Panasonic
Digital Business System
Programming Manual

Contents

How To Program

Overview

DBS programming is carried out from an operator telephone (connected to extension port 1) or a specially enabled display keyset. This manual assumes that programming will be performed from the operator telephone , extension 200 connected to extension port 1.

After loading the default program, not all system features will be available. Therefore the system must be programmed to the users requirements.

Any programming changes from initial set **must** be recorded in the programming table for maintenance purposes.

Some programming features will require the system to be reset by switching it off and back on. This will cause the CPU to re-read the system's programmed settings and adjust system operation accordingly.

Programming method

Loading Default Data

The following procedure loads the default data settings.

1) Assure the RAM switch on the CPC card is set to the RAMCLR position.
2) Switch ON the main unit. The LED Data lamp (Red) on the CPC card flickers for between 10 and 20 seconds then goes out. The default settings are now loaded.
3) Put the RAM switch to the HOLD side. Default data is protected in memory. Data lamp flashes continuously.

The system will not function with the RAM switch in the RAMCLR position. Programming changes are made with RAM switch in the HOLD position.

Initialising The CPC-EX Card

Before programming the CPC-EX card it must be initialised in the same way as previous CPC cards, plus the system size and number of analogue line cards (including private circuit cards) must be set so that the ports are powered up correctly. Use the DASSII steps FF1 6# 1# 1# & FF1 6# 1# 2# to do this.

Method of programming

Programming from the operator telephone (extension 200 on extension port 1). A display key telephone must be used. After loading default data, the telephone display shows the following information,

```
- - - - - - - - - - - - - - - - - - - - -
    * PANASONIC  DBS  *
      INT   200       200
- - - - - - - - - - - - - - - - - - - - -
```

1) Press [ON-OFF] [RECALL] [#] [#]

To enter programming mode, and then press the access key to enter each mode.

Mode	Access Key	Programme contents.
1	FF1	System Feature
2	FF2	Exchange line interface
3	FF3	Extension features
4	FF4	Ringing assignment
5	FF5	FF key assignment
6	FF6	Name storing for ext. and SSD
7	FF7	Call Barring
8	FF8	Copy Mode
9	FF9	System speed dial memory
10	FF10	LCR

In addition, when programming the following keys have these assigned functions.

Key	Function
RECALL	Begin Programming
CONF	Clear the current step or reset default value as appropriate
MIC	Assign an exchange line to an FF key on keysets and DSSs
VOL ^	Step back one programming level
HOLD	Move to the same step for the next port
RECALL	Move to the same step for the previous port
*	Move back one step for the current port
#	Move forward one step for the current port
FF11	Enter a '*' character (only available in some modes)
FF12	Enter a '#' character (only available in some modes)

*Note: * and # can be registered during FF key assignment mode (FF5) using FF11 key and FF12 key.*

3) Enter the programming step to access each feature option. (Refer to the Programming Table)

4) The display shows the initial setting. Select the required option and press the # key to store the new data into memory. If no change is required, press # to move to the next program step. Pressing another access key (FF key) will move to a different programming mode. The exception being LCR programming where program mode must be terminated and programming re started to enter a different mode.

5) Press the [ON-OFF] key to exit programming mode and return to normal operation.

Note: 1 Programming changes can be carried out at another key telephone extension providing an ID code is entered.
Note: 2 Only connect DSS to system after initial set procedure has been completed.

Storing Alpha Characters in the memory

Names can be assigned to extension numbers, personal and system speed dial directories, call waiting and absence messages. To store characters via the system programming mode a DSS console is required. The operator can store names using the number keys - details of which can be found in the Operating Manual under Operator Features.

The DSS alphanumeric key assignment used during name programming is shown below.

A	B	C	D
H	I	J	K
O	P	Q	R
V	W	X	Y
a	b	c	d
h	I	j	k
o	p	q	r

E	F	G	&
L	M	N	/
S	T	U	(
Z	*	#	)
e	f	g	‘
l	m	n	-
s	t	u	=

v	w	x	y
:	.	,	<

z	_	SP	%
>	BS	$	?

VB-3631 DSS console with CPC-B and CPC-C to v1.2

K	L	A	B
O	P	Q	R
S	T	U	V
e	f	Y	Z
I	j	k	l
m	n	o	p
#	=	s	t

C	D	E	F
G	H	I	J
W	X	M	N
$	%	?	‘
a	b	c	d
q	r	g	h
u	v	w	x

:	/	-	.
(	)	<	>

y	z	;	*
BS	SP	_	,

VB-3631 DSS Console with CPC-C v1.3 or CPC-EX v1.x

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	R
S	T	U	V	W	X
Y	Z	$	%	?	‘
a	b	c	d	e	f
g	h	I	j	k	l
m	n	o	p	q	r
s	t	u	v	w	x
y	z	;	*	#	=
_	,	:	/	-	.
(	)	<	>	BS	SP

VB-D631 DSS Console with CPC-C v1.3 or CPC-EX v1.x

BS : Back Space	**RELEASE : To right**
SP : Space	**ANSWER : To left**

Note: Characters can also be programmed from a key telephone.
Refer to Operating Instruction s for details.

Example of programming

This example shows how to program the system time and date to 3pm 25th December 1995.

Operation	Display shows
Press [ON-OFF]key	Initial date and time disappeared.
Press [RECALL]key	
Press [#] [#]	[PROGRAM MODE MAIN MODE] is displayed.
Press [FF1] (for Mode 1)	[SYSTEM MODE SELECT SUB MODE] is displayed.
Press 1 #	[SELECT TIME MODE 1:DATE 2:TIME]
Press 1 #	[DATE SET MODE DAY/MONTH/YEAR]
Press 251295#	[251295] is displayed. [TIME SET MODE] (next program step) is displayed.
Press 1500#	[SYSTEM 001: 1 CALL DURATION] is displayed.
Press [ON-OFF].	Display shows new time and date.

List of Programming features

There are a number of software levels available for the DBS. Most are just extensions of previous levels a breif list of CPC card types and associated levels follows.

CPC-B	Software levels upto version 3.x have no E&M or ISDN features
CPC-B	Software levels 3.x and 4.x has E&M features and no ISDN facilities
CPC-C	Software levels 1.x has ISDN features and no E&M facilities
CPC-EX	Software levels 1.x has both ISDN and E&M as well as adding AC15A and minor changes to the programming structure. Where the CPC-EX replaces or deletes a step available to previous levels, the older level steps are greyed out and referred to the new steps as appropriate.

System features

System Clock Setting

FF1-1#-1#-(Day-Month-Year)#	Date Setting
FF1-1#-2#-(Hour-Minute)#	Time Setting

System feature setting

FF1-2#-1#-1#-(0 or 1)#	Call Duration and Call Charge Display
FF1-2#-1#-2#-(0 or 1)#	Automatic flash when using REDIAL and save dial
FF1-2#-1#-3#-(0 or 1)#	On hook transfer
FF1-2#-1#-4#-(0 or 1)#	Auto hold by exchange line key
FF1-2#-1#-5#-(0 or 1)#	Type of hold for non appearing exchange lines and SLTs
FF1-2#-1#-6#-(0 or 1)#	Call brokering (shuttling)
FF1-2#-1#-7#-(0 or 1)#	Enable second operator position
FF1-2#-1#-8#-(0-2)#	Internal tone/voice call (Operator)
FF1-2#-1#-9#-(0-2)#	Internal tone/voice call (Extension)
FF1-2#-1#-10#-(0 or 1)#	Alert tone in voice call
FF1-2#-1#-11#-(0 or 1)#	Alert tone on conference call [NOT USED]
FF1-2#-1#-12#-(0 or 1)#	Alert tone during conference call
FF1-2#-1#-13#-(0 or 1)#	System speed dial (SSD) directory display-name
FF1-2#-1#-14#	[NOT USED]
FF1-2#-1#-15#-(00 -15)#	Operator incoming call overflow
FF1-2#-1#-16#-(0 or 1)#	Music-on-hold-int/ext selection
FF1-2#-1#-17#	[NOT USED]
FF1-2#-1#-18#	[NOT USED]
FF1-2#-1#-19#-(0 or 1)#	Transfer deny-extension
FF1-2#-1#-20#-(1-144)#	Nominating telephone to receive un-answered call
FF1-2#-1#-21#-(1-9999)#	Call logging - call unit cost setting
FF1-2#-1#-22#	[NOT USED]
FF1-2#-1#-23#	[NOT USED]
FF1-2#-1#-24#-(0 - 2)#	Loud ring bell / paging mode setting
FF1-2#-1#-25#-(001-144)#	External relay control (Extension port setting)
FF1-2#-1#-26#-(0 or 1)#	Delayed ringing
FF1-2#-1#-27#-(2-4)#	Digit of extension number
FF1-2#-1#-28#	[NOT USED]
FF1-2#-1#-29#	[NOT USED]
FF1-2#-1#-30#-(0-1)#	Un-answered DISA call transfer to operator
FF1-2#-1#-31#-(0-1)#	# key feature in DISA call
FF1-2#-1#-32#	Group MCO0 Line Access Code
FF1-2#-1#-33#	[NOT USED]
FF1-2#-1#-34#-(0-2)#	Setting up Pick-up group
FF1-2#-1#-35#-(0-2)#	Voicemail termination signal setting
FF1-2#-1#-36#-(0-1)#	Hold Pick-up by HOLD key operation
FF1-2#-1#-37#-(0-2)#	DTMF Signal Back Tone to Voice Mail
FF1-2#-1#-38#-(0-1)#	Incoming trunk name display mode
FF1-2#-1#-39#-(0-1)#	System speed dial mode
FF1-2#-1#-40#-(0-1)#	Internal DTMF from SSD or PSD backtone
FF1-2#-1#-41#-(0-1)#	Suppression of call forward indications
FF1-2#-1#-42#-(0-1)#	Live Key Pad Setting
FF1-2#-1#-43#-(0-1)#	Private Wire To Trunk Transfer By On Hook
FF1-2#-1#-44#-(0-1)#	Incoming Ring Priority
FF1-2#-1#-45#-(0-09999)#	Add Own Area Code
FF1-2#-1#-46#	[NOT USED]
FF1-2#-1#-47#-(0-1)#	FLASH/RECALL Button Operation
FF1-2#-1#-48#-(0-1)#	Call Forward For Group Members
FF1-2#-1#-94#-(0-1)#	Override Tone

