with extension port settings, rather than in a separate table (see FF3 ExtPort# 35# for more information).

DID Hardware and Power Requirements. The DID trunk card is required (each DID card provides 8 ports). The DID trunk card requires an external, -48V power supply. Also, SCC-B Card Version 1.2 or higher is required. See *Section 300-Installation* for cabling instructions.

Dial Pulse Requirement. The DID trunk card requires dial-pulse dialing.

Digit Length Requirement. ***The*** DBS only supports 4-digit DID numbers.

DID Ring Control. Ringing for the DID number at the assigned extension(s) is controlled by the DID Flexible Ringing Assignments address (FF18# 5#).

System Configuration

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 1# 1# (0-8)#

Description

Use this address to identify the DBS system configuration in which the T1 interface is installed (DBS 40 by default).

This is one of the required addresses to make T1 operational. See **"Minimum T1 Programming"** below for more information.

Programming

FF1 8# 4# 1# 1# (0-8)#

System Configuration
Default: 0 **(DBS 40)**
(see table below)

Table l-35. System Configuration for T1 installation

Setting	Value	Notes
0	**DBS40**	
1	DBS 72	
2	DBS 96	
3	DBS 40 + DBS 40	T1 must be in slave cabinet
4	DBS 72 + DBS 40	T1 is not supported
5	DBS 72 + DBS 72	T1 must be in slave cabinet
6	DBS 96 + DBS 40	
7	DBS 96 + DBS 72	
8	CBS 96 + DBS 96	

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Minimum T1 Programming. The following table (see next page) lists the programs that need to be set in order to make T1 operational. Default settings appear in bold. In most cases, you do not have to change the defaults for any remaining T1 programs.

Table l-36. Minimum Tl programming (default settings appear in bold)

STEP 1 -- NEW FUNCTION RESET

Address:	FF1 8# 1# (0 or 1)# (to select the reset) FF1 8# 2# (0 or 1)# (to complete the reset)
Description:	Must be performed if you are installing T1 while upgrading to a new CPC-B release (e.g., from 6.2 to 7.0). Not needed if you are upgrading to a "point" release (e.g., from 6.0 to 6.2).
Options:	**0=Do** not reset l=Reset

STEP 2 -- SYSTEM CONFIGURATION

Address:	FF1 8# 4# 1# 1# (0-8)#
Description:	Enter the DBS cabinet configuration.
Options:	**0=DBS** 40 l=DBS 72 2=DBS 96 3=DBS 40 + DBS 40 (T1 must be in slave cabinet) 4=DBS 72 + DBS 40 (T1 is not supported) 5=DBS 72 + DBS 72 (T1 must be in slave cabinet) 6=DBS 96 + DBS 40 7=DBS 96 + DBS 72 8=DBS 96 + DBS 96

STEP 3 -- SYNC SOURCES

Address:	FF1 8# 4# 1# 2# (1-3)# for Sync Source 1 FF1 8# 4# 1# 3# (0-3)# for Sync Source 2 FF1 8# 4# 1# 4# (0-3)# for Sync Source 3
Description:	Assign the sync sources. The Sync Card (installed on the CPC-B) provides a method of synchronizing the DBS with the public network. If the first sync source fails, the DBS will switch to the second sync source, and will then attempt to return to the first source based on the "Network Re-Sync Timer" value. If the second source fails and the first source is not working, the system will switch to the third source. The DBS considers a clock source to have failed when the 'Slip Rate Error Counter" is exceeded within a 24-how period. (continued)

Address: continued)	FF1 8# 4# 1# 2# (1-3)# for Sync Source 1 FF1 8# 4# 1# 3# (0-3)# for Sync Source 2 FF1 8# 4# 1# 4# (0-3)# for Sync Source 3
Description: continued)	The "Free run" setting is the only setting that can be entered for more than one sync source. One of the three sync sources should be set to "Free run", so that the T1 can provide its own clocking if the network clock fails. For changes to this parameter to take effect, the system must be Powered down. then powered back up.
Options:	**0=None (default for Sync Sources 2 and 3)** 1=T1 of the master cabinet 2=T1 of the slave cabinet **3=Free run (internal clocking) (default for Sync Source 1)**
Examples:	In most cases, the sync sources should be set as follows for these system configurations: T1 in a Single Cabinet, or T1 in a Master Cabinet: Sync Source 1 = **1 (T1 of the master cabinet)** Sync Source 2 = **3 (Free run)** Sync Source 3 = 0 **(None)** T1 in a Slave Cabinet: Sync Source 1 = **2 (T1 of the slave cabinet)** Sync Source **2 = 3 (Free run)** Sync Source 3 = 0 **(None)** Tls in the Master and Slave Cabinets: Sync Source 1 = **1 (T1 of the master cabinet)** Sync Source **2 = 2 (T1 of the slave cabinet)** **Sync Source 3 = 3 (Free run)**

STEP 4 -- TRUNK CONFIGURATION

Address:	FF1 8# 4# 4# 1# 1# (0 or 1)# for Master Cabinet FF1 8# 4# 5# 1# 1# (0 or 1)# for Slave Cabinet
Description:	Specify the trunk configuration.
Options:	**0=Analog only** 1=T1 and analog trunks

STEP 5 -- NUMBER OF T1 CHANNELS

Address:	FF1 8# 4# 4# 1# 2# (0-24)# for Master Cabinet FF1 8# 4# 5# 1# 2# (0-24)# for Slave Cabinet
Description:	Specify the number of T1 channels used when "Fractional T1" is needed (using only a portion of the 24 available channels on the T1 card).
Options:	0 = None (no T1 channels are used) 1 thru 24 = Number of Tl channels used

STEP 6 -- FRAME FORMAT

Address:	FF1 8# 4# 4# 1# 3# (0 or 1)# for Master Cabinet FF1 8# 4# 5# 1# 3# (0 or 1)# for Slave Cabinet
Description:	Specify the framing format used by the T1. Be sure to match the framing format ordered from the CO. In most cases, SF (SuperFrame; also known as D4) is used. SF consists of 12 frames, with each frame including 192 information bits. ESF (Extended SuperFrame) can also be selected. ESF consists of 24 frames, and supports monitoring and maintenance capabilities not available in the SF format. For changes to this parameter to take effect, the system must be powered down, then powered back up.
Options:	0 = SF (D4) 1 = ESF

STEP 7 -- LINE CODING (CLEAR CHANNEL) FORMAT

Address:	FF1 8# 4# 4# 1# 4# (0 or 1)# for Master Cabinet FF1 8# 4# 5# 1# 4# (0 or 1)# for Slave Cabinet
Description:	Specify the clear channel format used by the T1 for line coding. Be sure to match the clear channel format ordered from the CO. In most cases, AM1 (Alternate Mark Inversion) is used. B8ZS (Binary 8-Zeros Suppression) can also be selected. For changes to this parameter to take effect, the system must be powered down, then powered back up.
Options:	0 = AMI 1 = B8ZS

STEP 8 -- TRUNK CIRCUIT TYPE

Address:	FF2 (1-64)# 21# (0-4)#
Description:	Specify which trunk channels are used for T1. When assigning trunks as circuit type "3" (T1), start from the highest-numbered trunk port in the DBS cabinet structure, and move down sequentially from there. If Fractional T1 is used, make sure that the number of trunks assigned to circuit type "3" (T1) matches the "Number of T1 Channels" setting **(see STEP 5** above). Also, if your CPC-B version is 5.0 to 6.02, make sure the remaining trunk ports on the TRK card are opened for analog usage in the "T1 Trunk Closure" address (see FF18# 7# in this DBS Manual). For changes to this parameter to take effect, the system must be powered down, then powered back up.
Options:	**0 = Loop Start** 1 = Ground Start 2 = Analog DID 3 = T1 4 = Caller ID (loop start) (available only with CPC-B Version 6.1 or higher)

STEP 9 -- T1 TRUNK TYPE EMULATION

Address:	FF1 8# 4# 6# (1-64)# 1# (0-3)#
Description:	Specify the type of trunk signaling that each T1 channel emulates. Be sure to match the signaling ordered from the CO. If your system uses T1 COP Version 1.1 or 1.2 and you wish to use the "Ground Start" setting, it must be upgraded to Version 1.4 or higher. For changes to this parameter to take effect, the system must be powered down, then powered back up.
Options:	**0 = Loop Start emulation** 1 = (reserved for future use) 2 = Ground Start emulation 3 = E&M

STEP 10 -- OUTGOUNG SIGNALING TYPE

Address:	FF1 8# 4# 6# (1-64)# 3# (0-2)#
Description:	Specify the outgoing signaling type used by the T1. Be sure to match the signaling ordered from the CO. For changes to this parameter to take effect, the system must be powered down, then powered back up.
Options:	0 = Immediate Start 1 = Wink Start 2 = Dial Tone Start

STEP 11 -- INCOMING SIGNALING TYPE

Address:	FF1 8# 4# 6# (1-64)# 4# (0 or 1)#
Description:	Specify the incoming signaling type used by the T1. Be sure to match the signaling ordered from the CO. For changes to this parameter to take effect, the system must be powered down, then powered back up.
Options:	0 = Immediate Start/Ringdown 1 = Wink Start

Sync Source 1

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 1# 2# (1-3)#

Description

The Sync Card (installed on the CPC-B) provides a method of synchronizing the DBS with the public network. This address determines the first clocking source for network synchronization (internal clocking by default).

If the first clocking source fails, the system will switch to the second source. The system will attempt to go back to the first source based on the Network Re-Sync Timer setting (see FF1 8# 4# 2# 1# 0-25#).

The system considers a clock source to have failed when the Slip Counter is exceeded within a 24-hour period. See FF1 8# 4# 4/5# 3# 2# (0-9000)# for instructions on setting the Slip Counter.

Typically, Sync Source 1 is T1 of the master cabinet. See **"Notes"** below for a list of typical sync source settings for single- and double-cabinet systems.

Programming

FF1 8# 4# 1# 2# (1-3)#

1=T1 of the master cabinet
2=T1 of the slave cabinet
3=Free run (internal clocking)

Note: Settings 1 and 2 synchronize T1 clocking with the public network.

Notes

Typical Sync Settings. In most cases, sync sources should be set as follows for these configurations:

T1 in a Single Cabinet -- or -- T1 in a Master Cabinet

Source 1: 1 (T1 of the master cabinet)
Source 2: **3** (Free run)
Source 3: 0 (None)

T1 in a Slave Cabinet

Source 1: 2 (T1 of the slave cabinet)
Source 2: 3 (Free run)
Source 3: 0 (None)

Tls in the Master and Slave Cabinets

Source 1: 1 (Tl of the master cabinet)
Source 2: 2 (T1 of the slave cabinet)
Source 3: 3 (Free run)

Restriction on Duplicate Sync Settings. "Free run" is the only setting that can be entered for more than one sync source.

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Sync Source 2

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 1# 3# (0-3)#

Description

Determines the source of clocking for the second sync source, which is used if the first sync source fails.

If the second sync source is used, the DBS system will attempt to switch back to the first source based on the value set for the Network Re-Sync Timer (see FF1 8# 4# 2# 1# 0-25#). If the second source fails and the first source is not working, the system will switch to the third source.

In most cases, a system with one T1 has the second sync source set to "3" (Free run). Systems with two Tls normally have the second sync source set to "2" (T1 of the slave cabinet).

NOTE: One of the three sync sources should be set to "3" (Free run), so that the T1 can provide its own clocking if the network clock fails.

See the **Sync Source** 1 address for an introduction to T1 clocking, and a list of typical sync source settings in single-cabinet and double-cabinet systems.

Programming

FF1 8# 4# 1# 3# (0-3)#

0=None (default)
1=T1 of the master cabinet
2=T1 of the slave cabinet
3=Free run (internal clocking)

Note: Settings 1 and 2 synchronize T1 clocking with the public network.

Notes

Restriction on Duplicate Sync Settings. "Free run" is the only setting that can be entered for more than one sync source.

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Sync Source 3

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 1# 4# (0-3)#

Description

Deterrnines the source of clocking for the third sync source, which is used if both the first and second sources fail.

If the third sync source is used, the DBS system will attempt to switch back to the first source based on the value set for the Network Re-Sync Timer (see FF1 8# 4# 2# 1# 0-25#).

In most cases, a system with one Tl has the third sync source set to "0" (None). Systems with two Tls normally have the third sync source set to "3" (Free run).

NOTE: One of the three sync sources should be set to "3" (Free run), so that the T1 can provide its own clocking if the network clock fails.

See the **Sync Source** 1 address for an introduction to T1 clocking, and a list of typical sync source settings in single-cabinet and double-cabinet systems.

Programming

FF1 8# 4# 1# 4# (0-3)#

0=None (default)
1=T1 of the master cabinet
2=T1 of the slave cabinet
3=Free run (internal clocking)

Note: Settings 1 and 2 synchronize T1 clocking with the public network.

Notes

Restriction on Duplicate Sync Settings. "Free run" is the only setting that can be entered for more than one sync source.

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Network Re-Sync Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 1# (0-25)#

Description

If one clock source fails, the system will switch to another clock source. The Network Re-Sync Timer determines how many times (once an hour) the system attempts to return to the original clock source.

For example, if the first clocking (sync) source fails, the system will switch to the second source, and then will attempt to return to the first source once an hour for the number of times set in Network Re-Sync Timer. Likewise, if the system switches to the third source (after the first and second sources fail), the Network Re-Sync Timer determines how many times the system will attempt to return to the original clocking source.

Programming

FF1 8# 4# 2# 1# (0-25)#

O=Immediate (DBS attempts to return to first sync source immediately).
1-24=Number of hours the DBS attempts to return to first sync source (once an hour).
25=No retries (DBS does not attempt to switch to first sync source).

Disconnect Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 2# (0-12)#

Description

Determines how long the DBS waits before sending a disconnect signal from the Tl to the CO (200 ms by default).

NOTE: The CO Disconnect Timer (FF2 Trunk# 18# 0-15#) determines how long the system waits to *receive* a disconnect signal from the CO.

Programming

FF1 8# 4# 2# 2# (0-12)#

Disconnect Timer setting
Default: **1 (200 ms) (see** table below)

Table l-37. T1 Disconnect Timer values

Setting	Value
0	150 ms
1	I 200 **ms**
2	250 **ms**
3	300 **ms**
4	400 **ms**
5	500 **ms**
6	1000 **ms**
7	1500 **ms**
8	2000 ms
9	2500 **ms**
10	3000 **ms**
11	3500 **ms**
12	Off (DBS does not automatically send a disconnect signal)

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Guard Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 3# (0-15)#

Description

Determines how long the system guards a T1 circuit (1200 ms by default). When the DBS "guards" a circuit, it holds the circuit after it has been released to make sure the previous call is properly disconnected. This means the channel cannot be used for another call until the Guard Timer has expired.

Programming

FF1 8# 4# 2# 3# (0-15)#

Guard Timer setting
Default: 6 (1200 **ms**) (see table below)

Table l-38. Tl Guard Timer values

Setting	Value
0	200 ms
1	300 ms
2	400 ms
3	500 ms
4	800 ms
5	1000 ms
6	**1200 ms**
7	1400 ms
8	1600 ms
9	1800 ms
10	2000 ms
11	2200 ms
12	2400 ms
13	2600 ms
14	2800 ms
15	3000 ms

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Release Acknowledge Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 4# (0-15)#

Description

Determines how long the DBS waits for the CO to acknowledge a disconnect signal (240 seconds by default).

Once this timer expires, the DBS will abandon the call even if the CO has not acknowledged the disconnect. This allows the DBS to disconnect idle T1 trunks if the CO is not signaling properly.

Programming

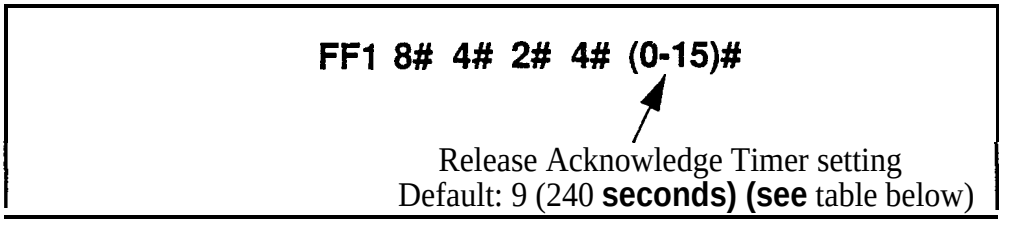


Table l-39. Release Acknowledge Timer values

Setting	Value
0	1 second
1	2 seconds
2	5 seconds
3	10 seconds
4	20 seconds
5	30 seconds
6	60 seconds
7	90 seconds
8	120 seconds
9	240 seconds
10	480 seconds
11	960 seconds
12	1,080 seconds
13	1,420 seconds
14	1,920 seconds
15	An infinite number of seconds

Outpulse Delay Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 5# (0-8)#

Description

Determines how long the system waits before outpuising dialed digits to the network (500 ms by default).

Programming

FF1 8# 4# 2# 5# (0-8)#

Outpulse Delay Timer setting
Default: 2 **(500 ms)** (see table below)

*Table l-40. **Outpulse** Delay Timer values*

Setting	Value
0	100 ms
1	300 ms
2	**500 ms**
3	700 ms
4	1000 ms
5	1200 ms
6	1500 ms
7	1700 ms
8	2000 ms

Wink Timeout Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 6# (0-15)#

Description

When wink-start signaling is used, the DBS waits for a wink signal from the CO when an extension user goes off-hook. Once a wink signal is received, the DBS sends CO dial tone to the extension.

This timer determines how long the DBS waits for a wink signal once an extension user goes off-hook (5500 ms by default). If the DBS does not receive a wink signal before the timer expires, the DBS disconnects the T1 channel and returns busy tone to the user.

Programming

FF1 8# 4# 2# 6# (0-15)#

Wink Timeout Timer setting
Default: 15 (5500 ms) (see table below)

Table 1-41. Wink Timeout Timer values

Setting	Value
0	150 ms
1	250 ms
2	500 ms
3	750 ms
4	1000 ms
5	1250 ms
6	1500 ms
7	1750 ms
8	2000 ms
9	2500 ms
10	3000 ms
11	3500 ms
12	4000 ms
13	4500 ms
14	5000 ms
15	**5500 ms**

Incoming Detection Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 7# (0-15)#

Description

Once an incoming call seizes a DBS T1 trunk, this timer determines how long the DBS waits before recognizing the seizure as an incoming call (90 ms by default). The purpose of this timer is to prevent false incoming ringing.

This parameter only applies when E&M signaling is used.

Programming

FF1 8# 4# 2# 7# (0-15)#

Incoming Detection Timer setting
Default: 7 **(90** ms) (see table below)

Table l-42. Incoming Detection Timer values

Setting	Value
0	20 ms
1	30 ms
2	40 ms
3	50 ms
4	60 ms
5	70 ms
6	80 ms
7	90 ms
8	100 ms
9	110 ms
10	120 ms
11	130 ms
12	140 ms
13	150 ms
1 4	160 ms
15	170 ms

Answer Supervision Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 8# (0-8)#

Description

When the DBS generates a call over the T1, answer supervision is provided to determine if the call is actually answered. This timer determines how long the offhook signal from the called party must last before the DBS treats the offhook signal as an answer.

Programming

FF1 8# 4# 2# 8# (0-8)#

Answer Supervision Timer setting
Default: 3 (600 ms) (see table below)

Table l-43. Answer Supervision Timer values

Setting	Value
0	50 ms
1	100 ms
2	200 ms
3	**600 ms**
4	1000 ms
5	2000 ms
6	3000 ms
7	4000 ms
8	10,000 ms

Immediate Glare Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 9# (0-15)#

Description

"Glare" occurs when both ends of the same trunk are seized simultaneously, resulting in connection between an incoming call and a DBS phone user attempting to access an outside line.

Use this address to prevent glare when immediate-start signaling is used. This timer determines how long the DBS will search for an incoming call on a trunk channel before connecting a DBS extension user to it (60 ms by default). The timer begins when the extension goes off-hook.

Programming

FF1 8# 4# 2# 9# (0-15)#

Immediate Glare Timer setting
Default: 3 (**60 ms**) (see table below)

Table l-44. Immediate Glare Timer values

Setting	Value
0	The DBS does not check for glare
1	20 ms
2	40 ms
3	**60 ms**
4	80 ms
5	100 ms
6	120 ms
7	140 ms
8	160 ms
9	180 ms
10	200 ms
11	250 ms
12	300 ms
13	350 ms
14	400 ms
15	450 ms

Wink Glare Timer

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 2# 10# (0-15)#

Description

"Glare" occurs when both ends of the same trunk are seized simultaneously, resulting in connection between an incoming call and a DBS phone user attempting to access an outside line.

Use this address to prevent glare from occurring when wink-start signaling is used. This timer determines how long the DBS will search for an incoming call on a trunk channel before connecting a DBS extension user to it (60 ms by default). The timer begins when a wink is received.

Programming

FF1 8# 4# 2# 10# (0-15)#

Wink Glare Timer setting
Default: 3 (60 **ms**) (see table below)

Table l-45. Wink Glare Timer values

Setting	Value
0	The DBS does not check for glare
1	20 ms
2	40 ms
3	**60 ms**
4	80 ms
5	100 ms
6	120 ms
7	140 ms
8	160 ms
9	180 ms
10	200 ms
11	250 ms
12	300 ms
13	350 ms
14	400 ms
15	450 ms

Digital Pad Settings

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 3# (1-12)# (1-12)# (0-30)#

Description

Adjusts the volurne of connections made via the T1. Default volume levels are included for connections between different types of terminals or circuits. For example, a KTel-to-T1 connection may use one volume setting, while an SLT-to-T1 connection may use another.

The volume settings are controlled by changing a pad number, which in turn changes the loss or gain of the connection. In most cases, the default pad settings do not need to be changed.

If the volume level of a connection is unsatisfactory, include the Receiving and Sending circuit types in this program, and then adjust the volume by assigning a new pad number.

Programming

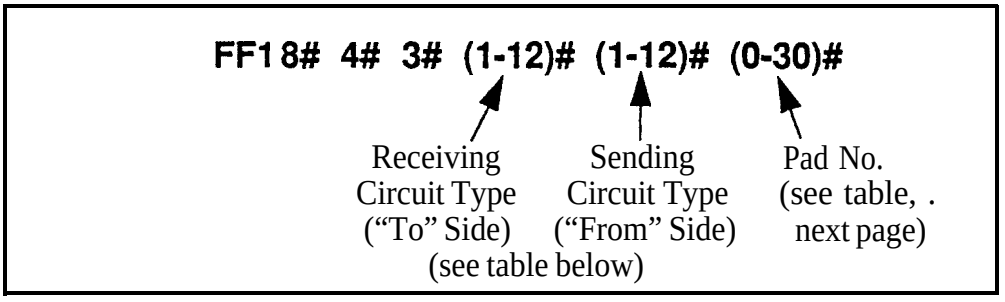


Table l-46. Digital Pad Settings - circuit types

Circuit Type Setting	Value	Notes
1	K-Tel	
2	SLT	
3	Data	Reserved for future use.
4	Analog CO Trunk	
5	T1 master	
6	T1 slave	
7	Option 1	Can be used to assign unique pad levels to circuits that require special volume levels.
8	Option 2	
9	DTMF	Reserved for future use.
10	CONF (SCC)	Reserved for future use.
11	Tone 1 (MFR 1)	Reserved for future use.
12	Tone 2 (MFR 2)	Reserved for future use.

Table l-47. Digital Pad Settings - pad numbers and related dB levels

Pad No.	dB Level	Pad No.	dB Level
0	0 dB	16	-2 dB
1	+2 dB	17	-4 dB
2	+4 dB	18	-6 dB
3	+6 dB	19	-8 dB
4	+8 dB	20	-10 dB
5	+10 dB	21	-12 dB
6	+12 dB	22	-14 dB
7	+14 dB	23	-16 dB
8	+16 dB	24	-18 dB
9	+18 dB	26	-20 dB
10	+20 dB	27	-22 dB
11	+22 dB	28	-24 dB
12	+24 dB	29	-26 dB
13	+26 dB	30	-28 dB
14	+28 dB		
15	+30 dB		

Table l-48. Digital Pad Settings - default values

From	To	Setting	Value
T1 master T1 slave	K-Tel K-Tel	16 16	-2 dB -2 dB
T1 master T1 slave	SLT SLT	16 16	-2 dB -2 dB
K-Tel K-Tel	T1 master T1 slave	16 16	-2 dB -2 dB
SLT SLT	T1 master T1 slave	16 16	-2 dB -2 dB

Related Programming

Trunk Port Class: FF2 (Trunk)# 26# (4-8)#

Station Port Class: FF3 (ExtPort)# 37# (l-2 or 7-8)#

Notes

Example Digital Pad Adjustment. If calls to SLTs via a master T1 have low volume levels, the pad level for connections from the master T1 to all SLTs can be changed.

By default, the pad level for connections from the master T1 to all SLTs is 16 (or -2 dB). To raise the volume by 2 dB, change the pad value to 0 (or 0 dB) by programming the following:

FF1 8# 4# 3# 2# 5# 0#

where: 2% is the circuit type for SLTs;
5# is the circuit type for T1 in the master cabinet; and
0# is the pad number for 0 dB loss/gain.

Trunk Configuration

Software Version: CPC-B Versions 4.0 to 6.02
Address: Master Cabinet: FF1 8# 4# 4# 1# 1# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 1# 1# (0 or 1)#

Description

Specifies the trunk combinations used in the DBS system (analog trunks only by default).

Setting this address to "T1 and Analog trunks" tells the DBS system that T1 and analog trunks are being used in the same cabinet. (Each T1 channel uses up one trunk port on the analog trunk card.)

Programming

FF1 8# 4# (4 or 5)# 1# 1# (0 or 1)#

4=Master Cabinet	**0=Analog trunks only.**
5=Slave Cabinet	1=T1 and Analog trunks.

Related Programming

Number of T1 Channels: FF1 8# 4# (4 or 5)# 1# 2# (0-24)#

T1 Trunk Closure: FF1 8# 7# (1 or 2)# (1-4)# (1-8)# (0 or 1)#

Trunk Circuit Type: FF2 (Trunk)# 21# (0-3)#

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

***CPC-B Versions Beginning With* 6.03. The Trunk Configuration address** is no longer present -- simply use the **Trunk Circuit Type** address to assign trunk ports as Loop-Start, Ground-Start, DID or T1 trunks.

Number of T1 Channels

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: **FF1 8# 4# 4# 1# 2#** (0-24)#
Slave Cabinet: **FF1 8# 4# 5# 1# 2# (0-24)#**

Description

This program determines how many T1 channels will be used in the DBS system. This address provides "Fractional T1" capability -- using only a portion of the 24 available channels on the T1 card.

Since each T1 channel used will need one analog trunk port dedicated to it, this setting will decrement the number of available analog trunk ports -- in other words, each T1 channel used will subtract from the total number of trunk ports available for analog usage.

In CPC-B 4.x versions (prior to 5.0), the entry for Number of **T1** Channels must be in increments of 8. This is because the entire analog trunk card (all 8 trunk ports on the same card) must be dedicated to T1, even if only some of the ports are used for T1 channels. In other words, the remaining (unused) ports on the card are not available for use as analog trunks.

In CPC-B Version 5.0 and above, those remaining ports *can* be used as analog trunks. Make sure the Number of **T1** Channels setting equals the number of trunks programmed for T1 in Trunk Circuit Type (FF2 Trunk# 21#).

Programming

FF1 8# 4# (4 or 5)# 1# 2# (0-24)#

4=Master Cabinet
5=Slave Cabinet

Number of T1 Channels Used

NOTE: In CPC-B versions prior to 5.0, this setting must be an increment of "8" (0, 8, 16 or 24).

Related Programming

Trunk Configuration: FF1 8# 4# (4 or 5)# 1# 1# (0 or 1)#

T1 Trunk Closure: FF1 8# 7# (1 or 2)# (1-4)# (1-8)# (0 or 1)#

Trunk Circuit Type: FF2 (Trunk)# 21# (0-3)#

Notes

Power-Cycling ***Requirement.*** For changes to this parameter to take effect, the system must be turned off, then back on.

Closing Analog Trunk Ports for T1 Usage. In CPC-B Versions 5.0 to 6.02; make sure the trunk ports reserved for T1 are "closed" from loop-start usage in the **T1** Trunk Closure address (FF1 8# 7#).

Frame Format

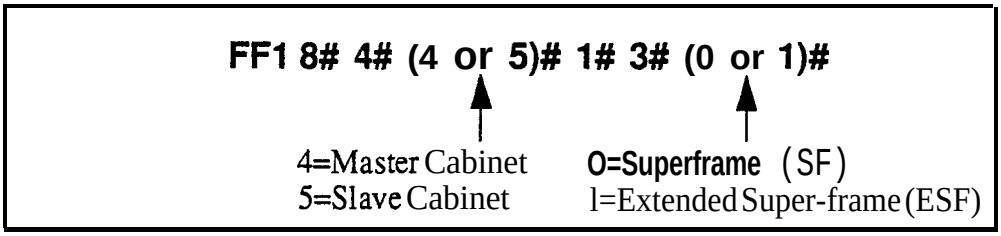
Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 1# 3# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 1# 3# (0 or 1)#

Description

Selects the framing format used by the T1. Either "Superframe" (SF) or "Extended Super-frame" (ESF) can be selected.

The SF consists of 12 frames, with each frame including 192 information bits and 1 framing bit. The ESF consists of 24 frames (double the length of the SF format). ESF also supports monitoring and maintenance capabilities that are not available with the SF format.

Programming



Notes

Central Office Requirement. The framing format must match what is ordered from the CO.

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Line Coding

Software Version: CPC-B Version 4.0 or higher.
Address: Master Cabinet: FF1 8# 4# 4# 1# 4# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 1# 4# (0 or 1)#

Description

Selects the line coding format used by the T1. Either "B8ZS" (binary 8-zeros suppression) or "AMP (Alternate Mark Inversion) can be selected. In most cases (and by default), AMI is used.

Programming

FF1 8# 4# (4 or 5)# 1# 4# (0 or 1)#

4=Master Cabinet	**0=AMI (Alternate Mark Inversion)**
5=Slave Cabinet	1=B8ZS (binary 8-zeros suppression)

Notes

Central Office Requirement. ***The*** framing format must match what is ordered from the CO.

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off. then back on.

Failure Mode

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 1# 5# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 1# 5# (0 or 1)#

Description

Determines the way the system responds to alarms. By default, the system will continue to operate even if errors are detected.

Programming

FF1 8# 4# (4 **or 5)# 1# 5# (0 or 1)#**

4=Master Cabinet
5=Slave Cabinet

0=Mode 1 (the T1 continues to operate even if errors are detected)
l=Mode 2 (the T1 shuts down if errors are detected)

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Remote **Loopback**

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 1# 6# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 1# 6# (0 or 1)#

Description This address is reserved for future use.

Yellow Alarm Send

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 1# 7# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 1# 7# (0 or 1)#

Description

Determines whether the DBS sends a yellow alarm signal to the CO.

A yellow alarm is sent to the distant end of the T1 link to indicate that a red alarm has occurred. If a red alarm occurs at the CO, the CO sends a yellow alarm to the DBS. If a red alarm occurs at the DBS, the DBS sends a yellow alarm to the CO.

Programming

FF1 8# 4# (4 or 5)# 1# 7# (0 or 1)#

4=Master Cabinet
5=Slave Cabinet

0=No
1=Yes

Related Programming

Yellow Alarm Detection: FF1 8# 4# (4 or 5)# 2# 2# (0-15)#

Yellow Alarm Recovery: FF1 8# 4# (4 or 5)# 2# 3# (0-15)#

Yellow Alarm Counter: FF1 8# 4# (4 or 5)# 3# 6# (0-15)#

Yellow Alarm Relay: FF1 8# 4# (4 or 5)# 4# 1# (0-15)#

Yellow Alarm FF Key: FF5 (ExtPort)# (Key)# CONF (107# or 127#)#

Flash Key Operation

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 1# 8# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 1# 8# (0 or 1)#

Description

In the current version of DBS T1, a "switchhook flash" releases and reseizes the T1 line.

Programming

FF1 8# 4# (4 or 5)# 1# 8# (0 or 1)#

4=Master Cabinet
5=Slave Cabinet

0=Release and reseize
1=Reserved for future use

Red Alarm Detection

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 2# 1# (0-5)#
Slave Cabinet: FF1 8# 4# 5# 2# 1# (0-5)#

Description

The default value for this parameter is determined by network specifications. It should **not** be changed.

If a red alarm occurs, the "CFA" LED on the T1 card lights. Also, if the **Red Alarm Relay** (FF1 8# 4# 4/5# 4# 2#) is enabled, the alarm relay on the T1 MDF card closes.

Programming

FF1 8# 4# (4 or 5)# 2# 1# (0-5)#

4=Master Cabinet
5=Slave Cabinet

0=4
1=6
2=8
3=10
4=12
5=14

Related Programming

Red Alarm Counter: FF1 8# 4# (4 or 5)# 3# 3# (0-9000)#

Red Alarm Relay: FF1 8# 4# (4 or 5)# 4# 2# (0 or 1)#

Red Alarm FF Key: FF5 (ExtPort)# (Key)# CONF (103# or 123#)#

Yellow Alarm Detection

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: **FF1 8# 4# 4# 2# 2# (0-15)#**
Slave Cabinet: **FF1 8# 4# 5# 2# 2# (0-15)#**

Description

Determines how long a yellow alarm signal must be on before the system detects a yellow alarm. When a yellow alarm occurs, the "YEL" LED on the T1 card lights. Also, if the Yellow Alarm Relay (FF18# 4# 4/5# 4#1#) is enabled, the alarm relay on the T1MDF card closes.

Programming

FF1 8# 4# (4 or 5)# 2# 2# (0-15)#

4=Master Cabinet
5=Slave Cabinet

Yellow Alarm Detection timer setting
Default: 1 (50 ms) (see table below)

Table I-49. Yellow Alarm Detection timer values

Setting	Value
0	0 ms
1	**50 ms**
2	100 ms
3	150 ms
4	200 ms
5	250 ms
6	300 ms
7	350 ms
8	400 ms
9	450 ms
10	500 ms
11	550ms
12	600 ms
13	650 ms
14	,700 ms
15	750ms

Related Programming

Yellow Alarm Send: FF1 8# 4# (4 or 5)# 1# 7# (0 or 1)#

Yellow Alarm Recovery: FF1 8# 4# (4 or 5)# 2# 3# (0-15)#

Yellow Alarm Counter: FF1 8# 4# (4 or 5)# 3# 6# (0-9000)#

Yellow Alarm Relay: FF1 8# 4# (4 or 5)# 4# 1# (0 or 1)#

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Yellow Alarm Recovery

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 2# 3# (0-15)#
Slave Cabinet: FF1 8# 4# 5# 2# 3# (0-15)#

Description

Determines how long the DBS tries to recover from a yellow alarm before it re-syncs the T1 trunk.

Programming

FF1 8# 4# (4 or **5)# 2# 3# (0-15)#**

4=Master Cabinet
5=Slave Cabinet

Yellow Alarm Recovery timer setting
Default: 1 **(10 ms)** (see table below)

Table 1-50. Yellow Alarm Recovery timer values

Setting	Value
0	0 ms
1	**10 ms**
2	20 ms
3	30 ms
4	40 ms
5	50 ms
6	60 ms
7	70 ms
8	80 ms
9	90 ms
10	110 ms
11	120 ms
12	130 ms
13	140 ms
14	150 ms
15	160 ms

Related Programming

Yellow Alarm Send: FF1 8# 4# (4 or 5)# 1# 7# (0 or 1)#

Yellow Alarm Detection: FF1 8# 4# (4 or 5)# 2# 2# (0-15)#

Yellow Alarm Counter: FF1 8# 4# (4 or 5)# 3# 6# (0-9000)#

Yellow Alarm Relay: FF1 8# 4# (4 or 5)# 4# 1# (0 or 1)#

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Other Alarms Detection

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 2# 4# (0-15)#
Slave Cabinet: FF1 8# 4# 5# 2# 4# (0-15)#

Description

Determines how long an out-of-frame (OOF), loss of signal, sync loss, or AIS signal must be on before the system generates an alarm.

If an OOF, Sync Loss, or AIS alarm occurs, a corresponding LED on the T1 card lights. (Sync Loss alarms light the "SLIP" LED.)

The alarm relay on the T1 MDF card will also close if the corresponding relay parameter is enabled.

Programming

FF1 8# 4# (4 **or** 5)**# 2# 4# (0-15)#**

4=Master Cabinet
5=Slave Cabinet

Other Alarms Detection timer setting
Default: 1 (250 **ms**) (see table below)

Table l-51. Other Alarms Detection timer values

Setting	Value
0	Oms
1	250ms
2	500 ms
3	750 ms
4	1000 ms
5	1250 ms
6	1500 ms
7	1750ms
8	2000 ms
9	2500 ms
10	3000 ms
11	3500 ms
12	4000 ms
13	4500 ms
14	5000 ms
15	5500 ms

Related Programming

Other Alarms Recovery: FF1 8# 4# (4 or 5)# 2# 5# (0-15)#

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Other Alarms Recovery

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 2# 5# (0-15)#
Slave Cabinet: FF1 8# 4# 5# 2# 5# (0-15)#

Description

Determines how long the DBS tries to recover from an Out-Of-Frame (OOF), Loss of Signal, Sync Loss, or AIS alarm before it re-syncs the T1 trunk.

Programming

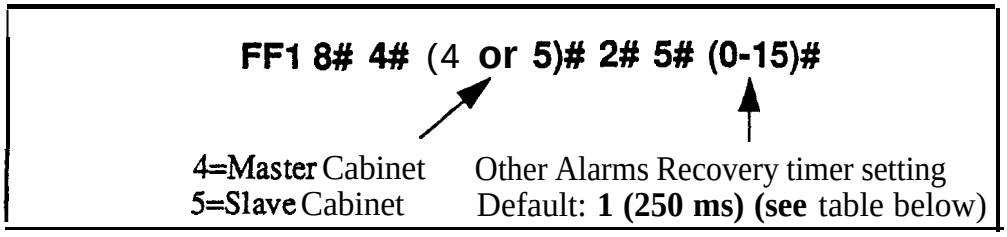


Table I-52. Other Alarms Recovery timer values

Setting	Value
0	Oms
1	***250 ms***
2	***500*** ms
3	***750*** ms
4	1000 ms
5	***1500*** ms
6	***2000*** ms
7	***2500*** ms
8	***3000*** ms
9	***4000*** ms
10	***5000*** ms
11	***6000*** ms
12	***7000*** ms
13	8000 ms
14	9000 ms
15	10000 ms

Related Programming

Other Alarms Detection: FF1 8# 4# (4 or 5)# 2# 4# (0-15)#

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Frame Loss Counter

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 3# 1# (0-9000)#
Slave Cabinet: FF1 8# 4# 5# 3# 1# (0-9000)#

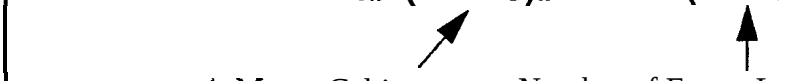
Description

Determines how many frame losses occur before a Frame Loss Alarm FF key is lit. The FF key lights when the counter exceeds the specified number within a 24-hour period.

For instructions on programming T1 alarm keys, see the ***T1 Reference Manual (Section 500).***

Programming

FF1 8# 4# (4 or 5)# 3# 1# (0-9000)#



4=Master Cabinet
5=Slave Cabinet

Number of Frame Losses that occur within a 24-hour period before a Frame Loss Alarm FF key is lit
Default: 9000

Related Programming

Frame Loss Relay: FF1 8# 4# (4 or 5)# 4# 4# (0 or 1)#

Slip Counter

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 3# 2# (0-9000)#
Slave Cabinet: FF1 8# 4# 5# 3# 2# (0-9000)#

Description

Determines how many slips occur before a Slip Alarm FF key is lit. ("Slips" are losses of data bits due to framing errors.) The FF key lights when the counter exceeds the specified number within a 24-hour period.

This parameter also determines the number of slips that can occur before the system switches to the next clock source, at which time **the slip error counter for the first clock source is reset, and all phone calls in progress are disconnected.** It takes 20 seconds for the T1 to reboot.

For instructions on programming T1 alarm keys, see the ***T1 Reference Manual (Section 500).***

Programming

FF1 8# 4# (4 or 5)# 3# 2# (0-9000)#

4=Master Cabinet
5=Slave Cabinet

Number of Slips that must occur within a 24-hour period before a Slip Alarm FF key is lit
Default: 9000

Related Programming

Sync Source 1: FF1 8# 4# 1# 2# (1-3)#

Sync Source 2: FF1 8# 4# 1# 3# (0-3)#

Sync Source 3: FF1 8# 4# 1# 4# (0-3)#

Slip FF Key: FF5 (ExtPort)# (Key)# CONF (102# or 122#)#

Red Alarm Counter

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 3# 3# (0-9000)#
Slave Cabinet: FF1 8# 4# 5# 3# 3# (0-9000)#

Description

Determines how many red alarms occur before a Red Alarm FF key is lit. The FF key lights when the counter exceeds the specified number within a 24-hour period.