Call logging feature setting

FF1-2#-2#-1#-(0 or 1)#	Call logging-parity check
FF1-2#-2#-2#-(0 or 1)#	Call logging-even/odd parity
FF1-2#-2#-3#-(1-4)#	Call logging-baud rate
FF1-2#-2#-4#-(1-3)#	Call logging-stop bit
FF1-2#-2#-5#-(1-4)#	Call logging-data length
FF1-2#-2#-6#-(0 or 1)#	Remote maintenance-baud rate
FF1-2#-2#-7#-(0 or 1)#	Call logging-printing selection outgoing/incoming
FF1-2#-2#-8#-(0 or 1)#	Call logging-printing selection local/long distance calls
FF1-2#-2#-9#-(0 or 1)#	Call logging-printing with title
FF1-2#-2#-10#-(000 - 100)#	Call logging-buffer
FF1-2#-2#-11#-(0-3)#	Call logging- Incoming ring time/All lines busy time printing
FF1-2#-2#-12#-(0-3)#	Call logging- Alarm data/Service data printing
FF1-2#-2#-13#-(0-1)#	Port 2 - parity check
FF1-2#-2#-14#-(0-1)#	Port 2 - even/odd parity
FF1-2#-2#-15#-(0-5)#	Port 2 - baud rate
FF1-2#-2#-16#-(1-3)#	Port 2 - stop bit
FF1-2#-2#-17#-(1-4)#	Port 2 - data length
FF1-2#-3#-(1-8)#-(0-999)#	PBX access code
FF1-2#-3#-(9-18)#-(1-3)#	PBX auto pause insertion
FF1-2#-4#-1#	[NOT USED]
FF1-2#-4#-(2-9)#-(0 or 1)#	External paging adapter paging group assignment

CPC-EX Additional Steps

FF1-2#-5#-(1-10)#-(0-1)#	Trunk To Trunk Call Forward Cross Connection Permissions
FF1-2#-5#-(11-20)#-(0-1)#	Trunk To Trunk Conference And Transfer Cross Connection Permissions
FF1-2#-6#-NNNN#	Setting For RAM Transfer

System Timer Settings

FF1-3#-1#-(0000 -2359)#	Auto night mode
FF1-3#-2#-(0-12)#	Operator-call on hold reminder-exchange lines
FF1-3#-3#-(0-12)#	Operator-transfer reminder-exchange lines
FF1-3#-4#-(0-12)#	Operator-call on hold reminder-internal calls
FF1-3#-5#-(0-12)#	Operator-call transfer reminder-internal
FF1-3#-6#-(0-12)#	System-call on hold reminder-exchange lines
FF1-3#-7#-(0-12)#	System-call transfer reminder-exchange lines
FF1-3#-8#-(0-12)#	System-call hold reminder-internal
FF1-3#-9#-(0-12)#	System-transfer reminder-internal
FF1-3#-10#-(0-12)#	Operator-call hold reminder-hunting group
FF1-3#-11#-(0-12)#	System-call hold reminder-hunting group
FF1-3#-12#-(0-12)#	Operator-call hold reminder-park hold
FF1-3#-13#-(0-12)#	System-call hold reminder-park hold
FF1-3#-14#-(0-12)#	Call reversion to operator
FF1-3#-15#-(0-15)#	REDIAL/PBX auto pause time
FF1-3#-16#-(0-15)#	Exchange line disconnect time-REDIAL/flash
FF1-3#-17#-(0-15)#	PBX recall time-earth recall
FF1-3#-18#-(0-15)#	PBX recall time-timed break
FF1-3#-19#-(0-15)#	Ring detect time
FF1-3#-20#-(0-15)#	Key telephone pre-ring time
FF1-3#-21#	[NOT USED]
FF1-3#-22#	[NOT USED]
FF1-3#-23#-(0-15)#	Call forward-no answer transfer time
FF1-3#-24#	[NOT USED]
FF1-3#-25#	[NOT USED]
FF1-3#-26#-(0-15)#	DISA inter-signal time
FF1-3#-27#-(0-10)#	DISA No Answer Timer
FF1-3#-28#	[NOT USED]
FF1-3#-29#-(0-4)#	DISA Cut Timer
FF1-3#-30#-(0-15)#	Pause Time for voicemail
FF1-3#-31#-(0 or 1)#	Alarm call ringing time
FF1-3#-32#-(0-15)#	Int. call/E&M line Hunting Recall Timer for attendant
FF1-3#-33#-(0-15)#	Int. call/E&M line Hunting Recall Timer for extensions
FF1-3#-34#-(1-16)#	Trunk To Trunk Speech Forced Disconnection TImer
FF1-3#-35#-(0-12)#	Held Line Disconnection Timer

ID Code and Numbering Plan

FF1-4#-([CONF] or 0000-9999)#	ID code-remote programming
FF1-5#-([CONF] or 0000-9999)#	ID code-system programming
FF1-4#-1#-([CONF] or 0000-9999)#	ID code - remote programming
FF1-4#-2#-([CONF] or 0000-9999)#	ID code - system programming
FF1-4#-4#-(1,3,5,7,9)#-(0000-9999)#	DISA transfer ID code
FF1-4#-4#-(2,4,6,8,10)#-(0000-9999)#	DISA transfer ID tenant group

ISDN (DASS II) Settings

FF1-6#-1#-1#-(0-5)#	System Size Setting
FF1-6#-1#-2#-(0-8)#	Setting The Number Of Analogue Lines
FF1-6#-1#-3#-(0-1)#	1st Display Setting
FF1-6#-1#-4#-(0-1)#	2nd Display Setting
FF1-6#-1#-5#-(0-1)#	Action When Other Party Is Busy
FF1-6#-1#-6#-(0-1)#	Display When Other Party Is Busy
FF1-6#-1#-7#-(0-1)#	MC0 (Dial 9) Search
FF1-6#-1#-8#-(0-1)#	ISDN Dialling Type
FF1-6#-1#-9#-(0-1)#	ISDN Protocol Selection
FF1-6#-1#-10#-(0-1)#	3.1Khz Audio Call - Incoming Ring
FF1-6#-2#-1#-(0-1)#	DDI Number Output
FF1-6#-2#-2#-(0-1)#	Other Party's Number Output - Incoming Call
FF1-6#-2#-3#-(0-1)#	Other Party's Number Output - Outgoing Call
FF1-6#-2#-4#-(0-1)#	Sub-Address Output To Call Logger
FF1-6#-3#-1#-(1-15)#	Timer Setting For Incoming Calls
FF1-6#-3#-2#-(0-15)#	Timer Setting For Answer On Outgoing Calls
FF1-6#-3#-3#-(1-15)#	Timer Setting For Acceptance Of Outgoing Calls
FF1-6#-3#-4#-(1-15)#	Timer Setting For Manual Dial Time-Out
FF1-6#-3#-5#-(1-15)#	Timer Setting For Auto Dial Time-Out
FF1-6#-3#-6#-(0-15)#	Timer Setting For Dummy Dial Tone Time-Out
FF1-6#-3#-7#-(0-15)#	Timer Setting For No Answer To DDI Call
FF1-6#-3#-8#-(0-15)#	Sub-Address No Answer Timer
FF1-6#-4#-1#-(0-1)#	DDI Enable
FF1-6#-4#-2#-(0-1)#	Action When Incoming DDI Destination Is Busy
FF1-6#-4#-3#-(0-1)#	Action When Unrecognised DDI Is Received
FF1-6#-4#-4#-(0-1)#	Action When Incoming DDI Is Not Answered
FF1-6#-4#-5#-(0-999999)#	Default DDI Number
FF1-6#-4#-6#-(0-1)#	Sending DDI On Outgoing Calls
FF1-6#-4#-7#-(1-3)#	DDI Ring Pattern
FF1-6#-4#-8#-(0-1)#	DDI group name display
FF1-6#-4#-(9-11)#-(0-999999)#	Default DDI Number For Private Wire Groups
FF1-6#-4#-(12-16)#-(0-999999)#	Default DDI Number For DISA Break Out
FF1-6#-4#-17#-(0-1)#	Sub-Address Busy Mode
FF1-6#-4#-18#-(0-1)#	Sub-Address Misdial Mode
FF1-6#-4#-19#-(0-1)#	Sub-Address No Answer Mode
FF1-6#-4#-20#-(1-3)#	Sub-Address Incoming Ring Pattern
FF1-6#-4#-21#-(1-6)#	Number Of DDI Digits Used
FF1-6#-5#-(1-200)# 1#-(N-NNNNNN)#	DDI Number Setting
FF1-6#-5#-(1-200)# 2#-(0-3)#	DDI Day Ringing Mode
FF1-6#-5#-(1-200)# 3#-(NNNN)#	DDI Day Extension Group Setting
FF1-6#-5#-(1-200)#-4#-(0-1)#	DDI Day No Answer Mode
FF1-6#-5#-(1-200)#-5#-(NNNN)#	DDI Day No Answer Destination
FF1-6#-5#-(1-200)#-6#-(0-3)#	DDI Night Ringing Mode
FF1-6#-5#-(1-200)#-7#-(NNNN)#	DDI Night Extension Group Setting
FF1-6#-5#-(1-200)#-8#-(0-1)#	DDI Night No Answer Mode
FF1-6#-5#-(1-200)#-9#-(NNNN)#	DDI Night No Answer Destination
FF1-6#-6#-1#-(1-15)#	DASSII Red Alarm Detection Timer
FF1-6#-6#-2#-(1-15)#	DASSII Red Alarm Recovery Timer
FF1-6#-6#-3#-(1-15)#	DASSII Incoming Wait Timer
FF1-6#-6#-4#-(1-15)#	DASSII Answer Wait Timer
FF1-6#-6#-5#-(1-15)#	DASSII Answer Confirm Timer
FF1-6#-7#-1#-(1-15)#	E-ISDN Red Alarm Detection Timer
FF1-6#-7#-2#-(1-15)#	E-ISDN Red Alarm Recovery Timer
FF1-6#-7#-3#-(0-15)#	E-ISDN T301 Timer
FF1-6#-7#-4#-(0-15)#	E-ISDN T302 Timer
FF1-6#-7#-5#-(0-15)#	E-ISDN T303 Timer

FF1-6#-7#-6#-(0-15)#	E-ISDN T304 Timer
FF1-6#-7#-7#-(0-15)#	E-ISDN T305 Timer
FF1-6#-7#-8#-(0-15)#	E-ISDN T308 Timer
FF1-6#-7#-9#-(0-15)#	E-ISDN T310 Timer
FF1-6#-7#-10#-(0-15)#	E-ISDN T313 Timer
FF1-6#-7#-11#-(0-15)#	E-ISDN T316 Timer
FF1-6#-7#-12#-(0-15)#	E-ISDN T317 Timer
FF1-6#-7#-13#-(0-1)#	E-ISDN CRC Check
FF1-6#-7#-14#-(0-1)#	E-ISDN 64Khz Unrestricted Digital Calls
FF1-7#-(01-27)#	[NOT USED]
FF1-8#-([CONF] or 0000-9999)#	ID code-DISA access

Private Line Setting - E & M

FF1-9#-1#-(0 to 4)#	Network mode setting
FF1-9#-2#-(0 to 5)#	No answer timer
FF1-9#-3#-(0 to 3)#	Route Access Code 2
FF1-9#-4#-(0 to 3)#	Route Access Code 3
FF1-9#-5#-(0 to 3)#	Route Access Code 4
FF1-9#-6#-(0 to 3)#	Route Access Code 5
FF1-10#-(1-8)#-(1 to 4)#	Private Line Slot Setting

Exchange line interface

FF2-1#-(01-48)#-1#-(0 or 1)#	Trunk Line Prohibition
FF2-1#-(01-48)#-2#-(0 or 1)#	Signalling-MF/Pulse
FF2-1#-(01-48)#-3#-(0 or 1)#	Line group-access Group 0
FF2-1#-(01-48)#-(4-9)#-(0 or 1)#	Line groupings
FF2-1#-(01-48)#-10#-(0 or 1)#	Piggy backing to PBX
FF2-1#-(01-48)#-11#-(001-144)#	Dedicated line to extension
FF2-1#-(01-48)#-12#-(0 or 1)#	Auto pause for PBX working
FF2-1#-(01-48)#-13#-(0-1)#	DTMF signalling specification
FF2-1#-(01-48)#-14#-(0-3)#	Choice of incoming ringing signal
FF2-1#-(01-48)#-15#-(0-15)#	Auto line disconnect time
FF2-1#-(01-48)#-16#-(0-2)#	Type of PBX recall signal
FF2-1#-(01-48)#-17#-(0-15)#	Call logging start time
FF2-1#-(01-48)#-18#	[NOT USED]
FF2-1#-(01-48)#-19#	[NOT USED]
FF2-1#-(01-48)#-20#-(0-1)#	DISA (Direct Inward System Access) line setting
FF2-1#-(01-48)#-21#-(0000-2359)#	DISA auto start time
FF2-1#-(01-48)#-22#-(0000-2359)#	DISA auto finish time
FF2-1#-(01-48)#-23#-(0 or 1)#	External relay control - Exchange line setting for LRB
FF2-1#-(01-48)#-24#-(0 or 1)#	DT detection
FF2-1#-(01-48)#-25#-(1-8)#	Exchange line tenant group setting

Private Line Setting

FF2-2#-(1-3)#-1#-(0-1)#	E&M Dial tone send
FF2-2#-(1-3)#-2#-(1-8)#	E&M Tenant Group
FF2-2#-(1-3)#-3#-(0-1)#	E&M Send RAC
FF2-2#-(1-3)#-4#-(0-1)#	E&M Add RAC
FF2-2#-(1-3)#-5#-(0-6)#	E&M Paging Release Timer
FF2-2#-(1-3)#-6#-(0-15)#	E&M Minimum Pause
FF2-2#-(1-3)#-7#-(0-5)#	E&M Return Confirmation Monitor
FF2-2#-(1-3)#-8#-(0-15)#	E&M Return Detect Timer
FF2-2#-(1-3)#-9#-(0-15)#	E&M Glare Timer
FF2-2#-(1-3)#-10#-(0-15)#	E&M FLASH Output Timer
FF2-2#-(1-3)#-11#-(0-15)#	E&M FLASH Detect Timer
FF2-2#-(1-3)#-12#-(0-15)#	AC15A Minimum Pause
FF2-2#-(1-3)#-13#-(0-5)#	AC15A Return Confirmation Monitor
FF2-2#-(1-3)#-14#-(0-15)#	AC15A Return Detect Timer
FF2-2#-(1-3)#-15#-(0-15)#	AC15A Glare Timer
FF2-2#-(1-3)#-16#-(0-15)#	AC15A FLASH Output Timer
FF2-2#-(1-3)#-17#-(0-15)#	AC15A FLASH Detect Timer
FF2-3#-(1-12)#-1#-(0-1)#	E&M Trunk Status
FF2-3#-(1-12)#-2#-(0-3)#	E&M Trunk Group No.
FF2-3#-(1-12)#-3#-(0-1)#	AC15A Dial Type
FF2-3#-(1-12)#-4#-(0-1)#	AC15A Tone Dial Specification

Extension setting

FF3-(001-144)#-1#-(NNNN)	Extension number
FF3-(001-144)#-2#-(1-24)#	Type of extension
FF3-(001-144)#-3#-(001 or 144)#	[NOT USED]
FF3-(001-144)#-4#-(0 or 1)#	Forced Account code
FF3-(001-144)#-5#-(0000-9999)#	Extension lock-code registration
FF3-(001-144)#-6#-(0 or 1)#	Off-hook signalling
FF3-(001-144)#-7#-(0 or 1)#	Call waiting tone and message
FF3-(001-144)#-8#-(0 or 1)#	Busy override (call intrusion) -origination
FF3-(001-144)#-9#-(0 or 1)#	Busy override (call intrusion) -receiving
FF3-(001-144)#-10#-(0 or 1)#	Break in-operator call intrusion
FF3-(001-144)#-11#-(0 or 1)#	[NOT USED]
FF3-(001-144)#-12#-(0 or 1)#	Prime line pick-up (auto exchange line seizure)
FF3-(001-144)#-13#-(0 or 1)#	Auto answer
FF3-(001-144)#-14#-(0 or 1)#	Call logging printout-exchange lines
FF3-(001-144)#-15#-(1-4)#	Off-hook signalling volume level
FF3-(001-144)#-16#-(0 or 1)#	Call waiting tone ringing cadence
FF3-(001-144)#-17#-(0 or 1)#	PSD directory display
FF3-(001-144)#-(18-25)#-(0 or 1)#	Paging group assignment
FF3-(001-144)#-(26-33)#-(0-15)#	Large display key station display options
FF3-(001-144)#-34#-(0-12)#	Analogue telephone time break recall time
FF3-(001-144)#-35#-(1 or 2)#	System speed dial (SSD) group selection
FF3-(001-144)#-36#-(1-8)#	Extension tenant group setting
FF3-(001-144)#-37#-(0-1)#	Extension off hook monitor
FF3-(001-144)#-38#-(0-1)#	Incoming ringing volume setting
FF3-(001-144)#-39#-(0-1)#	Monitor volume setting
FF3-(001-144)#-40#-(0-1)#	Extension call forward to external number
FF3-(001-144)#-41#-(0-4)#	Assignment of extension to work with BLF DSS
FF3-(001-144)#-42#-(0-1)#	On Hook Transfer To Trunk

Ringing assignment

FF4-1#-(001-144)#-(01-48)#-(0 or 1)#	Incoming ring - Day mode
FF4-2#-(001-144)#-(01-48)#-(0 or 1)#	Incoming ring - Night mode
FF4-3#-(001-144)#-(01-48)#-(0 or 1)#	Incoming ring - Operator overflow/Delayed ringing
FF4-4#-(1-16)#-1#-(0 or 1)#	Type of hunt group
FF4-4#-(1-16)#-2#-(1-16)#	Hunt group transfer
FF4-4#-(1-16)#-(3-10)#-(Ext No.)#	Hunt group assignment to extension
FF4-4#-(1-24)#-1#-(0-2)#	Type of hunt group
FF4-4#-(1-24)#-2#-(1-24)#	Hunt group transfer
FF4-4#-(1-24)#-(3-34)#-NNNN#	Hunt group assignment to extension
FF4-4#-(1-24)#-35#-(0-15)#	Hunt group member no answer timer
FF4-4#-(1-24)#-36#-(0-15)#	Hunt group no answer timer
FF4-5#-(1-16)#-(1-8)#-(Ext No.)#	Manager/secretary working
FF4-6#-(1-20)#-(1-8)#-(Ext No.)#	Pick-up Group setting
FF4 7#-(1-50)#-(1-32)#-(Ext No.)#	DDI Group Setting
FF4-8#-(1-50)#-Number#	Assignment of an extension range number to a group
FF4-10#-(1-16)#-(1-16)#-(NNNN)#	DDI Hunt Groups Setting
FF4-10#-(1-16)#-17#-(0-15)#	DDI Hunt Groups Member No Answer Timer

FF key assignment

FF5-(001-144)#-(01-24)#-(Feature Code)#	FF key assignment - extensions
FF5-(145-148)#-(01-72)#-(Feature Code)#	FF key assignment - DSS consoles
FF5-(149-152)#-(01-72)#-(Feature Code)#	FF Key assignment - BLF DSS

Storing names and messages

FF6-1#-(001-144)#-(Name)#	Storing extension names
FF6-2#-1#-(00-89)#-(Name)#	Storing names for SSD group 1
FF6-2#-2#-(00-89)#-(Name)#	Storing names for SSD group 2
FF6-3#-(001-144)#-(90-99)#-(Name)#	Storing name for personal speed dial
FF6-4#-(0-9)#-(Message)#	Storing absence messages
FF6-5#-(5-9)#-(Name)#	Storing call waiting messages
FF6-6#-(1-50)#-(Name)#	DDI Group Setting
FF6-7#-(01-48)#-(Name)#	Storing trunk name

Call barring

FF7-1#-1#-(0-9)#	First digit for STD national call
FF7-1#-2#-(0-9999)#	Code for international dialling
FF7-1#-3#-(0-9)#	First digit for operator service
FF7-1#-4#-(0 or 1)#	Dialling restriction on incoming line
FF7-1#-5#-(0,3,4)#	Digit restrictions - Special Number
FF7-(6-8)#-(0 or 3-15)#	Digit restrictions - Local Call
FF7-(9-10)#-(0 or 3-30)#	Digit restrictions - Long Distance Call
FF7-(11-13)#-(0 or 3-15)#	Digit restrictions - Operator Service
FF7-1#-(14-15)#-(0 or 1)#	Local Call Dial Restriction
FF7-1#-17#-(0-5)#	Extension class of service when locked
FF7-1#-18#-(00-89)#	Restriction override using SSD code in group 1
FF7-1#-19#-(00-89)#	Restriction override using SSD code in group 2
FF7-1#-(20-21)#-(0 or 1)#	* restriction
FF7-1#-(22-23)#-(0 or 1)#	# Restriction
FF7-1#-24#-(0-9)#	2nd digit of STD code
FF7-2#-(1-8)#-(000-999)#	Storing 8 special service numbers (999 etc.)
FF7-3#-(1-50)#-(0-99999999)#	Local Call Dial Restriction
FF7-4#-(1-144)#-(01-48, 49)#-(1-5)#	Class of service-day mode
FF7-5#-(1-144)#-(01-48, 49)#-(1-5)#	Class of service-night mode
FF7-6#-(1-3)#-(0-999)#-(0 or 1)#	Call barring look up table - operator service
FF7-7#-(1-2)#-(0-999)#-(0 or 1)#	Call barring look up table - STD national
FF7-7#-3#-(1-16)#-(000-999)#	Long Distance Call Restriction Override
FF7-7#-(4-6)#-(1-32)#-(0-9999)#	Restriction Overrides
FF7-8#-(0-999)#-(0 or 1)#	Call barring look up table - international calls
FF7-9#-(1-144)#-(0 or 1)#	SSD restriction override
FF7-10#-1#-(1 to 3)#-(1 to 48)#-(1 to 5)#	Setting the Daytime Private Line Restriction class
FF7-10#-2#-(1 to 3)#-(1 to 48)#-(1 to 5)#	Setting the Night-time Private Line Restriction class