For instructions on programming T1 alarm keys, see the ***T1 Reference Manual (Section 500).***

Programming

FF1 8# 4# (4 or 5)# 3# 3# (0-9000)#

4=Master Cabinet
5=Slave Cabinet

Number of Red Alarms that must occur within a 24-hour period before a Red Alarm FF key is lit
Default: 9000

Related Programming

Red Alarm Relay: FF1 8# 4# (4 or 5)# 4# 2# (0 or 1)#

Red Alarm Detection: FF1 8# 4# (4 or 5)# 2# 1# (0 or 1)#

Red Alarm FF Key: FF5 (ExtPort)# (Key)# CONF (103# or 123#)#

Loss of Signal Counter

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 3# 4# (0-9000)#
Slave Cabinet: FF1 8# 4# 5# 3# 4# (0-9000)#

Description

Determines how many instances of loss of signal must occur before a Signal Loss Alarm FF key is lit. Signal loss occurs when the incoming T1 signal is not received for more than 150 ms. The FF key lights when the counter exceeds the specified number within a 24-hour period.

For instructions on programming T1 alarm keys, ***see the T1 Reference Manual (Section 500).***

Programming

FF1 8# 4# (4 or 5)# 3# 4# (0-9000)#

4=Master Cabinet
5=Slave Cabinet

Instances of Signal Loss that must occur within a 24-hour period before a Signal Loss Alarm FF key is lit
Default: 9000

Related Programming

Red Alarm Relay: FF1 8# 4# (4 or 5)# 4# 2# (0 or 1)#

Red Alarm Detection: FF1 8# 4# (4 or 5)# 2# 1# (0 or 1)#

Sync Loss Counter

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 3# 5# (0-9000)#
Slave Cabinet: FF1 8# 4# 5# 3# 5# (0-9000)#

Description

Determines how many instances of sync loss must occur before a Sync Loss Alarm FF key is lit. The FF key lights when the counter exceeds the specified number within a 24-hour period.

For instructions on programming T1 alarm keys, see the ***T1 Reference Manual (Section 500).***

Programming

FF1 8# 4# (4 or 5)# 3# 5# (0-9000)#

4=Master Cabinet
5=Slave Cabinet

Instances of Sync Loss that must occur within a 24-hour period before a Sync Loss Alarm FF key is lit
Default: 9000

Related Programming

Sync Loss Relay: FF1 8# 4# (4 or 5)# 4# 3# (0 or 1)#

Yellow Alarm Counter

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 3# 6# (0-9000)#
Slave Cabinet: FF1 8# 4# 5# 3# 6# (0-9000)#

Description

Determines how many yellow alarms must occur before a Yellow Alarm FF key is lit. The FF key lights when the counter exceeds the specified number within a 24-hour period.

For instructions on programming T1 alarm keys, see the ***T1 Reference Manual (Section 500).***

Programming

FF1 8# 4# (4 or 5)# 3# 6# (0-9000)#

4=Master Cabinet
5=Slave Cabinet

Number of Yellow Alarms that must occur within a 24-hour period before a Yellow Alarm FF key is lit
Default: 9000

Related P ogramming

Yellow Alarm Send: FF1 8# 4# (4 or 5)# 1# 7# (0-15)#

Yellow Alarm Detection: FF1 8# 4# (4 or 5)# 2# 2# (0-15)#

Yellow Alarm Recovery: FF1 8# 4# (4 or 5)# 2# 3# (0-15)#

Yellow Alar-n-t Relay: FF1 8# 4# (4 or 5)# 4# 1# (0-15)#

Yellow Alarm FF Key: FF5 (ExtPort)# (Key)# CONF (107# or 127#)#

Yellow Alarm Relay

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 4# 1# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 4# 1# (0 or 1)#

Description

Determines whether the system closes the alarm relay on the T1 MDF card in the event of yellow alarms.

The alarm relay can be connected to an external alarm device such as a buzzer. (This device must be purchased separately; it is not provided with the DBS T1.)

The Yellow Alarm Detection address (FF1 8# 4# 4/5# 2# 2# 0-15#) determines how many yellow alarms occur before the relay closes.

Programming

FF1 8# 4# (4 or 5)# 4# 1# (0 or 1)#

4=Master Cabinet
5=Slave Cabinet

0=Off (Yellow Alarm relay **does** not close)
1=On (Yellow Alarm relay closes)

Related, Programming

Yellow Alarm Send: FF1 8# 4# (4 or 5)# 1# 7# (0-15)#

Yellow Alarm Detection: FF1 8# 4# (4 or 5)# 2# 2# (0-15)#

Yellow Alarm Recovery: FF 1 8# 4# (4 or 5)# 2# 3# (0- 15)#

Yellow Alarm Counter: FF1 8# 4# (4 or 5)# 3# 6# (0-15)#

Yellow Alarm FF Key: FF5 (ExtPort)# (Key)# CONF (107# or 127#)#

Red Alarm Relay

Software Version: CPC-B Version 4.0 or higher.
Address: Master Cabinet: FF1 8# 4# 4# 4# 2# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 4# 2# (0 or 1)#

Description

Determines whether the system closes the alarm relay on the T1 MDF card in the event of red alarms. A red alarm indicates that a loss of frame (OOF) or loss of signal has continued for more than 2.5 seconds.

The alarm relay can be connected to an external alarm device such as a buzzer. (This device must be purchased separately; it is not provided with the DBS T1.)

The Red Alarm Detection address (FF1 8# 4# 4/5# 2# 1# 0-5#) determines how many red alarms occur before the relay closes.

Programming

FF1 8# 4# (4 or 5)# 4# 2# (0 or 1)#

4=Master Cabinet
5=Slave Cabinet

0=Off (Red Alarm relay does not close)
1=On (Red Alarm relay closes)

Related Programming

Red Alarm Detection: FF1 8# 4# 4/5# 2# 1# (0-15)#

Red Alarm Counter: FF1 8# 4# 4/5# 3# 3# (0-9000)#

Sync Loss Relay

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 4# 3# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 4# 3# (0 or 1)#

Description

Determines whether the system closes the alarm relay on the T1 MDF card in the event of sync loss alarms, which result from clocking errors.

The alarm relay can be connected to an external alarm device such as a buzzer. (This device must be purchased separately; it is not provided with the DBS T1.)

Programming

FF1 8# 4# (4 or 5)# 4# 3# (0 or 1)#

4=Master Cabinet
5=Slave Cabinet

0=Off (Sync Loss relay does not close)
1=On (Sync Loss relay closes)

Related Programming

Sync Loss Counter: FF1 8# 4# 4/5# 3# 5# (0-9000)#

Frame Loss Relay

Software Version: CPC-B Version 4.0 or higher
Address:. Master Cabinet: FF1 8# 4# 4# 4# 4# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 4# 4# (0 or 1)#

Description

Determines whether the system closes the alarm relay on the Tl MDF card in the event of frame loss alarms.

The alarm relay can be connected to an external alarm device such as a buzzer. (This device must be purchased separately: it is not provided with the DBS T1.)

Programming

FF1 8# 4# (4 or 5)# 4# 4# (0 or 1)#

4=Master Cabinet
5=Slave Cabinet

O=Off (Frame Loss relay does not close)
1=On (Frame Loss relay closes)

Related Programming

Frame Loss Counter: FF1 8# 4# 4/5# 3# 1# (0-9000)#

AIS Relay

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 4# 5# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 4# 5# (0 or 1)#

Description

Determines whether the system closes the alarm relay on the T1 MDF card in the event of Alarm Indication Signals (AIS), which are comprised of all l's and are unframed.

The alarm relay can be connected to an external alarm device such as a buzzer. (This device must be purchased separately; it is not provided with the DBS T1.)

Programming

FF1 8# 4# (4 or 5)# 4# 5# (0 or 1)#

4=Master Cabinet-
5=Slave Cabinet

O=Off (AIS relay does not close)
1=On (AIS relay closes)

Related Programming

Other Alarms Detection: FF1 8# 4# 4/5# 2# 4# (0-15)#

Other Alarms Recovery: FF1 8# 4# 4/5# 2# 5# (0-15)#

Relay Reset

Software Version: CPC-B Version 4.0 or higher
Address: Master Cabinet: FF1 8# 4# 4# 4# 6# (0 or 1)#
Slave Cabinet: FF1 8# 4# 5# 4# 6# (0 or 1)#

Description

Determines whether the T1 alarm relay is cleared (opened) automatically or manually.

- If cleared automatically, the relay is opened approximately one second after the alarm condition ceases.
- If cleared manually, the relay can be opened by entering the Alarm Relay Clear code:
  - First, enter the programming authorization code --

    #98 9999
  - Then enter one of the following codes:

    ON/OFF #94 8 (for Master Cabinet)
    ON/OFF #95 8 (for Slave Cabinet)

Programming

FF1 8# (4 or 5)# 4# 6# (0 or 1)#

4=Master Cabinet
5=Slave Cabinet

0=Automatically cleared
1=Must be manually cleared

Related Programming

Yellow Alarm Relay: FF1 8# 4# 4/5# 4# 1# (0-15)#

Red Alarm Relay: FF1 8# 4# 4/5# 4# 2# (0-15)#

Sync Loss Relay: FF1 8# 4# 4/5# 4# 3# (0-15)#

Frame Loss Relay: FF1 8# 4# 4/5# 4# 4# (0-15)#

AIS Relay: FF1 8# 4# 4/5# 4# 5# (0- 15)#

T1 Trunk Type Emulation

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 1# (0-3)#

Description

Determines the type of trunk signaling that each T1 channel emulates (E&M by default).

Programming

FF1 8# 4# 6# (1-64)# 1# (0-3)#

Trunk Number (l-64)

0=Loop start
1=(reserved for-future use)
2=Ground Start (used for ground start emulation)
3=E&M

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Ground Start Requirement. If your system uses T1 COP (Central Office Protocol) Version 1.1 or 1.2, it must be upgraded to Version 1.4 or higher if you wish to use the "Ground Start" setting.

DID/DNIS

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 2# (0-2)#

Description

Use this address to enable trunks for DID or DNIS calls.

- **If DID** is **selected,** the system will use the DID Numbers Table (see **FF1 8# 3#)** to **determine** which extension(s) will receive the DID call.
- **If DNTS is selected (available only with T1 interface), the system will** use the DNIS Numbers Table (see **FF1 8# 4# 7#)** to determine which extension(s) will receive the **DNIS** call.

The DID Numbers Table can be used for **DID** or **DNIS.** Therefore, **if all** 500 entries in the DNIS Numbers Table are filled, **a T1** channel can be set to DID, and **DNIS** service can still be used.

Programming

FF1 8# 4# 6# (1-64)# 2# (0-2)#

Trunk Number (l-64)

0=Neither DID nor DNIS is used.
1=DID is used.
2=DNIS is used.

Related Programming

Inbound DID **Dial Numbers: FF1 8# 3# (DIDNo.)# (ExtNo.)#**

DNIS Number Setting: **FF1 8# 4# 7# (DNISNo.)# (ExtNo.)#**

DID/DNIS Flexible Ringing Assignments: **FF1 8# (5#** or **6#) (DID/DNIS No.)# (ExtNo.)# (0000[00]-1111[1 1])#**

Notes

Digit Length Requirement. The DBS **only** supports 4digit **DID/DNIS** numbers.

CO Requirement When the CO sends a **DID/DNIS** call to the DBS, it first receives a "wink" **signal from** the DBS before sending the digits. Once the **wink** is received, the CO should wait at least 200 **ms before** sending the digits.

Power-Cycling Requirement. For changes to **this** parameter to take effect, the system must be tumed off, then back OIL

Outgoing Signaling Type

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 3# (0-2)#

Description

Determines the signaling class used by T1 channels on outgoing calls (Immediate Start by default).

Programming

FF1 8# 4# 6# (1-64)# 3# (0-2)#

Trunk Number (l-64)

0=Immediate Start.
1=Wink start.
2=Dial Tone Start.

Notes

CO Requirement. ***The*** Outgoing Type setting must match what is ordered from the CO.

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Incoming Signaling Type

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 4# (0 or 1)#

Description

Determines the signaling class used by T1 channels on incoming calls (Immediate Start/Ringdown by default).

Programming

FF1 8# 4# 6# (1-64)# 4# (0 or 1)#

Trunk Number (l-64)

O=Immediate Start/ Ringdown.
l=Wink Start.

Notes

CO Requirement. The Incoming Type setting must match what is ordered from the CO.

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Trunk Mode

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 5# (0 or 1)#

Description

Determines whether T1 channels are used for only outgoing calls, or for both incoming and outgoing calls.

Programming

FF1 8# 4# 6# (1-64)# 5# (0 or 1)#

Trunk Number (l-64)

0=Incoming and Outgoing.
l=Outgoing only.

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Robbed Bit Setting

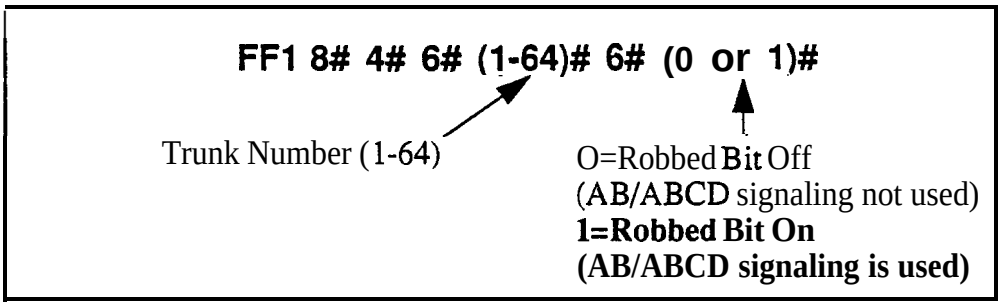
Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 6# (0 or 1)#

Description

The Robbed Bit Setting determines if AB or ABCD signaling is used.

AB/ABCD signaling robs bits from the T1 channels, and uses those bits to transmit signaling information. SF (SuperFrame) normally uses AB signaling; ESF (Extended SuperFrame) normally uses ABCD signaling.

Programming



Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Incoming Dialing Method

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 7# (0 or 1)#

Description

Determines whether the system expects dial-pulse or DTMF digits for incoming DID or DNIS calls over the T1.

Programming

FF1 8# 4# 6# (1-64)# 7# (0 or 1)#

Trunk Number (l-64)

0=Dial-Pulse (10 PPS)
1=DTMF

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off..then back on.

Hardware Requirement. An MFR card is required for DID/DNIS if DTMF signaling is used.

Dial Tone Transmission

Software Version: CPC-B Version 4.0 or higher.
Address: FF1 8# 4# 6# (Trunk)# 8# (0 or 1)#

Description This address is reserved for future use.

Busy Tone Transmission

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 9# (0 or 1)#

Description This address is reserved for future use.

Dial Tone Receive

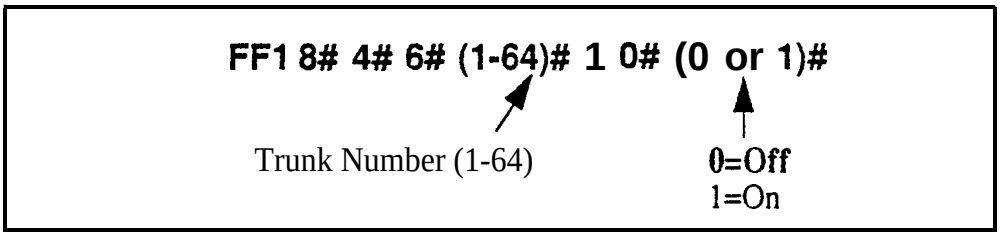
Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 10# (0 or 1)#

Description

Determines whether dial tone is transmitted from the DBS T1 channel to DBS stations.

Set this address to "On" only if the far end does not provide T1 dial tone.

Programming



Notes

Or&ring Tones From Carrier. If a carrier is supplying T1 services, always order Dial Tone and Ringback Tones from the carrier.

Ringback Tone Transmission

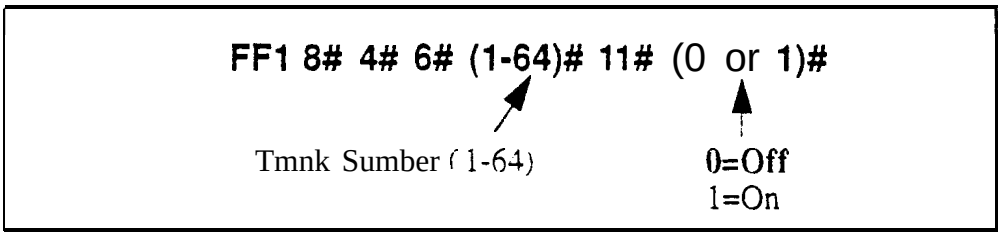
Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 6# (Trunk)# 11# (0 or 1)#

Description

Determines whether ringback tone is transmitted from the DBS T1 channel to the CO.

Set this address to "On" only if the far end does not provide ringback tone.

Programming



Notes

Or&ring Tones From Currier. If a carrier is supplying T1 services, always order Dial Tone and Ringback Tones from the carrier.

DNIS Number Setting

Software Version: CPC-B Version 4.0 or higher
Address: FF1 8# 4# 7# (DNISNo.)# (ExtNo.)#

Description

Use this address to assign DNIS number(s) to extension(s).

- Up to 500 different DNIS numbers can be assigned.
- One DNIS number can be assigned to multiple extensions (this takes up only one entry in the 500 available entries).
- One extension can have multiple DNIS numbers assigned to it. (The number of entries taken up is equal to the number of DNIS numbers assigned to the extension.)

Programming

FF1 8# 4# 7# (0000-9999)# (1 O-69 or 100-699)#

4-digit DNIS Number

Extension Number

Related Programming .

Multiple DID/DNIS: FF1 2# 1# 32# (0 or 1)#

DID/DNIS (enabling trunks for): FF1 8# 4# 6# (Trunk)# 2# (0-2)#

DNIS Flexible Ringing Assignments: FF1 8# 6# (DNISNo.)# (ExtNo.)# (0000[00]-1111[11])#

Extension Numbers: FF3 (ExtPort)# 1# (ExtNo.)#

Notes

DNIS Requirement. DNIS is available only with the T1 interface.

Digit Length Requirement. The DBS supports 4-digit DNIS numbers with either dial pulse or DTMF transmission.

DNIS Ring Control. Ringing for the DNIS number at the assigned extension(s) is controlled by the next address (FF1 8# 6#).

DID/DNIS Flexible Ringing Assignments

Software Version: CPC-B Version 5.0 or higher
Address: for DID: FF1 8# 5# (DIDNo.)# (ExtNo.)# (0000[00]-1111[11])#
for DNIS: FF1 8# 6# (DNISNo.)# (ExtNo.)# (0000[00]-1111[11])#

Description

This address allows you to enable or disable ringing for specific DID/DNIS numbers during Day, Night and Night 2 modes. This also applies to delayed ringing.

Note: The DID/DNIS number must already be assigned to an extension number before you can assign it for flexible ringing. See FF1 8# 3# (for DID) and FF1 8# 4# 7# (for DNIS).

Programming

FF1 8# (5 or 6)# (XXXX)# (10-69 or 100-699)# (0000[0]-1111[11])#

- 5=DID, 6=DNIS
- 4-digit DID or DNIS number (must already be assigned to an extension, or the system won't accept the number here)
- Extension Number that will receive ringing
- Ring Settings (see table below)
  - O=Disabled
  - 1=Enabled

Default: Ringing enabled; Delayed ringing disabled.

Table l-53. DIDIDNIS Flexible Ring settings in different CPC-B versions

Ring Control for each digit setting	CPC-B Version 5.0 to 6.1	CPC-B Version 7.0 or higher
1st digit	Day ring	Day ring
2nd digit	Night ring	Night ring
3rd digit	Delayed Day ring	Night 2 ring
4th digit	Delayed Night ring	Delayed Day ring
5th digit	[not available]	Delayed Night ring
6th digit	[not available]	Delayed Night 2 ring
Default Setting:	**1100**	**111000**

Related Programming

Delayed Ring: FF1 2# 1# 23# (0 or 1)#

CO Delayed Ring Timer: FF1 3# 26# (0-15)#

Inbound DID Dial Numbers: FF1 8# 3# (DIDNo.)# (ExtNo.)#

DID/DNIS (enabling trunks for): FF1 8# 4# 6# (Trunk)# 2# (0-2)#

DNIS Number Setting: FF1 8# 4# 7# (DNISNo.)# (ExtNo.)#

Notes

Delayed Ring Timing. Timing for DID/DNIS delayed ringing is controlled by the CO Delayed Ring Timer (FF1 3# 26# O-l%).

T1 Trunk Closure

Software Version: CPC-B Versions 5.0 to 6.02
Address: Master Cabinet: FF1 8# 7# 1# (1-4)# (1-8)# (0 or 1)#
Slave Cabinet: FF1 8# 7# 2# (1-4)# (1-8)# (0 or 1)#

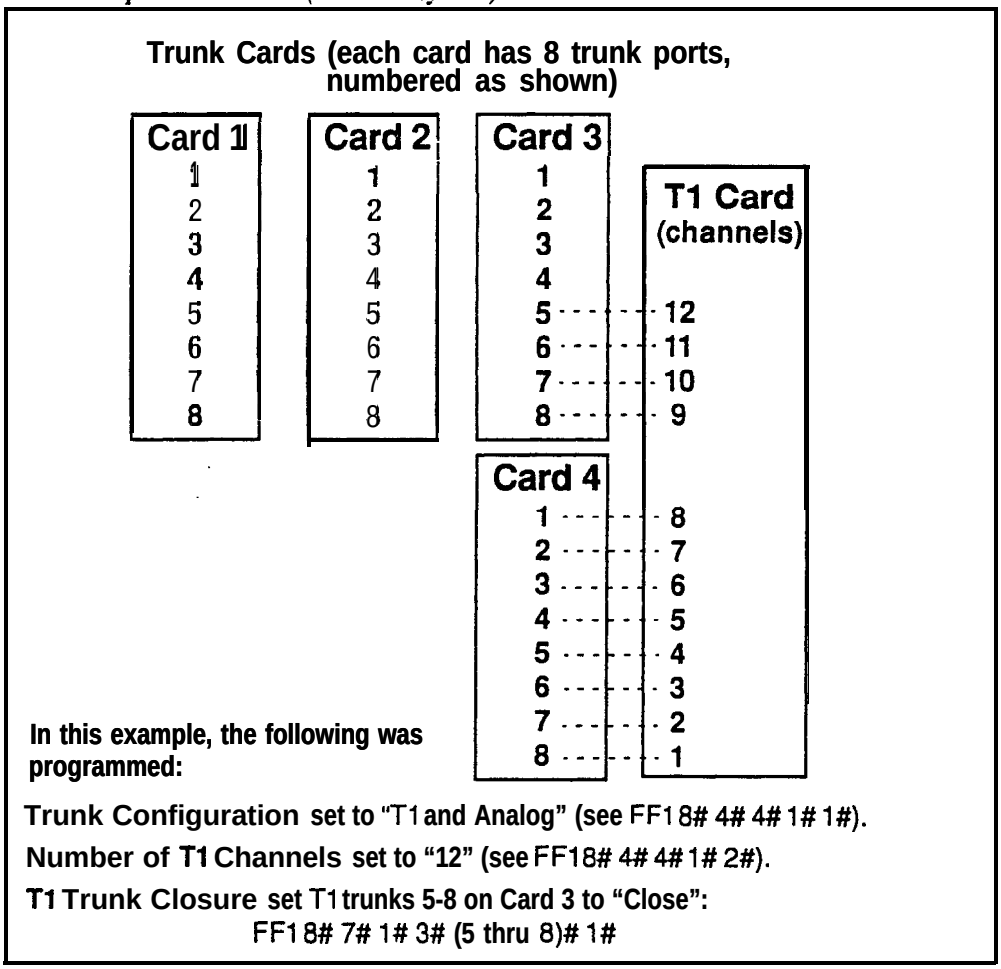
Description

In CPC-B Versions 5.0 to 6.02, use this address to facilitate Fractional T1, where not all of the 24 available channels on the T1 card are used.

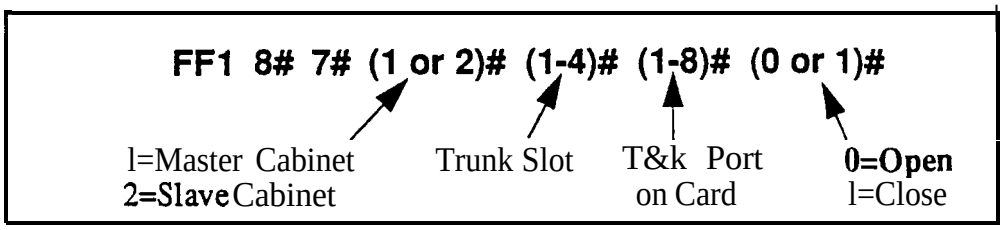
If the trunk ports on the highest-numbered analog trunk card are divided between T1 and analog, use this address to close the trunk ports dedicated to T1 -- and open the trunks to be used for analog. (see illustration below for an example)

Use the **"Number of T1 Channels"** address (FF1 8# 4# 4/5# 1# 2#) to tell the system how many channels you want to use. The system will automatically assign one analog trunk port for each T1 channel used. Channel #1 automatically uses the highest-numbered port on the highest-numbered trunk card; Channel #2 uses the next highest port; etc.

Figure 1-3. Trunk Closure Example in a DBS 96 (32-trunk system)



Programming



Related Programming

Trunk Configuration: FF1 8# 4# (4 or 5)# 1# 1# (0 or 1)#

Number of T1 Channels: FF1 8# 4# (4 or 5)# 1# 2# (0-24)#

Trunk Circuit Type: FF2 (Trunk)# 21# (0-3)#

Notes

Loop-Start Card Version Requirement. This **T1 Trunk Closure** address can only be used with the VB-43510A or VB-43511A versions of the loop-start card.

***CPC-B Versions Beginning With* 6.03. The T1 Trunk Closure** address is no longer present. Instead, simply **use** the **Trunk Circuit Type** address (FF2 Trunk# 21#) to assign trunk ports as Loop Start, Ground Start, DID or T1.

2. Trunk Programming (FF2)

Use the FF2 programming addresses in this chapter to set parameters for the CO trunks of the DBS 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 system. In this chapter, the range used for trunks is l-64. which is the maximum available number of trunks in a DBS 96 + DBS 96 system with a CPC-B card. The range used for extension ports is 1-144, which is also the maximum in a DBS 96 + DBS 96 with CPC-B. For more information, *see Section 300-Installation.*

This chapter covers the following FF2 program addresses:

Trunk Port Operation

Software Version: All Versions
Address: FF2 (Trunk)# 1# (0 or 1)#

Description

Use this feature to put a CO trunk in service or "busy it out".

Programming

FF2 (1-64)# 1# (0 or 1)#

Trunk Nuniber

0=Place trunk in service.
l=Busy-out the trunk.

Notes

Precaution on Putting Lines Out of ***Service.*** If you busy-out a trunk, an incoming caller on that trunk will still hear ringing, even though the trunk is not functional.

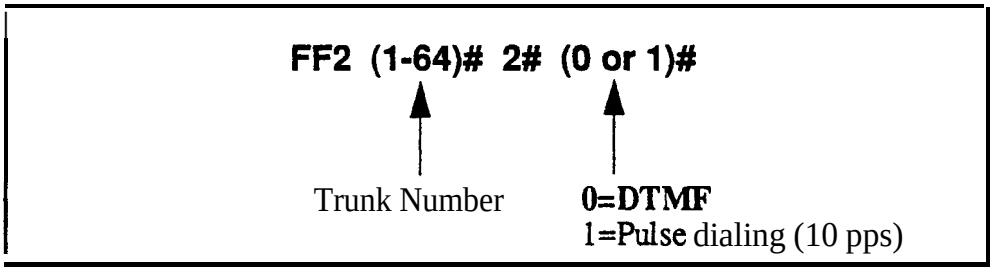
DTMF/Pulse Dialing for Trunks

Software Version: All Versions
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



Notes

Door Box Adapter Setting. CO trunk ports used for Door Box Adapter Sensors should be set for "Pulse dialing".

Pooled Trunk Access for Group "9"

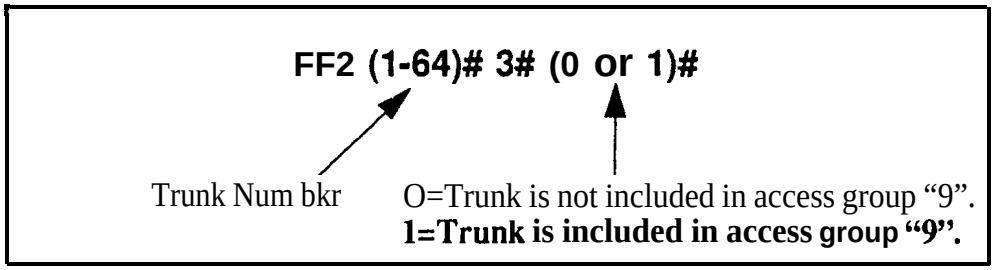
Software Version: All Versions
Address: FF2 (Trunk)# 3# (0 or 1)#

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



Related Programming

LCR Access: FF1 2# 1# 3# (0 or 1)#

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 S 1 on the CPC card must be *cut. See Section 300-Installation* for instructions.

Pooled Trunk Access for Groups "81-86"

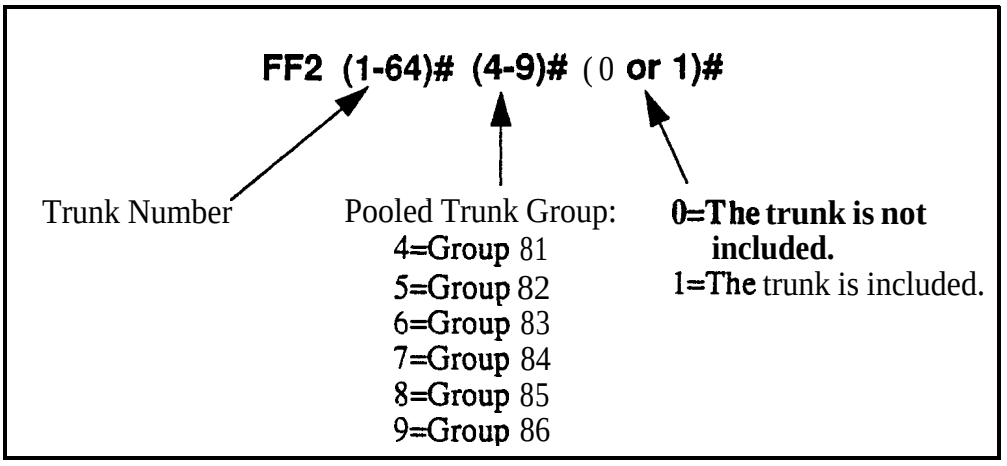
Software Version: All Versions
Address: FF2 (Trunk)# **(4-9)#** (0 or **1)#**

Description

Use this feature to place a trunk in a group from which trunks are automatically chosen for outbound dialing. When you dial 81, 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 S 1 on the CPC card must be *cut*. *See Section 300-Installation* for instructions.

Trunk Port Type

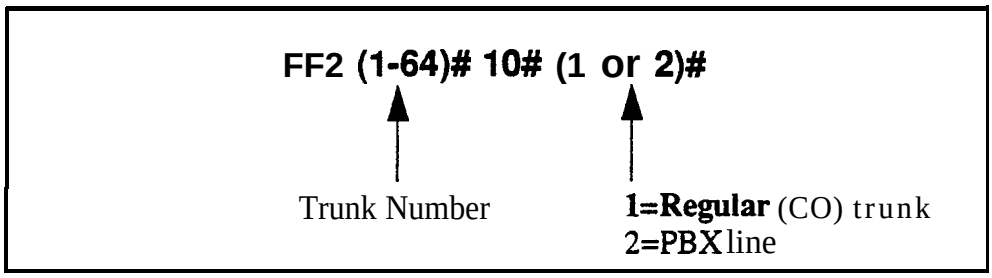
Software Version: All Versions

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



Related Programming

Auto Flash Redial: FF1 2# 1# 6# (0 or 1)#

PBX Access Codes: FF1 2# 3# (1-8)# (O-999 or 0* to 99*)#

Automatic Pause Position for PBX Access Codes: FF1 2# 3# (9-18)# (1-3)#

Automatic Pause Timer: FF1 3# 12# (0- 15)#

PBX Flash Timer: FF1 3# 18# (0-10)#

Trunk Port Type: FF2 (1-64)# 10# (1 or 2)#

Automatic Pause For PBX Line: FF2 (1-64)# 13# (0 or 1)#

Notes

Toll Restriction Interaction. TRS settings (FF7 addresses) can be affected by this parameter.

DISA Auto Answer

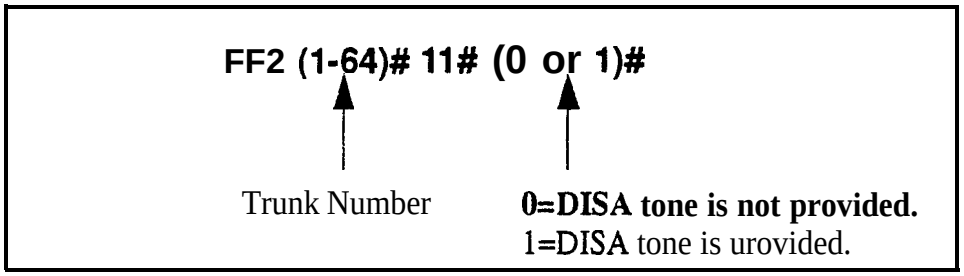
Software Version: All Versions
Address: FF2 (Trunk)# 11# (0 or 1)#

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

Caller ID Automatic DISA: FF1 2# 8# (1-10)# (PhoneNo.)#

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

Caller ID Interaction. If your DBS 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.)

DZSA Hardware Requirement. 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: All Versions
Address: FF2 (Trunk)# 12# (ExtPort)#

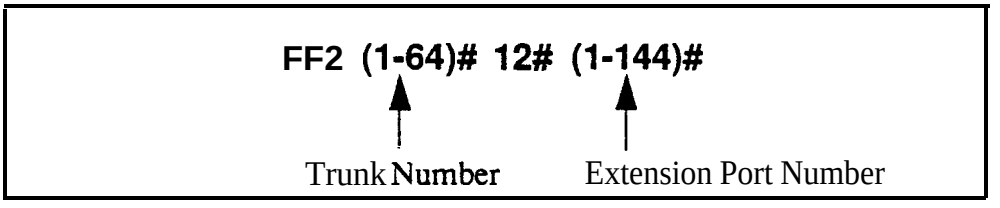
Description

Use this address to assign a private trunk line to an extension. A number of private trunks can belong to one extension.

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 exterision . . .



To cancel Private Trunk assignment(s) for an extension . . .

FF2 (1-64)# 12# (1-144)# CONF ON/OFF

Related Programming

Day TRS Types O-7 for Trunks: FF7 7# (ExtPort)# (Trunk)# (0-7)#

Night TRS Types O-7 for Trunks: FM 8# (ExtPort)# (Trunk)# (0-7)#

Notes

Reprogramming Toll Restrictions for Disabled Private Trunks. If a private trunk setting is enabled and then later 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 FF7 7# and FF7 8#).

Automatic Pause for PBX Line

Software Version: All Versions
Address: FF2 (Trunk)# 13# (0 or 1)#

Description

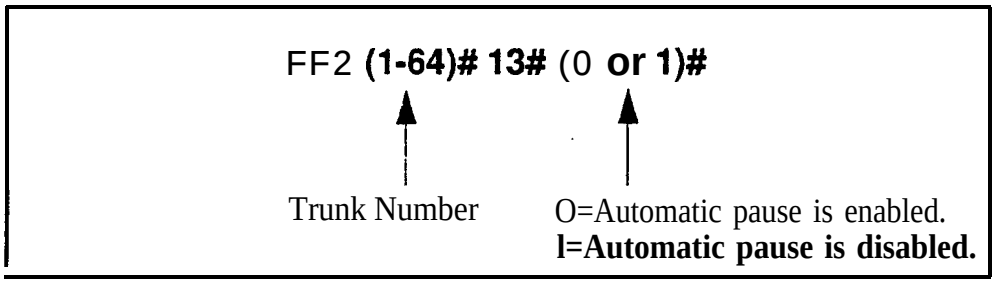
This address determines if a pause is automatically inserted during the dialing of a PBX access **code.**

If this address is enabled, the system will automatically pause after dialing the first, second, or third digit of the PBX access code. See the **PBX Access Code(s)** 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# 12#.

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)#

PBX Flash Timer: FF1 3# 18# (0-10)#

Trunk Port Type: FF2 (Trunk)# 10# (1 or 2)#

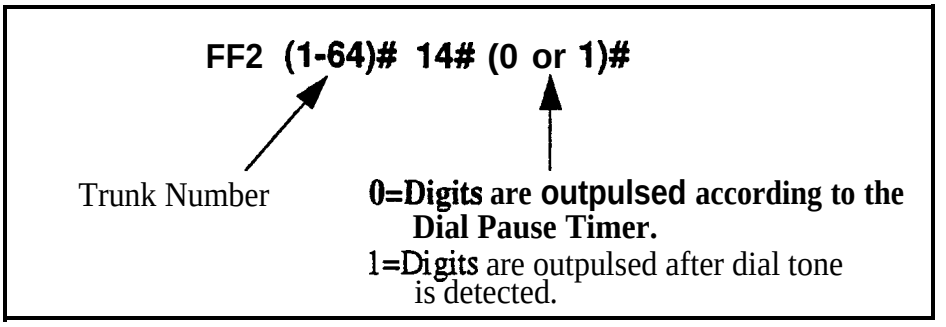
Dial Tone Detection

Software Version: All Versions
Address: FF2 (Trunk)# 14# (0 or 1)#

Description

This program determines when dialed digits are outpulsed -- either according to the Dial Pause Timer setting (FF1 3# 17#), or after the DBS detects dial tone.

Programming



Related Programming

Dial Pause Timer: FF1 3# 17# (0-15)#

Outbound DTMF Signal Duration for Auto-Dialed Digits

Software Version: All Versions
Address: FF2 (Trunk)# 15# (1-3)#

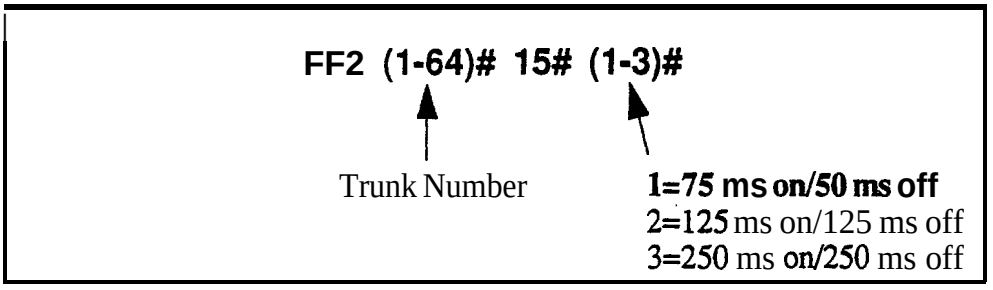
Description

This address controls DTMF signal duration when digits are dialed automatically by the system rather than the user.

Examples of DBS dialing include:

- Redial
- Saved Number Redial
- Speed Dialing
- Adding LCR digits

Programming



Notes

DTMF Tone for Manual Dialing. If you dial manually (press a digit key), the DTMF tone will emit until the button is released.

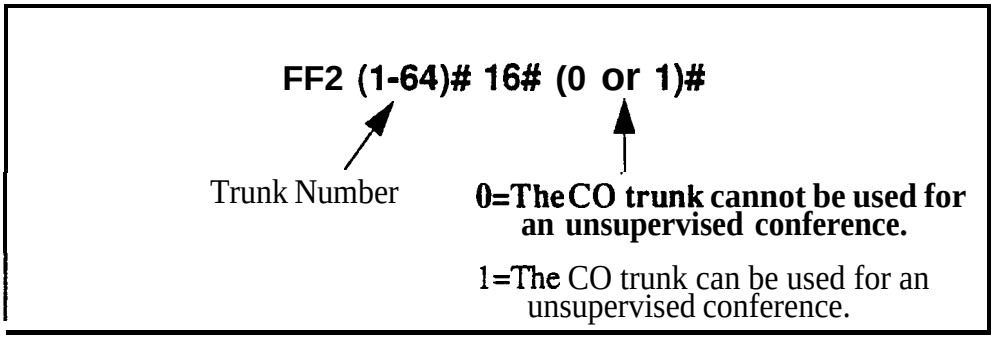
Unsupervised Trunk Conference

Software Version: All Versions
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# 1 1# (0-15)#

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

Notes

Unsupervised Conference Timer Operation. A conference call will be automatically disconnected according to the Unsupervised Conference Timer setting (FF1 3# 11# 0-15#).