Copy mode

FF8-1#-(01-48)#-(01-48)##	Exchange line setting
FF8-2#-(001-144)#-(001-144)##	Extension setting
FF8-3#-(001-144)#-(001-144)##	FF (programmable) key setting
FF8-4#-(1-2)#-(00-89)#-(00-89)##	SSD group members
FF8-5#-(001-144)#-(001-144)##	Personal speed dial

System speed dial memory

FF9-1#-1#-(0-89)#-(DIAL)#	System speed dial group 1
FF9-1#-2#-(0-89)#-(DIAL)#	System speed dial group 2
FF9-2#-(001-144)#-(90-99)#-(DIAL)#	Personal speed dial

LCR

FF10-(Password)#-1#-1#-(0 or 1)#	Use of LCR
FF10-(Password)#-1#-2#-(0000-9999)#	LCR programming password
FF10-(Password)#-1#-3#-(1-15)#	Pause after network access code
FF10-(Password)#-1#-(4-10)#-(0 or 1)#	Registration of network carriers
FF10-(Password)#-2#-(1-48)#-(1-7)#-(0 or 1)#	Assignment of network operators to lines
FF10-(Password)#-3#-1#-(1-8)#-(0-9999999999)#	Storing access codes for each network operator
FF10-(Password)#-3#-2#-(1-8)#-(000-999)#	Restricted numbers
FF10-(Password)#-4#-(1-7)#-(1-48)#-(1-4)#-(0-255)#	Call set-up protocols
FF10-(Password)#-5#-(1-7)#-(1-48)-(000-999)#	Storing authorisation codes for network operators
FF10-(Password)#-6#-(1-7)#-(000-999)#-(0 or 1)#	LCR Look-up tables
FF10-(Password)#-7#-(1-4)#-(000-999)#-(1-8)#	Priority Table setting
FF10-(Password)#-8#-(1-4)#-1#-(00-24)#	Time Priority start time
FF10-(Password)#-8#-(1-4)#-2#-(00-24)#	Time Priority finish time
FF10-(Password)#-8#-(1-4)#-3#-(0-4)#	Priority day of the week setting
FF10-(Password)#-9#-1#-(0-1)#	NCC switch

Programming Details

Program Description Box Format:

Program Step Name	**From Software Version**
	[2nd Line Display]
Program Step Key Sequence	**(P)** Power off / on reset required
Options List (default underlined)	
Description	
Related Programming Steps	

System features

Date Setting **2.x**

[DAY/MONTH/YEAR]

FF1-1#-1#-(DDMMYY)#

DD (01-31)
MM (01-12)
YY (89-99) or (00-20)
[CONF]# to set default value 010190

The current day and date are displayed on telephones with a display, the date is also recorded on the call logging output. The day of the week is automatically calculated and displayed on the system.

E.g. To set the date to October 25, 1995, enter 251095#

Time Setting **2.x**

[TIME SET MODE]

FF1-1#-2#-(HHMM)#

HH(00-23)
MM(00-59)
[CONF]# to set default value 0101

The current time is displayed on telephones with a display, and included on the call logging output.

E.g. To set the time to 3:28pm, enter 1528#

Call Duration and Call Charge Display **2.x**

[CALL DURATION]

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

0#: No display of call duration and call charges
1#: Display of call duration / call charges (only with meter pulsing)

This setting specifies whether the call duration / call charge are displayed on a key telephone with a display.

Automatic flash when using REDIAL and save dial **2.x**

[AUTO FLASH CONT]

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

0#: No Auto Flash
1#: Auto Flash

If the system is connected to a PBX, the PBX may see the flash time as a recall signal and put the call on hold when the REDIAL or save dial feature is used. If this occurs the auto flash can be removed or the flash time duration altered.

Note 1: There is no auto flash if a number isn't dialled.
Note 2: Recall signals cannot be sent whilst using the REDIAL or save dial features.

Related step FF1-3#-16# Exchange line disconnect time-REDIAL/flash

On hook transfer **2.x**

[ON-HOOK TRANSF.]

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

0#: On hook transfer disable
1#: On hook transfer enable

An exchange line call can be transferred to another extension by entering that extension's number and placeing the handset on hook.

Note: Un-supervised or Blind transfer allows calls to be passed to another extension regardless of weither or not the extension is answered. Un-supervised transfer will also allow calls to be passed to busy extensions and camped on so that the call ring the extension when it is placed back on hook.

Note: When using the Voice Announce Unit this step must be left in default (1#)

Auto hold by exchange line key **2.x**

[AUTOMATIC HOLD]

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

0#: No auto hold
1#: Auto hold

You can put an exchange line call on system hold automatically by pressing another exchange line key, without having to push the hold key first.

Type of hold for non appearing exchange lines and SLTs **2.x**

[NON-AP.HOLD MOD]

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

0#: Exclusive Hold
1#: System Hold

This specifies whether a call on an exchange line which is not represented on an FF key or on an SLT is held is put on system hold or exclusive hold . It is not possible to put one non-appearing exchange line on hold and seize another.

Note: When using the Voice Announce Unit it is recommended that this step be left set to default (0#) to prevent accidental pick up of the line by other system users.

Call brokering (shuttling) **2.x**

[SLT FLASH CONT.]

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

0#: Get new IDT
1#: Retrieve held exchange line

On an SLT after an exchange line call is put on hold an internal call may be made, if busy tone is received, on pressing [RECALL]key, this program specifies whether to receive internal dial tone or to return to the held exchange line.

Related step FF3-34#, Simple telephone time break call time

Enable Second Operator Position **2.x**

[ALT.ATT MODE]

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

0#: No alternate mode
1#: Alternate mode

This setting is for when 2 operator phones have been installed on the system. When the alternate mode is set and the first operator is busy, the call is automatically transferred to the second operator.

Internal tone/voice call (Operator) **2.x**

[ATT CALL MODE]

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

0#: Call extension using internal ringing tone
1#: Call extension by voice
2#: Disable choices (then call is always by tone call)

When the operator is calling an extension, the call can be invoked by voice, internal ringing tone, or set to tone call only by disabling the choices.

Internal tone/voice call (Extension) **2.x**

[EXT CALL MODE]

FF1-2#-1#-9#-(0-2)#

0#: Call extension using internal ringing tone
1#: Call extension by voice
2#: Disable choice (always tone call)

When an extension is calling another extension, the call can be invoked by voice, internal ringing tone, or set to tone call only by disabling the choices.

Note: When using the Voice Announce Unit this step must be set to default (0#) for correct VAU operation.

Alert tone in voice call **2.x**

[SPT ON V-CALL]

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

0#: Alert tone does not sound for voice call
1#: Alert tone sounds for voice call

When using voice call mode, an alert tone (Splash tone) can be sounded first for 0.5 seconds from the called extension. Only applicable on voice calls.

Alert tone on conference call [Not Used] **2.x**

[NOT USED]

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

0#: Alert tone not sent out for conference
1#: Alert tone sent out for conference

When beginning a conference call, an alert tone may be sent.

Alert tone during conference call **2.x**

[CONFTONE ON/OFF]

FF1-2#-1#-12#-(0-1)#

0#: Alert tone not sent out during conference
1#: Alert tone sent out during conference

When on a conference call, an alert tone may be sent every 5 seconds.

System Speed Dial (SSD) directory display-name **2.x**

[SSD DISP. MODE]

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

0#: Display 1 SSD name on 1 line (5 names for 1 display)
1#: Display 2 SSD names on 1 line (10 names for 1 display)

This specifies whether 1 SSD name or 2 SSD names appear on each line of the large display key telephone.

Related Step FF3-17 ,PSD directory display -name",

FF1-2#-1#-14#- [NOT USED]

Operator incoming call overflow **2.x**

[ATT. OVERFLOW]

FF1-2#-1#-15#-(00 or 15)#

0#: No overflow
1 - 15 # : Number of simultaneously ringing calls before overflow.

This specifies the maximum number of incoming, ringing exchange line calls that the operator can receive simultaneously before the operator incoming call overflow assignment is used. Calls which are Off Hook Signalling count as ringing.

Note: The same ringing assignment is used for both Operator incoming call overflow and delayed ringing

Related steps FF4 3#, Operator Overflow / Delayed Ringing Assignment
FF1 2# 1# 26# , Delayed Ringing

Music-on-hold-int/ext selection **2.x**

[MOH TONE CHANGE]

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

0#: Internal MOH
1#: External MOH

This specifies whether internal or external MOH is played to call on hold.

Note: This setting requires a soft reset by switching the system off and back on.

FF1-2#-1#-17# [NOT USED]

FF1-2#-1#-18# [NOT USED]

Transfer deny-(extension) **2.x**

[TRANSF SETTING]

FF1-2#-1#-19#-(0 or 1)#

0#: Enable transfer
1#: Disable transfer

This specifies whether extensions can transfer calls. This does not apply to operator extensions

Nominating telephone to receive un-answered call **2.x**

[NIGHT RING TEL]

FF1-2#-1#-20#-(1-144)#

[CONF]#: Operator phone rings
1-144#: Nominated extension port number

This specifies which extension to ring with an un-answered call in Night Mode. The nominated port must be a keyset.

Note: If the Operator extension will need to set call forward this step must be used to nominate another extension. If there are no key stations which can be used enter a port number that is not supported by any card E.g. 144

Call logging - call unit cost setting **2.x / 4.1 / ISDN 1.2**
[SET CHARGE]

FF1-2#-1#-21#-(1-9999)#

1-9999#: Charge unit: 0.1~999.9 pence
Initial value: 4.4 pence

This specifies the unit cost in pence for each meter pulse and is used to calculate the call cost for display key telephones and the call logging output.

Note: Meter Pulse Detection cards (VB3667) must be installed on each line and meter pulses sent from the network provider to use this facility

FF1-2#-1#-22# [NOT USED]

FF1-2#-1#-23# [NOT USED]

Loud ring bell / Paging Mode setting **2.x**
[EPI CTRL MODE]

FF1-2#-1#-24#-(0 - 2)#

0#: Paging mode
1#: Control for exchange lines
2#: Control for extension

This specifies the control source for the external bell option if an external bell is used.