Inbound Ring Pattern

Software Version: All Versions
Address: FF2 (Trunk)# 17# (0-9)#

Description

Each CO trunk can be assigned a distinctive ring pattern for easy recognition of the trunk during an incoming call. Up to 9 different ring patterns are available.

Programming

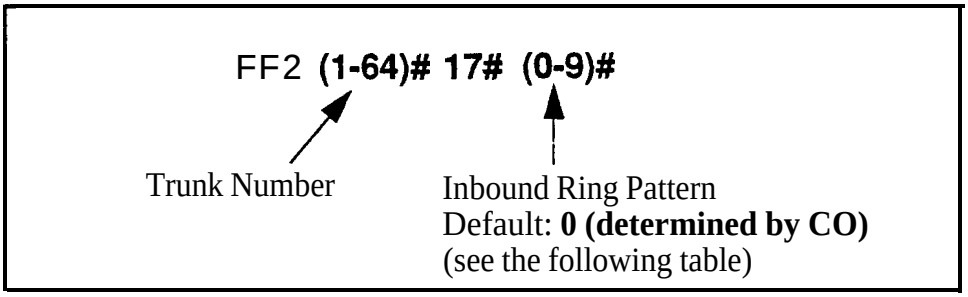


Table 2-1. Ring Patterns for inbound trunk calls

Setting	Value
0	**Synchronize (ring pattern determined by CO)**
1	3 sec. on/1 sec. off
2	2 sec. on/2 sec. off
3	1 sec. on/l 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# 31# 0-6#).

Precedence of Extension Ring Pattern Setting. The ring pattern (if any) assigned to the extension (FF3 ExtPort# 39# Pattern#) will override this Inbound Ring Pattern for incoming trunk calls.

Trunk Disconnect Detection Timer

Software Version: All Versions
Address: FF2 (Trunk)# 18# (0-15)#

Description

When the trunk side of a CO call disconnects, the CO sends the DBS a disconnect signal by opening the loop (cutting voltage) for a specified length of time.

This timer determines how long the DBS expects the disconnect signal to last. By 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

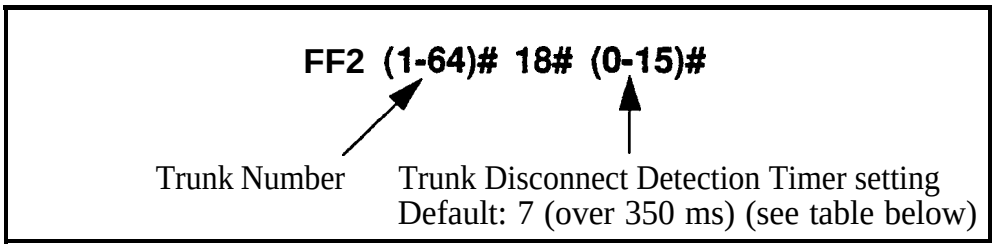


Table 2-2. Trunk Disconnect Detection Timer values

Setting	Value
0	Ignore disconnect
1	Over 50 ms
2	Over 100 ms
3	Over 150 ms
4	Over 200 ms
5	Over 250ms
6	Over 300ms
7	**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 650 ms
14	Over 700 ms
15	Over 750 ms

DISA Start Time

Software Version: All Versions
Address: FF2 (Trunk)# 19# (HHMM)#

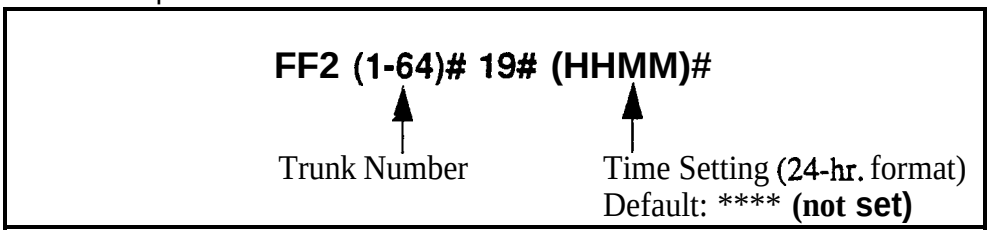
Description

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# 1 1#). Use this DISA Start 'lime 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. For example, enter 1515 to set the time to 3:15 p.m.



To clear the DISA Start Time . . .

FF2 (1-64)# 19# CONF ON/OFF

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)# 1 1# (0 or 1)#

DISA End Time: FF2 (Trunk)# 20# (HHMM)#

Notes

DISA Operation With Default Setting. If DISA Start Tiie 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: All Versions
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# 1 1#). Use this DISA End Tiie 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 will disable DISA to the trunk one minute after the time set in this address. (For example, if DISA End Time is set to 0815, DISA will actually end when the system clock reaches 8: 16 am.)

Programming

To set the DISA End Time . . .

Enter the time using the 24-hour format. For example, enter 0815 to set the time to 8:15 a.m. DISA will actually end when the system clock reaches 8: 16 a.m.

FF2 (1-64)# 20# (HHMM)#

Trunk Number

Time Setting (in 24-hr. format)
Default: **** (not set)

To clear the DISA End Time . . .

FF2 (1-64)# 20# CONF ON/OFF

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 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 FF12# 8# 1-10# PhoneNo.#).

Trunk Circuit Type

Software Version: CPC-All and CPC-B (all versions)
Address: FF2 **(Trunk)# 21# (Type)#**

Description

This program determines the type of circuit for each trunk (Loop Start by default).

NOTE: The circuit types available in each system depend on the CPC card version. See **"Notes"** below for more information.

Programming

FF2 (1-64)# 21# (0-4)#

Trunk Number

0=Loop Start
1=Ground Start
2=Analog DID
3=T1
4=Caller ID (loop start)

Related Programming

Call Duration Timer (for Caller ID): FF1 2# 1# 38# (0-2)#

Caller ID Automatic DISA Callers: FF1 2# 8# (1-10)# (PhoneNo.)#

T1 settings: FF1 8# 4# thru 7# addresses

Outbound Ground Start Detection Timer: FF1 3# 20# (1-8)#

Inbound Ground Start Detection Timer: FF1 3# 21# (1-8)#

DID Immediate or Wink Start: FF2 (Trunk)# 22# (0 or 1)#

Wink Start Timer: FF2 (Trunk)# 23# (0-15)#

Time Out for Dialed DID Digits: FF2 (Trunk)# 24# (0-15)#

DID Interdigit Timeout: FF2 (Trunk)# 25# (0-15)#

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Loop Start Circuit Type Considerations:

1. Loop Start is the most common type of CO line.
2. If a Ground Start Trunk Card is used, individual trunk ports on that card can be set to "Loop Start".

Ground Start Circuit Type Considerations:

1. Not available with CPC-AIL
2. Ground Start lines perform similarly to Loop Start: however, in terms of positive disconnect signals, Ground Start lines provide the most reliable connection between the CO and the DBS, with the least possibility of call collision or "glare".
3. The Ground Start Trunk Card (VB-4353 1) is required for ground-start operation.
4. The Ground Start Trunk Card requires a -48 volt power supply, which must be properly connected to the DBS backplane terminals -- see ***Section 300-Installation*** for instructions. **Misconnection of the power supply can result in serious damage to DBS equipment.**
5. The FLASH and REDIAL features are not available on ground-start trunks.

Analog DID Circuit Type Considerations:

1. Not available with CPC-AIL
2. Available only with CPC-B Version 2.0 or higher.
3. Requires DID Trunk Card (VB-43541).
4. Requires SCC-B card Version 1.27 or higher.
5. DID (Direct Inward Dialing) lines are beneficial in that the CO can place multiple inbound trunk calls (with different phone numbers) over the same circuit. These numbers can also be programmed to appear on multiple DBS extensions.
6. DID circuits can only be used for inbound calls (not for outbound).
7. The DBS supports 4-digit DID numbers with either Dial Pulse or (more commonly) Wink Start

Tl Circuit Type Considerations:

1. Not available with CPC-AII.
2. Available only with CPC-B Version 4.0 or higher.
3. T1 requires the following cards:
   - T1 Interface (VB-43561)
   - T1 MDF Card (VB-43562)
   - T1 Sync Card (VB-43563)
4. When assigning trunks as Circuit Type **"T1"**, you must start from the highest-numbered trunk port in the DBS cabinet structure, and move down sequentially from there. For more information, see the trunk assignment charts in ***the T1 Reference Manual (Section 500).***

5. If Fractional T1 (using only a portion of the 24 available T1 channels) is implemented, make sure that the number of trunks set to Circuit Type "T1" matches the programmed **Number of Tl Channels** (FF1 8# 4# 4/5# 1# 2# 0-24#).

6. In CPC-B Versions 5.0 to 6.02, if trunk usage on an analog trunk card is divided between T1 and analog, make sure that the T1 trunks are closed from analog usage in the **T1 Trunk Closure** address (FF1 8# 7# 1-2# 1-4# 1-8# 0-l#).

Caller ID Circuit Type Considerations:

1. Available only with CPC-AII and CPC-B Version 6.1 or higher.
2. Caller ID requires the following cards:
   - 8-port Loop Start Trunk Card (VB-43511A)
   - Caller ID Card (VB-43551)
   - MFR Card (VB-43431) (if using Caller ID Automatic DISA)
   - CPC-B Card (VB-43411) or CPC-AII Card (VB-43412)
3. Caller ID refers to calling party information transmitted from a local CO to the DBS. Calling party information transmitted in ANI format from interexchange carriers (IXC's) is not supported by the DBS at this time.
4. Caller ID data is transmitted from the local CO to the DBS between the first and second rings. The Caller ID Card and the Loop Start Trunk Card collect the data and distribute it to the appropriate extension via the CPC Card. The extension displays the Caller ID information (if the phone has an LCD) for a programmable length of time.
5. ***See Caller ID Installation and Operation (Section*** 510) for complete instructions and ordering specs.

DID Immediate or Wink Start

Software Version: CPC-B Version 2.0 or higher
Address: FF2 (Trunk)# 22# (0 or 1)#

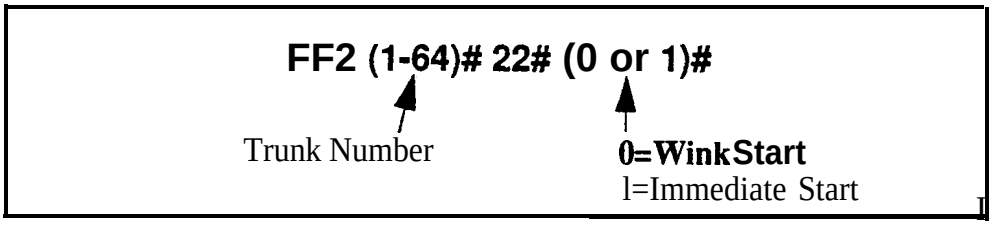
Description

This address determines the type of signaling used with DID trunks (Wink Start by default).

If "Wink Start" is selected, the **CO** seizes the DID trunk. Then the DBS sends a wink signal to the CO. At the end of the wink signal, the **CO** transmits the DID digits.

If "Immediate" is selected, the CO seizes the DID trunk. Then the DBS waits 65 milliseconds before accepting the digits of a dialed number.

Programming



Related Programming

Multiple DID/DNIS: FF1 2# 1# 32# (0 or 1)#

DID/DNIS to a Voice Mailbox: FF1 2# 1# 36# (0-2)#

DID/DNIS Answer Code: FF1 2# 1# 37# (6 char.)#

DID/DNIS: FF1 8# 4# 6# (1-64)# 2# (0-2)#

DID Flexible Ringing Assignments: FF1 8# 5# (0000-9999)# ExtNo.)# (000000-111111)#

Trunk Circuit Type: FF2 (Trunk)# 21# (0-4)#

Wink Start Timer: FF2 (Trunk)# 23# (0-15)#

Time Out for Dialed DID Digits: FF2 (Trunk)# 24# (0-15)#

DID Interdigit Timeout: FF2 (Trunk)# 25# (0-15)#

Notes

Power-Cycling Requirement. For changes to this parameter to take effect, the system must be turned off, then back on.

Wink Start Timer

Software Version: **CPC-B** Version 2.0 **or** higher
Address: FF2 (Trunk)# **23# (0-15)#**

Description

This timer determines the duration of the "wink" that is sent to the CO following the CO's seizure of a DID trunk (200 ms by default).

At the conclusion of the wink, the CO transmits the DID digits to the DBS.

Programming

FF2 **(1-64)# 23#** *(0-15)* **5)#**

t
Trunk Number

Wink Start Timer setting
Default: 3 (**200** ms)
(see table below)

Table 2-3. Wink Start Timer settings

Setting	Value
0	140 ms
1	160 ms
2	180 ms
3	200 ms
4	220 ms
5	240 ms
6	260 ms
7	280 ms
8	300 ms
9	320 ms
10	340 ms
11	360 ms
12	380 ms
13	400 ms
14	420 ms
15	440 ms

Time Out for Dialed DID Digits

Software Version: CPC-B Version 2.0 or higher
Address: FF2 (Trunk)# 24# (0-15)#

Description

This timer determines how long the DBS waits for DID digits, once CO signaling has indicated that digits are to be transmitted (18 seconds by default).

Programming

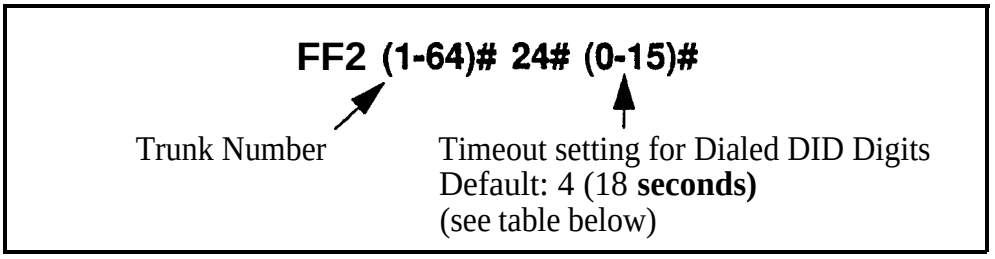


Table 2-4. DID Dialed Digit Timer values

Setting	Value
0	No timeout
1	15 seconds
2	16 seconds
3	17 seconds
4	**18 seconds**
5	19 seconds
6	20 seconds
7	21 seconds
8	22 seconds
9	23 seconds
10	24 seconds
11	25 seconds
12	26 seconds
13	27 seconds
14	28 seconds
15	29 seconds

DID Interdigit Timeout

Software Version: CPC-B Version 2.0 or higher
Address: FF2 (Trunk)# 25# (0-15)#

Description

Once the CO begins to outpulse DID digits, this timer determines how much time is allowed between each digit (80 ms by default). If the timer is exceeded, the DBS returns the DID trunk to the idle state.

Programming

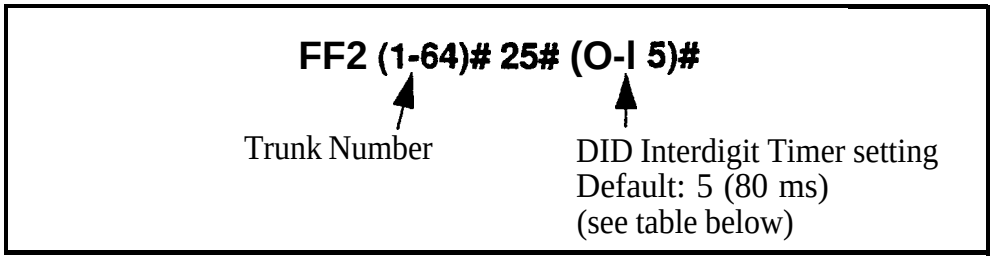


Table 2-5. DID Interdigit Timer values

Setting	Value
0	30 ms
1	40 ms
2	50 ms
3	60 ms
4	70 ms
5	**80 ms**
6	90 ms
7	100 ms
8	110 ms
9	120 ms
10	130 ms
11	140 ms
12	150 ms
13	160 ms
14	170 ms
15	180 ms

Trunk Port Class

Software Version: CPC-B Version 4.0 or higher
Address: FF2 (Trunk)# 26# (4-8)#

Description

This parameter is provided in case a specific trunk or group of trunks needs a unique pad level. This will only work if the Sync unit (VB-43563) is installed piggyback on the CPC-B card.

By default, DBS trunks are assigned a circuit type, based on whether they are analog or T1. This circuit type is **used** in **the Digital Pad Settings** address (FF1 8# 4# 3#) to determine the loss/gain settings for connections to the T1.

For example, a T1 in a slave cabinet is assigned by default as circuit type "6" (see table below). However, if a specific T1 trunk in the slave has inadequate volume levels, the circuit type for the T1 trunk port could be changed to "8". Once the trunk port's circuit type is changed, you can change the pad levels for **circuit type 8** (in **Digital Pad Settings)** to provide the correct volume setting.

Programming

FF2 **(1-64)# 26# (4-8)#**

Trunk Number — Trunk Circuit Type (see table below)

NOTE: This address will allow you to assign circuit types 1-12 to a trunk; however, types 4-8 are the only ones that should be used with trunks.

Table 2-6. Trunk Port Class - circuit types

Setting	Value
4	Analog CO trunk
5	T1 trunk in the master cabinet
6	T1 trunk in the slave cabinet
7	Option 1 (see "Note" below)
8	Option 2 (see "Note" below)

NOTE:
Circuit types 7-8 are used for assigning unique pad levels to circuits that require special volume levels. For example, if a specific analog trunk needs a higher volume level than other analog trunks, the analog trunk could be defined as an "Option 1" circuit type.

Related Programming

Digital Pad Settings: FF1 8# 4# 3# (1-12)# (1-12)# (0-30)#

Station Port Class: FF3 (ExtPort)# 37# (l-2 or 7-8)#

Notes

Extension Circuit Types. Circuit types can also be assigned to extension ports. See the **Station Port Class** address for more information.

3. Extension Programming (FF3)

Use the FF3 programming addresses in this chapter to set parameters for extensions.

All FF3 addresses require an extension port entry. The acceptable range for extension ports depends on your DBS system's configuration. In this chapter, the range shown for extension ports is (1-144), which is the maximum available number of extension ports in a DBS 96 + DBS 96 system with a CPC-B card. With a CPC-AII card, the maximum range is (l-72) extension ports. For more information, *see Section 300-Installation.*

This chapter covers the following addresses:

Extension Numbers

Software Version: All Versions
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 (RJ21x on the DBS connector) into which the phone is plugged. Extension ports have fixed numbers which can't be changed (you can't assign a different port number to the same port).

Programming

To assign an Extension Number . . .

FF3 (1-144)# 1# (IO-69 or 100-699)#

Extension Port — Extension Number

Defaults: Port 1=10 or 100
Port 2=11 or 101
Port 3=12 or 102 . . . etc.

To clear an Extension Number . . .

FF3 (1-144)# 1# CONF

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)##

Second Attendant Position: FF1 2# 1# 24# (11-69 or 101-699)#

Third Attendant Position: FF1 2# 1# 25# (11-69 or 101-699)#

Fourth Attendant Position: FF1 2# 1# 26# (11-69 or 101-699)#

Extension Names: FF6 1# (ExtPort)# CONF (Name)#

Notes

Primary Attendant Extension. The default extension number for the Primary Attendant is 10 or 100, assigned to port 1. It is not possible to change the Primary Attendant's extension number or port. The Primary Attendant phone must be a key telephone with an LCD display.

Second Attendant Extension. If a Second Attendant is assigned, its default extension number is 11 or 101, assigned to port 2. Although the Second Attendant assignment can be changed, it is recommended that you leave its extension number at the default 11 or 101 so that a DSS/BLF console can be used with it. (The Third and Fourth Attendants cannot use a DSS/BLF phone.) If extension 101 or 11 is cleared, the Alternate Attendant feature 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)#.

Finding Out the Port Number of an Extension. If an extension phone has an LCD display, you can display its port number by pressing **ON/OFF CONF #5*** on that phone. Or, from another extension with an LCD, press **ON/OFF CONF [ExtNo.]** (the dialed extension's port number will display).

Terminal Type

Software Version: All Versions
Address: FF3 (ExtPort)# 2# (ExtType)#

Description

Some DBS extensions are automatically configured when installed on an extension port. This address allows you to change default terminal assignments, or assign special equipment to extension ports.

Programming

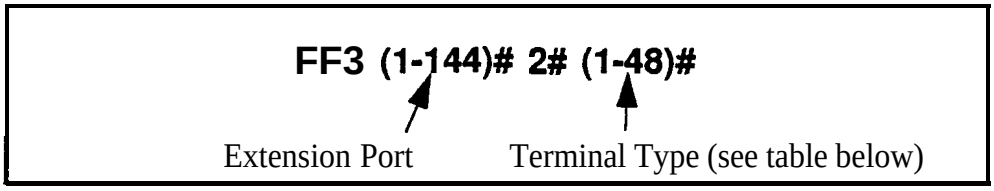


Table 3-1. Terminal Types

Note: If the configuration is "Auto", the system defaults to the phone type plugged into that port. If no phone is plugged in, the port defaults to "4" (34-button Key Phone).

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	(not currently used)	(N/A)
6	Digital Single-Line Telephone (DSLT)	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
16-19	Attendant Consoles 1-4	Manual
20	(not used)	N/A
21-28	Integrated ACD channels	Auto
29-30	(not used)	N/A

31-38	Integrated Auto Attendant channels	Auto
39-40	(not used)	N/A
41-48	Integrated DBS Voice Mail channels	Auto

Related Programming

API/AEC Slot Assignment: FF1 2# 1# 20# (2-9 or

Notes

Terminal Type 6 (DSLT). This terminal type is not available in CPC-A/B versions prior to 3.1.

Terminal Type IO (Third-Party Voice Mail). Beginning with CPC-A Version 3.28 and CPC-B Version 4.07, when an analog port hookflashes to return to a held trunk, the DBS returns busy tone to Voice Mail if the trunk is abandoned. When Voice Mail receives the busy tone, it recognizes that the trunk has been abandoned, and consequently releases the called extension. (In previous versions, the DBS returned ringback tone, causing the extension to continue ringing.)

Terminal Types ll-I4 (DSSl72) and 16-19 (Attendant Consoles). After manually setting any of these terminal types, disconnect the modular jacks from the devices, then reconnect them.

Terminal Types 16-19 (Attendant Consoles). This option requires the Attendant Feature Package, which is available only with CPC-B Version 2.0 to 4.0.

Terminal Types 30-48. These options are available with CPC-AII/B Version 3.1 or higher.

VAU Port Assignments. For later CPC versions, VAU ports are assigned in other addresses:

CPC-A 3.3 or higher: FF3 (1-72)# 34# (0 or 1)#
CPC-AII (all versions): FF3 (1-144)# 47# (0 or 1)#
CPC-B 5.0 or higher: FF3 (1-144)# 47# (Oor 1)#

Call ***Forward ID Digits.*** Call Forward ID digits will only emit if the port is set for Terminal Type 10-15. Terminal Type 10 is the recommended setting for each Third-Party Voice Mail.

Console Port Assignments. For all CPC versions, a DSS/72 console is assigned by setting the Terminal Type to 11-14. However, EM/24 ports are assigned in the next address, FF3 (ExtPort)# 3# (ExtPort)#.

EM/24 Port Assignment

Software Version: All Versions
Address: FF3 (ExtPort)# 3# (ExtPort)#

Description

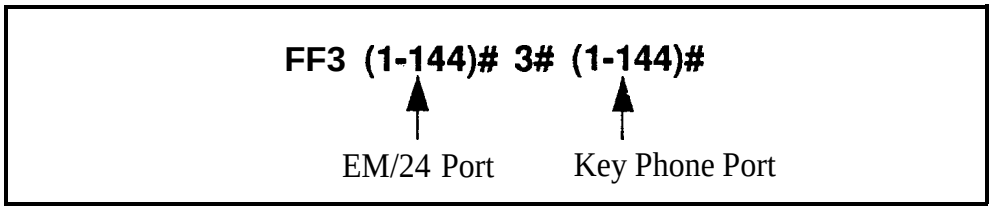
This program assigns an EM/24 terminal to a key phone by associating the extension ports.

EM/24 terminals provide additional FF keys to a key phone. An EM/24 terminal 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.

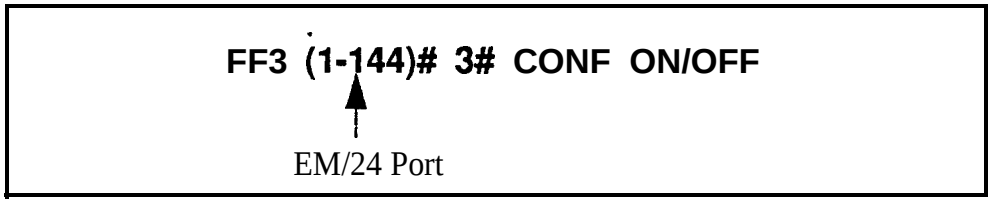
After the EM/24 is assigned to the key phone, the *key phone's* extension port should be used in other program addresses (for example, when including the phone in a hunt group or call coverage group).

Programming

To assign an EM/24 to a key phone . . .



To clear an EM/24 assignment . . .



Notes

Reconnection Requirement. After manually reprogramming the EM/24 terminal, disconnect its module jack, then reconnect it.

Changing Default Key Assignments in CPC-B Versions 2.01 *to* 2.04. When you change default EM/24 key assignments in these versions, reprogram as follows:

1. Assign the EM/24 to a port.

2. Reset the EM/24 by unplugging then reconnecting it.

3. Program the keys using FF5 (ExtPort)# (FFkey)#.

Forced Least Cost Routing

Software Version: All Versions
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:

- every pooled key "9" is now an LCR key.
- stations cannot dial 8 l-86 to place an outside call.
- the caller will hear a dial tone generated by the DBS -- but the system will not access an outside line until the caller dials an area code and/or office code, after which the system selects the least expensive trunk based on time of day, carrier, and/or dialed number.

Programming

FF3 (1-144)# 4# (0 or 1)#

Extension Port

0=Disabled (no forced LCR).
l=Enabled (forced LCR).

Related Programming

LCR Access: FF1 2# 1# 3# (0 or 1)#

Least Cost Routing: All FF8 programs

Notes

Interaction With Call Forward-Outside. If Forced LCR is enabled, the "Call Forward-Outside" feature cannot be used.

Forced Account Codes

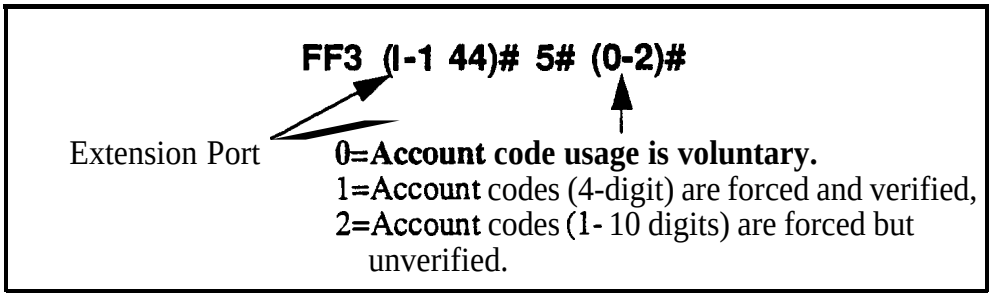
Software Version: All Versions
Address: FF3 (ExtPort)# 5# (0-2)#

Description

Use this address to force extension users to enter an account code before making an outside call.

- Beginning with CPC-AII/B Version 3.1, forced account codes will be verified by the DBS system before allowing the call.
- Beginning with CPC-AII/B Version 6.0, forced account codes can be either "verified" or "unverified" by the system.

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

Notes

Extensions Set to 0 ("Account code usage is voluntary"). The extension user can place outside calls without entering an account code. If the caller does enter an account code, the DBS will include it in the SMDR record for the call, but will not verify it.

Extensions Set to 1 ("Account codes are forced and verified") (the "verified" part of this option available in CPC-AII/B Version 3. 1 or higher). The extension user cannot place an outside call without first entering a valid account code. The DBS will verify it (in CPC-AII/B Version 3.1 or higher) and apply the account code's assigned TRS type to allow or disallow the call.

Extensions Set to 2 ("Account codes are forced but unverified") (this option is available in CPC-AII/B Version 6.0 or higher). The extension user cannot place an outside call without first entering an account code. The DBS will include the account code in the SMDR record but will not verify it.

Extension Lockout Code

Software Version: All Versions
Address: FF3 (ExtPort)# 6# (0000-9999)#

Description

Use this address to assign a **4-digit** Station Lockout code to an extension. This allows an extension user to "lock" the phone, preventing others from being able to place or receive outside calls on the phone while the extension user is away. However, the locked extension can be used for intercom calls.

NOTE: Assigning Station Lockout codes must be performed on an Attendant or key phone.

Programming

To assign a Station Lockout Code to an extension . . .
(must be performed on an Attendant or key phone)

FF3 (1-144)# 6# (0000- 999)#

Extension Port — **3** Extension Lockout Code

To clear a Station Lockout Code assignment . . .

FF3 (1-144)# 6# CONF ON/OFF

Extension Port-

CAUTION: Before clearing a lockout code, make sure the extension is currently "unlocked" -- otherwise, the extension will remain locked until another lockout code is assigned to it, and then the new code is used to unlock the extension.

Notes

Lucking *An Extension.* To lock an extension, dial **"74"** plus the Station Lockout Code. Repeat to unlock it.

Using the ***Station*** Lockout Code. If an extension is "locked" with the Station Lockout Code, the extension phone will not allow incoming or outgoing trunk calls, including transferred trunk calls.

Offhook Signal (CO)

Software Version: All Versions
Address: FF3 (ExtPort)# 7# (0 or 1)#

Description

This program determines if the DBS sends a tone signal to busy extensions when an additional trunk call arrives.

Programming

To activate the Offhook Signal . . .

FF3 (1-144)# 7# (0 or 1)#

t
Extension Port

0=Disable Offhook Signaling.
1-Enable Offhook Signaling.

Note: Default for the Primary Attendant is **1 ("Enable").**

To reset the Offhook Signal to the default value . . .

FF3 (1-144)# 7# CONF ON/OFF

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 will not send the Offhook Signal (even if enabled) during a conference call, while the called extension is on hold, or during a call on a trunk that does not have a dedicated line key on the phone.

Station Hunting Interaction. If an extension is enabled for Offhook Signaling, the extension will, be excluded from any hunt group setting that may be enabled for it.

VAU Interaction. If a Voice Announce Unit (VAU) is connected to the DBS, disable Offhook Signaling (CO) to prevent VAU calls from being interrupted by incoming trunk calls.

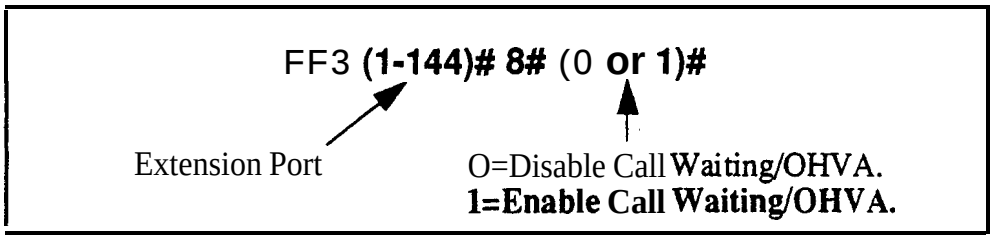
Call Waiting/OHVA

Software Version: All Versions
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 call on hold, or is engaged in a conference call.

VAU Interaction. If a VAU (Voice Announce Unit) is used, disable Call Waiting/OHVA to prevent other extensions from breaking in on calls to the VAU.

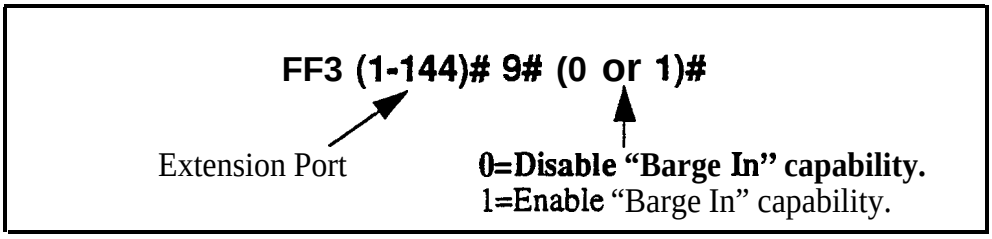
Busy Override Send

Software Version: All Versions
Address: FF3 (ExtPort)# 9# (0 or 1)#

Description

Use this address to enable an extension to "barge into" calls that are in progress on other extensions. If the extension 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# 17# (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 "Barge In." Extensions can be set to block barge-in calls with the next address (Busy Override Receive, FF3 ExtPort# 10# 0#). Also, a barge-in attempt will not work when the called extension is participating in a conference call.

Page Group Interaction. Extensions enabled for Busy Override Send can only barge into calls on extensions within their own page group. For example, an extension in page group 1 cannot interrupt a call in page group *2.* Page group 0 does not allow Busy Override.

Permanent Setting for Attendants in CPC-A and CPC-B Version 1.0. Busy Override Send cannot be disabled on Attendant phones in these versions.

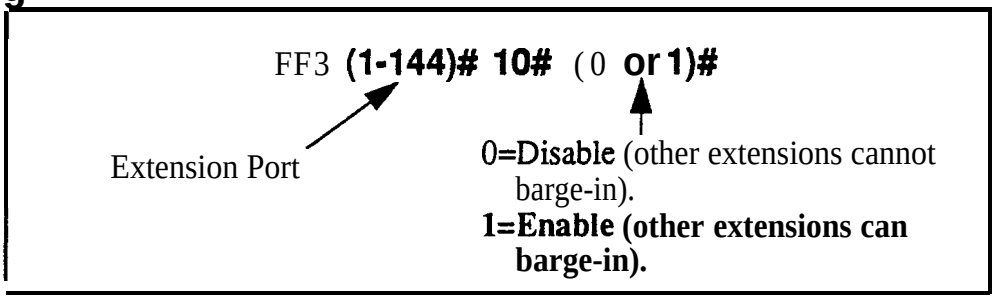
Busy Override Receive

Software Version: All Versions
Address: FF3 (ExtPort)# 10# (0 or 1)#

Description

This address determines whether other extensions can "barge into" an extension while it is engaged in a call. By default, barge-ins from other extensions are allowed.

Programming



Related Programming

Alert Tone for Busy Override & OHVA: FF1 2# 1# 17# (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: All Versions

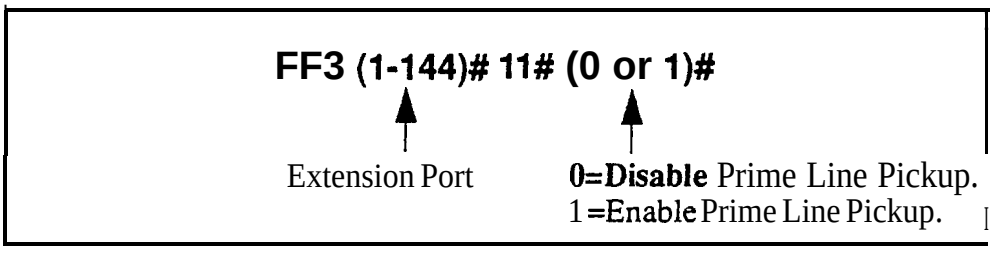
Address: FF3 (ExtPort)# **11#** (0 or **1)#**

Description

Use this address to enable or disable the Prime Line Pickup feature, which 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 Prime Line Pickup 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)

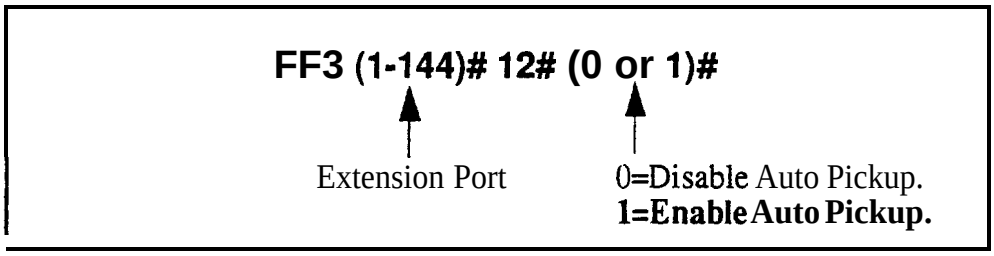
Software Version: All Versions
Address: FF3 (ExtPort)# 12# (0 or 1)#

Description

Use this program to enable Auto Pickup -- connecting with an incoming trunk call, a hold recall, or a transferred call simply by picking up the ringing extension's handset.

If Auto Pickup is disabled, you must pick up the handset *and* press the appropriate FF key to connect to the call.

Programming



Notes

***VAU** Interaction*. If a VAU (Voice Announce Unit) is used, enable Auto Pickup to allow the VAU to pick up CO calls.

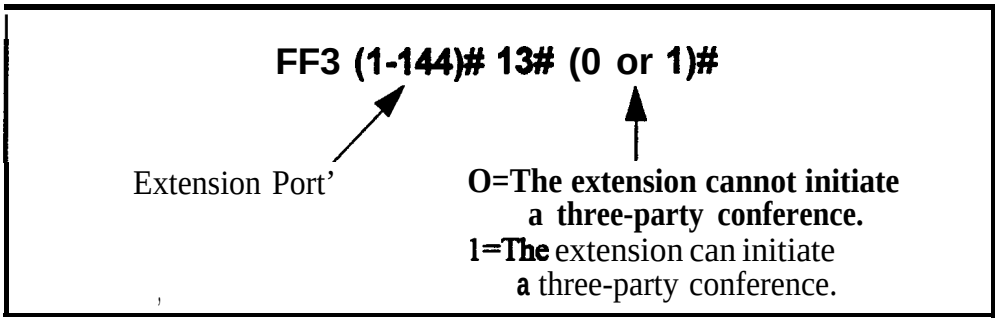
Unsupervised Conference

Software Version: All Versions
Address: FF3 (ExtPort)# 13# (0 or 1)#

Description

Use this address to enable or disable the Unsupervised Conference feature on an extension. If enabled, the extension user can initiate a three-party conference between two trunks and the extension, then drop out of the call by pressing either of the trunk keys used to call the other parties.

Programming



Related Programming

Unsupervised Conference Timer: FF 1 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.

Auto-Pam& Interaction. If the DBS is behind a PBX, and an extension is enabled for Unsupervised Conference, **the Automatic Pause for PBX Line** address (FF2# Trunk#13#) cannot be used.

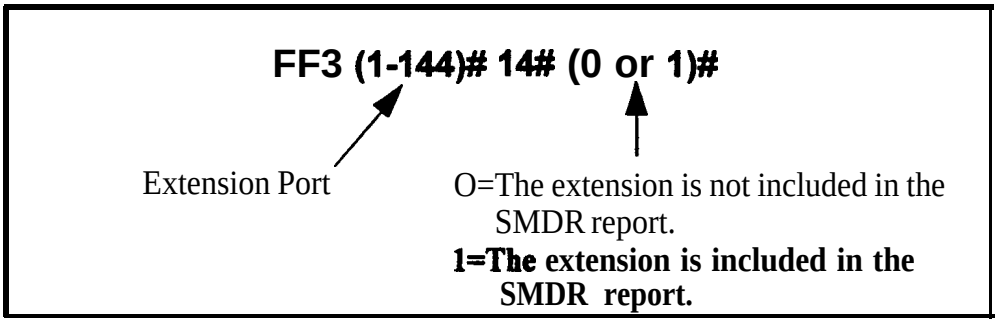
Station Message Detail Recorder (SMDR) Report

Software Version: All Versions
Address: FF3 (ExtPort)# 14# (0 or 1)#

Description

Any extension can be removed from the SMDR report, so that its call activity will not be recorded.