Related steps FF2 1# 23# , External Relay Control - Exchange Line Setting
FF1 1# 25# , External Relay Control - Extension Port Setting

External relay control - Extension port setting **2.x**
[EPI CTRL EXT]

FF1-2#-1#-25#-(001-144)#

This specifies the extension port which when ringing activates the optional external bell.

Related step FF1 2# 1# 24# - Loud ring bell / Paging mode setting

Delayed ringing **2.x**
[DELAYED RING]

FF1-2#-1#-26#-(0 or 1)#

0#: Inactivate
1#: Activate

This specifies whether delayed ringing is active or not for incoming exchange line calls. The Call Forward No Answer Timer is also the time which a call will ring before the Delayed Ringing assignment is used. If Call Forward No Answer is set the incoming call will still use the Delayed Ringing assignment when this step is set to 1#.

Note1: The Operator overflow assignment is also used for Delayed Ring Assignment.
Note2: Both Operator Overflow and Delayed Ringing can be active together.

Related steps FF1 3# 23# - Call Forward No Answer Transfer Time
FF4 3# - Operator Overflow Ring / Delayed Ring Assignment

Digits of extension number **2.x**

[INT CALL DIGIT]

FF1-2#-1#-27#-(2-4)# (P)

[CONF]: 3-digit extension number
(2-4)#: 2-digit extension number ~ 4-digit extension number

This step sets the size of extension numbers to 2,3 or 4 digits. The maximum ranges are shown below. This setting applies system wide and is automatically set to 4 digits when E&M Private Circuits are installed.

Extension number ranges are:

2 digits	20 ~ 59	(40 extensions maximum on the system)
3 digits	200 ~ 599	
4 digits	2000 ~ 5999	
E&M Used	2200 ~ 2599,3200 ~ 3599,4200 ~ 4599 or 5200 ~ 5599	

Note: When this step is changed a soft reset must be performed by switching the system off and back on

Related step FF3 (001 - 144)# 1# - Extension Number

FF1-2#-1#-28# [NOT USED]

FF1-2#-1#-29# [NOT USED]

Un-answered DISA call transfer to operator **2.x**

[DISA ATT TRANSF]

FF1-2#-1#-30#-(0-1)#

0#: Transfer to the extensions which are assigned to ring.
1#: Transfer to an operator telephone.

If a DISA incoming call is not answered within the specified time, the call can be transferred to an operator telephone or the extensions which are assigned to ring where it will appear as a normal incoming call.

Related step FF1 3# 27# - DISA No Answer Timer

 # key feature in DISA call **3.1**

[DISA DIAL '#']

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

0#: To terminate a DISA call
1#: To change to a normal incoming call

This specifies how the system will handle the # character when it is received from a DISA call before it has connected to an extension. If it is set to become a normal call it will ring as per un-answered DISA transfer to operator.

Related step FF1 2# 1# 30# - Un-answered DISA call transfer to operator

Group MCO0 Line Access Code **CPC-EX 1.0**

FF1 2# 1# 32# (0-1)#

(0-1)#
0# Line access by 9 / Operator call by 0
1# Line access by 0 / Operator call by 9

The numbering plan of the DBS can be altered to allow dial 9 access to line group 0 or the operator. For UK use it is recommended that this step be left in its default setting.

FF1-2#-1#-33# [NOT USED]

Setting up pick-up group **3.1**
[PICK UP GRP SEL]

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

0#: Paging Group
1#: Hunting Group
2#: Pick-up Group

This specifies which type of system group is used for the Group Call Pick-up (70) function.

Related steps FF3 18# 25# - Paging Group
FF4 4# - Hunting Group
FF4 6# - Pick-Up Group

Voicemail termination signal setting **4.0**
[V.M. EOT]

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

0#: No Tone
1#: Continuous DTMF # Tone
2#: Busy Tone

This programming option is dedicated to Voice Mail applications. It specifies the termination signal which is sent to Voice Mail ports when the internal calling party terminates the call by hanging up. The signal remains until the voice mail hangs up.

Hold Pick-up by HOLD key operation **4.0**
[HOLD IN RBT]

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

0#: Held call retrieval Not available
1#: Available

This specifies how the HOLD key operates on digital keysets. When set to 1# pressing the HOLD key when a call is on hold will return to the call otherwise the appropriate line key must be used.

DTMF Signal Back Tone to voice Mail **4.0**
[V.M. BACK TONE]

FF1-2#-1#-37#-(0-2)#

0#: Back Tone sent
1#: No back Tone on Exchange line or E&M
2#: No back Tone

This specifies weither the DTMF signal back tone/call forward ID can be heard by the calling party when the voice mail answers and the pre-programmed ID is sent out to the voice mail.

Incoming Line Name Display Mode **ISDN 1.2 / 4.1**
[INCOM TRK NAME]

FF1 2# 1# 38# (0-1)#

0# Line name NOT displayed
1# Line name displayed

Selects weither or not alphanumeric line names are displayed during incoming ringing.

System Speed Dial Mode **ISDN 1.2 / 4.1**
[SSD NO. SELECT]

FF1 2# 1# 39# (0-1)# (P)

0# 2 x 90 SSD groups
1# 1 x 180 SSD group

Selects weither 2 groups of 90 SSDs, numbered 00 ~ 89, are used or 1 group of 180, numbered 100~189 and 200~289, is used. When changed a power off/on reset is required for the changes to take effect. Numbers stored in the SSDs will not be erased when this setting is changed.

Internal DTMF From SSD Or PSD Backtone **ISDN 1.2 / 4.1**
[INT BACK TONE]

FF1 2# 1# 40# (0-1)#

0# Tones can be heard
1# Tones cannot be heard

Sets weither memory dialled internal DTMF tones can be heard by the dialling extension user.

Suppression Of Call Forward Indication **ISDN 1.2 / 4.1**
[CF NO ANS DISP]

FF1 2# 1# 41# (0-1)#

0# Indication Suppressed
1# Indication NOT Suppressed

Selects weither call forward indicators on LCD and BLFs are displayed when the feature is used. This is a system mode setting.

Live Key Pad Setting **CPC-EX 1.0**

FF1 2# 1# 42# (0-1)#

(0-1)#
0# Live key pad feature disabled
1# Live key pad feature enabled

This step switches the live key pad facility of the VBD range of handsets on or off. It has no effect on other extensions. The live key pad allows dialling without having to go off hook or press the On/Off key.

Note: When dialling out a line must still be selected using a line key, the LINE key or line access code.

Trunk To Trunk Transfer By On Hook **CPC-EX 1.0**

FF1 2# 1# 43# (0-1)#

(0-1)#
0# Disable
1# Enable

Enable or disable on hook transfer for trunk to trunk calls. If Enabled calls can be transferred from trunk to trunk by going on hook at then of transfer dialling or during conference modes. If disabled the transfer key (*6) must be used to transfer from trunk to trunk.

Private Wire To Trunk Transfer **CPC-EX v1.5**

FF1 2# 1# 43# (0-1)#

0# Allow
1# Barred

The operation of this step has been modified in software levels later than CPC-EX v1.5. It now controls the connection of trunks to private circuits (AC15 & DC5). When allowed Private Circuits can access outgoing lines on the system to make and transfer calls.

Related Step: FF1 2# 5# - Cross Connection Permissions
FF3 42# - Trunk To Trunk Transfer By On Hook By Extension

Incoming Ring Priority **CPC-EX 1.0**

FF1 2# 1# 44# (0-1)#

(0-1)#
0# Old table (External Calls Have Priority)
1# New table (Internal Calls Have Priority

Old table

High → Low			
Operator	Internal	Alarm	Paging
Call Back	DDI		
External	DISA		
	Recall		
	Transfer		
	Group calls		

New table

High → Low			
Internal	Operator	Alarm	Paging
DDI	Call Back		
DISA	External		
Recall			
Transfer			
Group calls			

Select the incoming call ringing priority for the system.

Incoming CLI Name Search - STD Code For A Local Call **CPC-EX 1.0**

FF1 2# 1# 45# (0-99999)#

(0 - 99999)# STD code to add to CLI

In areas where a local call with CLI does not present with an STD code this default STD code can be added before a search of the SSDs is performed.

FF1-2#-1#-46# [NOT USED}

FLASH/RECALL Button Operation **CPC-EX 1.0**

FF1 2# 1# 47# (0-1)#

(0-1)#
0# RECALL
1# FLASH

Determine the function of the FL/R buttons on the VB3011 and VBD handsets.

Call Forward For Group Members **CPC-EX v1.5**

FF1 2# 1# 48# (0-1)#

0# Disabled
1# Enabled

Allows ring group members to set a call forward for private calls and still ring from calls directed to the group they are a member of.

Call logging-parity check **2.x**

[TTY PARITY]

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

0#: No parity check
1#: Parity check

Call logging-even/odd parity **2.x**

[MODE ODD0/EVEN1]

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

0#: Odd parity
1#: Even parity

Call logging-baud rate **2.x/CPC-EX v1.0**

[BAUD RATE1:4]

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

1#: 300 bps
2#: 1200 bps
3#: 4800 bps
4#: 9600 bps
5# 19200 bps (CPC-EX and later only)

Call logging-stop bit **2.x**

[STOP BIT1:3]

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

1#: 1 bit
2#: 1.5 bit
3#: 2 bit

Call logging-data length **2.x**

[DATA LENGTH 3:4]

FF1-2#-2#-5#-(1-4)#

1#: 5 bits (cannot be set)
2#: 6 bits (cannot be set)
3#: 7 bits
4#: 8 bits

Remote maintenance-baud rate **2.x**

[RAI BAUD RATE]

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

0#: 300 bps
1#: 1200 bps

This sets the baud rate for data transmission when carrying out remote programming using the Remote Administration Interface (RAI) card (VB3666A). This setting has no effect if the RAI card is not fitted to the system.

Call logging-printing selection outgoing/incoming **2.x**
[SMDR OUT/INCOME]

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

0#: Outgoing exchange line calls only
1#: Incoming and outgoing exchange line calls

This specifies whether only outgoing calls are logged or incoming and outgoing calls are logged.

Call logging-printing selection local/long distance calls **2.x**
[SMDR LONG/LOCAL]

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

0#: Long distance calls only
1#: All calls

This specifies whether the call logger records all calls made or long distance calls only.

Call logging-printing with title **2.x**
[SMDR TITLE CONT]

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

0#: data only
1#: titles in addition to data

This specifies weither or not to print titles every 60 lines. When only using a printer this will give a set of titles near the top of each page. If the data is being recorded by a call management system this step will usually be set for 0# as titles will not normally be required.