Programming



Related Programming

SMDR Display Start Tier for CO Calls: FF1 2# 1# 2# (0 or 1)#

Notes

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: All Versions
Address: FF3 (ExtPort)# 15# (0-4)#

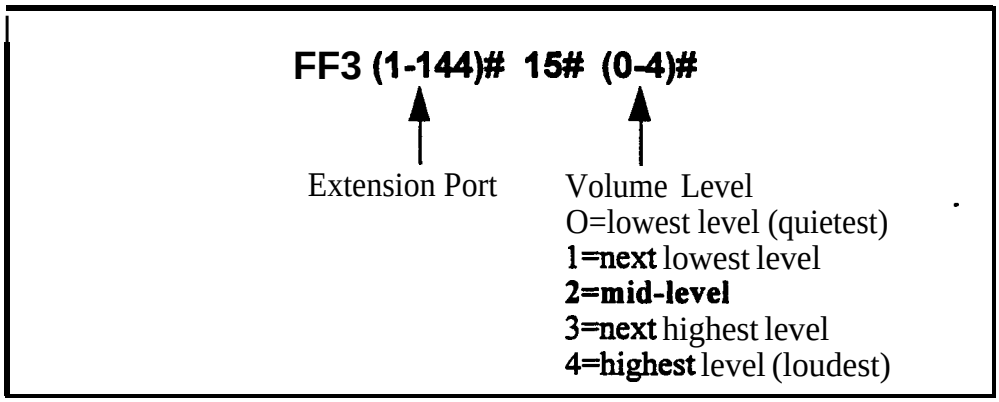
Description

The volume for **offhook** signaling can be set to one of five different levels.

Offhook signaling is a "beep-beep" tone heard every 6 seconds in the receiver of an **offhook** extension (already engaged in a call), indicating another trunk call is coming in.

The next **address ("Offhook Signal Pattern")** allows you to set the tone signal to be sent repeatedly, or only once, to an **offhook** extension user.

Programming



Related Programming

Alert Tone for Busy Override & OHVA: FF 1 2# 1# 17# (0 or 1)#

OffhookSignal: FF3 (ExtPort)# 7# (0 or 1)#

Offhook Signal Pattern: FF3 (ExtPort)# 16# (0 or 1)#

Notes

Reset 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.

Offhoek Signal Pattern

Software Version: All Versions
Address: FF3 (ExtPort)# 16# (0 or 1)#

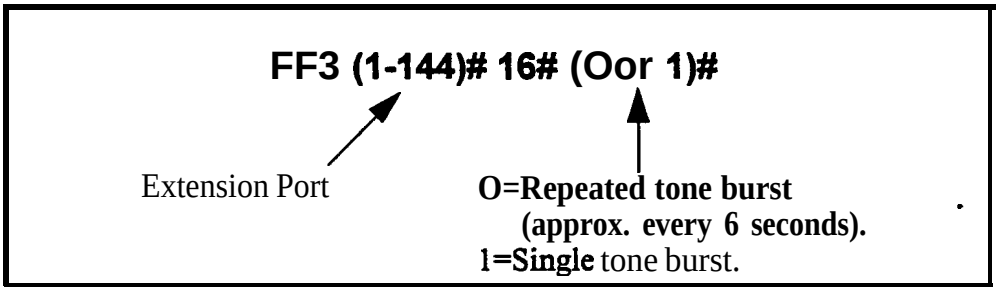
Description

The offhook signaling tone can be sent repeatedly or only once.

Offhook signaling is a "beep-beep" tone heard every 6 seconds in the receiver of an offhook extension (already engaged in a call), indicating another trunk call is coming in.

The previous address **("Offhook Signal Volume")** allows you to set the volume level of the tone signal.

Programming



Related Programming

Offhook Signal: FF3 (ExtPort)# 7# (0 or 1)#

Offhook Signal Volume: FF3 (ExtPort)# 15# (0 or 1)#

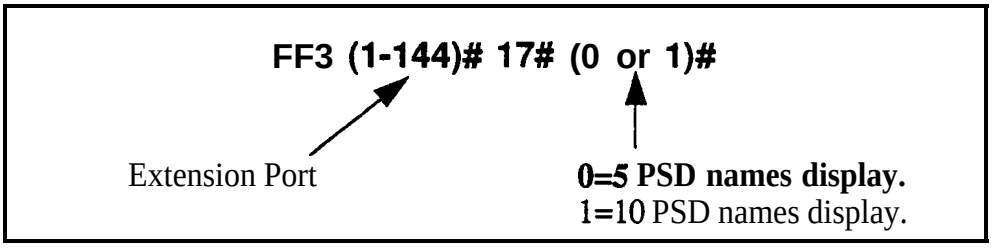
PSD Name Display on Large-Sized LCD Phones

Software Version: All Versions
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 PSD names display" option is chosen, the maximum length of the names is 7 characters. With the "5 PSD names display" option, the names can be 16 characters long.

Page Group Extensions

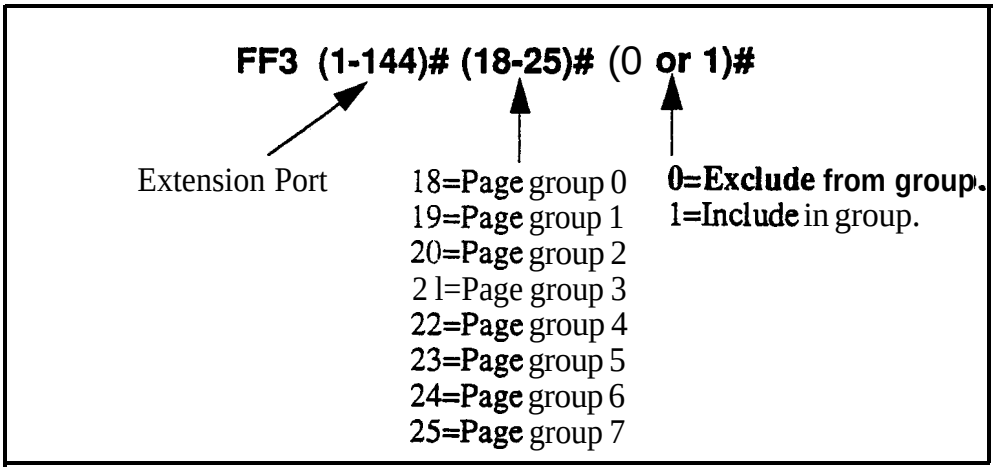
Software Version: All Versions

Address: **FF3** (ExtPort)# **(18-25)#** (0 **or 1)#**

Description

Use this 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 in page group 1 cannot override calls in page group 2.

Display When Idle

Software Version: All Versions
Address: FF3 (ExtPort)# 26# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed during "idle" mode on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned feature.

Programming

FF3 (1-144)# 26# (O-24 or 0-39)#

Extension Port

Soft Key Menu (see table below)
Default: **0 (previous menu displays)**
Available Ranges: 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-AII and CPC-B Version 6.0 or higher

Table 3-2. Soft key menus during idle mode

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu 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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmable)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 (user-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: **FF1 2# 7# 1#** thru **4#**

Notes

Initial Default. After a system initialization, the Main Menu will display during "idle" mode.

Display During Intercom Dial Tone

Software Version: All Versions
Address: FF3 (ExtPort)# 27# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed during intercom dial tone on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned feature.

Programming

FF3 (1-144)# 27# (O-24 or 0-39)#

Extension Port

Soft Key Menu (see table below)
Default: 0 **(previous menu displays)**

Available Ranges: 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-AII and CPC-B Version 6.0 or higher

Table 3-3. Soft key menus during intercom dial tone

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu 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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmable)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 (user-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: FF1 2# 7# 1# thru 4#

Display When Calling an Extension

Software Version: All Versions
Address: FF3 (ExtPort)# 28# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed while calling another extension on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned feature.

Programming

FF3 (1-144)# 28# (O-24 or 0-39)#

Extension Port

Soft Key Menu (see table below)
Default: **0 (previous menu displays)**
Available Ranges: 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-AII and CPC-B Version 6.0 or higher

Table 3-4. Soft key menus when calling an extension

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu 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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmable)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 (user-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: FF1 2# 7# 1# thru 4#

Display When Accessing CO Dial Tone

Software Version: All Versions
Address: FF3 (ExtPort)# 29# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed while accessing a trunk on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned feature.

Programming

FF3 (1-144)# 29# (O-24 or 0-39)#

Extension Port

Soft Key Menu (see table below)
Default: **0 (previous menu displays)**

Available **Ranges:** 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-AII and CPC-B Version 6.0 or higher

Table 3-5. Soft key menus when accessing CO dial tone

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu 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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmable)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 (user-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: **FF1 2# 7# 1#** thru **4#**

Display When Conversing on a CO Trunk

Software Version: All Versions
Address: FF3 (ExtPort)# 30# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed while a trunk call is in progress on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned fearure.

Programming

FF3 (1-144)# 30# (O-24 **or 0-39)#**

Extension Port

Soft Key Menu (see table below)
Default: **0 (previous menu displays)**
Available Ranges: 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-AII and CPC-B Version 6.0 or higher

Table 3-6. Soft key menus during a trunk call

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu retained)**
1	Main Menu
2	Personal Speed Dial
3	System Speed Diai
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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmable)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 (user-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: FF1 2# 7# 1# thru 4#

Display When Receiving a Page

Software Version: All Versions
Address: FF3 (ExtPort)# 31# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed while receiving a page on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned feature.

Programming

FF3 (1-144)# 31# (O-24 or 0-39)#

Extension Port

Soft Key Menu (see table below)
Default: 0 **(previous menu displays)**
Available Ranges: 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-All and CPC-B Version 6.0 or higher

Table 3-7. Soft key menus when receiving a page

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu 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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmabie)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 (user-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: FF1 2# 7# 1# thru 4#

Display After Receiving a Call Waiting Tone

Software Version: All Versions
Address: FF3 (ExtPort)# 32# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed after receiving a call-waiting tone on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned feature.

Programming

FF3 (1-144)# 32# (O-24 or 0-39)#

Extension Port

Soft Key Menu (see table below)
Default: 0 **(previous menu displays)**
Available Ranges: 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-All and CPC-B Version 6.0 or higher

Table 3-8. Soft key menus after receiving a call waiting tone

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu 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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmable)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 her-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: FF12# 7#1# thru 4#

Display When Dialing a Busy Extension

Software Version: All Versions
Address: FF3 (ExtPort)# 33# (O-24 or 0-39)#

Description

Select a soft-key menu to be displayed while dialing a busy extension on a large-display phone. While the menu is displayed, pressing a soft key will perform the assigned feature.

Programming

FF3 (1-l 44)# 33# (O-24 or 0-39)#

Extension Port

Soft Key Menu (see table below)
Default: 0 **(previous menu displays)**
Available Ranges: 0-24=CPC-A (all versions) and CPC-B prior to 6.0
0-39=CPC-AII and CPC-B Version 6.0 or higher

Table 3-9. Soft key menus when dialing a busy extension

Setting	Value (menu) (see Appendix A for menu illustrations)
0	**No change (previous menu 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	Flexible Function Screen 1 (user-programmable)
26	Flexible Function Screen 2 (user-programmable)
27	Flexible Function Screen 3 (user-programmable)
28	Flexible Function Screen 4 (user-programmable)
29	Flexible Function Screen 5 (user-programmable)
30	Flexible Function Screen 6 (user-programmable)
31	Flexible Function Screen 7 (user-programmable)
32	Flexible Function Screen 8 (user-programmable)
33	Flexible Function Screen 9 (user-programmable)
34	Flexible Function Screen 10 (user-programmable)
35	Flexible Function Screen 11 (user-programmable)
36	Flexible Function Screen 12 (user-programmable)
37	Flexible Function Screen 13 (user-programmable)
38	Flexible Function Screen 14 (user-programmable)
39	Flexible Function Screen 15 (user-programmable)

Related Programming

Flexible Function Screen addresses: FF1 2# 7# 1# thru 4#

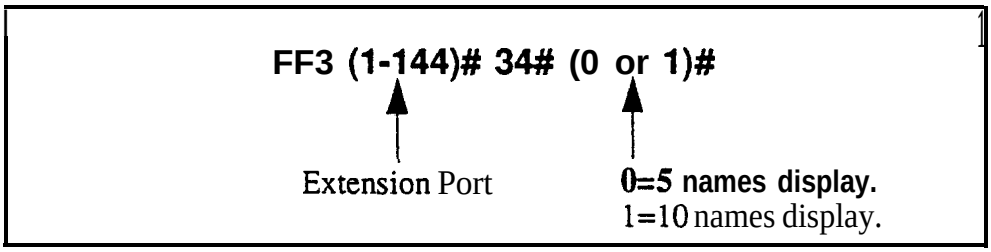
Extension Directory Display

Software Version: CPC-All (all versions); CPC-B Version 2.0 or 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



Notes

Showing Extension Status in IO-Name Directory Display. When this address is set to "1" (10 names display), the directory will display a symbol next to the extension number if it has a special status as follows:

- ■ = Busy/Offhook
- ✱ = DND or Absence Message

However, if an extension enters a Busy or DND status after the directory displays, the directory is not updated automatically (the directory must be redisplayed before it will show the status).

Address in CPC-A Versions. In CPC-A Version 3.3 or higher, this address controls VAU Port Assignment, not Extension Directory Display. See FF3 (ExtPort)# 47# for instructions on assigning VAU ports for CPC-A versions.

Extension Class of Service Assignment

Software Version: CPC-All (all versions); CPC-B Version 3.1 or higher
Address: FF3 (ExtPort)# 35# (0-8)#

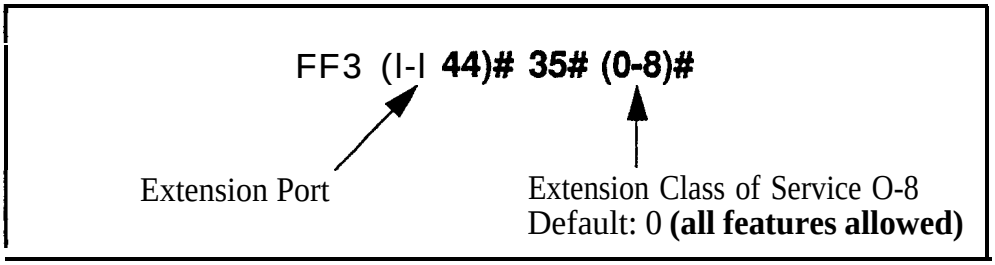
Description

Use this feature to assign a Class of Service to an extension.

Each Class of Service contains a unique combination of extension features, which can be selectively enabled for the Class of Service (see FF1 2# 5#). When you assign a Class of Service to an extension, you are assigning the enabled features to the extension.

By default, all extensions are assigned Class of Service "0," which has all features enabled.

Programming



Related Programming

Extension Class of Service: FF1 2# 5# (1-8)# (l-2 1)# (0 or 1)#

Notes

Caution When Changing a Class of Service Assignment. If *you* change an extension's Class of Service, make sure none of the features are currently activated on the extension -- or the extension user may not be able to turn off the feature.

For example, if an extension user has Background Music on when you reassign the extension to another Class of Service that has Background Music disabled, the user will not be able to turn it off. (If this occurs, reassign the original Class of Service to the extension, then turn Background Music off at the extension, then assign the new Class of Service to the extension.)

Inbound DID Dial Numbers

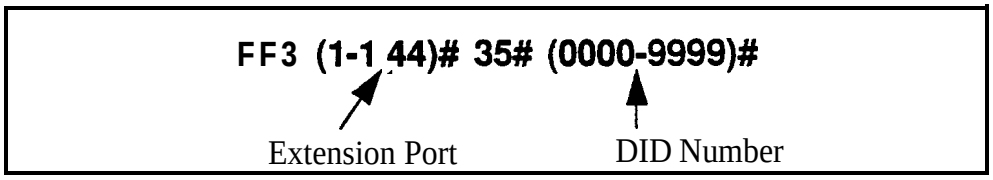
Software Version: CPC-B Version 2.0 only
Address: FF3 (ExtPort)# 35# (0000-9999)#

Description

DID (Direct Inward Dialing) numbers must be assigned to extension ports so they will ring on the appropriate extensions.

In CPC-B versions prior to 3.1, DID numbers can be set to ring on only one extension port. Beginning with CPC-B Version 3.1, DID numbers can be set to ring on multiple extensions (see address FF18# 3# for more information).

Programming



AEC Disconnect

Software Version: CPC-A Version 3.3 or higher
Address: FF3 (ExtPort)# 35# (0 or 1)#

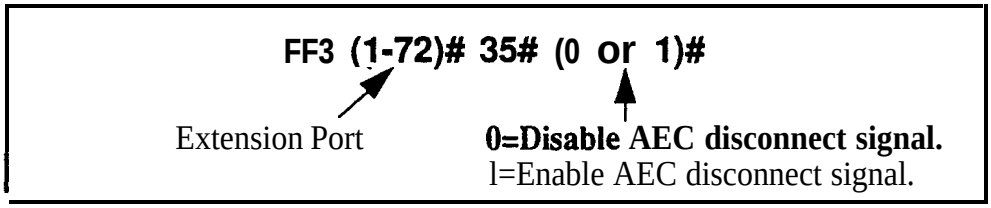
Description

The VB-43621A version of the AEC card can be set to provide a positive disconnect signal. Use this address to enable or disable the AEC disconnect signal on individual extensions.

If this option is enabled, analog extension ports will send a disconnect signal (open loop) upon hangup. Sending this signal allows quick disconnection from third-party voice mail systems.

This feature requires CPC-A 3.3 or higher, or CPC-AII/B 5.0 or higher (the address for CPC-AII/B is FF3 ExtPort# 46# 0-1#).

Programming



Related Programming

AEC Disconnect Signal Duration (for CPC-A 3.3 or higher): FF1 2# 1# 23# (0-15)#

Ringback Tone From ML Keys

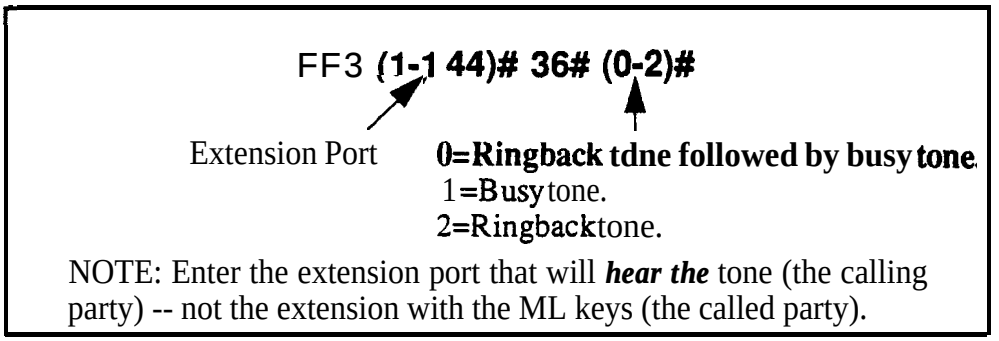
Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF3 (ExtPort)# 36# (0-2)#

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



NOTE: Enter the extension port that will ***hear the*** tone (the calling party) -- not the extension with the ML keys (the called party).

Related Programming

ML/MCO Separation: F'F3 (ExtPort)# 44# (0 or 1)#

Station Port Class

Software Version: CPC-B Version 4.0 or higher
Address: FF3 (ExtPort)# 37# (1-2 or 7-8)#

Description

This parameter is provided in case a specific phone or group of phones needs a unique pad level.

By default, DBS extensions are assigned a circuit type based on whether they are key phones or SLTs. The circuit type is used in the **Digital Pad Settings** address (FF18# 4# 3#) to determine the loss/gain settings for connections to the T1 interface.

For example, an SLT is assigned by default as circuit type "2" (see table below). However, if an SLT in a remote warehouse has inadequate volume levels, the circuit type for the SLT could be changed to "7". Once the SLT's circuit type is changed, you can change the pad levels for circuit type "7" to provide the correct volume setting.

Programming

FF3 (1-144)# 37# (1-2 or 7-8)#

Extension Port

Extension Circuit Type (see table below)

NOTE: This address will allow you to assign circuit types 1-12 to an extension; however, types 1-2 or 7-8 are the only types that should be used with extensions.

Table 3-10. Station Port Class - circuit types

Setting	Value
1	Key Telephone
2	SLT (2500 set)
7	Option 1 (see **"Note"** below)
8	Option 2 (see **"Note"** below)

NOTE:
Circuit types 7-8 are used for assigning unique pad levels to circuits that require special volume levels. For example, if a specific analog trunk needs a higher volume level than other analog trunks, the analog trunk could be defined as an "Option 1" circuit type.

Related Programming

Digital Pad Settings: FF1 8# 4# 3# (1-12)# (1-12)# (0-30)#

Trunk Port Class: FF2 (Trunk)# 26# (4-8)#

Notes

Trunk Circuit Types. Circuit types can also be assigned to trunk ports. See the Trunk Port Class address (FF2 ExtPort# 26#) for more information.

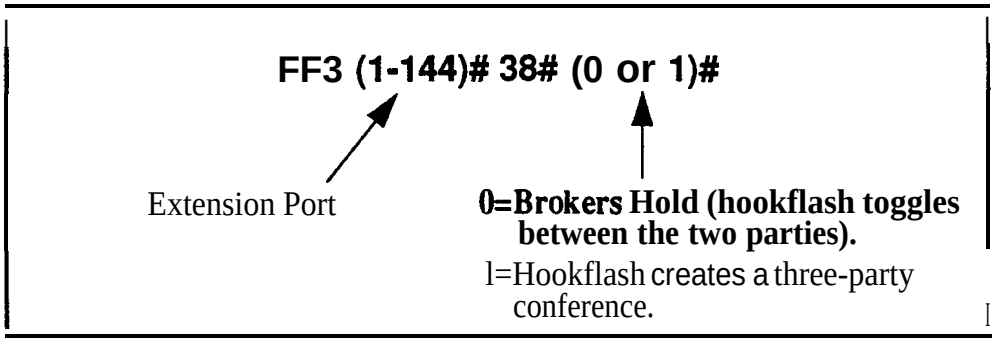
SLT Hookflash

Software Version: CPC-B Version 3.1 or higher
Address: FF3 (ExtPort)# 38# (0 or 1)#

Description

This setting determines what happens when a single-line telephone (SLT) user hookf'lashes when the SLT has one active call and one held call.

Programming



Extension Ring Pattern

Software Version: CPC-AII Version 7.0 or higher; CPC-B Version 3.1 or higher
Address: FF3 (ExtPort)# 39# (Pattern)#

Description

Use this address to assign a distinctive ringing pattern for incoming trunk calls on digital phones (DSLTs or key phones). There are 9 different patterns to choose from (see table below).

Beginning with CPC-AII/B Version 7.0, this address also sets the ring pattern for phones connected to an SLT-A (4-port Adapter).

Programming

FF3 (1-144)# 39# (0-9)#

Extension Port

Ring Pattern
Default: 0 (see table below)

Table 3-11. Extension ring patterns

Address Number	Ring Pattern (number of seconds on/off')	
	Digital (DSLTs/Key Phones) (CPC-B Version 3.1 or higher)	**Phones Connected to SLT-A (CPC-AII/B Version 7.0 or higher)**
0	**Determined by CO**	**determined by Analog Transfer Ring Pattern address**
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	.5 on/7 off
6	.5 on/.5 off	.5 on/7 off
7	.5 on/ 5 off/.5 on/ .5 off/.5 on/ 3,5 off	.25 on/.25 off/.25 on17 off
8	.5 on/3.5 off	.25 on/7 off
9	1 on/7 off	1 on/3 off

Related Programming

Analog Transfer Ring Pattern: FF1 2# 1# 31# (0-6)#
Inbound Ring Pattern: FF2 (Trunk)# 17# (0-9)#
Terminal Type: FF3 (ExtPort)# 2#

Notes

Hardware Requirement For Distinctive Ringing. ***The*** SCC-B ***card*** is required in CPC-B configurations to support distinctive ringing on digital phones (in which the ring pattern is programmed into the phone itself). CPC-A and CPC-AII do not support distinctive ringing on digital phones. However, with an AEC card, OPX Adapter, or SLT Adapter (these devices determine the ring pattern), distinctive ringing can be supported for analog SLT phones in any CPC configuration.

Digital SLT Receiving Volume

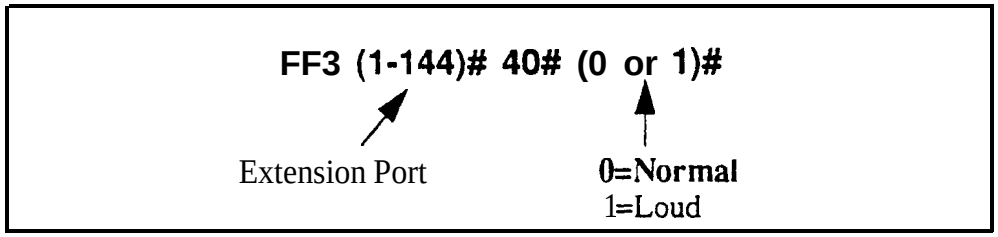
Software Version: CPC-All (all versions); CPC-B Version 3.1 or higher
Address: FF3 (ExtPott)# 40# (0 or 1)#

Description

The receiver (hearing) volume of the handset on a digital single-line telephone (DSLT) 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-All (all versions); CPC-B Version 3.1 or higher
Address: FF3 (ExtPort)# 41# (0001-9999)#

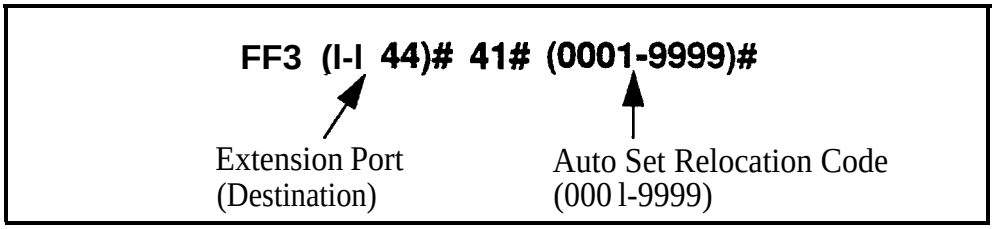
Description

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 from ext.102 is unplugged and moved to an office with a wall jack (port) that is assigned to ext.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 to ext. 103.

Programming

To assign an Auto Set Relocation Code . . .



To clear an Auto Set Relocation Code . . .

FF3 .(1-144)# 41# CONF ON/OFF

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 retuned to service, it will have the program settings of extension 102.

Restrictions. Phone settings cannot be exchanged between digital and analog (SLT) ports.

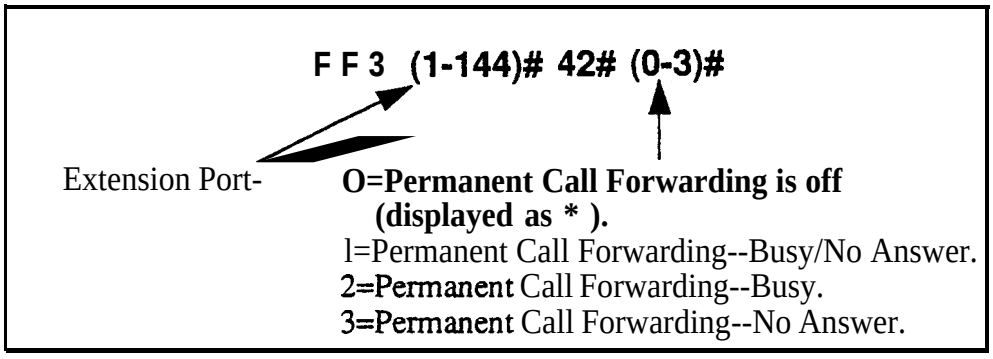
Permanent Call Forward Type

Software Version: CPC-All (all versions); CPC-B Version 3.1 or higher
Address: FF3 (ExtPort)# 42# (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-All (all versions); CPC-B Version 3.1 or higher
Address: FF3 (ExtPort)# 43# (IO-69 or 100-699)#

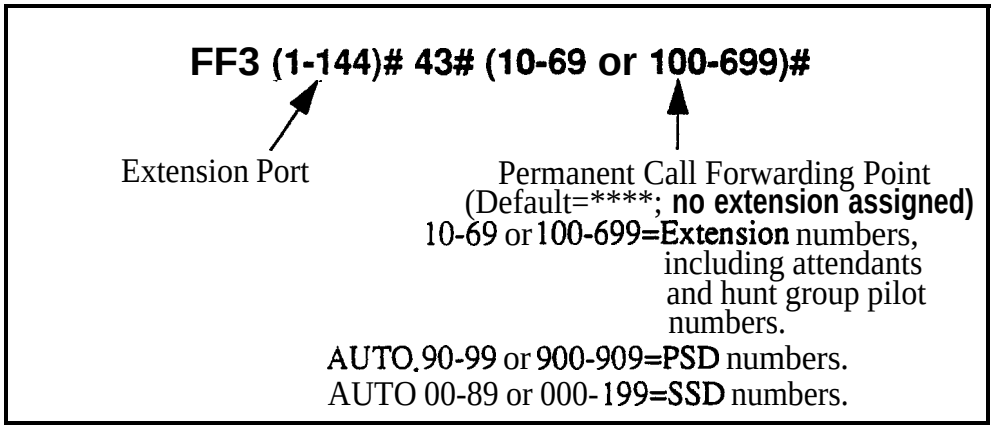
Description

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.

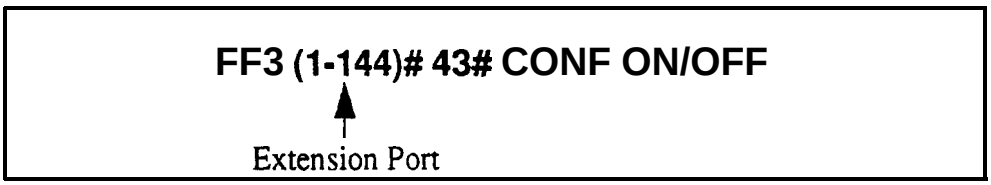
In addition to regular extension numbers, the permanent call forwarding point can also be a System Speed Dial number (SSD), a Personal Speed Dial number (PSD), a hunt group pilot number, or an Attendant extension number.

Programming

To assign a Permanent Call Forwarding Point . . .



To clear a Permanent Call Forwarding Point . . .



Related Programming

Permanent Call Forward Type: FF3 (ExtPort)# 42# (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: CPC-All (all versions); CPC-B Version 4.0 or higher
Address: FF3 (ExtPort)# 44# (0 or 1)#

Description

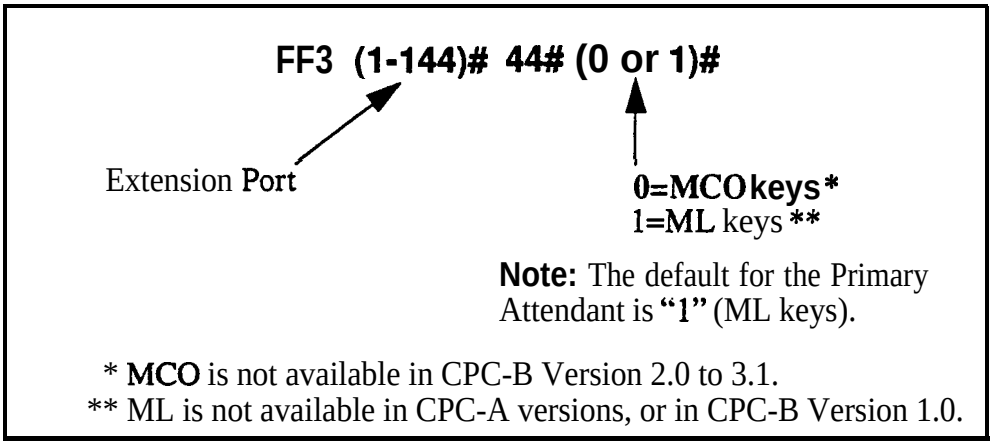
Use this address to enabie an extension for MCO or ML key usage.

The difference between ML (Multi-Line) and MCO (Multi-Central Office) 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



Note: The default for the Primary Attendant is "1" (ML keys).

* MCO is not available in CPC-B Version 2.0 to 3.1.
** ML is not available in CPC-A versions, or in CPC-B Version 1.0.

Related Programming

FF Key Assignments for Extensions: FF5 (ExtPort)# (Key)# (Feature)#

VAU Hunting Priority

Software Version: CPC-All (all versions); CPC-B Version 5.0 or higher
Address: FF3 (ExtPort)# 45# (0 or 1)#

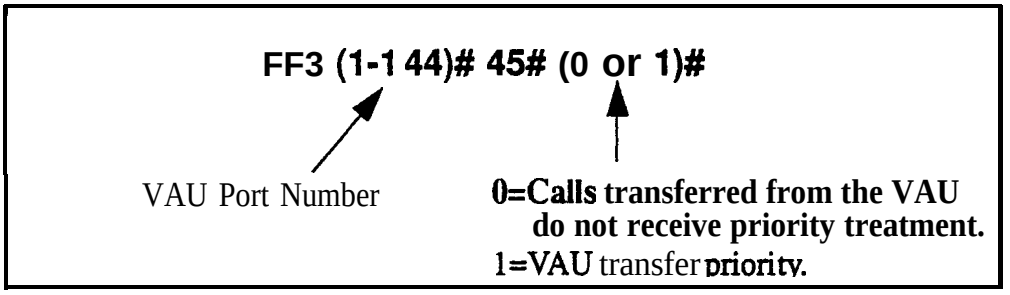
Description

Use this address to assign hunting priority to calls that ovefflow from a hunt group to the VAU.

If hunting priority is assigned, a caller who hears the VAU message and then decides to dial back into the hunt group, will be 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 re-entry into the hunt group.

Programming



Related Programming

VAU Port Assignment: FF3 (ExtPort)# 47# (0 or 1)#

AEC Disconnect

Software Version: CPC-All (all versions); CPC-B Version 5.0 or higher
Address: FF3 (ExtPort)# 46# (0 or 1)#

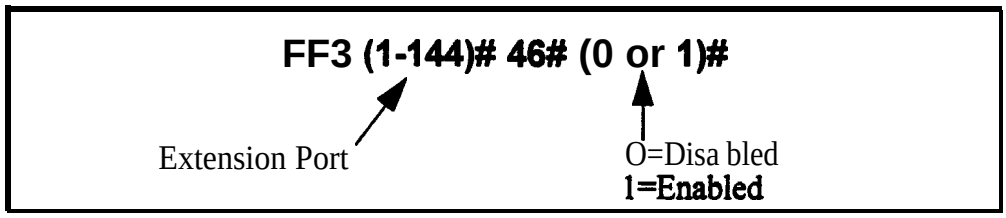
Description

The VB-43621A version of the AEC card can be set to provide a positive disconnect signal. Use this address to enable or disable the AEC disconnect signal on individual extension(s).

If this option is enabled, analog extension ports will send a disconnect signal (open loop) upon hangup. Sending this signal allows quick disconnection from third-party voice mail systems.

NOTE: This feature requires CPC-A 3.3 or higher, CPC-AII (all versions), or CPC-B 5.0 or higher. The address for CPC-A is FF3 (ExtPort)# 35#.

Programming



Related Programming

SLT Disconnect Signal Duration: FF1 2# 1# 35# (0-15)#

VAU Port Assignment

Software Version: CPC-All (ail versions); CPC-B Version 5.0 or higher
Address: FF3 (ExtPort)# 47# (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:

- **Offhook Signal** (CO) is disabled -- FF3 (ExtPort)# 7# O#.
- **Call Waiting/OHVA** is disabled -- FF3 (ExtPort)# 8# 0#.
- **Auto Pickup** is enabled -- FF3 (ExtPort)# 12# 1#.
- All FF keys for the extension port are cleared -- FF5 (ExtPort)# FFkey# CONF.

Programming

FF3 (1-144)# 47# (0 or 1)#

VAU Port Number

o=off
1=On (defines the port as a VAU)

Notes

***Applicable Call** Types.* When VAU is enabled for a port, the following call types will be routed to the first VAU message:

- Trunk calls
- @Transferred trunk calls
- @Intercom calls
- *Transferred intercom calls.

AU recalls will be routed to the second VAU message.

VAU Port Assignment in CPC-A Versions. The address for VAU Port Assignment in CPC-A Version 3.3 or higher is FF3 (ExtPort)# 34# (0 or 1)#.

Hot Dial Pad

Software **Version: CPC-All and CPC-B, Version 7.0 or higher**
Address: FF3 (ExtPort)# 48# (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 O-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

FF3 (1-144)# 48# (0 or 1)#

Extension Port

0=Hot Dial Pad is disabled.
l=Hot Dial Pad is enabled.

Notes

Paging. The Hot Dial Pad feature cannot be used to initiate a page.

Restriction. The Hot Dial Pad feature does not work on SLT phones.

Auto-Redial on Extensions

Software Version: CPC-All and CPC-B, Version 7.0 or higher
Address: FF3 (ExtPort)# 49# (0 or 1)#

Description

Use this address to enable or disable the Auto-Redial feature on individual DBS extensions (DSLT or K-Tel only). Auto-Redial allows a telephone in the on-hook (idle) state to redial an internal extension or an outgoing trunk call without going off-hook first. By default, Auto-Redial is enabled on all DSLT and K-Tel extensions.

Auto-Redial is performed by pressing REDIAL when the phone is either on-hook (idle) or off-hook (dial tone). The DBS will automatically redial the last number dialed on that extension.

Programming

FF3 (1-144)# 49# (0 or 1)#

Extension Port

0=Auto-Redial is disabled.
1=Auto-Redial is enabled.

Notes

Restrictions. Auto-Redial will not work with the following:

- SLTs
- OPX
- API
- Voice Mail
- Door Phones.

Auto-Redial After *a* System ***Reset.*** If Auto-Redial is attempted after a system reset, and neither a CO call nor an extension call has been made since the reset, the caller will hear intercom busy tone.

4. Ringing and Hunt Groups (FF4)

Use the FF4 program addresses in this chapter to set up trunk-to-extension ringing, hunt groups and call coverage groups.

- The DBS supports up to 8 hunt groups and 16 call coverage groups (all versions).
- Each hunt group can have up to 8 extensions (all CPC-A versions; CPC-AII/B prior to 6.0) or 16 extensions (CPC-AII/B 6.0 or higher).
- Each call coverage group can have up to 8 extensions (all versions).

This chapter covers the following addresses:

CO Day Ring Assignments

Software Version: All Versions
Address: FF4 1# (ExtPort)# (Trunk)# (0 or 1)#

Description

This program determines which extension(s) will receive incoming calls on a particular trunk when the DBS system is in "Day" mode.

Programming

FF4 1# (I-73 or 1-145)# (1-64)# (0 or 1)#

Extension Port — Trunk Number — **0=Trunk does not ring. 1=Trunk** rings.

NOTE: Use port 73 (in single-cabinet systems) or port 145 (in **double-**cabinet systems) to assign ringing to an external paging or Universal Night Answer **(UNA)** device.

Notes

Default Ring Assignments to Attendant Phone. All trunks are set by default to ring on ports 1 and 2 (the Primary and Second Attendants).

Routing of Trunks With No Ring Assignments. If a trunk is not assigned to ring a specific **extension,** it will still ring the Attendant phone.

CO Day Ring Assignments for Hunt Groups

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 1# (HuntGrp)# (Trunk)# (0 or 1)#

Description

This program determines which hunt group will receive incoming calls on a particular trunk when the DBS system is in "Day" mode.

Programming

FF4 1# (79-86 or 151-158)# (1-64)# (0 or 1)#

Hunt Groups 1 thru 8: **Trunk** No. **0=Trunk does not ring. 1=Trunk** rings.

CPC-All or CPC-B

79	-or-	151	for Hunt Group 1
80	-or-	152	for Hunt Group 2
81	-or-	153	for Hunt Group 3
82	-or-	154	for Hunt Group 4
83	-or-	155	for Hunt Group 5
84	-or-	156	for Hunt Group 6
85	-or-	157	for Hunt Group 7
86	-or-	158	for Hunt Group 8

Related Programming

Hunt Group No Answer Timer: **FF1 3# 28#** (O-l **5)#**

Hunt Group Pilot Numbers: FF4 **3# (1-8)# 1#** (1 l-69 or **101-699)#**

Hunt Group Type: FF4 **3# (1-8)# 2# (0-2)#**

Transfer Extension: FF4 **3# (1-8)# 3# (10-69** or **100-699)#**

Hunt Group Transfer Timer: FF4 **3# (1-8)# 4# (0-32)#**

Hunt Group Members: FF4 **3# (1-8)# (5-12/20)# (100-699)#**

CO Night Ring Assignments

Software Version: All Versions
Address: FF4 2# (ExtPort)# (Trunk)# (0 or 1)#

Description

This program determines which extension(s) will receive incoming calls on a particular trunk when the DBS system is in "Night" mode.

Programming

FF4 2# (1-73 or 1-145)# (1-64)# (0 or 1)#

Extension Port — Trunk Number — **0=Trunk does not ring.** 1=Trunk rings.

Note: Use port 73 (for single-cabinet systems) or 145 (for double-cabinet systems) to assign ringing to an external paging or Universal Night Answer (UNA) device.

Notes

Default Attendant Ring Assignments. All trunks are set to ring on ports 1 and 2 (the Primary and Second Attendants) by default.

Routing of Trunks With No Ring Assignments. If a trunk is not assigned to ring a specific extension, it will still ring the Attendant phone.

Night Mode. Beginning with CPC-AII/B Version 7.0, there are two separate Night modes -- "Night" and "Night 2". This address controls "Night" ring assignments (see FF4 9# 1# for "Night 2" ring assignments).

CO Night Ring Assignments for Hunt Groups

Software Version: CPC-All (all versions); CPC-8 Version 2.0 or higher
Address: FF4 2# (HuntGrp)# (Trunk)# (0 or 1)#

Description

This program determines which hunt group will receive incoming calls on a particular trunk when the DBS system is in "Night" mode.

Programming

FF4 2# (79-86 or 151-158)# (1-64)# (0 or 1)#

Hunt Groups 1 thru 8: CPC-AII or CPC-B
79 -or- 151 for Hunt Group 1
80 -or- 152 for Hunt Group 2
81 -or- 153 for Hunt Group 3
82 -or- 154 for Hunt Group 4
83 -or- 155 for Hunt Group 5
84 -or- 156 for Hunt Group 6
85 -or- 157 for Hunt Group 7
86 -or- 158 for Hunt Groun 8

Trunk No.

0=Trunk does not ring.
l=Trunk rings.

Related Programming

Hunt Group No Answer Timer: FF 1 3# 28# (0- 15)#

Hunt Group Pilot Numbers: FF4 3# (1-8)# 1# (ll-690r 101-699)#

Hunt Group Type: FF4 3# (1-8)# 2# (0-2)#

Transfer Extension: FF4 3# (1-8)# 3# (10-69 or 100-699)#

Hunt Group Transfer Timer: FF4 3# (1-8)# 4# (0-32)#

Hunt Group Members: FF4 3# (1-8)# (5-12/20)# (10-69 or 100-699)#

Notes

Night Mode. In CPC-AII/B Version 7.0 and higher, two separate Night modes are available -- "Night" and "Night 2". This address controls Night ring assignments (see FF4 9# 1# for "Night 2" ring assignments).

Hunt Group Pilot Numbers

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 3# (HuntGrp)# 1# (11-69 or 101-699)#

Description

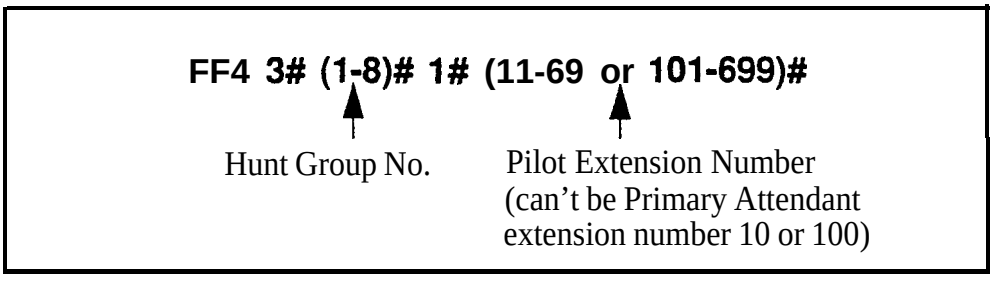
Use this program to assign a "pilot" extension number to a hunt group. This "pilot" number can be dialed from any intercom phone to reach the hunt group. An example is dialing "500" to reach a Voice Mail hunt group.

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.

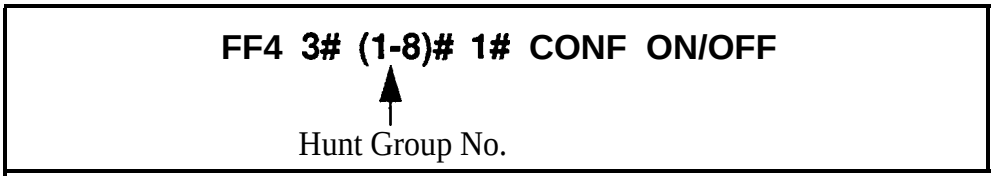
Note: This address requires an extension *number* entry, rather than an extension *port* entry. In fact, the hunt group pilot number cannot also be assigned to an extension port (double-check the **Extension Numbers** address FF3 ExtPort# 1# ExtNumber#).

Programming

To assign a Hunt Group Pilot Number . . .



To clear a Pilot Number . . .



Related Programming

Hunt Group No Answer Timer: FF1 3# 28# (0-15)#

Extension Numbers: FF3 (ExtPort)# 1# (ExtNo.)#

CO Day Ring Assignments For Hunt Groups: FF4 1# (HuntGrp)# (Trunk)# (0 or 1)#

CO Night Ring Assignments For Hunt Groups: FF4 2# (HuntGrp)# (Trunk)# (0 or 1)#

Hunt Group Type: FF4 3# (HuntGrp)# 2# (0-2)#

Transfer Extension: FF4 3# (HuntGrp)# 3# (ExtNo.)#

Hunt Group Members: FF4 3# (HuntGrp)# (Position)# (ExtNo.)#

CO Delayed Day Ring Assignments For Hunt Groups: FF4 5# (HuntGrp)# (Trunk)# (0 or 1)#

CO Delayed Night Ring Assignments For Hunt Groups: FF4 6# (HuntGrp)# (Trunk)# (0 or 1)#

CO Night 2 Ring Assignments For Hunt Groups: FF4 9# 1# (HuntGrp)# (Trunk)# (0 or 1)#

CO Delayed Night 2 Ring Assignments For Hunt Groups: FF4 9# 2# (HuntGrp)# (Trunk)# (0 or 1)#

Terminal/Circular Hunt Groups

Software Version: CPC-A; CPC-B Versions prior to 2.0
Address: FF4 3# (HuntGrp)# 1# (0 or 1)#

Description

A maximum of 8 extensions can be put in each of 8 hunt groups. Each hunt group can be designated as a "terminal type" or "circular type".

Terminal Hunt Group Operation

The call must be transferred or a trunk set to ring at the first extension in the group in order for the Terminal Hunt feature to work.

If the first extension in the hunt group is busy, an incoming call will automatically access the next extension of the group. If all the extensions in the group are busy, an internal caller (from another extension -- either intercom or transferred trunk call) will hear busy tone. A direct (non-transferred) trunk caller will hear ring tone. If additional feature options are chosen, the search will continue with an additional hunt group(s).

To use the first extension position (analog) as a pilot position, place a 2-watt, 450-Ohm resistor across Tip and Ring. This will make the port busy, and allow it to be used as a pilot number for the remaining extensions in the group. However, direct calls to other members in the hunt group (if busy) will not hunt within the group; instead, the caller will hear a busy signal.

Circular Hunt Group Operation

Circular Hunting is performed when a called extension in the group is busy. (Unanswered calls will not hunt, but will instead ring the extension until the Call Forward-No Answer Timer expires. The call will then revert to the Attendant phone.) The call can be either direct or transferred. No pilot number is provided for this type of hunting.

The hunting will follow the next available (idle) member in the hunt group, skipping over busy extensions, until the last member of the hunt group is reached. The call will then go to the first member, then to the first extension position that was busy in the first go-around. This circular hunting will continue until the call has been presented at all extensions in the hunt group. If the call still hasn't been answered, it will overflow into the next assigned hunt group (or the caller will get a busy signal, if no Transfer Extension is assigned to the hunt group).

During Circular Hunting in a hunt group, if all the member extensions are busy, an internal caller (from another extension -- either intercom or transferred trunk call) will hear busy tone. A direct (non-transferred) trunk caller will hear ring tone. If additional feature options are chosen, the search will continue with an additional hunt group(s).

Programming

FF4 3# (1-8)# 1# (0 or 1)#

Hunt Group No.

0=Terminal Hunting
1=Circular Hunting

Related Programming

Offhook Signal: FF3 (ExtPort)# 7# (0 or 1)#

Notes

Setting Hunt Group Types in Later CPC Versions. Set hunt group types for CPC-AII versions, and for CPC-B Version 2.0 or higher, in FF4 3# (HuntGrp)# 2# (0-2)#.

Hunt Group Membership Restriction. An extension can be a member of only one hunt group. Hunt group extensions cannot also belong to call coverage groups.

Absence Message, Call Forwarding, and DND Interaction. If a call enters a hunt group in which all extensionsare busy, the hunt feature will wait for the first available extension. If an extension within the hunt group (except for the first extension) is set for Call Forwarding, Absence Message, or DND, the hunt feature will skip that extension and proceed to the next position in the hunt group. If the first extension is set for Call Forwarding, Absence Message or DND, the hunting feature will not work.

Call Routing When All Hunt Groups Are Busy. If all members of all searched hunt groups are busy, the call will be parked for only the first group searched.

SLT Call Hold Restriction. If an SLT hunt group member takes a trunk call, puts it on hold, and replaces the handset, additional trunk calls will not hunt to idle extensions.

Offhook Signal Setting for Hunt Group Members. Offhooksignaling should be disabled on extensions that are hunt group members.

Hunt Group Type

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 3# (HuntGrp)# 2# (0-2)#

Description

Use this address to assign one of the following hunting types to a hunt group:

Terminal Hunt Group Operation

This type is most often used with Voice Mail. With Terminal Hunting, 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.

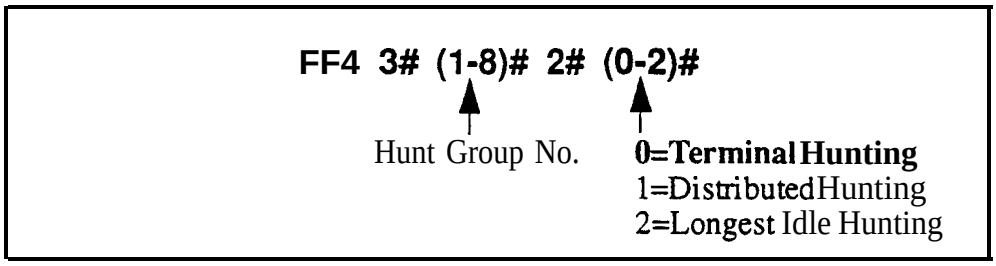
Distributed Hunt Group Operation

With Distributed Hunting, 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

With Longest Idle Hunting, 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# (HuntGrp)# (Position)# (ExtNo.)#

Notes

Hunt Group Membership Restriction. An extension can be a member of only one hunt group. Hunt group extensions cannot also belong to call coverage groups.

Absence Message, Call Forwarding, and DND Interaction. If a call enters a hunt group in which all extensions are busy, the hunt feature will wait for the first available extension. If an extension within the hunt group (except for the first extension) is set for Call Forwarding, Absence Message or DND, the hunt feature will skip that extension and proceed to the next position in the hunt group. If the first extension is set for Call Forwarding, Absence Message or DND, the hunting feature will not work.

Cult Routing When AU Hunt Groups Are Busy. ***If all*** members of all searched hunt groups are busy, the call will be parked for only the first group searched.

SLT Call Hold Restriction. If an SLT hunt group member takes a trunk call, puts it on hold, and replaces the handset, additional trunk calls will not hunt to idle extensions.

Offhook Signal Setting for Hunt Group Members. Offhook signaling should be disabled on extensions that are hunt group members.

Call Next Hunt Group

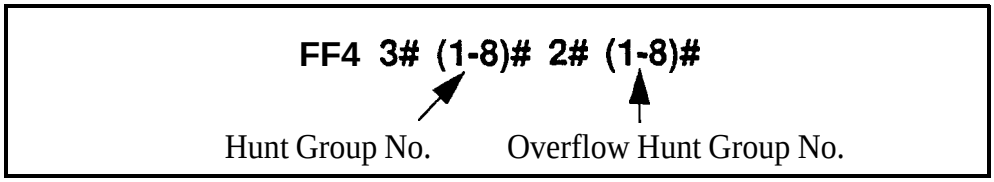
Software Version: CPC-A; CPC-B Versions prior to 2.0
Address: FF4 3# (HuntGrp)# 2# (HuntGrp)#

Description

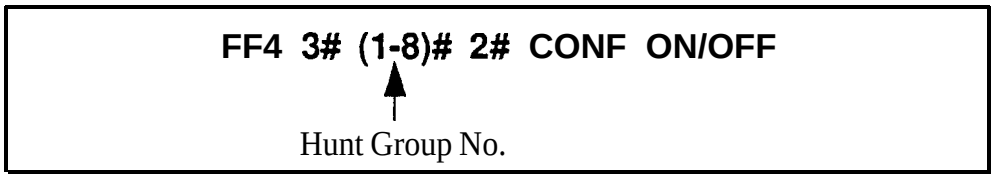
If all the extensions in a particular hunt group are busy, calls can be automatically transferred to another hunt group. If all extensions in the overflow hunt group are also busy, the call will revert back to the original hunt group, and continue to search extensions until one becomes available.

Programming

To assign an overflow Hunt Group . . .



To clear an overflow Hunt Group . . .



Notes

Assigning Overflow Hunt Groups in Later CPC Versions. For CPC-AII versions, and CPC-B Version 2.0 or higher, use the **Transfer Extension** address (FF4 3# HuntGrp# 3# ExtNo.#) to send overflow calls to other hunt groups via a hunt group "pilot" number; or to another extension.

Hunt Group Members

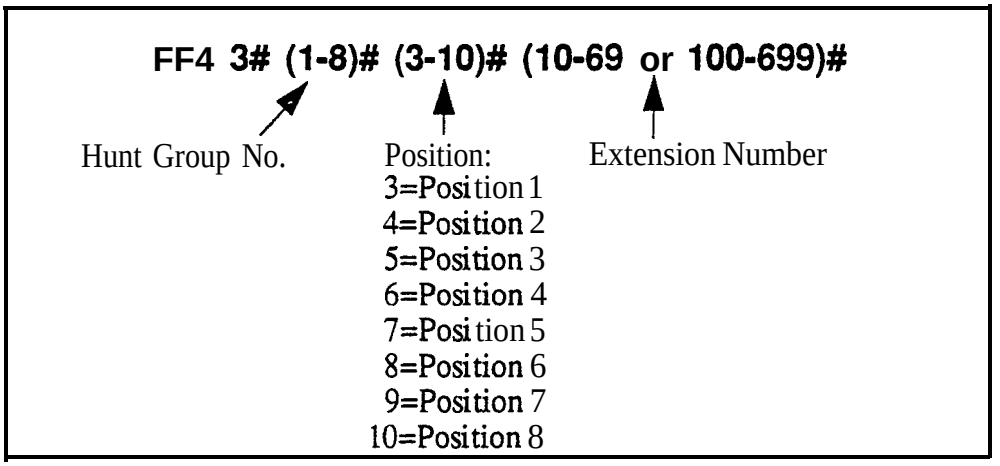
Software Version: CPC-A; CPC-B Versions prior to 2.0
Address: FF4 3# (HuntGrp)# (3-10)# (ExtNo.)#

Description

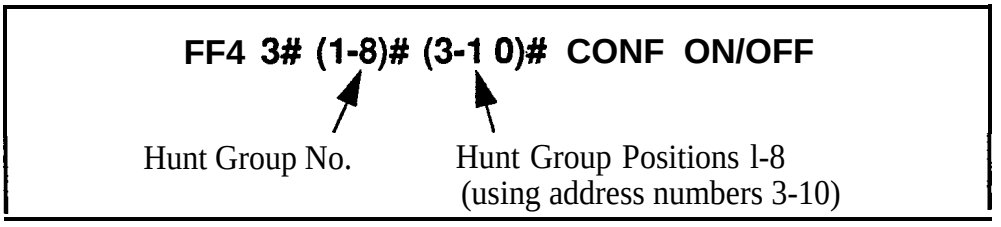
Use this option to place an extension at a specific position within a hunt group. Hunt groups can contain a maximum of 8 extension positions.

Programming

To assign an extension to a position within a hunt group . . .



To clear an extension from a hunt group position . . .



Related Programming

Gffhook Signal: FF3 (ExtPort)# 7# (0 or 1)#

Notes

Assigning Extensions to Hunt Groups in Later CPC Versions. For CPC-AII versions, and CPC-B Version 2.0 or higher, use FF4 3# HuntGrp# (5-20)# (ExtNo.#) to assign extensions to hunt groups.

Hunt Group Membership Restriction. An extension can be a member of only one hunt group. Hunt group extensions cannot belong to call coverage groups.

Offhook Signaling for Hunt Group Members. Gffhook signaling should be disabled on extensions that are assigned as hunt group members.

Transfer Extension

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 3# (HuntGrp)# 3# (ExtNo.)#

Description

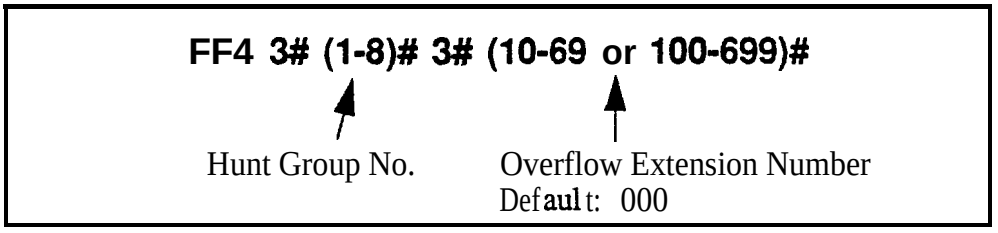
This program sets the extension number to which overflow calls will be transferred.

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.

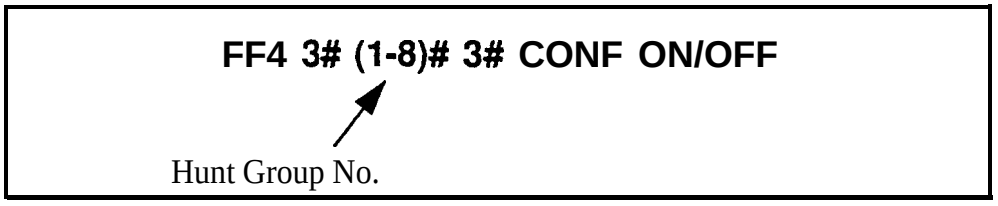
Note: This address requires an extension *number* entry, rather than an extension *port* entry.

Programming

To assign an overflow extension . . .



To clear an overflow extension . . .



Related Programming

Hunt Group Transfer Timer: FF4 3# (HuntGrp)# 4# (0-32)#

Notes

Overflow ***Extension Number Restriction.*** ***The*** overflow extension number cannot be a hunt group pilot number.

Transfer Extension in Earlier CPC Versions. This address replaces the **Call Next Hunt Group** address (FF4 3# HuntGrp# 2# HuntGrp#) used in earlier CPC versions.

Hunt Group Transfer Timer

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 3# (HuntGrp)# 4# (0-32)#

Description

Use this program to set the maximum amount of time that passes before a call (after being routed through a busy/unanswered hunt group) overflows to an extension or additional hunt group.

The call will flash on the last extension's LED -- but will not ring -- for this amount of time (2 seconds by default), giving the hunt group a "last chance" to pick up the call before it is transferred out of the hunt group.

Programming

FF4 3# (1-8)# 4# (0-32)#

Hunt Group No.

Transfer Timer
0 = No transfer (call will remain in same hunt group)
l-32 = Number of seconds
Default: 2 seconds

. Related Programming

Transfer Extension: FF4 3# (HuntGrp)# 3# (ExtNo.)#

Hunt Group Members

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 3# (HuntGrp)# (5-12 or 5-20)# (ExtNo.)#

Description

Use this program to assign an extension to a hunt group, and determine its sequential position within the hunt group.

Programming

To assign an extension number to a position in a hunt group . . .

FF4 3# (1-8)# (5-12 or 5-20)# (10-69 or 100-699)#

Hunt Group No. — Position — Extension Number

5=Position 1	13=Position 9
6=Position 2	14=Position 10
7=Position 3	15=Position 11
8=Position 4	16=Position 12
9=Position 5	17=Position 13
10=Position 6	18=Position 14
1 l=Position 7	19=Position 15
12=Position 8	20=Position 16

NOTE: Positions 9 thru 16 (address nos. 13-20) are available only with CPC-AII/B Version 6.0 or higher.1

To clear an extension from a hunt group position . . .

FF4 3# (1-8)# (5-20)# CONF ON/OFF

Hunt Group No. — Positions 1-16 in Hunt Group (using address numbers 5-20)

NOTE: The extension must be idle while you are clearing it from the hunt group position; otherwise, it will not be cleared.

Notes

Hunt Group Positions. With CPC-B versions between 2.0 and 5.x, there are 8 available positions in each hunt group. Beginning with CPC-B Version 6.0 and CPC-AII, up to 16 positions are available.

Extensions. 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.

Hunt Group Pilot Number. A pilot number must be assigned to the hunt group in address FF4 3# (HuntGrp)# 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.

Call Coverage Group Members

Software Version: All Versions
Address: FF4 4# (CovGrp)# (Position)# (ExtNo.)#

Description

A Call Coverage Group allows up to two extensions (one at a time) to serve as backup answering positions for as many as six other extensions.

For example, if extensions 201-206 want their unanswered calls to be picked up by extensions 207 or 208:

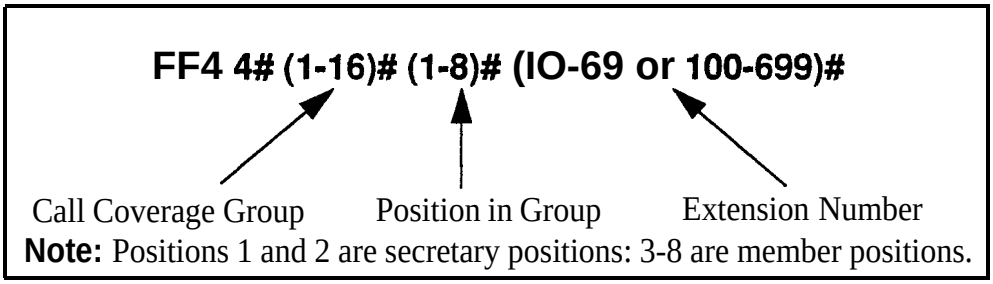
- Assign extensions 207 and 208 to Call Coverage Group positions 1 and 2.
- Assign extensions 201-206 to Call Coverage Group positions 3-8.

All incoming calls to the members will ring once on position l's phone (if idle); the member's extension number will display on position l's phone (even if not idle). To pick up the call, position 1 presses the appropriate DSS/ BLF key assigned to the extension (or use Direct Call Pickup to take the call).

Member calls will not ring or display on position 2's phone unless position 1 is set for Call Forwarding, Absence Message, DND, or is busy on all MCO/ ML keys.

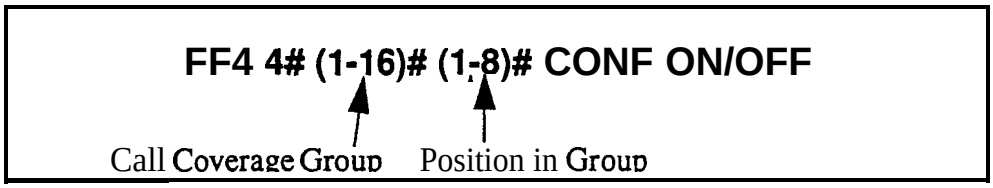
Programming

To assign an extension to a Call Coverage Group . . .



Note: Positions 1 and 2 are secretary positions: 3-8 are member positions.

To clear an extension from the Call Coverage Group . . .



Related Programming

Extension Number Digits: FF1 2# 1# 12# (0 or 1)##

FF Key Programming: FF5 addresses

Notes

Call Coverage Group Member Rest&ions. An extension assigned as a call coverage group member cannot also be a member of a hunt group. An extension cannot be a member of more than one call coverage group at a time.

DSS Requirement For Positions I ***and*** 2. Call Coverage Group positions 1 and 2 need to have their phones' DSS/BLF keys assigned to call coverage group members, so they can see the call flashing on the LED. (The call will ring only once at position 1 or 2's phone.)

CO Delayed Day Ring Assignments

Software Version: CPC-All (all versions); CPGB Version 1.07 or higher
Address: FF4 5# (ExtPort)# (Trunk)# (0 or 1)#

Description

This program assigns delayed ringing to extensions for unanswered calls on specific trunks during "Day" mode. Delayed ringing is when an unanswered incoming call starts ringing at another extension after a certain period of time (the first extension will stop ringing).

Programming

FF4 5# (I-73 or 1-145)# (1-64)# (0 or 1)#

Extension Port — Trunk Number — **0=Trunk does not ring. 1=Trunk rings.**

NOTE: Use port 73 (for single-cabinet systems) or port 145 (for double-cabinet systems) to assign ringing to an external paging or Universal Night Answer (UNA) device.

Related Programming

Delayed Ring: FF1 2# 1# 23# (0 or 1)#

CO Delayed Ring Timer: FF1 3# 26# (0-15)#

CO Day Ring Assignments: FF4 1# (ExtPort)# (Trunk)# (0 or 1)#

Notes

Attendant Interactions. If the Primary 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.

Timing For Delayed Ringing. Delayed ring timing -- the period of time that passes before the system transfers the unanswered call -- depends on the CPC version:

- CPC-AII (all versions); CPC-B Version 3.1 or higher: **CO Delayed Ring Timer (FF1 3# 26#).**
- CPC-B Versions prior to 3.1: **Call Forward-No Answer Timer (FF1 3# 19# 0-15#).**

CO Delayed Day Ring Assignments for Hunt Groups

Software Version: CPC-All (all versions); CPC-B Version 2.0 or 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 "Day" mode. Delayed ringing is when an unanswered incoming call starts ringing at another extension after a certain period of time (the first extension will stop ringing).

Programming

FF4 5# (79-86 or 151-158)# (1-64)# (0 or 1)#

Hunt Groups 1 thru 8: Trunk No. **0=Trunk does not ring.** 1=Trunk rings.

CPC-AII or CPC-B

79 -or- 151 for Hunt Group 1
80 -or- 152 for Hunt Group 2
81 -or- 153 for Hunt Group 3
82 -or- 154 for Hunt Group 4
83 -or- 155 for Hunt Group 5
84 -or- 156 for Hunt Group 6
85 -or- 157 for Hunt Group 7
86 -or- 158 for Hunt Group 8

Related Programming

Delayed Ring: FF1 2# 1# 23# (0 or 1)#
CO Delayed Ring Timer: FF1 3# 26# (0-15)#
CO Day Ring for Hunt Groups: FF4 1# (HuntGrp)# (Trunk)# (0 or 1)#
Hunt Group Members: FF4 3# (1-8)# (5-12/20)# (10-69 or 100-699)#

Notes

Attendant Interactions. If the Primary 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.

Timing For Delayed Ringing. Delayed ring timing -- the period of time that passes before the system transfers the unanswered call -- depends on the CPC version:

- **CPC-AI1 (all versions); CPC-B Version 3.1 or higher:** CO Delayed Ring Timer -- FF1 3# 26# (0-15)#
- **CPC-B Versions prior to 3.1:** Call Forward-No Answer Timer -- FF1 3# 19# (0-15)#

CO Delayed Night Ring Assignments

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 **6# (ExtPort)# (Trunk)# (0 or 1)#**

Description

This program assigns delayed ringing to extensions for unanswered calls on specific trunks during "Night" mode. Delayed ringing is when an unanswered incoming call starts ringing at another extension after a certain period of time (the fist extension will stop ringing).

Programming

FF4 6# (I-73 or 1-145)# (1-64)# (0 or 1)#

Extension Port — Trunk Number — **O=Trunk does not ring. 1=Trunk** rings.

NOTE: Use port 73 (for single-cabinet systems) or port 145 (for double-cabinet systems) to assign ringing to an external paging or Universal Night Answer (UNA) device.

Related Programming

Delayed Ring: FF1 2# 1# 23# (0 or 1)#

CO Delayed Ring Timer: FF1 3# 26# (0-15)#

CO Night Ring Assignments: FF4 2# (ExtPort)# (Trunk)# (0 or 1)#

Notes

Attendant Interactions. If the Primary 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.

Night Mode. Beginning with CPC-AII/B Version 7.0, there are two separate Night modes -- "Night" and "Night 2". This address controls "Night" delayed ring assignments (see FF4 9# 2# for "Night 2" delayed ringing).

Timing For Delayed Ringing. Delayed ring timing -- the period of time that passes before the system transfers the unanswered call -- depends on the CPC version:

- **CPC-AI1 (all versions); CPC-B Version 3.1 or higher: CO** Delayed Ring Timer -- FF13# 26# (0-15)#
- **CPC-B Versions prior to 3.1:** Call Forward-No Answer Timer -- FF13# 19# (0-15)#

CO Delayed Night Ring Assignments for Hunt Groups

Software Version: CPC-All (all versions); CPC-B Version 2.0 or 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 "Night" mode. Delayed ringing is when an unanswered incoming call starts ringing at another extension after a certain period of time (the first extension will stop ringing).

Programming

FF4 6# (79-86 or 151-158)# (1-64)# (0 or 1)#

Hunt Groups 1 thru 8: Trunk No. **0=Trunk does not ring.** 1=Trunk rings.

CPC-AII or CPC-B

79	-or-	151	for Hunt Group 1
80	-or-	152	for Hunt Group 2
81	-or-	153	for Hunt Group 3
82	-or-	154	for Hunt Group 4
83	-or-	155	for Hunt Group 5
84	-or-	156	for Hunt Group 6
85	-or-	157	for Hunt Group 7
86	-or-	158	for Hunt Group 8

Related Programming

Delayed Ring: FF1 2# 1# 23# (0 or 1)#

CO Delayed Ring Timer: FF1 3# 26# (0-15)#

CO Night Ring Assignments for Hunt Groups: FF4 2# (HuntGrp)# (Trunk)# (0 or 1)#

Hunt Group Members: FF4 3# (1-8)# (5-12/20)# (100-699)#

Notes

Attendant Interactions. If the Primary 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.

Night Mode. Beginning with CPC-AII/B Version 7.0, there are two separate Night modes -- "Night" and "Night 2". This address controls "Night" delayed ring assignments (see FF4 9# 2# for "Night 2" delayed ringing).

*Timing For **Delayed** Ringing.* Delayed ring timing -- the period of time that passes before the system transfers the unanswered call -- depends on the CPC version:

- **CPC-AII (all versions); CPC-B Version 3.1 or higher:** CO Delayed Ring Timer -- FF13# 26# (0-15)#
- **CPC-B Versions prior to 3.1:** Call Forward-No Answer Timer -- FF13# 19# (0-15)#

Extension Ring Table

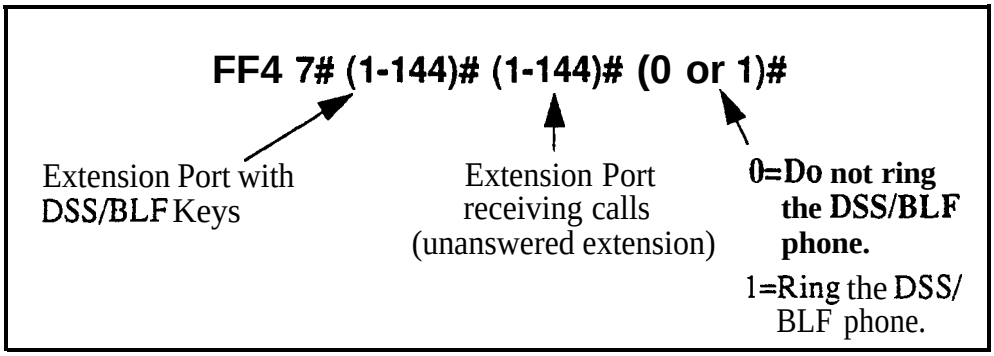
Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 7# (TargetExtPort)# (SourceExtPort)# (0 or 1)#

Description

DSS/BLF keys can be programmed (in FF5) to flash whenever other extensions receive incoming calls. Use this address to program the DSS/BLF phone to also ring for these incoming calls.

The DSS/BLF phone user can answer the call by pressing the flashing DSS/BLF key.

Programming



Related Programming

DSS/BLF Key Programming: FF5 (1-144)# (1-24)# CONF PROG (10-69 or 100-699)#

Extension Delayed Ring Table

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF4 8# (TargetExtPort)# (SourceExtPort)# (0 or 1)#

Description

DSS/BLF keys can be programmed (in FF5) to flash whenever other extensions receive incoming calls. Use this address to program the DSS/BLF phone to also ring for these incoming calls on a delayed basis.

If the incoming call is unanswered at the ringing extension, the DSS/BLF phone will begin ringing (and the first extension will stop ringing) after a certain period of time.

The DSS/BLF phone user can answer the call by pressing the flashing DSS/BLF key.

Programming

FF4 8# (1-144)# (1-144)# (0 or 1)#

- Extension Port with DSS/BLF Keys
- Extension Port receiving calls (unanswered extension)
- **0=Do not delay-ring the DSS/BLF phone.**
- 1=Delay-ring the DSS/BLF phone.

Related Programming

Extension (BLF) Delayed Ring: FF1 2# 1# 30# (0 or 1)#

Extension (DSS/BLF) Delayed Ring Timer: FF1 3# 27# (0-15)#

DSS/BLF Key Programming: FF5 (1-144)# (1-24)# CONF PROG (10-69 or 100-699)#

Notes

Timing For Extension Delayed Ringing. ***The*** period of time that passes before the system begins ringing the unanswered call on the DSS/BLF extension, depends on the CPC version:

- **CPC-AI1 (all versions); CPC-B Version 3.1 or higher:** Extension Delayed Ring Timer -- FF13# 27# (0-15)#
- **CPC-B Versions prior to 3.1:** Call Forward-No Answer Timer -- FF13# 19# (0-15)#

CO Night 2 Ring Assignments

Software Version: CPC-All and CPC-B, Version 7.0 or 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 is in "Night 2" mode.

Programming

FF4 **9# 1#** (1-73 **or 1-145)# (1-64)#** (0 **or 1)#**

Extension Port- Trunk Number **0=Trunk does not ring.** 1=Trunk rings.

Note: Use port 73 (for single-cabinet systems) or 145 (for double-cabinet systems) to assign ringing to an external paging or Universal Night Answer (UNA) device.

Notes

Default Attendant Ring Assignments. All trunks are set to ring on ports 1 and 2 (the Primary and Second Attendants) by default. If a trunk is not assigned to ring at a specific extension, it will still ring the Attendant.

CO Night 2 Ring Assignments for Hunt Groups

Software Version: CPC-All and CPC-B, Version 7.0 or 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 is in "Night 2" mode.

Programming

FF4 9# 1# (79-86 or 151-158)# (1-64)# (0 or 1)#

Hunt Groups 1 thru 8: Trunk No. **0=Trunk does not ring.** 1=Trunk rings.

CPC-AII or CPC-B

79	-or-	151	for Hunt Group 1
80	-or-	152	for Hunt Group 2
81	-or-	153	for Hunt Group 3
82	-or-	154	for Hunt Group 4
83	-or-	155	for Hunt Group 5
84	-or-	156	for Hunt Group 6
85	-or-	157	for Hunt Group 7
86	-or-	158	for Hunt Group 8

Related Programming

Hunt Group No Answer Timer: FF1 3# 28# (0-15)#

Hunt Group Pilot Numbers: FF4 3# (HuntGrp)# 1# (11-69 or 101-699)#

Hunt Group Type: FF4 3# (HuntGrp)# 2# (0-2)#

Transfer Extension: F'F4 3# (HuntGrp)# 3# (10-69 or 100-699)#

Hunt Group Transfer Timer: FF4 3# (HuntGrp)# 4# (0-32)#

Hunt Group Members: FF4 3# (HuntGrp)# (5- 12/20)# (10-69 or 100-699)#

CO Delayed Night 2 Ring Assignments

Software Version: CPC-All and CPC-6, Version 7.0 or 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 "Night 2" mode. Delayed ringing is when an unanswered incoming call starts ringing at another extension after a certain period of time (the first extension will stop ringing).

Programming

FF4 9# 2# (I-73 or 1-145)# (1-64)# (0 or 1)#

Extension Port — Trunk Number — **O=Trunk does not ring.** 1=Trunk rings.

NOTE: Use port 73 (for single-cabinet systems) or port 145 (for double-cabinet systems) to assign ringing to an external paging or Universal Night Answer (UNA) device.

Related Programming

Delayed Ring: FF1 2# 1# 23# (0 or 1)#

CO Delayed Ring Timer: FF1 3# 26# (0-15)#

CO Night 2 Ring Assignments: FF4 9# 1# (ExtPort)# (Trunk)# (0 or 1)#

Notes

Attendant Interactions. If the Primary 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.

Timing For Delayed Ringing. Delayed ring timing -- the period of time that passes before the system transfers the unanswered call -- is controlled by the **CO Delayed Ring Timer** (FF1 3# 26#).

CO Delayed Night 2 Ring Assignments for Hunt Groups

Software Version: CPC-All and CPC-6, Version 7.0 or 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 "Night 2" mode. Delayed ringing is when an unanswered incoming call-starts ringing at another extension after a certain period of time (the first extension will stop ringing).

Programming

FF4 9# 2# (79-86 or 151-158)# (1-64)# (0 or 1)#

Hunt Groups 1 thru 8: Trunk No. **0=Trunk does not ring.** l=Trunk rings.

CPC-AII or CPC-B

79	-or-	151	for Hunt Group 1
80	-or-	152	for Hunt Group 2
81	-or-	153	for Hunt Group 3
82	-or-	154	for Hunt Group 4
83	-or-	155	for Hunt Group 5
84	-or-	156	for Hunt Group 6
85	-or-	157	for Hunt Group 7
86	-or-	158	for Hunt Group 8

Related Programming

Delayed Ring: FF1 2# 1# 23# (0 or 1)#

CO Delayed Ring Timer: FF1 3# 26# (0-15)#

CO Night 2 Ring Assignments for Hunt Groups: FF4 9# 1# (HuntGrp)# (Trunk)# (0 or 1)#

Hunt Group Members: FF4 3# (1-8)# (5-12/20)# (10-69 or 100-699)#

Notes

Attendant Interactions. If the primary 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.

Timing For Delayed Ringing. Delayed ring timing -- the period of time that passes before the system transfers the unanswered call -- is controlled by the **CO Delayed Ring Timer (FF1 3# 26#).**

5. FF Key Programming (FF5)

Use the **FF5** addresses in this chapter to assign special features to the Flexible Function (FF) keys on DBS phones.

FF keys can be programmed to activate features which normally require several keystrokes -- such as initiating system features, assigning specific extension numbers, or storing digits that are frequently dialed. Section *700-**Feature Operation*** explains in detail how each of these features works.

FF keys are the buttons with **LEDs.** (The buttons without **LEDs** -- called "one-touch keys" -- are used for call-handling features such as speed dialing, and cannot be set via FF5 programming.)

FF keys can also be programmed from extensions without entering the programming mode (see the phone model's ***Station User Guide*** for instructions). However, if a trunk is already assigned to an FF key, it must be cleared using **FF5** programming before a feature code can be reassigned to it.

This chapter covers the following addresses:

FF Key Assignments for Extensions

Software Version: All Versions
Address: FF5 (ExtPort)# (Key)# (Feature)#

Description

Each Flexible Function (FF) key on DBS 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.

Figures 5-1 and 5-2 (next page) illustrate FF key numbering on a 32-button phone and on an EM/24 console. A key telephone's FF keys are numbered left-to-right, starting on the bottom row. An EM/24's F'F keys are numbered bottom-to-top, starting at the left column.

To program FF keys on a DSS console, see the next address.

Programming

To assign a feature to an FF key . . .

FF5 (1-144)# (1-24)# CONF (Code)#

Extension Port or EM/24 Port	Key Number (see figures, next page).	Clears any existing feature code before assigning a new one	Feature Code (see table on page S-5)

Note: Not all DBS phones have 24 FF keys available for programming. For example, a 34-button phone has 24 FF keys and 10 PSD keys: however, a 22-button phone has only 12 FF keys and 10 PSD keys.

To clear a feature assignment from an FF key . . .

FF5 (1-144)# (1-24)# CONF ON/OFF

t

Extension Port Key Number

To see an FF key's existing feature assignment, press . . .