Call logging-buffer **2.x**
[SMDR BUF EMPTY]

FF1-2#-2#-10#-(000 - 100)#

000#: No check for overflow, hold last 100 calls only
(001-100)# Prohibit dialling out when buffer fills to the preset capacity

The DBS will buffer the last 100 calls and send these details out when a call logger is connected. If no call records are to be lost this buffer can be 'locked' so that when it is full to the preset capacity no further calls can be made until the saved records have been output. Unless specifically required this step should be left set to 0# to prevent unexpected system stoppages.

Call logging- Incoming ring time/All lines busy time printing **3.1**
[SMDR BUSY/NOANS]

FF1-2#-2#-11#-(0-3)#

0#: No output of incoming ring time, and all lines busy time
1#: Only incoming Ring Time is output
2#: Only all lines busy time is output
3#: Output both incoming ring time and all lines busy time.

This specifies whether the incoming ring time and/or busy time on each exchange line is to be output to a call logger. The incoming ring time is placed in the dialled number field next to an 'I' condition code and the all lines busy time is placed in the duration field next to a 'B' condition code when the first line becomes free.

Call logging - Alarm data/Service data output **4.0**
[SMDR ALM/SERVIC]

FF1-2#-2#-12#-(0-3)#

0#: Alarm data, Service data output
1#: Alarm data output
2#: Service data output
3#: Alarm data, Service data output

This specifies whether the alarm data and/or service data is to be output to a call logger.

Port 2 - parity check **CPC-EX 1.0**
[TTY PARITY]

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

0#: No parity check
1#: Parity check

Port 2 - even/odd parity **CPC-EX 1.0**
[MODE ODD0/EVEN1]

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

0#: Odd parity
1#: Even parity

Port 2 - baud rate **CPC-EX 1.0**
[BAUD RATE1:5]

FF1-2#-2#-15#-(1-4)#

1#: 300 bps
2#: 1200 bps
3#: 4800 bps
4#: 9600 bps
5# 19200 bps

Port 2 - stop bit **CPC-EX 1.0**
[STOP BIT1:3]

FF1-2#-2#-16#-(1-3)#

1#: 1 bit
2#: 1.5 bit
3#: 2 bit

Port 2 - data length **CPC-EX 1.0**
[DATA LENGTH 3:4]

FF1-2#-2#-17#-(1-4)#

1#: 5 bits (cannot be set)
2#: 6 bits (cannot be set)
3#: 7 bits
4#: 8 bits

PBX access code **2.x**

[PBX CODE(XXX)]

FF1-2#-3#-(1-8)#-(0-999)#

(1-8)#	Access code list number
(0-999)#	Access code to dial
Conf#	Clear stored code

Initial value is code 1 stored as 9

A list of upto 8 PBX access codes can be stored, each consisting of one, two, or three digits. These codes are used when piggy-backing the DBS as a subsidiary system to a host PBX. The stored code can contain the wild card character '*' to represent any number 0-9 in the appropriate position. The '*' is entered by pressing the FF11 key NOT the keypad '*'.

e.g. When 0 * is set, 00-09 are set as PBX dialling codes.

Note: The same number cannot be stored in multiple locations.

PBX auto pause insertion **2.x**

[PAUSE POSITION1-0]

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

(9-18)#		**(1-3)#**	
9#	Insert pause after dialling 1	Conf#	No Pause
10#	Insert pause after dialling 2	1#	Pause after 1st digit
11#	Insert pause after dialling 3	2#	Pause after 2nd digit
12#	Insert pause after dialling 4	3#	Pause after 3rd digit
13#	Insert pause after dialling 5		
14#	Insert pause after dialling 6		
15#	Insert pause after dialling 7		
16#	Insert pause after dialling 8		
17#	Insert pause after dialling 9		
18#	Insert pause after dialling 0		

When the system is piggy-backed behind a PBX the host PBX may require a pause inserted after the access code before further dialling takes place to prepare to receive the digits. This step specifies the location of the pause by first digit of the PBX access code. This setting will also be used when dialling from System Speed Dials and Personal Speed Dials.

Related steps	FF1 2# 3# (1-8)#	PBX access code
	FF1 3# 15#	REDIAL/PBX auto pause time
	FF2 1# (00-48)# 10#	Piggy Backing To PBX
	FF2 1# (00-48)# 12#	Auto pause for PBX working

FF1-2#-4#-1# [Not Used]

External paging adapter paging group assignment **2.x**

[PAGEGROUP(#0-#7)]

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

(2-9)#		(0-1)#	
2#	Paging Group 00	0#	External Paging Not Assigned
3#	Paging Group 01	1#	External Paging Assigned
4#	Paging Group 02		
5#	Paging Group 03	Default setting is group 00 assigned	
6#	Paging Group 04		
7#	Paging Group 05		
8#	Paging Group 06		
9#	Paging Group 07		

External paging via an optional PA System can be assigned to system paging groups so that when a group is paged the page is also transmitted to the external PA system in addition to the speakers of idle key handsets.

Call Type Cross Connection Permissions - Call Forward **CPC-EX 1.0**

FF1 2# 5# (1-10)# (0-1)#

(1-10)#		(0-1)#	
1#	Analogue line to analogue line	0#	Barred
2#	Analogue line to digital channel	1#	Allowed
3#	Analogue line to private wire		
4#	Reserved		
5#	Digital channel to digital channel		
6#	Digital channel to private wire		
7#	Reserved		
8#	Private wire to private wire		
9#	Reserved		
10#	Reserved		

Before incoming calls can be cross connected the appropriate cross connection must be enabled using this step. Options 3, 6 and 8 are allowed in default the others are barred.

Call Type Cross Connection Permissions - Conference And Transfer **CPC-EX 1.0**

FF1 2# 5# (11-20)# (0-1)#

(11-20)#		(0-1)#	
11#	Extension to 2 analogue lines	0#	Barred
12#	Extension to 1 analogue line and 1 digital channel	1#	Allowed
13#	Extension to 1 analogue line and 1 analogue private wire		
14#	Reserved		
15#	Extension to 2 digital channels		
16#	Extension to 1 digital channel and 1 analogue private wire		
17#	Reserved		
18#	Extension to 2 analogue private wires		
19-20#	Reserved		

These setting determine which call types can be linked into conference calls or transferred between. 11, 13, 15, 16 and 18 are allowed by default.

Setting For RAM Transfer From CPC-B **CPC-EX 1.0 / 1.5 / 2.1**

FF1 2# 6# NNNN# (1-5)#

NNNN#	(3-5)#	
DBS Programming ID Code	3#	From v3.2 to CPC-EX
	4#	From v4.0 to CPC-EX
	5#	From v4.1 to CPC-EX
	6#	From CPC-EX v1.1
	7#	From CPC-EX v1.3
	8#	From CPC-EX v2.0

This step is used to set up the CPC-EX ready to accept a RAM transfer using the RAM Transfer Card, from the earlier CPC-B v3.2, v4.x or CPC-EX central processor card when upgrading a DBS. RAM transfer from the CPC-C card or CPC-B v2.x, v3.0 and v3.1 is not possible.

To perform the transfer:
1 Copy old software settings to the RAM transfer card
2 Install CPC-EX and load default data settings
3 Power off and install RAM transfer card set to upload its data to the CPC-EX
4 Power on and allow transfer to take place
5 Power off, remove RAM transfer card and power on
6 System should be running normally and ready for additional programming
7 Set this step according to the software level previously used and nothing else
8 Power off and on to fully load programming

Auto night mode **2.x**

[NIGHT START TIM]

FF1-3#-1#-(HHMM)#

[CONF]#: No automatic switching to night mode
(HHMM)#: Time in 24hr format to switch to night mode

Set the time for switching automatically from day mode to night mode. When this is not set the switch over can only be made manually from the operator extension.

Related step FF4-2#-(001-144)#-(01-48)# , Incoming ring-night mode .

Operator-call on hold reminder-exchange lines **2.x**

[CO HOLD REC ATT]

FF1-3#-2#-(0-12)#

0#: No recall after an exchange line call put on hold by the operator.
1#: Recall 20 secs
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an exchange line call is put on hold by the operator a hold recall warning sounds after the time specified here. This setting is only applicable to the operator extensions.

Operator-transfer reminder-exchange lines **2.x**

[CO TRF REC ATT]

FF1-3#-3#-(0-12)#

0#: No recall after an exchange line call put on hold by the operator
1#: Recall 20 secs.
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an exchange line call is not answered within the specified time after having been transferred by the operator extension, the recall warning tone starts to sound to indicate that the call has not been answered. This setting is only applicable to the operator extensions.

Operator-call on hold reminder-internal calls **2.x**

[INT HLD REC ATT]

FF1-3#-4#-(0-12)#

0#: No recall after an exchange line call put on hold by the operator.
1#: Recall 20 secs.
2#: Recall 40 secs.
3#: Recall 60 secs
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an internal call is put on hold by the operator extension , the hold recall warning tone starts to sound to indicate that the call is still holding after the time specified here. This setting is only applicable to the operator extensions.

Operator-call transfer reminder-internal **2.x**

[INT TRF REC ATT]

FF1-3#-5#-(0-12)#

0#: No recall after an internal call is transferred by the operator.
1#: Recall 20 secs.
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs
6#: Recall 120 secs.
7#: Recall 140 secs
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an internal call is not answered within the specified time after having been transferred by the operator, the recall warning tone starts to sound to indicate that the call has not been answered. This setting is only applicable to the operator extensions.

System-call on hold reminder-exchange lines **2.x**

[CO HOLD REC EXT]

FF1-3#-6#-(0-12)#

0#: No recall after an exchange line call put on hold by an extension other than operator.
1#: Recall 20 secs.
2#: Recall 40 secs
3#: Recall 60 secs
4#: Recall 80 secs
5#: Recall 100 secs
6#: Recall 120 secs
7#: Recall 140 secs
8#: Recall 160 secs
9#: Recall 180 secs
10#: Recall 200 secs
11#: Recall 220 secs
12#: Recall 240 secs

If an exchange line call is not answered within the specified time after having been put on hold by an extension (other than operator extension), the recall warning tone starts to sound to indicate that the call is still waiting. This setting is only applicable to extension phones.

System-call transfer reminder-exchange lines **2.x**

[CO TRF REC EXT]

FF1-3#-7#-(0-12)#

0#: No recall after an exchange line call is transferred
1#: Recall 20 secs.
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an exchange line call is not answered within the specified time after having been transferred by an extension (other than operator extension), the recall warning tone starts to sound to indicate that the call has not been answered. This setting is only applicable to extension phones.