ON/OFF CONF [press the FF key]

Figure 5-I. FF key layout on a 34-button phone

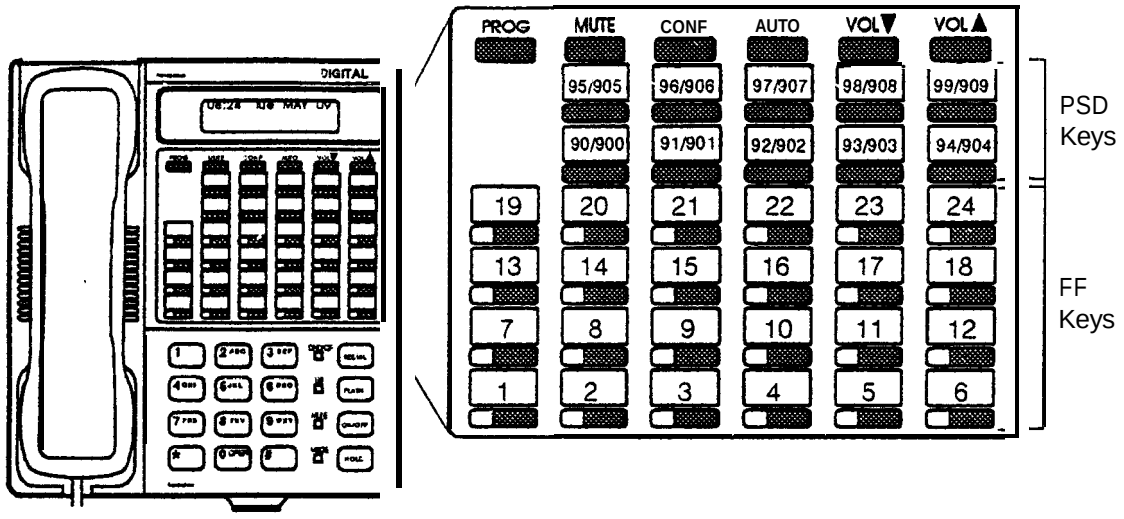


Figure 5-2. FF key layout on an EM/24 unit

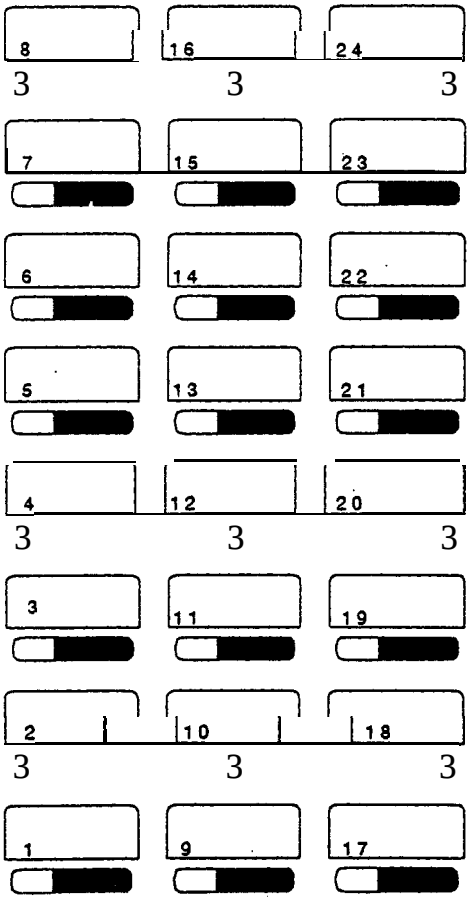


Table 5-l. Feature codes** for **FF key assignment

Feature	**Code to be assigned** to **FF key** **(FF11 enters an asterisk *)** **(FF12 enters a pound sign #)**
Absence Message	71
Account Code	AUTO FF12
Alarm (CPC-B Version 2.0 to 4.0 with AFP)	FF12 4
Answer Key	FF11 1
Any Key	PROG PROG XXXXXX **Note:** The "Any Key" feature allows you to store digits other than extension numbers, CO trunks, or feature codes. For example, Any Key can be used to store an account code or a Voice Mail password.
Attendant Park Hold	**75 (00-09)**
BGM (Background Music) On/Off	FF12 53
Busy Override	PROG PROG 4
Call Forward--Outside (CPC-AII/B versions prior to 7.0)	**723**
Call Forward Call Forward--All Calls Call Forward--Busy/No Answer Call Forward--Busy Call Forward--No Answer	**72** **720** 721 **722** **724** **Note:** Beginning with CPC-AII/B Version **7.0,** you can call-forward to an outside phone number. Use an existing PSD or SSD code as the destination phone number, with a "CX-PhoneNo." format (where C is the CONF key, and X is 1-6 or 9 for trunk group 81-86 or 89).
Call Park	**75**
call Pickup	79
Call Waiting	PROG PROG 3
Caller ID Log	FF11 6
Day Mode	FF12 521
Day/Night/Night2 Mode Toggle (CPC-AII/B Version 7.0 or higher)	FF12 **520** **Note:** The FF key LED will be off during Day mode; red during Night mode; and green during Night 2 mode.
Dial Tone Off	FF12 50
DND (Do Not Disturb)	**73**
DP to DTMF Signal Conversion	PROG PROG FF11 -or- PROG PROG FF12
DSS/BLF Key (flash for extension calls)	PROG (10-69 or 100-699)

Feature	Code to be assigned to FF key (FF11 enters an asterisk *) (FF12 enters a pound sign #)
Extension Directory	900002
Extension Lockout	74
Group Call Pickup	70
Headset	FF12 51
Intercom Key	FF12 8
Internal Dial Tone	FF12 50
MCO or ML Keys	(81-86 or 89) **Note: See** "ML/MCO Separation" (FF3 ExtPort# 44#) to determine which type of key is available with your software.
Meet-Me Answer	77
Message Waiting Answer	AUTO REDIAL
Mute	FF11 FF12
Night Mode	FF12 52 (CPC-AII/B versions prior to 7.0) FF 12 522 (CPC-AII/B Version 7.0 or higher)
Night 2 mode (CPC-AII/B Version 7.0 or higher)	FF12 -523
Offhook Voice Announce	PROG PROG 5
Gffhook Voice Announce Answer	FF11 3
Page	FF12 (00-07)
Park Hold	75
PSD (Personal Speed Dial) Directory	900000
PSD (Personal Speed Dial) Number	AUTO (90-99 or 900-909)
Release	FF11 2
Reminder	FF12 4
Save Number Redial Access	AUTO FF11
Save Number Redial Set	AUTO AUTO FF11
SSD (System Speed Dial) Directory	900001
SSD (System Speed Dial) Number	AUTO (00-89 or 000- 199)
T1 Alarms -- Frame Loss Red Alarm Signal Loss Slips Sync Loss Yellow Alarm	(Master or Slave) (101 or 121) FF12 (103 or 123) FF12 (104 or 124) FF12 (102 or 122) FF12 (105 or 125) FF12 (107 or 127) FF12

Feature	Code to be assigned to FF key (FF11 enters an asterisk *) (FF12 enters a pound sign #)
Talkback	FF11 3
Tone/Voice Calling	PROG PROG 1
Transfer	PROG PROG PROG
Trunk Group Selection (same as "MCO or ML Keys")	(81-86 or 89)
Trunk Queuing	PROG PROG 2
Trunk Selection	(01-64)
UNA Pickup	78
Voice Mail One-Touch Access (CPC-B Version 5.0 or higher)	PROG AUTO NNN (XXX or AUTO SSD/PSD) # VM Pilot Number — Password (optional) — Press the # key to register the string. **Note:** The password (if used) can be 1 to 3 digits long. If the password is over 3 digits. it must be assigned as a speed-dial code (be sure to include an ending pound # sign after the password when creating the speed-dial code).
Voice Mail Transfer	PROG AUTO AUTO NNN (NNN=VM Pilot Number)

Related Programming

BLF Port Assignment: FF3 (ExtPort)# 3# (ExtPort)#

ML/MCOSeparation: FF3 (ExtPort)# 44# (0 or 1)#

FF Key Copy: FF9 3# (ExtPort)# (ExtPort)##

Notes

FF11 and FF12 *in the* ***Feature*** Codes. The * and # phone keys are used as movement keys (for scrolling through addresses) while in programming mode. Therefore, when programming feature codes for FF keys, FF11 and FF12 are used instead to represent * and # (FF11 enters *; FF12 enters #). The phone will not display the symbol when you press FF11 or FF12, but it will register * or # as part of the feature code.

FF Key Assignments for DSS Consoles

Software Version: All Versions
Address: FF5 (DSSPort)# (Key)# (Feature)#

Description

Use this address to assign features to FF keys on a DSS console. During normal phone operation, pressing the FF key will perform the assigned feature.

Figure 5-3 (next page) shows the key layout of a DSS/72 console. For a list of feature codes, use the same table as the "Extensions" address (previous page).

Programming

To assign a feature to a DSS FF key . . .

FF5 (73-76 or 145-148)# CONF (1-72)# (Code)#

- DSS Location: CPC-A/AII: 73=DSS 1, 74=DSS 2, 75=DSS 3, 76=DSS 4; CPC-B: 145=DSS 1, 146=DSS 2, 147=DSS 3, 148=DSS 4
- Clears any existing FF key assignment before a new one is assigned
- FF Key (see illustration, previous page)
- Feature Code (see table on page 5-5)

To reset a *DSSi72* FF key to its default value . . .

FF5 (73-76 or **145-148)# (1-72)# CONF ON/OFF**

- DSS Location
- FF Key

To see an FF key's existing feature assignment, press . . .

CONF ON/OFF [press the FF key]

Related Programming

BLF Port Assignment: FF3 (ExtPort)# 3# (ExtPort)#

ML/MCO Separation: FF3 (ExtPort)# 44# (0 or 1)#

FF Key Copy: FF9 3# (ExtPort)# (ExtPort)##

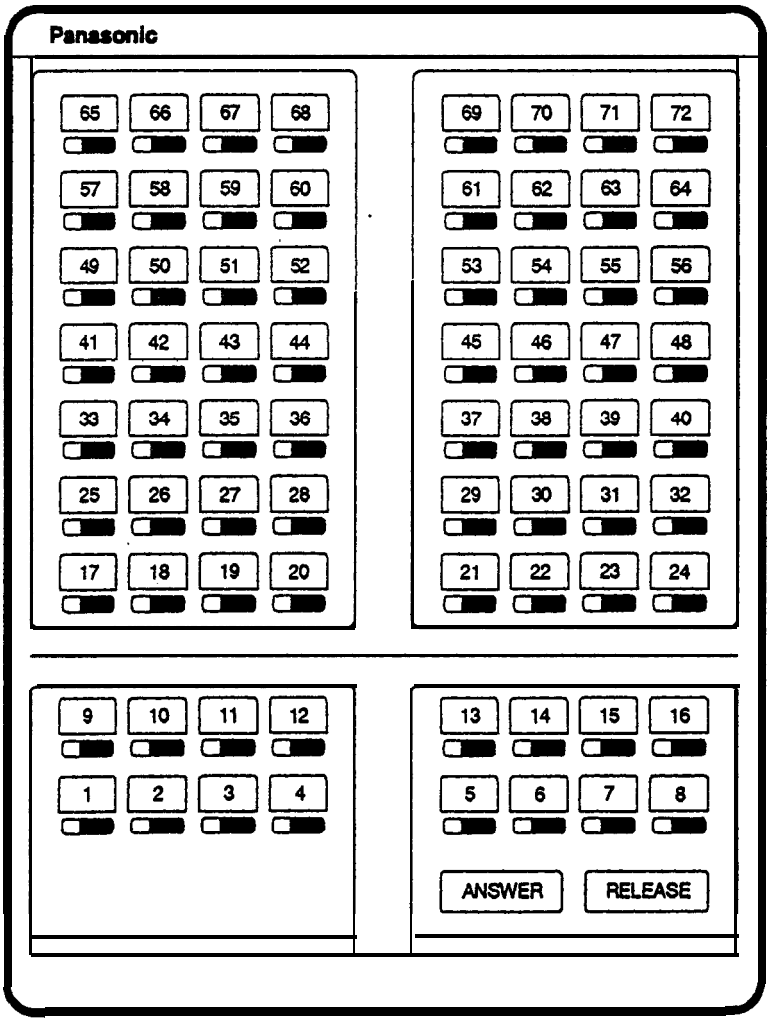
Notes

Default Key Assignments. ***The*** FF keys on DSS consoles 1 and 3 are assigned by default as DSS/BLF, Page, Park, and Night 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.

FF11 and FF12 in the Feature Codes. The * and # phone keys are used as movement keys for scrolling through addresses while in programming mode. Therefore, when programming feature codes for FF keys, FF11 and FF 12 are used instead to represent * and # (FF11 enters *; FF12 enters #). The phone' will not display the symbol when you press FF11 or FF12, but it will register * or # as part of the feature code.

Figure 5-3. FF key layout on a DSS/72 console



Attendant Feature Package Key Assignments

Software Version: CPC-B Versions 2.0 to 4.0
Address: FF5 (Attendant)# (Key)# (Feature)#

Description

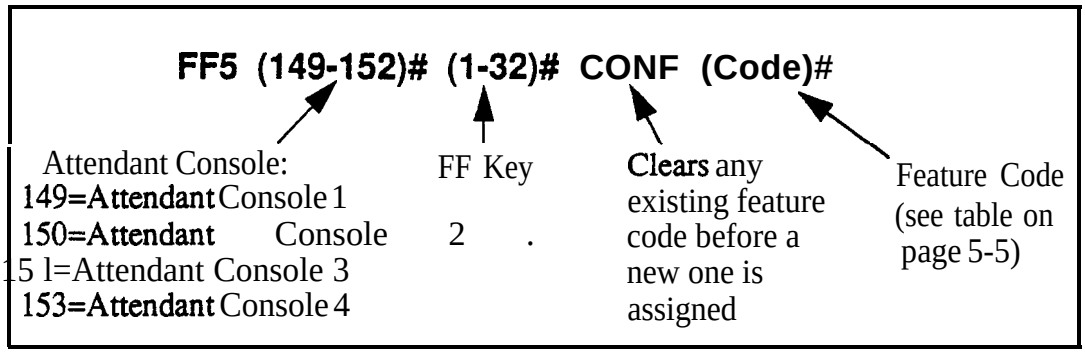
In DBS systems with the Attendant Feature Package (AFP), each FF key on an Attendant console can be programmed with a feature code. During normal phone operation (not in programming mode), pressing the FF key performs the feature associated with the code.

For a list of feature codes, use the same table as the "Extensions" address (page 5-5).

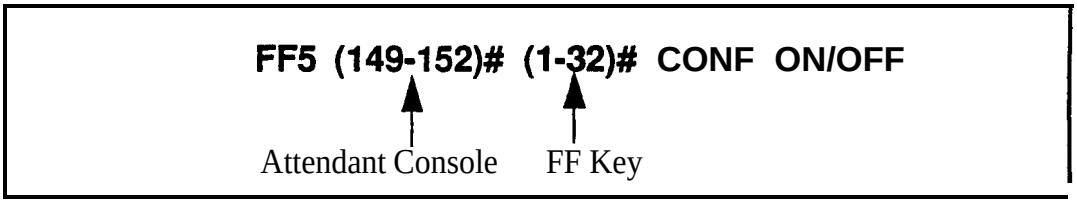
Note: The AFP was discontinued in CPC-B Version 5.0.

Programming

To assign an Attendant console FF key . . .



To reset an Attendant Console FF key to its default value . . .



Related Programming

BLF Port Assignment: FF3 (ExtPort)# 3# (ExtPort)#

ML/MCO Separation: FF3 (ExtPort)# 44# (0 or 1)#

FF Key Copy: FF9 3# (ExtPort)# (ExtPort)##

Notes

Default Key Assignments. The FF keys on Attendant consoles 1 and 2 are assigned by default as MCO keys. Attendant consoles 3 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.

FF11 and FF12 in the Feature Codes. The * and # phone keys are used as movement keys (for scrolling through addresses) while in programming mode. Therefore, when programming feature codes for FF keys, FF1 1 and FF12 are used instead to represent * and # (FF11 enters *; FF12 enters #). The phone will not display the symbol when you press FF11 or FF12, but it will register * or # as part of the feature code.

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 phones.

IMPORTANT: A DSS/BLF phone is required for FF6 programming. See "General Notes" (next page) for instructions on using DSS/BLF keys to make text assignments in FF6 programming.

This chapter covers the following addresses:

General Notes

Assigning text names via FF6 programming requires the use of a DSS/BLF phone. Figure 6-l below shows the key layout of a DSS/72 console that can be used for assigning text names. The left- and right-arrow keys, located on the bottom row of the expansion unit (on the right), can be used to move the cursor backward and forward through the letters of a name entry.

Some text names can also be assigned without entering the programming mode ***(see Section 700-Feature Operation*** for instructions), while others require FF6 programming.

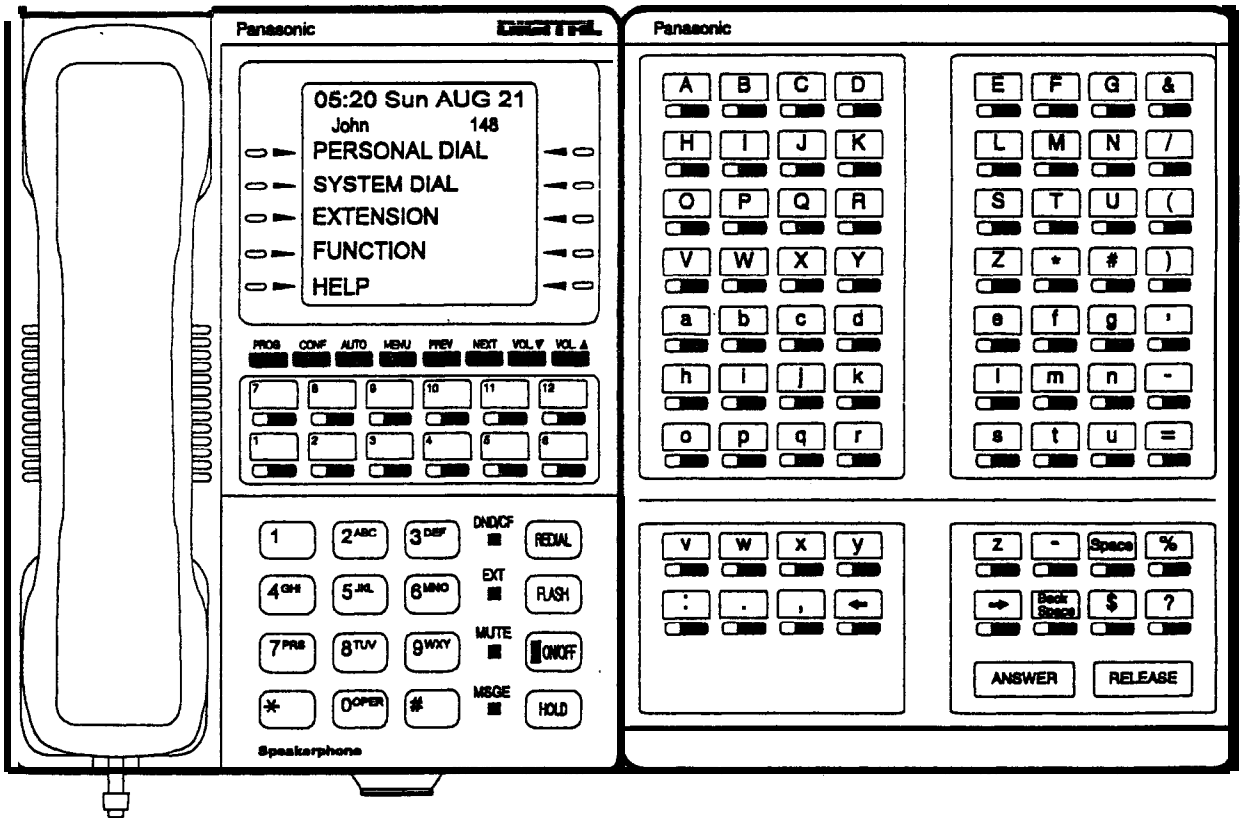
Text Names that can be assigned without entering programming mode . . .

Extension Names
System Speed Dial Names
Personal Speed Dial Names
Call Waiting/OHVA Text Reply

Text Names that can only be assigned using FF6 programming . . .

Absence Messages
Trunk Names
Hunt Group Names
DID/DNIS Names

Figure 6-l. Key layout of a DSSl72 console for text name assignment



Extension Name

Software Version: All Versions
Address: FF6 1# (ExtPort)# CONF (Name)#

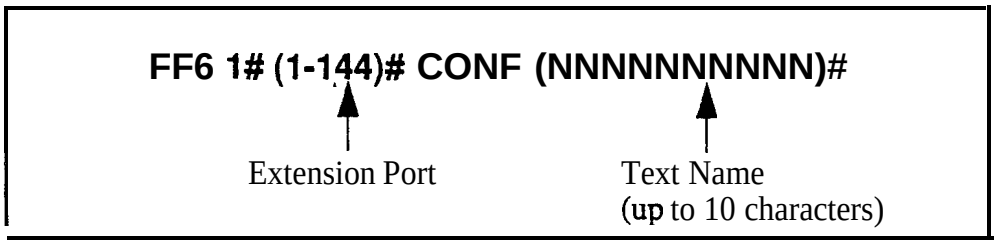
Description

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.

Extension names can also be assigned without entering the programming mode, using the Attendant Feature option (see ***Section 700-Feature Operation*** for instructions).

Programming

To assign an extension name . . .



To clear an extension name . . .

Notes

Using a DSS Console With AFP. If the Attendant Feature Package (AFP) is used (available only with CPC-B Version 2.0 to 4.0), the DSS console must be initially set **as type** "11" in the **Terminal Type** address (FF3 ExtPort# 2#), to enable the keys to perform programming functions.

System Speed Dial Names

Software Version: All Versions
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.

SSD names can also be assigned without entering the programming mode, using the Attendant Feature option (see Section *700-Feature Operation* for instructions).

Programming

To assign SSD names . . .

FF6 2# (00-89 or 000-199)# CONF (NNNNNNNNNNNNNNN)#

SSD Number:
00-89=CPC-A (all versions); CPC-AI1 and CPC-B versions prior to 7.0
000-199=CPC-AII and CPC-B, Version 7.0 or higher

Text Name
(up to 16 characters)

To clear SSD names . . .

FF6 2# (00-89 or 000-199)# CONF ON/OFF

SSD Number

Related Programming

Override Toll Restriction With SSD Numbers: FF1 2# 1# 4# (SSD)#
SSD Display Restriction: FF1 2# 1# 5# (0 or 1)#
System Speed Dial Numbers: FF10 1# (SSD)# (PhoneNo.)#

Notes

Using a DSS Console With AFP. If the Attendant Feature Package (AFP) is used (available only with CPC-B Version 2.0 to 4.0), the DSS console must be initially set as type "11" in the **Terminal Type** address (FF3 ExtPort# 2#), to enable the keys to perform programming functions.

Personal Speed Dial Names

Software Version: All Versions
Address: FF6 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.

Display-phone users can also assign their own PSD names without entering the programming mode (see ***Section 700-Feature Operation*** for instructions).

Programming

To assign PSD names . . .

FF6 3# (1-144)# (90-99 or 900-909)# CONF (NNNNNNNNNNNNNNN)#

- Extension Port
- PSD Number:
  - 90-99=CPC-A (all versions); CPC-AII and CPC-B versions prior to 7.0
  - 900-909=CPC-AII and CPC-B, Version 7.0 or higher
- Text Name (up to 16 characters)

To clear PSD names . . .

FF6 3# (1-144)# (90-99 or 900-909)# CONF ON/OFF

- Extension Port
- PSD Number

Related Programming

Personal Speed Dial Numbers: FF10 2# (ExtPort)# (PSD)# (PhoneNo.)#

Notes

Using a DSS Console With AFP. If the Attendant Feature Package (AFP) is used (available only with CPC-B Version 2.0 to 4.0), the DSS console must be initially set **as type** "11" in **the Terminal Type** address (FF3 ExtPort# 2#), to enable the keys to perform programming functions.

Absence Messages

Software Version: All Versions
Address: FF6 4# (5-9)# CONF (Message)#

Description

Use this program to create up to 5 custom absence messages for DBS phone users. Absence messages can only be assigned via FF6 programming.

DBS phone users can set their extensions to send a message to calling parties, indicating they 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 system supports up to 10 different absence messages; 5 of these are preset (see Table 6-l below), and 5 can be created using this FF6 address on a DSS/BLF phone.

Table 6-l. Preset Absence Messages O-4

Absence Message No.	Message Text
0	In Meeting
1	At Lunch
2 .	Out of Office
3	Vacation
4	Another Office

Programming

To create a custom absence message . . .

FF6 4# (5-9)# CONF (NNNNNNNNNNNNNN)#

Custom Absence Message Number (5-9)

Custom Absence Message Text (up to 15 characters)

To clear a custom absence message . . .

FF6 4# (5-9)# CONF ON/OFF

Custom Absence Message No.

Notes

Using a DSS Console With AFP. If the Attendant Feature Package (AFP) is used (available only with CPC-B Version 2.0 to 4.0), the DSS console must be initially set as **type** "11" in the **Terminal Type** address (FF3 ExtPort# 2#), to enable the keys to perform programming functions.

Trunk Name Assignment

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF6 5# (Trunk)# CONF (NNNNNN)#

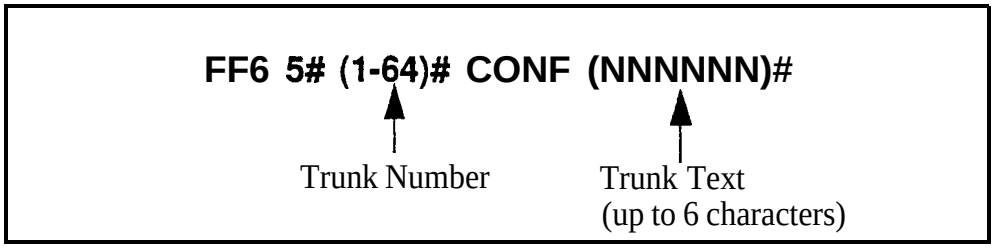
Description

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.

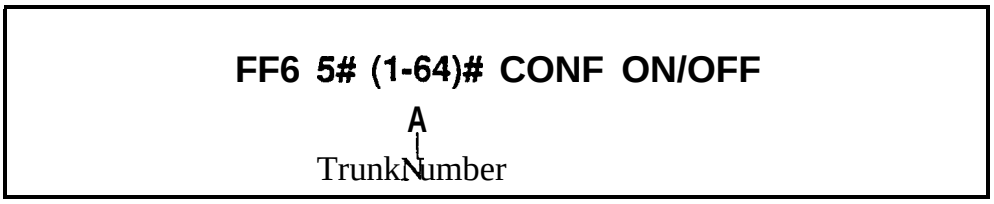
Trunk names can only be assigned via FF6 programming.

Programming

To assign a trunk name . . .



To clear a trunk name . . .



Notes

Using a *DSS Console With AFP.* If the Attendant Feature Package (AFP) is used (available only with CPC-B Version 2.0 to 4.0), the DSS console must be initially set as **type** "11" in the **Terminal Type** address (FF3 ExtPort# 2#), to enable the keys to perform programming functions.

Hunt Group Name Assignment

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF6 6# (HuntGrp)# CONF (NNNNNNNNNN)#

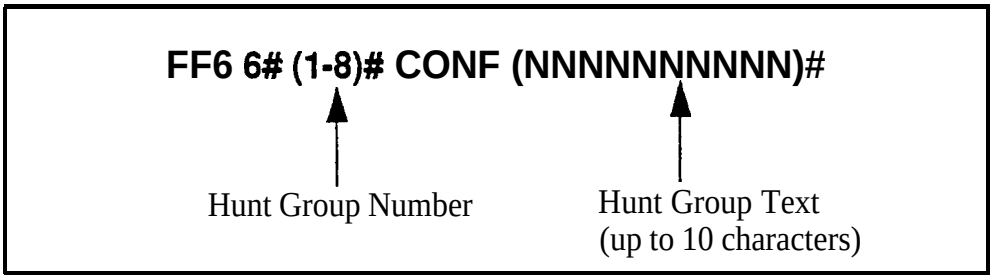
Description

Hunt groups can be given names of up to 10 characters to help identify the source of trunk calls transferred from the hunt group.

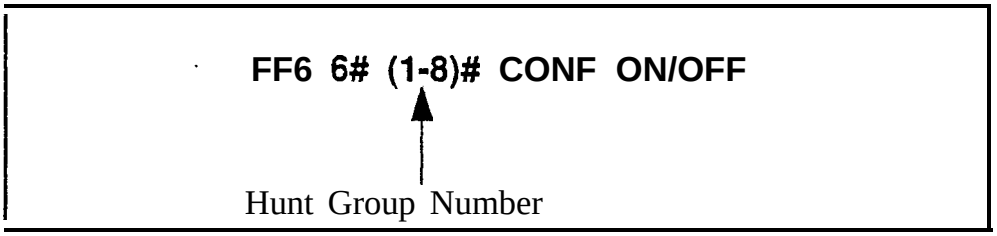
Hunt group names can only be assigned via FF6 programming.

Programming

To assign hunt group names . . .



To clear hunt group names . . .



Notes

*Using a **DSS** Console With **AFP**.* If the Attendant Feature Package (AFP) is used (available only with CPC-B Version 2.0 to 4.0), the DSS console must be initially set as type "11" in the **Terminal Type** address (FF3 ExtPort# 2#), to enable the keys to perform programming functions.

Call Waiting/OHVA Text Reply

Software Version: CPC-All (all versions); CPC-B Version 2.0 or higher
Address: FF6 **7# (1-5)# CONF (NNNNNNNNNNNNNN)#**

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*

Message Number	*Message Definition*
1	Take A Message
2	Please Hold
3	Will Call Back
4	Transfer
5	Unavailable

Call Waiting/OHVA text messages can also be assigned without entering the programming mode, using the Attendant Feature option (see Section *700-**Feature Operation*** for instructions).

Programming

To assign call waiting/OHVA text reply messages . . .

FF6 7# (1-5)# CONF (NNNNNNNNNNNNNN)#

Message Number

Message Text (up to 15 characters)

To clear call waiting/OHVA text reply messages . . .

FF6 7# (1-5)# CONF ON/OFF

Message Number

DID/DNIS Text Name Assignment

Software Version: CPC-B Version 5.0 or higher
Address: DID: FF6 8# (1-200)# (1 or 2)# (0000-9999)# (NNNNNN)#
DNIS: FF6 9# (1-200)# (1 or 2)# (0000-9999)# (NNNNNN)#

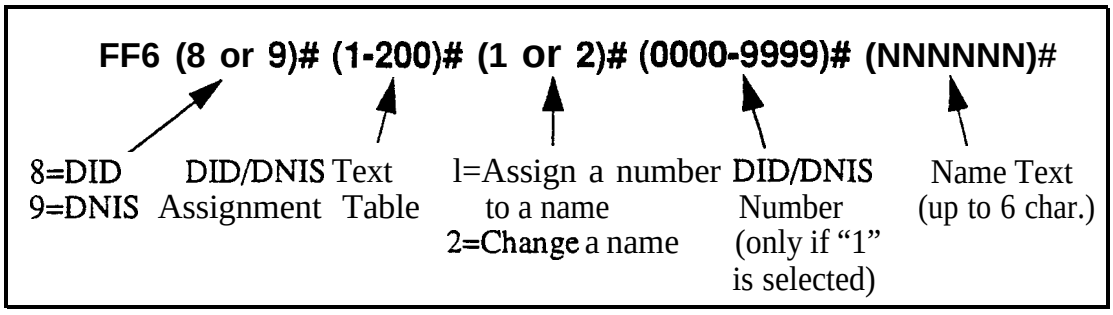
Description

Assign DID/DNIS names of up to 6 characters long for specific DID/DNIS numbers.

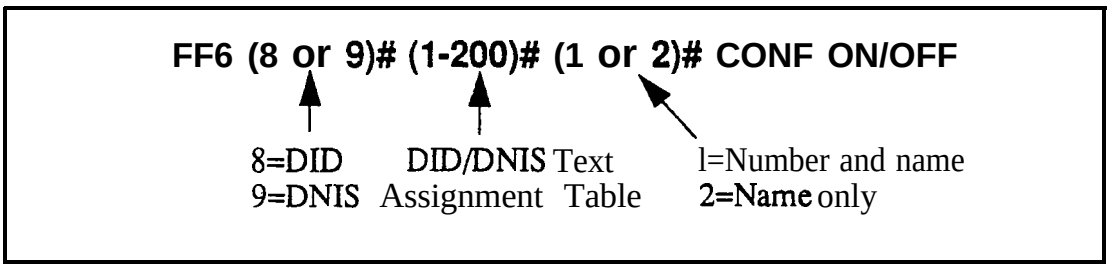
DID/DNIS text names can only be assigned via FF6 programming. The DID/DNIS number must already be assigned to an extension, before you can assign a name to the number. (see FF18# 3# for DID numbers: FF18# 4# 7# for DNIS numbers)

Programming

To assign a DID/DNIS text name . . .



To clear a DID/DNIS text name . . .



Related Programming

Inbound DID Numbers: FF1 8# 3# (DIDNo.)# (ExtNo.)#

DNIS Number Setting: FF1 8# 4# 7# (DNISNo.)# (ExtNo.)#

Notes

Maximums. Up to 200 DID text names and 200 DNIS text names can be assigned.

7. Toll Restrictions (FF7)

Use the FF7 program addresses in this chapter to perform Toll Restriction Service (TRS) programming.

This chapter covers the following addresses:

An Overview of Toll Restrictions

The DBS Toll Restriction Service (TRS) allows you to set restrictions on outgoing calls. 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 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-L. Toll restriction types

TRS Type	Characteristics
0	• Full restriction of outbound dialing. • Inbound calls can be answered if trunk is assigned to ring an extension. • Intercom calls are allowed. • Group Call Pickup (intercom calls only). • 9+911 calls are always restricted (except in CPC-AII/B Version 6.00 only).
1	• Full restriction of outbound dialing. • Inbound trunk calls to all phones can be answered and/or transferred. • Intercom calls are allowed. • Group Call Pickup (intercom calls only). • 9+911 calls are always restricted (except in CPC-AII/B Version 6.00 only).
2	• Local calls (office code dialing) are allowed. • l-800 calls are allowed. • 911 calls are always allowed (Version 6.0 or higher). • Inbound trunk calls to all phones can be answered and/or transferred. • Full restriction of international calls. • Full restriction of operator calls (old dialing plan). • Selectable restriction of operator calls (new NANP dialing plan). • Selectable restriction of speed dial numbers. • Selectable restriction of N11 codes (211-811). • Restriction of up to 10 three-digit office codes (new NANP dialing plan). • Restriction of up to 50 seven-digit numbers. • Inter-digit timing is set to 6 seconds.
3	• 9 11 calls are always allowed (Version 6.0 or higher). • Full restriction of operator calls (old dialing plan). • Selectable restriction of operator calls (new NANP dialing plan). • Selectable restriction of international calls (defaulted to full restriction). • Selectable restriction of N11 codes (211-811). • Selectable restriction of speed dial numbers. • Restriction of up to 50 seven-digit numbers. • Trunk calls can be answered and transferred. • Defaulted to full restriction of area-code dialing. • Defaulted to full restriction of office-code dialing.. • Inter-digit timing is set to 6 seconds.
4	• Identical to TRS type 3, except all office codes are allowed by default.

TRS Type	Characteristics
5	• Programmable TRS type; all area codes and office codes are allowed by default.
6	• Identical to TRS type 5.
7	• Cannot restrict any dialing.

Notes

New NANP Vialing Plan. Beginning with CPC-AII/B Version 6.0, changes to the North American Numbering Plan (NANP) are supported. These changes affect TRS parameters, which is explained in the affected program addresses in this chapter.

Table 7-2. NANP changes

Change	Old Numbering Plan (Versions prior to 6.0)	New NANP Plan (Version 6.0 or higher)
Key: N = digits 2-9 P = digits O-l X = digits O-9' CC = Country Code digits 1 - 199		
Area Code/Exchange Format	NPX-NNX-XXXX	NXX-NXX-XXXX
Toll Calls w/in Same Area Code	I-NNX-XXXX	1-NXX-NXX-XXXX
Interexchange Carrier (IXC) Selection	10XXX0	101XXXX0
Intemational Calls	011 + CC + up to 9 digits	011 +CC+upto 12digits
911 Emergency Calls	Can be restricted	Always restricted (except in Version 6.00 only) for TRS types 0 and 1. Always allowed for TRS types 2-6.
Operator Calls	Selectable restriction for TRS types 3-6; allowed by default if intemat'l calls are allowed system-wide. Always restricted for TRS types O-2. Always allowed for TRS type 7.	Selectable restriction on individual extensions, as long as the extension uses trunks with TRS types 2-6. Always restricted for TRS types 0 and 1. Always allowed for TRS type 7.
Local Calls	1) Check Office Code Table. 2) Check 7-Digit Toll Restriction. 3) Check Add/Delete Digits.	1) Check Office Code Table. 2) Check new Offtce Code Restriction Table (up to 10 entries). 3) Check 7-Digit Toll Restriction.' 4) Check Add/Delete Digits.

Change	Old Numbering Plan (Versions prior to 6.0)	New NANP Plan (Version 6.0 or higher)
Long-Distance Calls	1) Check Special Area/Office Codes. 2) Check Area Code Table. 3) Check Add/Delete Digits.	1) Check Special Area/Office Codes. 2) Check Area Code Table. 3) Check new Office Code Restriction Table (up to 10 entries). 4) Check Add/Delete Digits.
International Calls	Allowed or restricted system-wide by TRS type assigned to trunk.	Selectable restriction on extensions if using trunks with TRS types 3-6. Selectable restriction on dialed numbers based on Country Code.

International Calling For TRS Types 3-6

Software Version: All Versions
Address: FF7 1# 1# (0 or 1)#

Description

Use this address to allow or deny international calls on trunks that are assigned TRS types 3-6.

If the DBS is set to use the new NANP dialing plan (available with CPC-A Version 4.0 or higher, and CPC-AII/B Version 6.0 or higher), this address determines whether the DBS will check the Country Code Table for any restrictions on the dialed number.

If the DBS uses the old dialing plan, this address determines whether international calling is allowed or denied, regardless of the country code.

In both cases, this address applies only 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

FF7 1# 1# (0 or 1)#

Old Dialing Plan: (all versions)	**O=Deny international calls.** l=Allow international calls.
New NANP Dialing Plan: (CPC-A 4.0 or higher: CPC-AII/B 6.0 or higher)	**O=Check Country Code Table for restrictions.** l=Allow international calls.

Related Programming

Dialing Plan Switch: FF7 1# 17# (0 or 1)#

Country Code Table: F'F7 1# 20# (Table)# (Code)#

Override Toll Restriction with SSD Numbers: FF1 2# 1# 4# (SSD)#

System Installation Area Code: FF1 2# 1# 18# (0 or 1)#

Notes

Restricting International Calls On Individual Extensions. If *the* new NANP dialing plan is used, individual extensions can be set to allow/restrict international calls based on the Country Code Table (see FM 1# 20#).

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 (see FF7 3#).

DTMF Signaling During Incoming Calls For TRS Types O-6

Software Version: All Versions
Address: FF7 1# 2# (0 or 1)#

Description

This address determines if DTMF signaling can be sent to the CO after an extension picks up an incoming trunk call.

If an extension receives a call on a trunk assigned to TRS type O-6, the extension user may try to bypass TRS restrictions by dialing an outgoing call while still off-hook. (After the outside caller hangs up, sometimes the CO sends dial tone to the called party if they remain off-hook.)

The DBS can block these bypasses by disabling DTMF signaling during incoming calls. If this address is set to "0" (disable DTMF signaling), the user will not be able to dial out while still off-hook from an incoming call -- even if they transfer the call to another extension with no TRS restrictions.

This address also affects indirect pickup of trunk calls (press a DSS/BLF key to pick up a call ringing on another extension). If this address is set to "O", the DSS/BLF phone user will also not be able to dial out.

Programming

FF7 1# 2# (0 or 1)#

O=Disable DTMF signaling on extensions during incoming calls.
1=Enable DTMF signaling on extensions during incoming calls.

Notes

No Interaction With TRS Type 7. This address does not affect trunks assigned to TRS type 7, which allows all outbound dialing.

No DSS/BLF Interaction With TRS Type 0. DSS/BLF keys cannot be used to pick up calls on trunks assigned TRS type 0. Because of this built-in restriction, the DTMF Signaling setting does not apply.

No Interaction With FLASH Key. If an extension user attempts to dial out by pressing the FLASH key during an incoming trunk call, the DBS will check for TRS restrictions, regardless of the DTMF Signaling setting.

Maximum Dialed Digits For TRS Types 3-6

Software Version: Ail Versions
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. By default, the maximum number is unlimited.

Programming

FF7 1# 3# (1-15)#

Maximum Number of Dialed Digits Allowed

Note: The default setting is ** (unlimited). To change the setting to a limited number of digits, enter 1- 15 (see table below for values). To revert to the ** default, press FF7 1# 3# CONF.

Table 7-3. Maximum number of dialed digits for TRS types 3-6

Setting	Value (maximum dialed 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

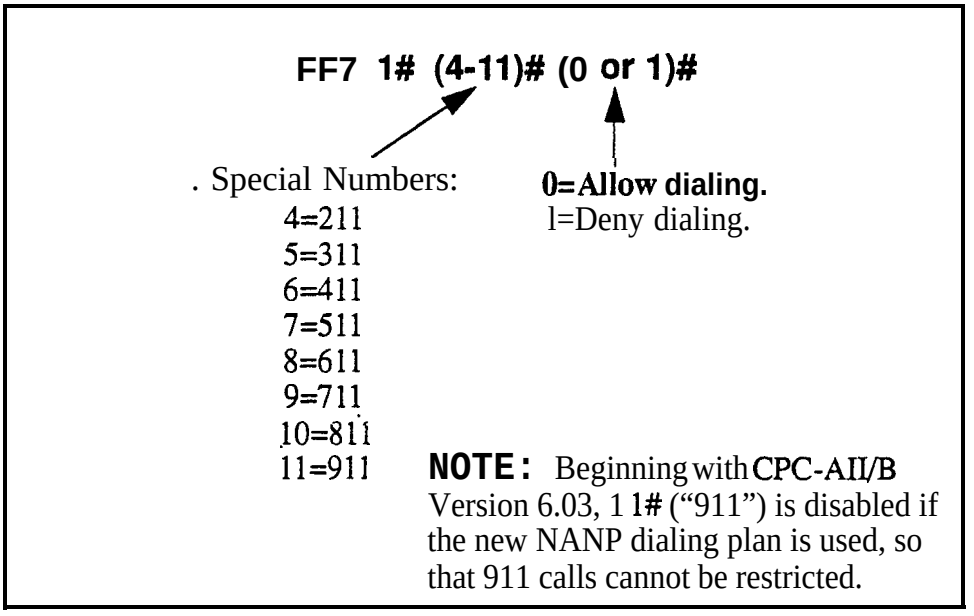
Software Version: All Versions
Address: FF7 1# (4-11)# (0 or 1)#

Description

Use this address to to allow or deny the dialing of 211-911 numbers on trunks that are assigned TRS types 2-6. By default, all of these numbers are allowed.

If the DBS is set to *use* the *new NANP dialing plan* (available only with CPC-AII/B Version 6.0 or higher), "911" is always allowed for TRS types 2-6, regardless of the setting here.

Programming



Related Programming

Dialing Plan Switch: FF7 1# 17# (0 or 1)#

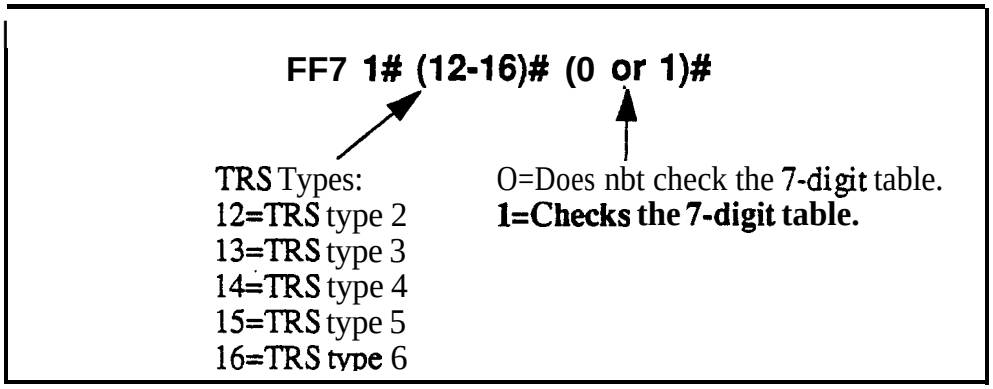
7-Digit Toll Restriction For TRS Types 2-6

Software Version: All Versions
Address: FF7 1# (12-I 6)# (0 or 1)#

Description

Use this address to determine whether the DBS will check dialed 7-digit numbers against the **"Special 'I-Digit Table"** (see FF7 6#). By default, the DBS will check the dialed number against the table; if it finds a match, the call will be denied, regardless of the area code.

Programming



Related Programming

Special 7-Digit Table For TRS Types 2-6: FF7 6# (1-50)# (7-digitNo.)#

Notes

Analysis of *Final Digits.* 7-digit toll restriction considers the *last* 7 digits dialed. This is so that area codes that are normally permitted, can be denied when dialed with certain telephone numbers (such as 800-976-XXXX numbers).

Dialing Plan Switch

Software Version: CPC-A Version 4.0 or higher; CPC-AII/B Version 6.0 or higher
Address: FF7 **1# 17# (0 or 1)#**

Description

This address allows you to choose between the new North American Numbering Plan (NANP) and the old dialing plan. By default, the old dialing plan is used.

Selecting the new NANP dialing plan, in addition to supporting public network changes in dialing formats, also provides greater flexibility for "exceptions to the rule" -- such as applying TRS restrictions to individual extensions, area codes, office codes, and country codes.

Specific differences between the old and new dialing plans are listed in the table below. Some of the FF7 addresses in this chapter apply only to the new NANP dialing plan; other FF7 addresses apply to both dialing plans, but the value of their settings differs depending on the dialing plan selected. These differences are noted in the explanation for each affected address.

Programming

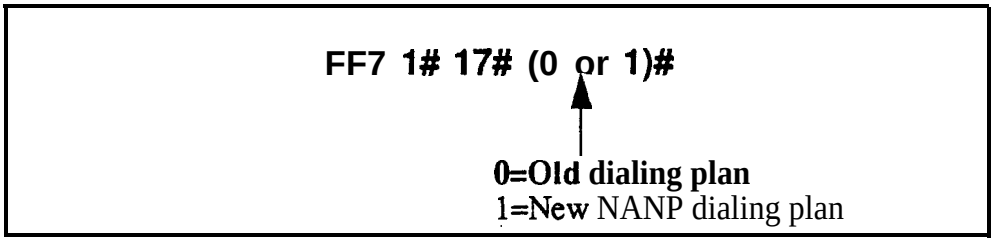


Table 7-4. Differences between old and new dialing plans

Subject	Old Plan	New (NANP) Plan
Office Codes (Exchanges)	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	12 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-A Version 4.0 or higher; CPC-AII/B Version 6.0 or higher
Address: FF7 1# 18# (ExtPort)# (0 or 1)#

Description

This Operator Access switch works only if the DBS system is set to use the ***new NANP dialing*** plan (FF7 1# 17# 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 prevents a user from being able to make a restricted phone call by asking the operator to place the call for him.

Programming

FF7 1# 18# (1-144)# (0 or 1)#

Extension Port

0=Deny operator calls.
1=Allow operator calls.

Related Programming

Dialing Plan Switch: FF7 1# 17# (0 or 1)#

Notes

Timeout for Operator Calls. If this switch is set to "Deny" (default) and an extension user accesses a trunk and dials the operator, the system will wait 6 seconds before automatically disconnecting the call. However, if the user dials additional digits within the 6 seconds, the DBS will check other switches such as **"International Calling On Extensions", "7-Digit Toll Restriction",** etc., to allow or deny the call.

International Calling on Extensions

Software Version: CPC-A Version 4.0 or higher; CPC-AII/B Version 6.0 or higher
Address: FF7 1# 19# (ExtPort)# (0 or 1)#

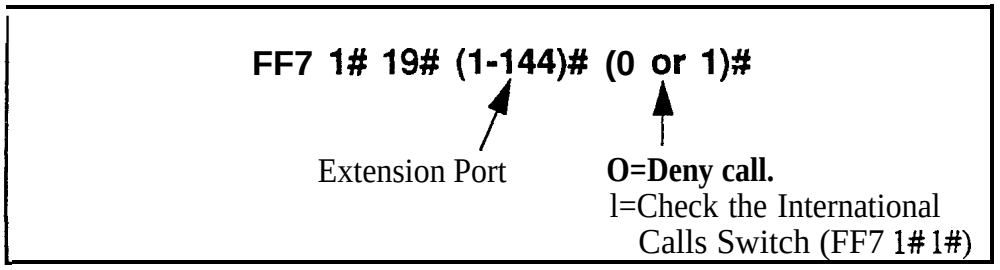
Description

This address applies only to systems programmed to use the new NANP dialing plan (FF7 1# 17# 1#). Also, this switch 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 deny 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=deny 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# 20#) 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# 17# (0 or 1)#

Country Code Table: FF7 1# 20# (Table)# (Code)#

Country Code Table

Software Version: CPC-A Version 4.0 or higher; CPC-AII/B Version 6.0 or higher
Address: FF7 1# 20# (Table)# (Code)#

Description

This address applies only to systems programmed to use the new NANP dialing plan (FF7 1# 17# 1#). Also, this switch applies only to TRS types 3-6 (TRS types O-2 do not allow international dialing: TRS type 7 allows all dialing).

In this address, the DBS provides a Country Code Table of up to 10 allowable country code entries for placing international calls. Each entry can be 1 to 3 digits long.

Programming

FF7 **1# 20# (1-10)# (0-999)**

Table Entry Country Code Entry

Related Programming

International Calling For TRS Types 3-6: FF7 1# 1# (0 or 1)#

Dialing Plan Switch: FF7 1# 17# (0 or 1)#

International Calling on Extensions: FF7 1# 19# (ExtPort)# (0 or 1)#

Notes

Country Code Usage. Country codes are used as follows:

- 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 set for ***the extension*** (in FF7 1# 19#).
- If the switch is enabled, the DBS then checks the international calling restriction set for the ***system*** (in FF7 1# 1#), which determines if the Country Code Table is checked before an international call is processed.
- If it is checked, the call will be allowed only if the dialed country code appears in the Table.

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-A Version 4.0 or higher; CPC-AII/B Version 6.0 or higher
Address: FF7 1# 21# (0 or 1)#

Description

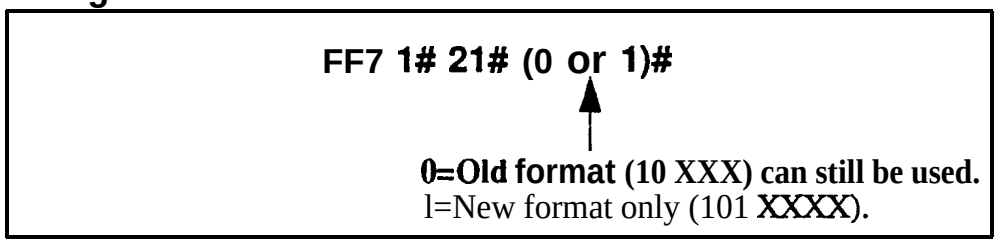
This address **determines** whether the old CIC (Carrier Identification Code) format can still be dialed to reach a preferred IXC (interexchange carrier).

- Old dialing plan format is **10 XXX** (where "XXX" is a 3-digit CIC).
- New NANP (North American Numbering Plan) format is **101 XXXX** (where "XXXX" is a 4-digit CIC).

In some areas, the public network is providing a transitional period during which both formats are recognized, until the new NANP dialing plan takes effect. This address accommodates the transitional period.

NOTE: This address is effective only if the new NANP Dialing Plan is selected in FF7 1# 17#. If the old dialing plan is selected, the new CIC format (101 XXXX) will not **be** recognized by the DBS.

Programming



Related Programming

Dialing Plan Switch: FF7 1# 17# (0 or 1)#

Office Code Restriction Table For TRS Types 2-6

Software Version: CPC-A Version 4.0 or higher; CPC-AII/B Version 6.0 or higher
Address: FF7 1# 22# (1-10)# (000-999)#

Description

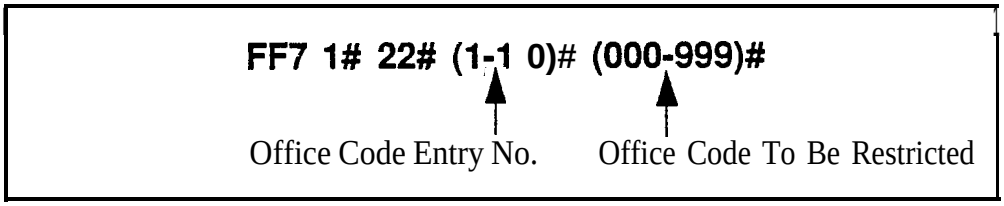
This address applies only to DBS systems set for the new NANP dialing plan (FF7 1# 17# 1#).

The Office Code Restriction Table allows up to 10 office codes ("exchanges") to be restricted system-wide for all trunks assigned TRS types 2-6. The DBS will check this table before checking the individual office codes assigned to each TRS type in FF7 3#.

NOTE: 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 and 976 calls.

Programming



Related Programming

Dialing Plan Switch: **FF7** 1# 17# (0 or 1)#

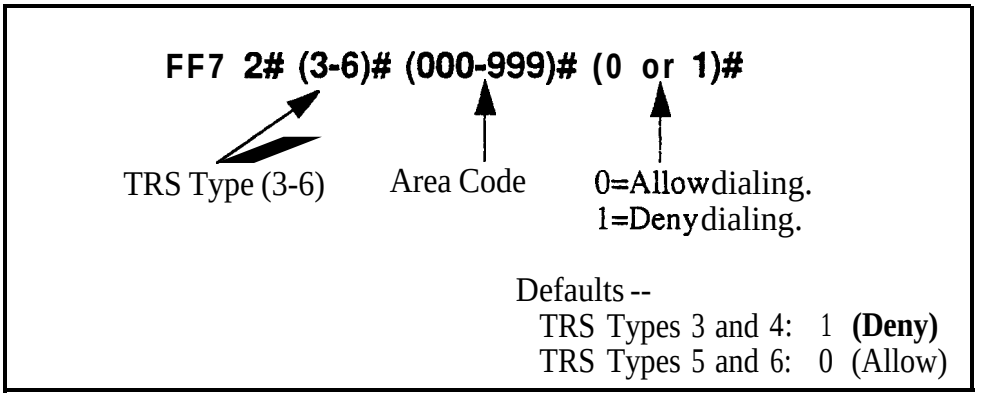
Area Code Table For TRS Types 3-6

Software Version: All Versions
Address: FF7 2# (3-6)# (000-999)# (0 or 1)#

Description

Use this address 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 address.

Programming



Related Programming

System Installation Area Code: FF1 2# 1# 18# (0 or 1)#

Day TRS Types O-7 for Trunks: FF7 7# (ExtPort)# (Trunk)# (0-7)#

Night TRS Types O-7 for Trunks: FM 8# (ExtPort)# (Trunk)# (0-7)#

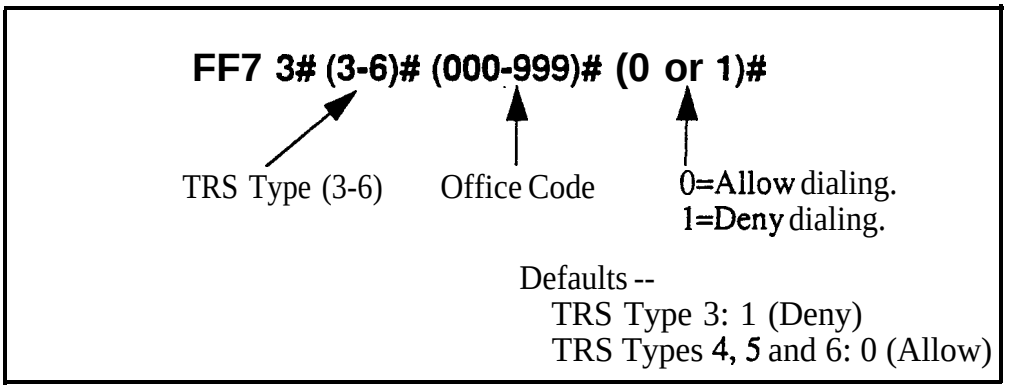
Office Code Table For TRS Types 3-6

Software Version: All Versions
Address: FF7 3# (3-6)# (000-999)# (0 or 1)#

Description

Use this address to allow or deny individual office code(s) for local calls based on the TRS type assigned to the trunk.

Programming



Related Programming

System Installation Area Code: FF1 2# 1# 18# (0 or 1)#

Notes

Office Code Tables. While this address is used for local calls, the Office Code Restriction Table address (FF7 1# 21#) is used for local and long-distance calls.

Special Area Code Table For TRS Types 3-6

Software Version: All Versions
Address: FF7 4# (1-4)# (000-999)#

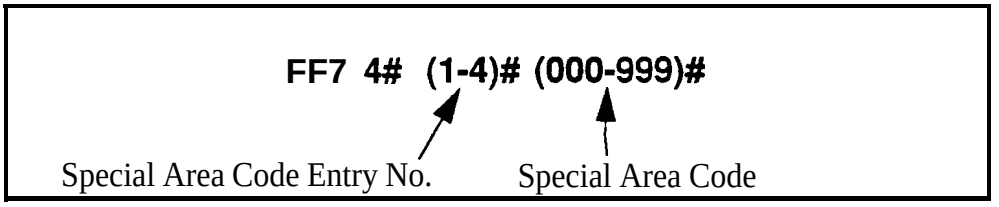
Description

Use this address to enter up to four area codes that will be tied 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)977-xxxx numbers.

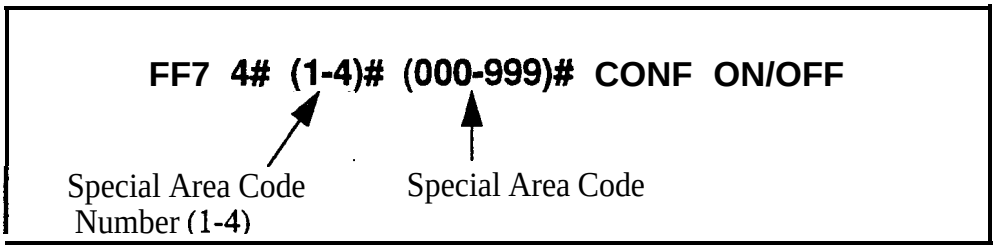
These special area/office code combinations will apply to TRS types 3-6.

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: All Versions
Address: FF7 5# (1-4)# (000-999)# (0 or 1)#

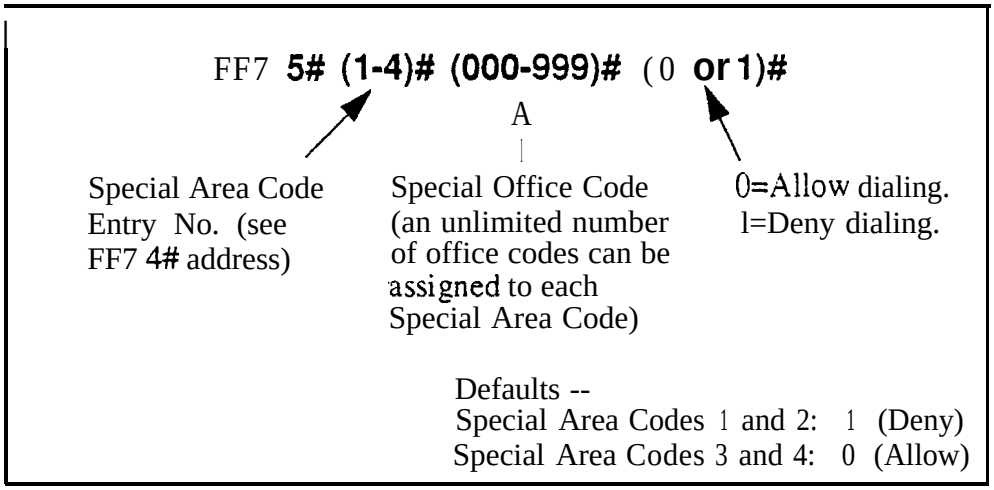
Description

Each of the four special area codes entered in the previous address (FF7 4#) can be tied with one or more special office codes using this address. Each special area code can be matched to office codes (000-999). And. each office code can be individually allowed or denied. 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, 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 'T-Digit Table For TRS Types 2-6

Software Version: All Versions
Address: FF7 6# (1-50)# (0000000-9999999)#

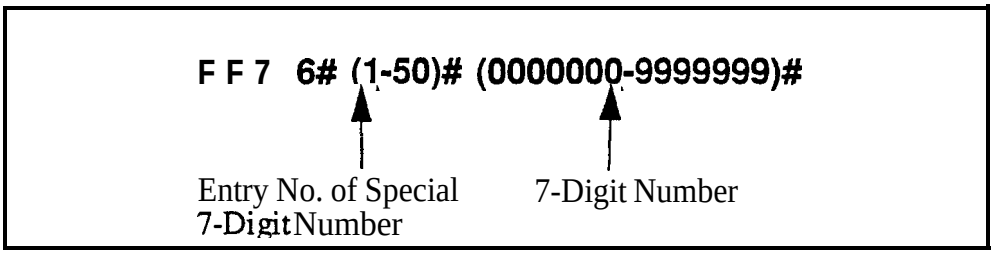
Description

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.

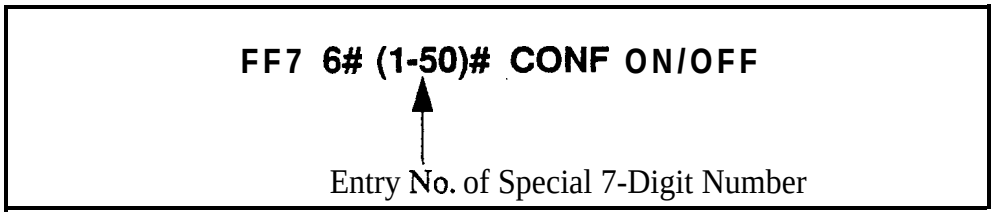
The "7-Digit Toll Restriction For TRS Types 2-6" address (FF7 1# 12-16#) determines whether this table is checked or not.

Programming

To assign a special 7-digit number . . .



To clear a special 7-digit number . . .



Related Programming

7-Digit Toll Restriction For TRS Types 2-6: FF7 1# (12-16)# (0 or 1)#

Day TRS Types O-7 for Trunks

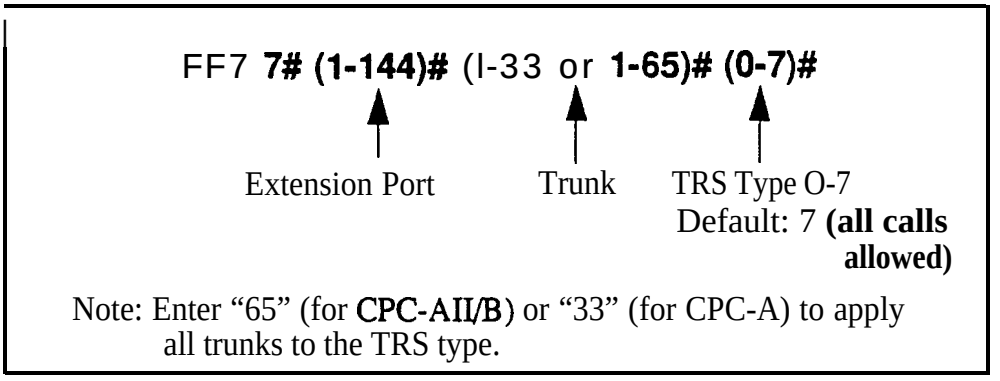
Software Version: All Versions
Address: FF7 7# (ExtPort)# (Trunk)# (0-7)#

Description

Use this program to assign TRS types to the trunks on an individual extension. The assigned TRS type will apply to the trunk during "Day" mode.

For a review of TRS **types, see "An Overview of Toll Restrictions"** on page **7-2.**

Programming



Note: Enter "65" (for CPC-AII/B) or "33" (for CPC-A) to apply all trunks to the TRS type.

Related Programming

Toll Restriction: all FF7 addresses

Night TRS Types O-7 for Trunks

Software Version: All Versions
Address: FF7 **8# (ExtPort)# (Trunk)# (0-7)#**

Description

Use this program to assign TRS types to the trunks on an individual extension. These TRS types will apply when the system is in "Night" and "Night 2" mode.

For a review of TRS types, **see "An Overview of Toll Restrictions"** on **page** 7 - 2 .

Programming

FF7 8# (1-144)# (l-33 or 1-65)# (0-7)#

Extension Tort — Trunk — TRS Type O-7
Default: 7 **(all calls allowed)**

Note: Enter "65" (for CPC-AII/B) or "33" (for CPC-A) to apply all trunks to the TRS type.

Related Programming

Automatic Night Mode Start Time: FF1 3# 1# HHMM#

Automatic Night 2 Mode Start Time: FF1 3# 30# HHMM#

Toll Restriction: all FF7 addresses

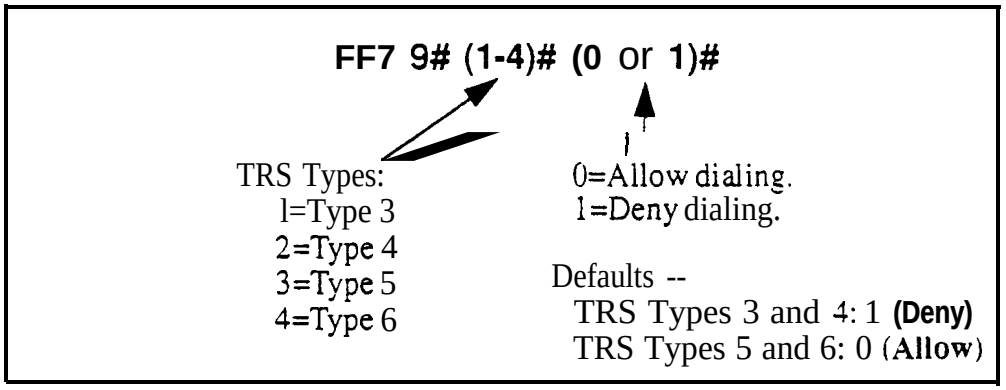
Area Code Table For TRS Types 3-6 (Global Copy)

Software Version: All Versions
Address: FF7 9# (1-4)# (0 or 1)#

Description

Use this address to allow or deny *all* area codes for TRS types 3-h.

Programming



Related Programming

Area Code Table for TRS Types 3-h: FF7 2# (3-6)# (000-999)# (0 or 1)#

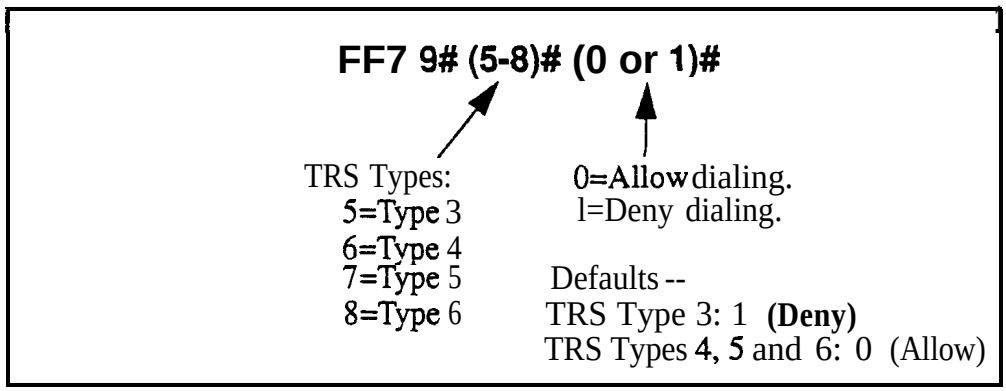
Office Code Table For TRS Types 3-6 (Global Copy)

Software Version: All Versions
Address: FF7 9# (5-8)# (0 or 1)#

Description

Use this address to allow or deny *all* office codes for TRS types 3-6.

Programming



Related Programming

Office Code Table for TRS Types 3-6: FF7 3# (3-6)# (000-999)# (0 or 1)#

Area & Office Code Table for TRS Types 3-6 (Global Copy)

Software Version: All Versions
Address: FF7 9# (9-12)# (0 or 1)#

Description

Use this address to allow or deny *all* area codes *and* office codes for TRS types **3-6.**

Programming

FF7 9# (9-12)# (0 or 1)#

TRS Types:
9=Type 3
10=Type 4
ll=Type 5
12=Type 6

0=Allow dialing.
l=Deny dialing.

Defaults --
TRS Type 3: 1 **(Deny)**
TRS Type 4: 1 **(Deny) for A/Cs and 0 (Allow) for O/Cs**
TRS Types 5 and 6: 0 **(Allow)**

Related Programming

Area Code Table For TRS Types 3-6: FF7 2# (3-6)# (000-999)# (0 or 1)#

Office Code Table For TRS Types 3-6: FF7 3# (3-6)# (000-999)# (0 or 1)#

Special Office Code Table For TRS Types 3-6 (Global Copy)

Software Version: All Versions
Address: FF7 **9# (13-16)# (0 or 1)#**

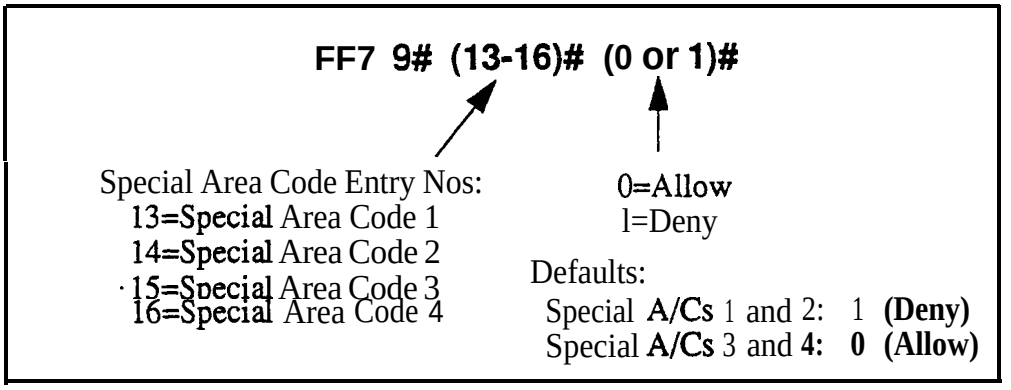
Description

Use this address to allow or deny the Special Area/Office Code combinations set in FF7 **4#** and **5#.**

Special Office Code Table (Global Copy) resets all office codes assigned to a Special Area Code at the same time (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)**#**

8. Least Cost Routing (FF8)

Use the FF8 addresses in this chapter to set up Least Cost Routing (LCR).

This chapter covers the following addresses:

An Overview of Least Cost Routing

With the Least Cost Routing (LCR) feature, you can program the DBS system to automatically route outgoing calls to the least expensive carrier.

Before Programming LCR

- Verify the carrier for each CO trunk in the system, and which carriers provide the best rates at different times of the day or weekend -- check the site's phone bills for call history.
- Cut Strap *S* 1 on the CPC card. *See Section 300-Installation* for instructions.
- Enable LCR for the system in FF1 2# 1# 3# (set to "1").

LCR Setup

Use FF8 addresses to set up LCR in the following logical order:

Step 1: Build LCR Trunk Groups

FF8 6# (TrunkGroup)# (Position)# (Trunk)#

Assign trunks to each group, prioritizing the trunks by assigning them to positions within the group (trunk in position 1 will be tried first, then trunk in position 2, etc.). To prevent glare, assign the trunks in descending order by port number (from highest to lowest -- e.g., trunk port 7 in the first position, trunk port 6 in the second position, etc.). Maximum 8 trunk groups. Maximum 8 positions (trunks) per group.

Example: Create three trunk groups -- Trunk Group 1 for trunks that will be used for local calls; Trunk Group 2 for long-distance trunks; and Trunk Group 3 for backup trunks.

Step 2: Build Time Priority Route Tables

FF8 5# (TableNo.)# (Position)# (TrunkGroup)#

Assign trunk groups to positions within each Time Priority Route Table, which has six time-of-day periods (see Table 8-1, next page). These time periods are fixed and can't be changed. Each time period has eight different positions for trunk groups. Maximum 15 Time Priority Route Tables.

Example: Create two Time Priority Route Tables -- Table 1 for long-distance calls; Table 2 for local calls.

- For Table 1 (long-distance), assign Trunk Group 2 to positions 1, 9, 17, 25, 33 and 41, so that these trunks will be tried fist in all time periods for long-distance calls. In positions 2, 10, 18, 26, 34 and 42, assign Trunk Group 3 (backup).
- For Table 2 (local), assign Trunk Group 1 to positions 1, 9, 17, 25, 33 and 41, so that these trunks will be tried first in all time periods for local calls. In positions 2, 10, 18, 26, 34 and 42, assign Trunk Group 3 (backup).

Table 8-1. Time Priority Route Table format

Fixed Time Periods (cannot be changed)	LCR Trunk Group Positions < Highest Priority							Lowest Priority >
7:00 am - 7:59 am	1st	2nd	3rd	4th	5th	6th	7th	8th
8:00 am - 4:59 pm	9th	10th	11th	12th	13th	14th	15th	16th
5:00 pm - 7:59 pm	17th	18th	19th	20th	21st	22nd	23rd	24th
8:00 pm - 11:59 pm	25th	26th	27th	28th	29th	30th	31st	32nd
12:00 am - 6:59 am	33rd	34th	35th	36th	37th	38th	39th	40th
Weekend	41st	42nd	43rd	44th	45th	46th	47th	48th

Step 3: Set Up LCR for Long-Distance Dialing

FF8 1# (TableNo.)# (AreaCode)# (Add/Remove)#

Input all area codes into a Time Priority Route Table. Maximum 1,000 area codes (000-999) per Table. All area codes you want routed by LCR must be input into a Time priority Route Table. If you need to set up special area/office code combinations as "exceptions to the rule", use **Step** 5 below.

Example: Assign area codes you want LCR-routed to Table 1 (long-distance). If a dialed area code is not assigned to a Time Priority Route Table, it will be routed to pooled trunk group "9".

Step 4: Set Up LCR for Local Dialing

FF8 2# (TableNo.)# (OfficeCode)# (Add/Remove)#

Every office code (exchange) to follow LCR must be input, one at a time, to a Time Priority Route Table. Maximum 1,000 office codes (000-999) per Table.

Example: Assign all office codes in the site's local area to Table 2 (local). If a local office code is not included in Table 2, it will be routed to trunk group "9" when dialed.

Step 5: Set Up "Exceptions To The Rule" (Area/Office Code Combinations)

FF8 3# (EntryNo.)# (AreaCode)#
FF8 4# (EntryNo.)# (TableNo.)# (Office Code)# (Add/Remove)#

If there are any special area/office code combinations you want routed to different trunks, input these combinations here.

Example:

- Assign 714-242 to Table 1 (for calls to 714/242-1000)
- Assign 714-243 to Table 3 (for calls to 714/243-1000)

Step 6: Set Up Add/Delete Digits

FF8 7# (TrunkGroup)# (DeleteDigits)#
FF8 8# (TrunkGroup)# (AddDigits)#

The DBS will automatically outpulse Add Digits, or prevent Delete Digits from being outpulsed, at the beginning of all phone numbers dialed on trunks in the assigned group. The Add/Delete Digits are associated with LCR trunk groups, not with the dialed phone number or the time of day.

Example: When the DBS is behind a PBX, assign "9-PAUSE" (press the REDIAL key to insert the pause) so that the PBX will be automatically accessed whenever a user dials out.

Activating LCR

- Although the FF8 addresses provide for LCR setup, you must activate LCR in the **"LCR Access"** system address, FF12# 1# 3# 1#.
- You can still build a Pooled Trunk Group "9" in FF2 (Trunk)# 3#, which the DBS will access if all LCR trunks are busy.
- Individual extensions can be forced to use LCR in FF3 (ExtPort)# 4#.

LCR Call Processing

LCR processes calls as follows:

1. An extension user dials an outgoing phone nurnber.
   - If 0, 411, 555, 911, or 800 is dialed, the DBS will automatically drop out of LCR and use pooled trunk group "9" (this trunk group is built in FF2 Trunk# 3#). This occurs to make sure these numbers are dialed without any modification (e.g., LCR's Add/Delete Digits Tables).
2. The DBS determines which Time Priority Route Table to use for the call, based on the area code and/or office code dialed.
   - If the number is not assigned to a Table, LCR processing terminates and the call is routed to pooled trunk group "9".
3. The DBS will search all trunks in the Time Priority Route Table's assigned trunk groups, until an available trunk is found.
   - If all trunks in the first trunk group are busy, the DBS will search it again. If all the trunks are still busy, the user will hear a "beep-beep" tone as LCR proceeds to the next trunk group. Each trunk group is searched twice.
   - If no trunks are available in ***any*** trunk group (whether LCR or not), the user (after hearing busy tone) can dial "2" to have the DBS call back

when a trunk becomes available. When the DBS recalls, the user picks up the handset and the DBS will automatically redial the number.

4. When a trunk is found, digits are added to or deleted from the phone number, according to the Add or Delete digits assigned to the trunk group.

Using LCR With a PBX System

When the DBS is behind a PBX. two "9"s have to be dialed to access an outside line -- once to access the PBX, and again to access a trunk line. In these cases, LCR is often used to add the "9"s automatically (via the Add Digits Table) so the user doesn't have to dial them each time.

In earlier CPC versions (CPC-A lower than 3.21; CPC-B lower than 2.11), some office codes -- specifically, 941, 955, 991, and 980 -- should not be routed through LCR in PBX systems. Because of the "9" dialing requirement, and because the DBS automatically drops out of LCR if 0, 411, 555, 911 or 800 is dialed, the DBS may interpret these special numbers as office codes instead.

For example, if "9-911" is dialed to access a trunk and make an emergency call, LCR may assume office code 991 was dialed instead. Therefore, ***do*** not ***assign office codes 941, 955, 991 or 980 to Time Priority Route Tables if you have an earlier CPC-A or CPC-B version.***

LCR Area Codes

Software Version: All Versions
Address: FF8 1# (TableNo.)# (AreaCode)# (0 or 1)#

Description

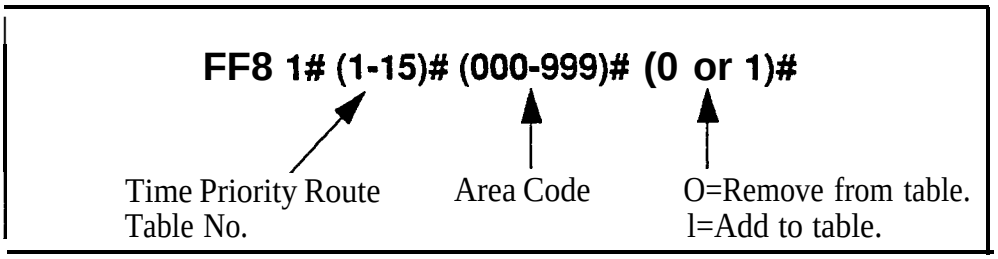
Use this address to route all calls to a certain area code through LCR.

This address associates the area code with a Time Priority Route Table, which tells the DBS which trunk group to route the call to, based on the time of day and weekend when the area code is dialed.

To use different Time Priority Route Tables for the same area code (based on the office code dialed), do not enter the area code here -- instead, use the Special LCR Area/Office Codes addresses (FF8 3# and 4#).

If a dialed area code is not assigned to a Time Priority Route Table, the call will be routed to pooled trunk group "9" (built in FF2 Trunk# 3#).

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.

Special Numbers Not Processed By LCR. If the user dials 0, 411, 555, 911, or 800, the DBS will automatically terminate LCR processing and route the call to pooled trunk group "9" (this trunk group is built in FF2 Trunk# 3#). This occurs so that these numbers are dialed without modification (e.g., preventing LCR Add digits from being dialed as a prefix to the number).

LCR Office Codes

Software Version: All Versions
Address: FF8 2# (TableNo.)# (OfficeCode)# (0 or 1)#

Description

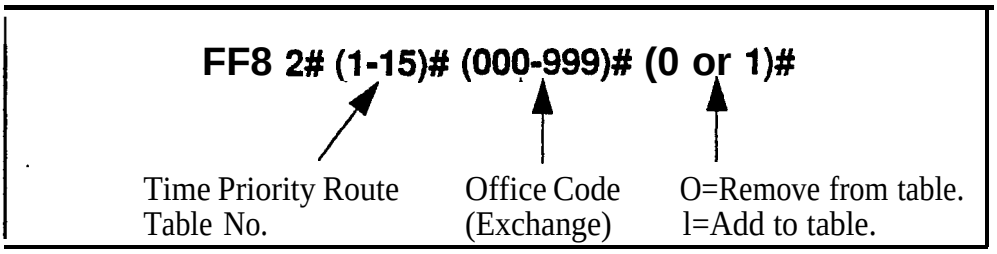
Use this address to route all calls to a certain office code (exchange) through LCR.

This address associates an exchange with a Time Priority Route Table, which tells the DBS which trunk group to route the call to, based on the time of day and weekend when the exchange is dialed.

To use different Time Priority Route Tables for different exchanges within the same area code, do not enter the exchanges here -- instead, use the Special LCR Area/Office Codes addresses (FF8 3# and 4#).

If a dialed exchange is not assigned to a Time Priority Route Table, the call will be routed to pooled trunk group "9" (built in FF2 Trunk# 3#).