System-call hold reminder-internal **2.x**

[INT HLD REC EXT]

FF1-3#-8#-(0-12)#

0#: No recall after an internal call is put on hold by an extension other than the operator.
1#: Recall 20 secs.
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an internal call is not answered within the specified time after having been put on hold by an extension phone (other than operator extension), the recall warning tone starts to sound to indicate that the call is still waiting. This setting is only applicable to extension phones.

System-call transfer reminder-internal **2.x**

[INT TRF REC EXT]

FF1-3#-9#-(0-15)#

0#: No recall after an internal call is transferred by an extension other than the operator.
1#: Recall 20 seconds after an internal call is transferred
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an internal call is not answered within the specified time after having been transferred by an extension phone (other than operator extension), the recall warning tone starts to sound to indicate that the call has not been answered. This setting is only applicable to extension phones.

Operator-call hold reminder-hunting group **2.x**

[HNT RECALL ATT]

FF1-3#-10#-(0-12)#

0#: No call reversion to transferring operator after incoming call is transferred.
1#: Recall 20 seconds after incoming call is transferred.
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If a transferred incoming call is not answered by a hunting group member within the specified time after having been put on hold from an operator phone , the call rings back to the operators extension. This setting is only applicable to operator extensions.

System-call hold reminder-hunting group **2.x**

[HNT RECALL EXT]

FF1-3#-11#-(0-12)#

0#: No call reversion to transferring extension after incoming call is transferred.
1#: Recall 20 secs. after incoming call is transferred.
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If a transferred incoming call is not answered by a hunting group member within the specified time after having been put on hold from an extension , the call rings back to the transfer's extension after the specified time. This setting is only applies to extension phones.

Operator-call hold reminder-park hold **2.x**

[PARK RECALL ATT]

FF1-3#-12#-(0-12)#

0#: Recall 3 minutes after an exchange line call put on park hold by the operator.
1#: Recall 20 seconds after an exchange line call put on park hold by the operator.
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an exchange line call is put on park hold by the operator and not returned to within the specified time, the warning tone starts to sound to indicate that the time has been exceeded. The hold reminder can be set within the range of 20-240 seconds.

System-call hold reminder-park hold **2.x**

[PARK RECALL EXT]

FF1-3#-13#-(0-12)#

0#: Recall 3 minutes after an exchange line call put on park hold by an extension.
1#: Recall 20 secs. after an exchange line call put on park hold by an extension
2#: Recall 40 secs.
3#: Recall 60 secs.
4#: Recall 80 secs.
5#: Recall 100 secs.
6#: Recall 120 secs.
7#: Recall 140 secs.
8#: Recall 160 secs.
9#: Recall 180 secs.
10#: Recall 200 secs.
11#: Recall 220 secs.
12#: Recall 240 secs.

If an exchange line is put on call park hold by an extension is not returned to within the specified time after having been put on hold, the warning tone starts to sound to indicate that the time has been exceeded. The hold reminder can be set within the range of 20-240 seconds.

Call reversion to operator **2.x**

[REVERSION TIMER]

FF1-3#-14#-(0-12)#

0#: No call reversion to the operator after an exchange line put on hold
1#: Call reversion to the operator 20 seconds after an exchange line put on hold
2#: After 40 secs.
3#: After 60 secs.
4#: After 80 secs.
5#: After 100 secs.
6#: After 120 secs.
7#: After 140 secs.
8#: After 160 secs.
9#: After 180 secs.
10#: After 200 secs.
11#: After 220 secs.
12#: After 240 secs.

If an exchange line call which has been put on hold by an extension other than the operator, for longer than the specified hold recall time it will sound a recall warning at the extension. If the extension does not answer the recall warning the call will revert to the operator extension after the time specified here. and the extension recall warning stops.

REDIAL/PBX auto pause time **2.x**

[PAUSE TIMER]

FF1-3#-15#-(0-15)#

0#: No pause time
1#: One pause time of 1 second
2#: One pause time of 2 seconds
3#: One pause time of 3 seconds
4#: One pause time of 4 seconds
5#: One pause time of 5 seconds
6#: One pause time of 6 seconds
7#: One pause time of 7 seconds
8#: One pause time of 8 seconds
9#: One pause time of 9 seconds
10#: One pause time of 10 seconds
11#: One pause time of 11 seconds
12#: One pause time of 12 seconds
13#: One pause time of 13 seconds
14#: One pause time of 14 seconds
15#: One pause time of 15 seconds

The pause time which is inserted between the end of a PBX access code and the commencement of dialling. It is also possible to store pauses in System Speed Dial (SSD) and Personal Speed Dial (PSD) memories, by storing a press of the REDIAL key. When the REDIAL key press is encountered in the dialled digit stream this is the pause time inserted for each stored press.

E.g. If an 8 second pause time is required in an SSD or PSD memory, and the pause time is set to 2 seconds, push the [REDIAL]key 4 times.

Related Step FF1-2#-3#-9# PBX auto pause insertion.

Exchange line disconnect time-REDIAL/flash **2.x**

[CO FLASH TIMER]

FF1-3#-16#-(0-15)#

0#: No flash
1#: > 369 ms
2#: > 689 ms
3#: > 1000 ms
4#: > 1320 ms
5#: > 1640 ms
6#: > 1960 ms
7#: > 2280 ms
8#: > 2600 ms
9#: > 2920 ms
10#: > 3240 ms
11#: > 3560 ms
12#: > 3880 ms
13#: > 4200 ms
14#: > 4520 ms
15#: > 4840 ms

The time for which the exchange line is temporary disconnected when the [FLASH]key or [REDIAL]key is pressed. This operation results in the release of the current call and the immediate re-seizing of the same exchange line by the extension. This timer is applies when the exchange line is set as "No Recall".

Note : This setting is invalid when operating with a single line telephone.

Related step FF2-1#-(01-48)#-16# , Type of PBX recall signal

PBX recall time-earth recall **2.x**

[EARTH RECALL]

FF1-3#-17#-(0-15)#

0#: No recall
1#: 250 ms
2#: 300 ms
3#: 500 ms
4#: 750 ms
5#: 1000 ms
6#: 1250 ms
7#: 1500 ms
8#: 1750 ms
9#: 2000 ms
10#: 2250 ms
11#: 2500 ms
12#: 2750 ms
13#: 3000 ms
14#: 3250 ms
15#: 3500 ms

This step sets the earth recall time for the system. It can only be set once enable earth recall is set.

Related step FF2 1# (01-48)# 16# , Type of PBX recall signal
FF2 1# (01-48)# 10# , Piggy backing to PBX

PBX recall time-timed break **2.x**

[TIME BREAK TIME]

FF1-3#-18#-(0-15)#

0#: No break time
1#: 70 ms
2#: 90 ms
3#: 110 ms
4#: 130 ms
5#: 150 ms
6#: 170 ms
7#: 190 ms
8#: 210 ms
9#: 230 ms
10#: 250 ms
11#: 270 ms
12#: 290 ms
13#: 310 ms
14#: 329 ms
15#: 349 ms

This sets the time break recall time for the system. It can only be set once time break recall has been set.

Related step FF2 1# (01-48)# 16# ,Type of PBX recall signal
FF2 1# (01-48)# 10# , Piggy backing to PBX

Ring detect time **2.x**

[CO CLOSE TIMER]

FF1-3#-19#-(0-15)#

0#: Ring time + pause time is less than 4 secs.
1#: Ring time + pause time is less than 5 secs.
2#: Ring time + pause time is less than 6 secs.
3#: Ring time + pause time is less than 7 secs.
4#: Ring time + pause time is less than 8 secs.
5#: Ring time + pause time is less than 9 secs.
6#: Ring time + pause time is less than 10 secs.
7#: Ring time + pause time is less than 11 secs.
8#: Ring time + pause time is less than 12 secs.
9#: Ring time + pause time is less than 13 secs.
10#: Ring time + pause time is less than 14 secs.
11#: Ring time + pause time is less than 15 secs.
12#: Ring time + pause time is less than 16 secs.
13#: Ring time + pause time is less than 17 secs.
14#: Ring time + pause time is less than 18 secs.
15#: Ring time + pause time is less than 19 secs.

To enable the auto answer function on non standard ring cadences, the ring detect time of the system may be altered to cover the range from 4-19 seconds.

Key telephone pre-ring time **2.x**

[1ST PRERING TIM]

FF1-3#-20#-(0-15)#

0#: Synchronised
1#: Exchange line incoming call tone continues for 50 ms
2#: Exchange line incoming call tone continues for 100 ms
3#: Exchange line incoming call tone continues for 150ms
4#: Exchange line incoming call tone continues for 200 ms
5#: Exchange line incoming call tone continues for 250ms
6#: Exchange line incoming call tone continues for 300 ms
7#: Exchange line incoming call tone continues for 350 ms
8#: Exchange line incoming call tone continues for 400 ms
9#: Exchange line incoming call tone continues for 450 ms
10#: Exchange line incoming call tone continues for 500 ms
11#: Exchange line incoming call tone continues for 550 ms
12#: Exchange line incoming call tone continues for 600 ms
13#: Exchange line incoming call tone continues for 650 ms
14#: Exchange line incoming call tone continues for 700 ms
15#: Exchange line incoming call tone continues for 750 ms

Synchronises the incoming exchange line ringing with extension ringing.

FF1-3#-21#-(0-7)# [NOT USED]

FF1-3#-22#-(0-15)# [NOT USED]

Call forward-no answer transfer time **2.x**
[CFWD NO-ANS TIM]

FF1-3#-23#-(0-15)#

0#: 0 secs
1#: 4 secs.
2#: 8 secs.
3#: 12 secs.
4#: 16 secs.
5#: 20 secs.
6#: 24 secs.
7#: 28 secs.
8#: 32 secs.
9#: 36 secs.
10#: 40 secs.
11#: 44 secs.
12#: 48 secs.
13#: 52 secs.
14#: 56 secs.
15#: 60 secs.

If an incoming call is not answered by an extension within the specified time, the call will be transferred to another preset phone. This timer is also used for delayed ringing transfer up until software level CPC-EX v1.5, after which a separate timer FF1 3# 36# is used for delayed ringing..

Related steps FF1 2# 1# 26# - Delayed ringing
FF1 3# 36# - Delayed Ring No Answer Timer

FF1-3#-24#-(0-15)# [NOT USED]

FF1-3#-25#-(0-15)# [NOT USED]

DISA inter-signal time **2.x**
[DISA DIGITS TIM]

FF1-3#-26#-(0-15)#

0#: Wait for 1 secs..
1#: Wait for 2 secs.
2#: Wait for 3 secs.
3#: Wait for 4 secs.
4#: Wait for 5 secs.
5#: Wait for 6 secs.
6#: Wait for 7 secs.
7#: Wait for 8 secs.
8#: Wait for 9 secs.
9#: Wait for 10 secs.
10#: Wait for 11 secs.
11#: Wait for 12 secs.
12#: Wait for 13 secs.
13#: Wait for 14 secs.
14#: Wait for 15 secs.
15#: Wait for 16 secs.