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 Numbers ***Not Processed*** By ***LCR.*** If the user dials 0, 411, 555, 9 11 or 800, the DBS will automatically terminate LCR processing and route the call to pooled trunk group "9" (this trunk group is built in FF2 Trunk# 3#). This occurs so that these numbers are dialed without modification (e.g., preventing LCR Add digits from being dialed as a prefix to the number).

LCR Office* Code *Restriction in PBX Systems. With CPC-A versions lower than 3.21, and CPC-B versions lower than 2.11, office codes 941, 955, 991, and 980 should not be routed through LCR if the DBS is behind a PBX system. Because of the '9" dialing requirement to access the PBX and a trunk line, and because the DBS will automatically drop out of LCR processing if special numbers 0, 411, 555, 9 11, or 800 are dialed, the DBS may interpret the special numbers as office codes instead (for example, reading a "9-911" emergency call as a "991" office code).

Special LCR Area Codes

Software Version: All Versions
Address: FF8 **3# (EntryNo.)# (AreaCode)#**

Description

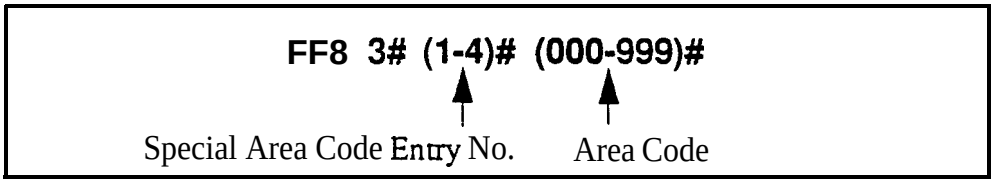
Use this address to assign up to four special area codes for LCR routing.

This address is used in conjunction with the next address -- "Special LCR Office **Codes"** (FF8 4#) -- to assign different office codes within the same area code to different Time Priority Route Tables.

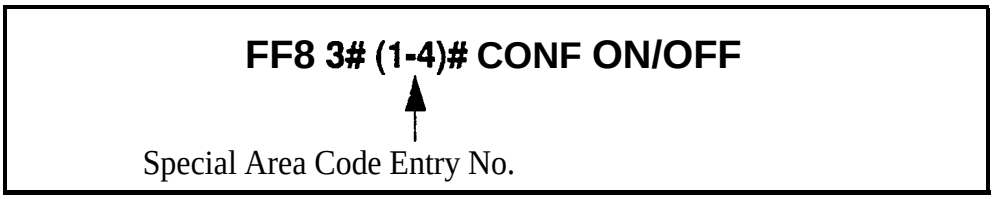
If an area code is assigned here, the DBS will wait until the next three digits (representing the office code) are dialed, before routing the call.

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)#

Special LCR Office Codes: FF8 4# (EntryNo.)# (Table)# (OfficeCode)# (0 or 1)#

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 Numbers Not Processed By LCR. If the user dials 0, 411, 555, 911, or 800, the DBS will automatically terminate LCR processing and route the call to pooled trunk group "9" (this trunk group is built in FF2 Trunk# 3#). This occurs so that these numbers are dialed without modification (e.g., preventing LCR Add digits from being dialed as a prefix to the number).

Special LCR Office Code Tables

Software Version: All Versions
Address: FF8 4# (EntryNo.)# (TableNo.)# (OfficeCode)# (0 or 1)#

Description

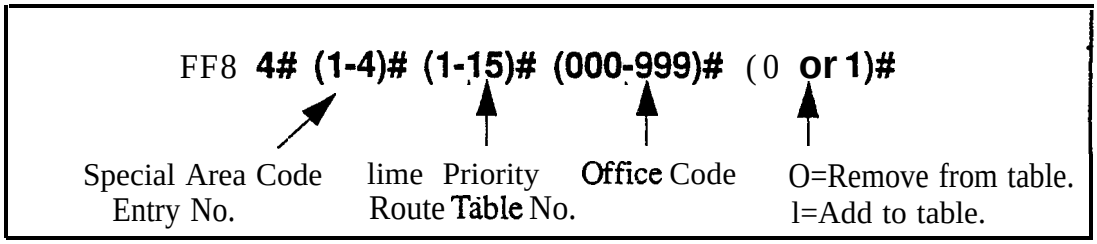
Use this address to assign office codes to a special area code for LCR routing.

This address is used in conjunction with the previous address -- **"Special LCR Area Codes"** (FF8 4#) -- to assign different office codes within the same area code to different Time Priority Route Tables (instead of using the same Time Priority Route Table for all calls to that area code).

If a special area/office code combination is dialed, the DBS will wait until both the area code and office code is dialed before routing the call.

Programming

To assign a Special LCR Office Code . . .



Related Programming

Time Priority Route Tables: FF8 5# (Table)# (Position)# (TrunkGrp)#

Special LCR Area Codes: FF8 3# (EntryNo.)# (AreaCode)#

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 Numbers Not Processed By LCR. If the user dials 0, 411, 555, 911 or 800, the DBS will automatically terminate LCR processing and route the call to pooled trunk group '9" (this trunk group is built in FF2 Trunk# 3#). This occurs so that these numbers are dialed without modification (e.g.. preventing LCR Add digits from being dialed as a prefix to the number).

LCR Office Code Restriction in PBX Systems. With CPC-A versions lower than 3.21, and CPC-B versions lower than 2.11, office codes 941, 955, 99 1, and 980 should not be routed through LCR if the DBS is behind a PBX system. Because of the "9" dialing requirement to access the PBX and a trunk line, and because the DBS will automatically drop out of LCR processing if special numbers 0, 411, 555, 9 11 or 800 are dialed, the DBS may interpret the special numbers as office codes instead (for example, reading a "9-9 11" emergency call as a "991" office code).

Time Priority Route Tables

Software Version: All Versions
Address: FF8 5# (TableNo.)# (Position)# (TrunkGroup)#

Description

Use this address to assign LCR trunk groups to Time Priority Route Tables. Within each Table, LCR trunk groups are assigned to priority positions in six time-of-day periods (in the format shown in ***Table 8-2*** below). This sets up LCR routing paths for the DBS to follow when outgoing calls are placed.

Area codes and/or office codes are also associated with Time Priority Route Tables, using other addresses. When a user dials the area code and/or office code, the DBS will route the call to the trunk groups in the assigned Table based on the time of day/weekend when the call is placed.

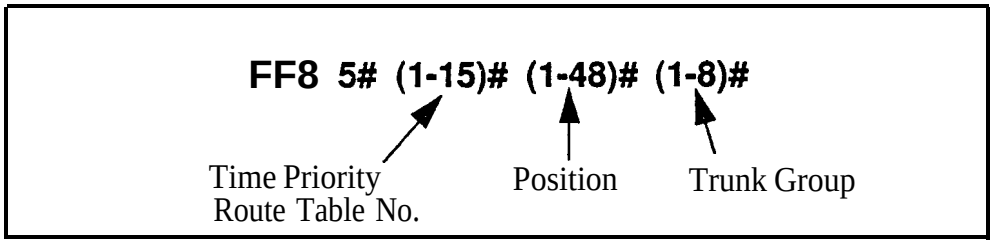
The first position in each time period is the highest-priority position for that time period. For example, if a call is placed at 8:35 pm, the trunk group assigned to position 25 will be tried first when the call is placed (refer to ***Table*** 8-2 below). If the DBS cannot access a trunk in this group, it will search the trunk group assigned to the next-highest position (in the same example, position 26).

Table 8-2. Time Priority Route Table format

Fixed Time Periods (cannot be changed)	Trunk Group Positions < Highest Priority							Lowest Priority >
7:00 am - 7:59 am	1	2	3	4	5	6	7	8
8:00 am - 4:59 pm	9	10	11	12	13	14	15	16
5:00 pm - 7:59 pm	17	18	19	20	21	22	23	24
8:00 pm - 11:59 pm	25	26	27	28	29	30	31	32
12:00 am - 6:59 am	33	34	35	36	37	38	39	40
Weekend	41	42	43	44	45	46	47	48

Programming

To create Time Priority Route Tables . . .



To reset a position in a Time Priority Route Table to default . . .

FF8 5# (1-15)# (1-48)# CONF ON/OFF

Time Pribrity Route Table No.

Position

Related Programming

LCR Access: FF1 2# 1# 3# (0 or 1)#

LCR Area Codes: FF8 1# (TableNo.)# (AreaCode)# (0 or 1)#

LCR Office Codes: FF8 2# (TableNo.)# (OfficeCode)# (0 or 1)#

Special LCR Area Codes: FF8 3# (EntryNo.)# (AreaCode)#

Special LCR Office Code Tables: FF8 4# (EntryNo.)# (TableNo.)# (Office Code)# (0 or 1)#

LCR Trunk Groups: FF8 6# (TrunkGroup)# (Position)# (Trunk)#

LCR Trunk Groups

Software Version: All Versions
Address: FF8 6# (TrunkGrp)# (Position)# (Trunk)#

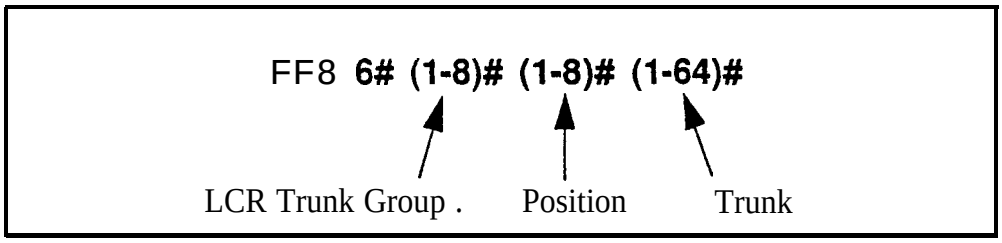
Description

Use this address to build LCR trunk groups, which are assigned to priority positions in Time Priority Route Tables (see FF8 5#).

Each LCR trunk group can contain up to 8 trunks. A maximum of 8 different trunk groups can be created. Within each trunk group, the trunks are assigned to positions from the highest priority (position 1) to the lowest (position 8). When a call is routed to the trunk group, LCR will try the trunk in the first position, then the second position, etc.

LCR trunk groups are also used for assigning Add or Delete digits as a prefix to dialed numbers routed to the trunk group (see FF8 7# and 8#).

Programming



Related Programming

Time Priority Route Tables: FF8 5# (TableNo.)# (Position)# (TrunkGrp)#

LCR Delete Tables: FF8 7# (TrunkGrp)# (up to 16 digits)#

LCR Add Tables: FF8 8# (TrunkGrp)# (up to 16 digits)#

Notes

*Trunk Assignment to **LCR** Trunk Groups.* A trunk cannot be assigned to more than one position within the same LCR trunk group. However, the same trunk can be assigned to several different groups.

*Avoiding **Glare.*** Glare occurs when both ends of a trunk are seized at the same time, causing accidental connection between an incoming caller and a DBS extension user preparing to make an outside call. Since incoming calls will access DBS trunks starting from the lowest to the highest trunk number, glare can be avoided by routing outgoing calls to the highest-numbered trunks first. So, when you build LCR trunk groups, assign trunks in descending order (from highest to lowest trunk number) to trunk group positions in ascending order (from lowest to highest position). For example, assign trunk 7 to position 1; trunk 6 to position 2, trunk 5 to position 3, etc.

LCR Delete Tables

Software Version: All Versions
Address: FF8 7# (TrunkGrp)# (DeleteDigits)#

Description

Use this address to assign Delete Digits to calls routed to an LCR trunk group. Up to 16 digits can be assigned.

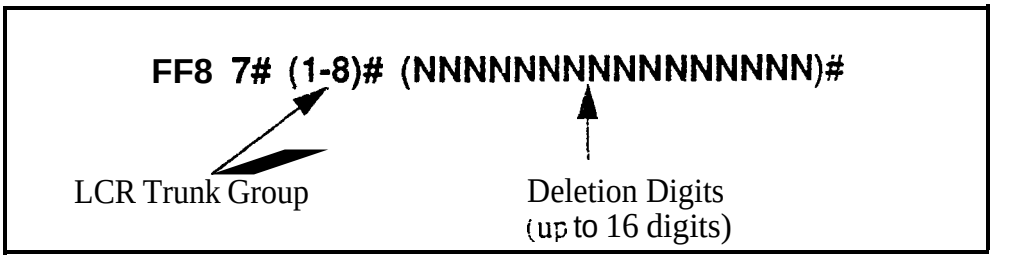
When an outgoing call is routed to an LCR trunk group, the DBS will check the first digits of the dialed number and, if it finds a matching entry in this table, the DBS will not outpulse the matched digits (only the rest of the dialed digits will be outpulsed).

This feature is often used to strip off the "1" before an area code. or "1+AC" before a 7-digit phone number.

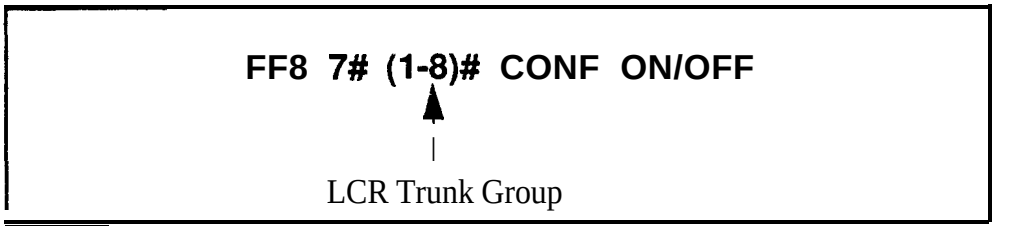
The deletion will occur only if the outgoing call is routed to a trunk group that has Delete Digits assigned to it. The deletion is not relative to time-of-day or the complete dialed number.

Programming

To create an LCR Delete Table . . .



To clear an LCR Delete Table . . .



Related Programming

LCR Trunk Groups.: FF8 6# (TrunkGrp)# (Position)# (Trunk)#

Notes

***Priority of** Deleted Digits Over Added Digits.* 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: All Versions
Address: FF8 8# (TrunkGrp)# (AddDigits)#

Description

Use this address to assign Add Digits to calls routed to an LCR trunk group. Up to 16 digits can be assigned.

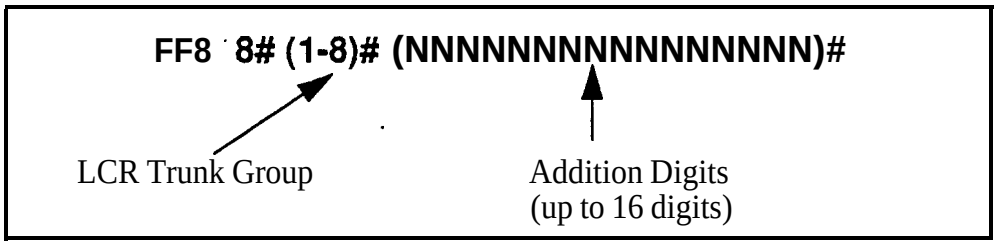
When an outgoing call is routed to an LCR trunk group with Add Digits, the DBS will add the digits to the beginning of the dialed number when it outpulses the number to the CO.

This feature is often used to add CIC or PIC codes to dialed numbers. You can also put "pauses" (by pressing REDIAL key) in the Add Digits.

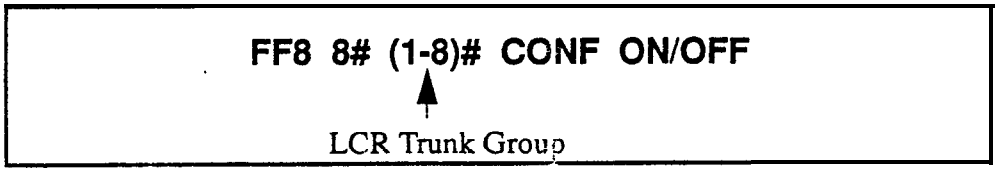
The Add Digits feature is not associated with time-of-day or the dialed number.

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)#

LCR Trunk Groups: FF8 6# (TrunkGrp)# (Position)# (Trunk)#

Notes

Priority of Deleted Digits Over Added Digits. 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 addresses:

Trunk Copy

Software Version: All Versions
Address: FF9 1# (SourceTrunk)# (TargetTrunk)##

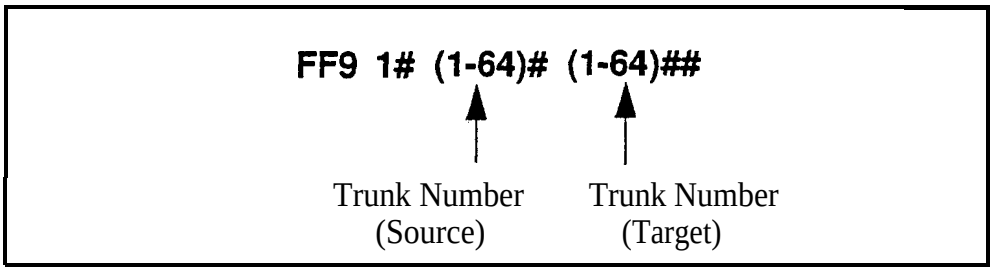
Description

Use this address to copy the attributes of one trunk to another.

Copying must be done on a trunk-by-trunk basis. The first trunk entry in this address is the trunk being copied *from* (the source); the second trunk entry is the trunk being copied *to (the m-get).*

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: All Versions
Address: FF9 2# (SourceExtPort)# (TargetExtPort)##

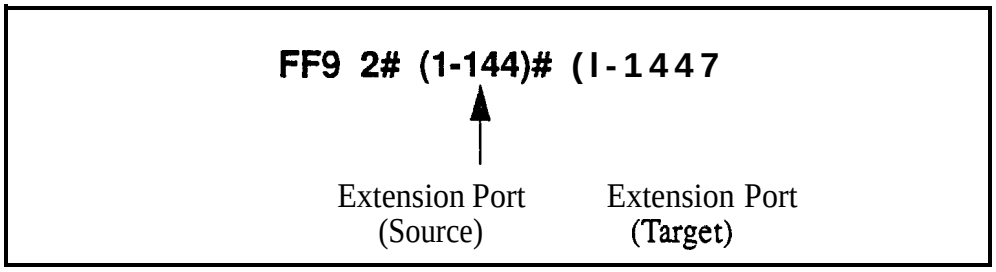
Description

Use this address to copy the attributes of one extension to another.

Copying must be done on an extension-by-extension basis. The first extension port entry in this address is the extension being copied *from* (the source); the second extension entry 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 address 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 address 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: All Versions
Address: FF9 3# (ExtPort)# (ExtPort)##

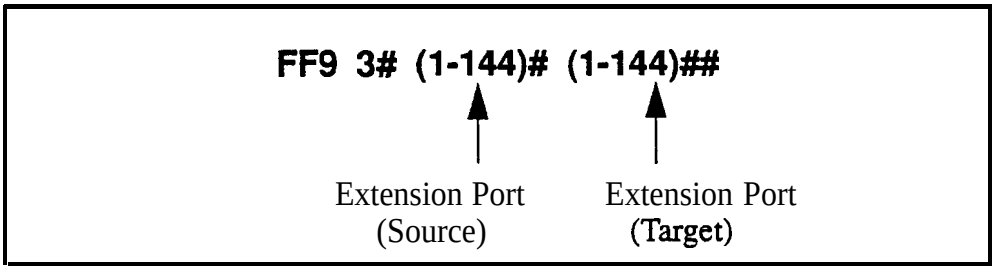
Description

Use this address to copy the attributes of one extension's FF keys to another.

Copying must be done on an extension-by-extension basis. The first extension port entry in this address is the FF key source; the second extension entry is the FF key target.

Programming

Note: You must enter two pound-signs (##) at the end of this address.



Notes

Copying Restriction. This address does not copy FF keys programmed as PSD (Personal Speed Dial) keys.

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 addresses in this chapter to program speed dial numbers.

This chapter covers the following addresses:

System Speed Dial Numbers

Software Version: All Versions
Address: FF10 1# (SSD)# (PhoneNumber)#

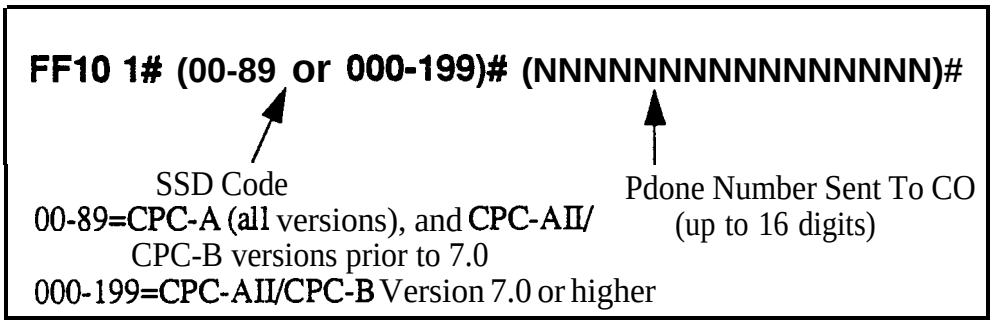
Description

Use this address to set up System Speed Dial (SSD) codes and their related phone numbers. An Attendant phone is required to program SSD numbers.

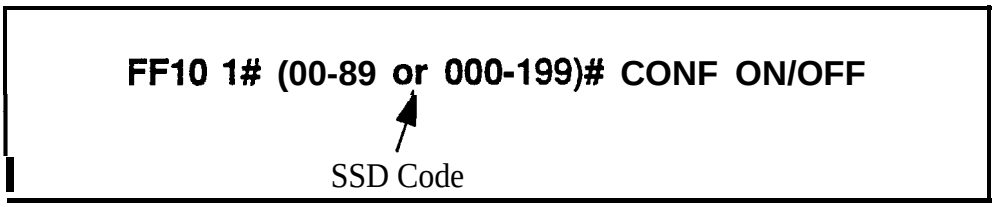
NOTE: Up to 90 SSD codes (00-89) can be assigned in CPC-A (all versions) and CPC-AII/B versions prior to 7.0. Beginning with CPC-AII/B Version 7.0, up to 200 SSD codes (000-199) can be assigned.

Programming

To assign an SSD number . . .



To clear an SSD number . . .



Related Programming

Override Toll Restriction with SSD Numbers: FF1 2# 1# 4# (SSD)#

SSD Display Restriction: FF1 2# 1# 5# (0 or 1)#

SSD Name Display: FF1 2# 1# 19# (0 or 1)#

System Speed Dial Names: FF6 2# (SSD)# CONF (Name)#

Notes

SSD Code Display. SSD codes will appear on large-display telephones in alphabetical order by SSD name (set in FF6 2#).

SSD Number Display. SSD codes 80-89 (or 160-199) can be set so that their associated phone numbers will not display when the DBS outpulses them. **See "SSD Display Restriction", address FF1 2# 1# 5#.**

Including Trunk Groups in an SSD Number. ***You can*** make a trunk group part of an SSD number. To do this, press **CONF** to insert a "C" as the first character of the SSD number, then enter the trunk group number l-8. The "C" is required for an SLT to use speed-dialing. 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-I. DSS key functions in System Speed Dial programming

DSS Key	Function
CON-F	Clears entered data on key phone
<-	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.

Personal Speed Dial Numbers

Software Version: All Versions
Address: FF10 2# (ExtPort)# (PSD)# (PhoneNumber)#

Description

Use this address to set up Personal Speed Dial (PSD) codes and their related phone numbers. PSD numbers can be programmed from any phone.

Up to 10 PSDs can be assigned on each extension. In CPC-A (all versions) and in CPC-AII/B versions prior to 7.0, two-digit PSD codes 90-99 are used. Beginning with CPC-AI1 and CPC-B Version 7.0, three-digit codes 900-909 are used.

Programming

To assign a PSD number . . .

FF10 2# (1-144)# (90-99 or 900-909)# (NNNNNNNNNNNNNNN)#

- Extension Port
- PSD Code
  - 90-99=CPC-A (all versions), and CPC-AII/CPC-B versions prior to 7.0
  - 900-909=CPC-AII/CPC-B Version 7.0 or higher
- Phone Number Sent To CO (up to 16 digits)

To clear a PSD number . . .

FF10 2# (1-144)# (90-99 or 900-909)# CONF ON/OFF

- Extension Port
- PSD Code

Related Programming

PSD Name Display: FF3 (ExtPort)# 17# (0 or 1)#

Personal Speed Dial Names: FF6 3# (ExtPort)# (PSD)# CONF (Name)#

Notes

PSD Number Display. PSD numbers appear on large-display telephones in alphabetical order by PSD name (set in FF6 3#) .

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 Personal Speed Dial programming

DSS Key	Function
CONF	Clears entered data on key phone
<-	Backspaces
BS	Backspaces
->	Forward spaces
P	Inserts a pause
C	Initiates trunk group access

For example:

"Cl P5551212" will access pooled trunk group 8 1, then pause, and then dial 555-1212.

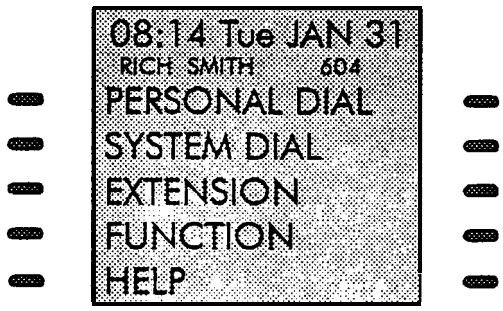
Appendix A. Large-Screen Displays

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.

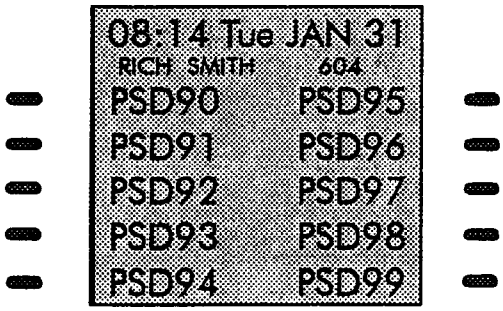
There are a total of 39 screens. Screens 1-24 are fixed, pre-programmed screens which cannot be changed. Beginning with CPC-AM3 Version 6.0, Flexible Function screens 25-39 are available, which can be custom-designed using FF1 2# 7# 1# thru 4#. AU of these screens can be assigned to different call states using FF3 (ExtPort)# (26-33)# (0-39)#.

Note: Some screens cannot be set to display during certain call processing operations.

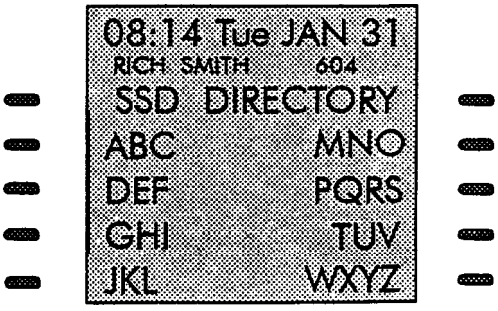
Main Menu
FF3 (ExtPort)# (26-33)# 1#



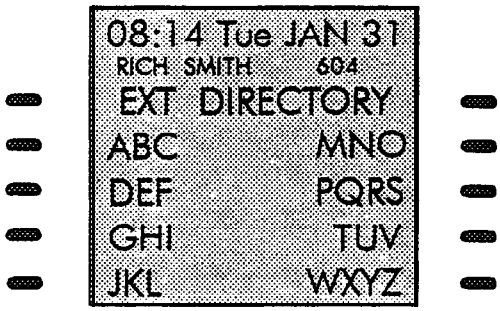
Personal Speed Dial
FF3 (ExtPort)# (26-33)# 2#



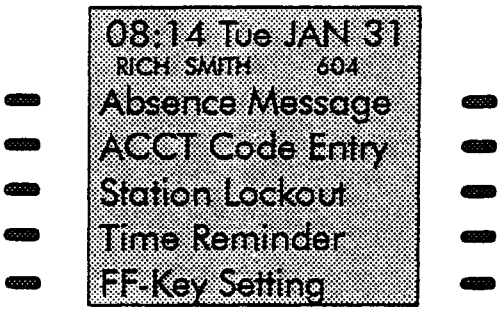
System Speed Dial
FF3 (ExtPort)# (26-33)# 3#



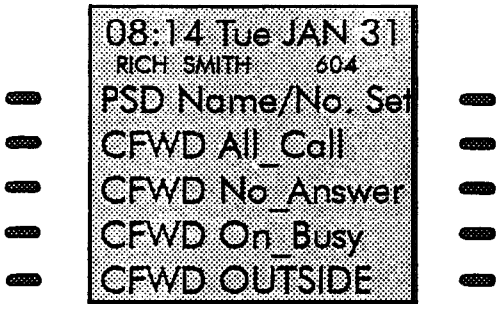
Extension Index
FF3 (ExtPort)# (26-33)# 4#



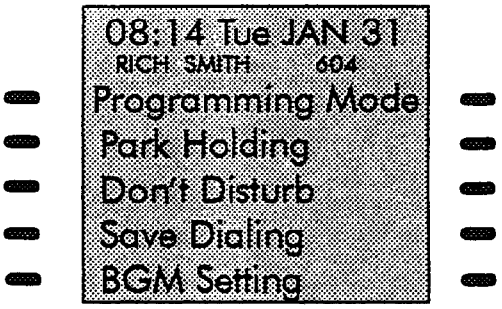
Help Menu 1
FF3 (ExtPort)# (26-33)# 5#



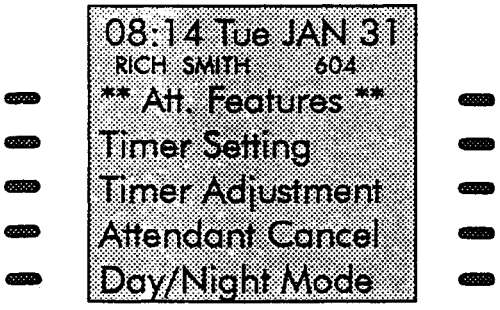
Help Menu 2
FF3 (ExtPort)# (26-33)# 6#



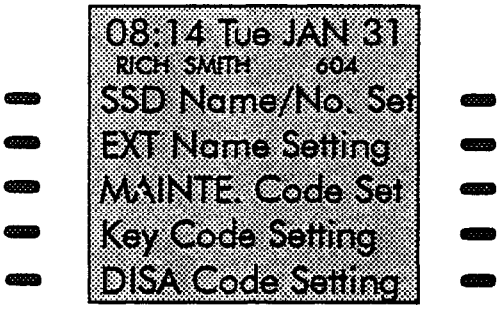
Help Menu 3
FF3 (ExtPort)# (26-33)# 7#



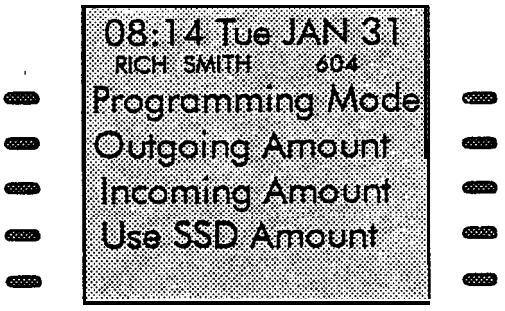
Attendant Menu 1
FF3 (ExtPort)# (26-33)# 8#



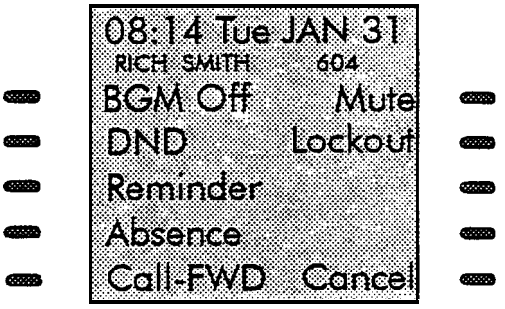
Attendant Menu 2
FF3 (ExtPort)# (26-33)# 9#



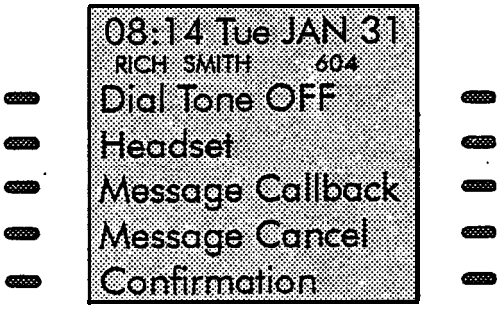
Attendant Menu 3
FF3 (ExtPort)# (26-33)# 10#



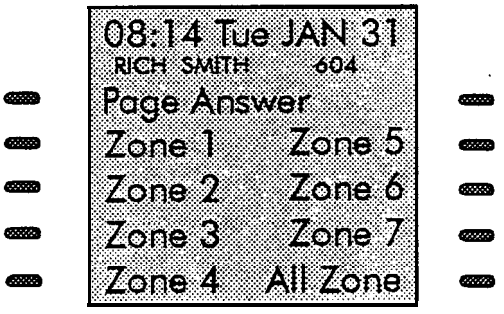
Function Screen 1
FF3 (ExtPort)# (26-33)# 11#



Function Screen 2
FF3 (ExtPort)# (26-33)# 12#

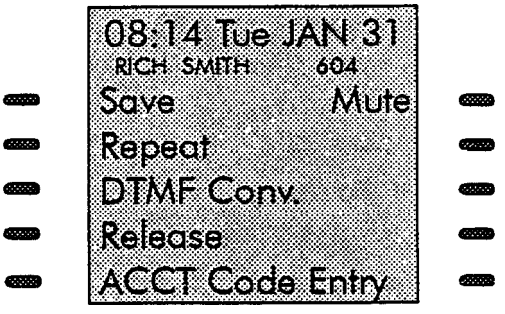


Function Screen 3
FF3 (ExtPort)# (26-33)# 13#



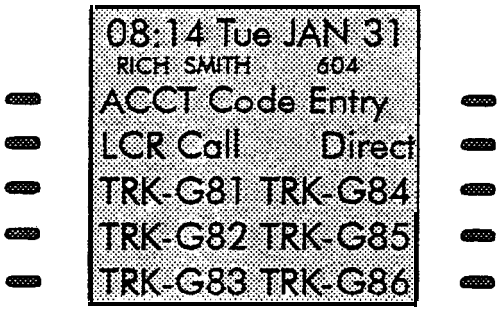
Function Screen 4
FF3 (ExtPort)# (26-33)# 14#

Function Screen 5
FF3 (ExtPort)# (26-33)# 15#

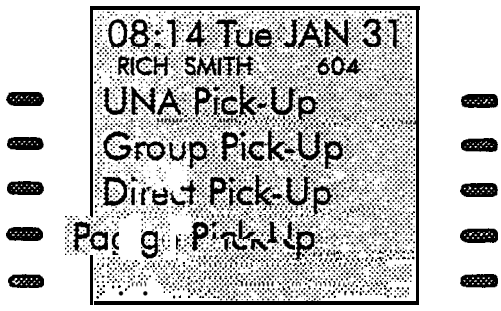


Function Screen 6
FF3 (ExtPort)# (26-33)# 16#

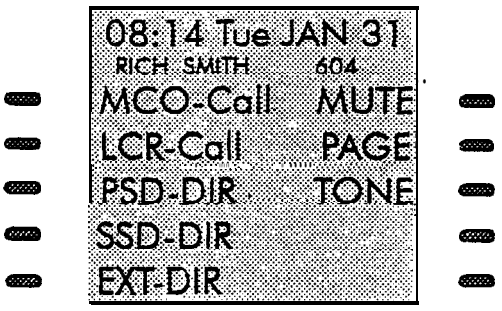
Function Screen 7
FF3 (ExtPort)# (26-33)# 17#



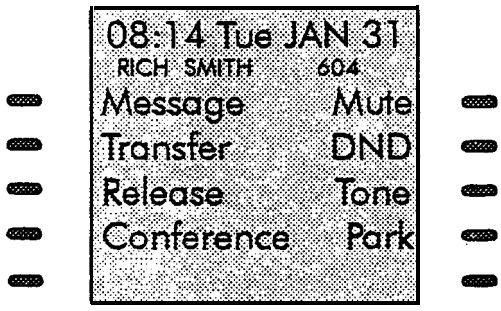
Function Screen 8
FF3 (ExtPort)# (26-33)# 18#



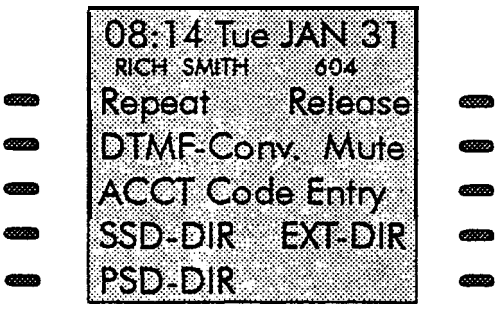
Function Screen 9
FF3 (ExtPort)# (26-33)# 19#



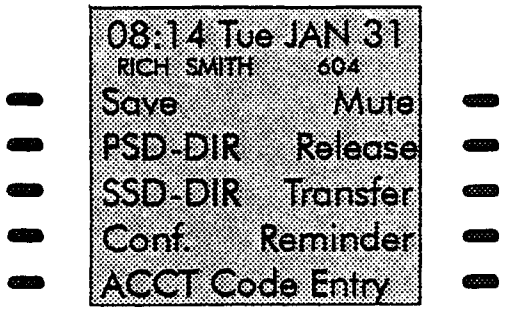
Function Screen 10
FF3 (ExtPort)# (26-33)# 20#



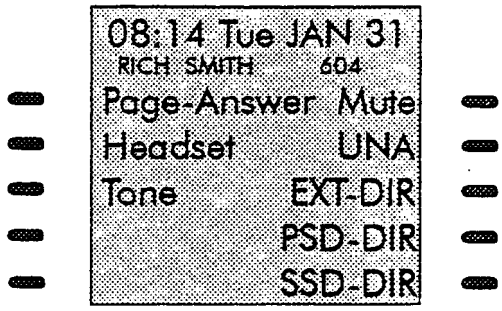
Function Screen 11
FF3 (ExtPort)# (26-33)# 21#



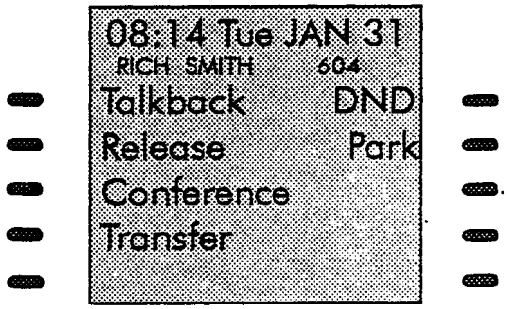
Function Screen 12
FF3 (ExtPort)# (26-33)# 22#



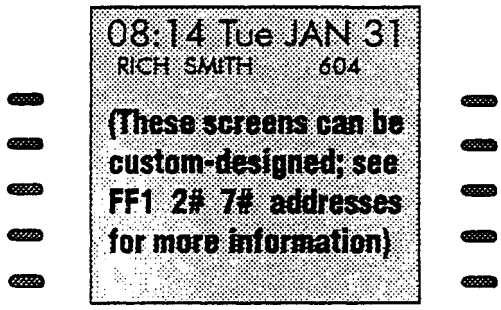
Function Screen 13
FF3 (ExtPort)# (26-33)# 23#



Function Screen 14
FF3 (ExtPort)# (26-33)# 24#



Flexible Function Screens 1 - 15
F'F3 (ExtPort)# (26-33)# (25-39)#



Appendix B. Terminal Programming

The body of this *Section 400* is devoted to programming the DBS system through a key phone. However. the DBS can also be programmed remotely via the Terminal Programming mode.

Using this mode, commands can be entered on a remote PC or terminal and sent to the DBS via modem. Or, the PC/terminal can be connected directly to the DBS's SMDR port (CN6).

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 CN6.
- ***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 DBS serial port CN6:

1. Make sure the cables are configured and connected as described in *Section 300-Installation.*
2. Make sure the DBS is in the SMDR 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.
3. 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 displays "REMT>" on the computer, type P and 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 must be equipped with an MFR card (if using DISA) and an RAI card.

To program through a CO or DISA trunk:

1. Dial into the DBS through the trunk.
2. Ask the operator to place you on hold and dial #6 xxxx (where "xxxx" is the site's password; system default is "9999"). This will transfer you to the RAI-A&B cards.
3. Wait for the computer to display "REMT>", then type P and press ENTER.
4. Follow the directions on the screen to access the desired program.

Terminal Programming Commands

Use the following commands to navigate terminal programming:

Table B-I. Terminal programming commands

Command	Description
~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
i -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 supports three remote functions --

1) Bus Monitor
2) SMDR
3) 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 (#6-xxxx), the other function stops. When finished, the SMDR or Bus Monitor function resumes. The DBS 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 phone:

Table B-2. Codes for switching SMDR/Bus Monitor modes

Command	Function
#90	Normal Bus Monitor
#91	Register Bus Monitor
#92	Poll Bus Monitor
#93	SMDR Output

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