This specifies how long to wait after receiving a DISA call, before accepting the next signal.

DISA no answer timer **2.x**

[DISA NO-ANS TIM]

FF1-3#-27#-(0-10)#

0#: Being routing if DISA call is not answered within 20 secs.
1#: Being routing if DISA call is not answered within 21 secs.
2#: Being routing if DISA call is not answered within 22 secs.
3#: Being routing if DISA call is not answered within 23 secs.
4#: Being routing if DISA call is not answered within 24 secs.
5#: Being routing if DISA call is not answered within 25 secs.
6#: Being routing if DISA call is not answered within 26 secs.
7#: Being routing if DISA call is not answered within 27 secs.
8#: Being routing if DISA call is not answered within 28 secs.
9#: Being routing if DISA call is not answered within 29 secs.
10#: Being routing if DISA call is not answered within 30 secs.

If a DISA call is not answered within a preset time period, the call is routed to an extension or the operator by program setting. This specifies after what time to transfer the DISA call

Related step FF1 2# 1# 20#

FF1-3#-28# **[NOT USED]**

DISA Cut Timer **2.x**

[DISA CUT TIMER]

FF1-3#-29#-(0-4)#

0#: Doesn't terminate a DISA call.
1#: 1 minute.
2#: 3 minutes
3#: 5 minutes
4#: 10 minutes

This specifies the time to ring for a DISA call before automatically terminating it. It begins timing after the No Answer Timer has transferred the DISA call to the operator or designated extension. After the incoming call is answered, this timer will be ignored.

Related step FF1 3# 27#

Pause Time for Voice Mail **4.0**

[V.M. PAUSE TIME]

FF1-3#-30#-(0-15)#

0#: No Timer
1#: 1 sec.
2#: 2 sec.
3#: 3 sec.
4#: 4 sec.
5#: 5 sec.
6#: 6 sec.
7#: 7 sec.
8#: 8 sec.
9#: 9 sec.
10#: 10 sec.
11#: 11 sec.
12#: 12 sec.
13#: 13 sec.
14#: 14 sec.
15#: 15 sec.

This sets the pause inserted after the voicemail port answers a call transferred to it from a forwarded extension with a call forward ID set , before the call forward ID is sent. The value required will be dependant on the voicemail system being used.

Alarm call ringing time **4.0**

[ALARM TIMER]

FF1-3#-31#-(0-1)#

0#: 16 sec.
1#" 32 sec.

This sets the time which an operator set alarm call will ring on an extension before self cancelling.

Internal call/E&M Line Hunting Recall Timer for Operator **3.1**

[INT HNT RCL ATT]

FF1-3#-32#-(0-15)#

0#: No recall after transfer
1#: Recall 20-sec after transfer
2#: Recall 40-sec after transfer
3#: Recall 60-sec after transfer
4#: Recall 80-sec after transfer
5#: Recall 100-sec after transfer
6#: Recall 120-sec after transfer
7#: Recall 140-sec after transfer
8#: Recall 160-sec after transfer
9#: Recall 180-sec after transfer
10#: Recall 200-sec after transfer
11#: Recall 220-sec after transfer
12#: Recall 240-sec after transfer
13#: Recall 240-sec after transfer
14#: Recall 240-sec after transfer
15#: Recall 240-sec after transfer

If a transferred intercom call or E&M line call is not answered by a hunting group member within the specified time after having been put on hold from an operator phone , the call rings back to the operators extension. This setting is only applicable to operator phones.

Internal call/E&M Line Hunting Recall Timer for Extensions **3.1**

[INT HNT RCL EXT]

FF1-3#-33#-(0-15)#

0#: No recall after transfer
1#: Recall 20-sec after transfer
2#: Recall 40-sec after transfer
3#: Recall 60-sec after transfer
4#: Recall 80-sec after transfer
5#: Recall 100-sec after transfer
6#: Recall 120-sec after transfer
7#: Recall 140-sec after transfer
8#: Recall 160-sec after transfer
9#: Recall 180-sec after transfer
10#: Recall 200-sec after transfer
11#: Recall 220-sec after transfer
12#: Recall 240-sec after transfer
13#: Recall 240-sec after transfer
14#: Recall 240-sec after transfer
15#: Recall 240-sec after transfer

If a transferred intercom call or E&M line call is not answered by a hunting group member within the specified time after having been put on hold from a extension phone , the call rings back to the extension. This setting is only applicable to extension phones.

Trunk To Trunk Speech Forced Disconnection Timer **CPC-EX 1.0**

FF1 3# 34# (0-16)#

(0-16)#	
1#	15 minutes
2#	30 minutes
3#	45 minutes
4#	60 minutes
5#	75 minutes
6#	90 minutes
7#	105 minutes
8#	120 minutes
9#	135 minutes
10#	150 minutes
11#	165 minutes
12#	180 minutes
13#	195 minutes
14#	210 minutes
15#	225 minutes
16#	240 minutes

The maximum time allowed for a trunk to trunk call can be set. When this timer has elapsed the call will be terminated by the system. This prevents lines from being held open if no clearing signal is received by the DBS from the local exchange.

Held Line Disconnect Timer **CPC-EX 1.0**

FF1 3# 35# (0-12)#

(0-12)#	
0#	Not used
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

This timer is the maximum time the system will allow a line to be held. If the timer elapses the held line is released

ID code-remote programming **2.x**

[SET 4DIGIT DATA]

FF1-4#-(0000-9999)#

[CONF]#: Clear to initial DATA (9999)
(0000-9999)#: Remote code.

Remote programming of the system can be done through a telephone line when the optional Remote Administration Interface (RAI) card is fitted. This step stores a 4 digit ID code to restrict access to authorised persons only.

This step has been replaced by FF1-4#-1# with CPC-EX v1.0

ID code-system programming **2.x**

[SET 4DIGIT DATA]

FF1-5#-(0000-9999)#

[CONF]#: Set default code 9999
(0000-9999)#: ID Code

By default, system programming is only possible from the operator phone. But by dialling 78 and this code at a display key telephone, the extension is enabled as a programming telephone. Dialling the sequence a second time disables the extension as a programming telephone. Only one extension can be enabled at one time.

This step has been replaced by FF1-4#-2# with CPC-EX v1.0

ID code-remote programming **CPC-EX 1.0**

[SET 4DIGIT DATA]

FF1-4#-1#-(0000-9999)#

[CONF]#: Clear to initial DATA (9999)
(0000-9999)#: Remote code.

Remote programming of the system can be done through a telephone line when the optional Remote Administration Interface (RAI) card is fitted. This step stores a 4 digit ID code to restrict access to authorised persons only.

ID code-system programming **CPC-EX 1.0**

[SET 4DIGIT DATA]

FF1-4#-2#-(0000-9999)#

[CONF]#: Set default code 9999
(0000-9999)#: ID Code

By default, system programming is only possible from the operator phone. But by dialling 78 and this code at a display key telephone, the extension is enabled as a programming telephone. Dialling the sequence a second time disables the extension as a programming telephone. Only one extension can be enabled at one time.

DISA Transfer ID **CPC-EX 1.0**

FF1 4# 4# (1,3,5,7,9)# (0000-9999)#

(1,3,5,7,9)#
1# DISA TRF ID 1
3# DISA TRF ID 2
5# DISA TRF ID 3
7# DISA TRF ID 4
9# DISA TRF ID 5

(0000-9999)#
4 digit ID code

Store upto 5 DISA breakout IDs for use by external callers on DISA lines. This ID is required when using DISA to break out of the DBS. If no IDs are stored the DISA breakout facility is disabled.

DISA Transfer ID Tenant Group **CPC-EX 1.0**

FF1 4# 4# (2,4,6,8,10)# (1-8)#

(2,4,6,8,10)#
1# DISA TRF ID 1
3# DISA TRF ID 2
5# DISA TRF ID 3
7# DISA TRF ID 4
9# DISA TRF ID 5

(1-8)#
Tenant Group

Assign a tenant group to use for each of the DISA TRF IDs in use. This is used to select a line by 9 access when breaking out.

ID code-DISA access **CPC-EX 1.0**

FF1-4#-3#-(0000-9999)#

[CONF]#: Clear data
(0000-9999)# ID Code

When this step is set the ID code stored must be entered by the caller before the system will accept extension routing digits from an incoming DISA call.

Note: To enable remote maintenance, it is necessary to input the remote program access code separately.

Related step FF2 1# (00-48)# 20# DISA line setting

System Size Setting **ISDN 1.0 / CPC-EX 1.0**

FF1 6# 1# 1# (0-5)# (P)

0# DBS 38
1# DBS 68
2# DBS 90
3# DBS 128
4# DBS 158
5# DBS 180

This sets the size of the system being installed to allow correct operation of the system software. A power off / on reset is required when setting this step. This step must be set even if there is no DASS connection to ensure the connected line cards are correctly addressed by the software.

Setting The Number Of Analogue Lines **ISDN 1.0 / CPC-EX 1.0**

FF1 6# 1# 2# (0-8)# (P)

0# 0 Lines
1# 6 Lines
2# 12 Lines
3# 18 Lines
4# 24 Lines
5# 30 Lines
6# 36 Lines
7# 42 Lines
8# 48 Lines

This sets the number of analogue line cards and hence the maximum number of analogue lines which can be connected to the system. A power off / on reset is required when setting this step. This step must be correctly set even if there is no DASS connection to ensure all installed line cards are activated on the system. When counting the number of analogue cards work from slot 1 upwards on the master CCU include the universal slot before moving onto the slave. (E.g.: DBS90 slot 5 is the first line slot of the slave) When configuring the CCU there must be no gaps in the sequence of line card slots used or system capacity will be reduced unnecessarily as skipped slots will still deduct line options from ISDN channel configuration options.

The number of analogue cards in the system includes all E&M, AC15A and TRK cards, all of which count as analogue line cards.

1st Display Setting **ISDN 1.0 / CPC-EX 1.0**

FF1 6# 1# 3# (0-2)#

(0-2)#
0# No Display
1# CLI
2# CLI Name (CPC-EX 1.0)

This determines whether to display the first 16 digits of an incoming caller's number (OLI) on the first line of keysets with an LCD, when a DASS II call is ringing.

On an incoming ISDN call with CLI enabled and rented from the network operator the DBS can check the CLI data against it's SSD memories. If it finds a match it can then display the SSD name instead of the CLI number.

When ringing, the name will appear on the first line of the display and drop to the second line after answer. The incoming CLI must be an exact match including the STD code for the search to generate a name and the receiving keyset must be a display keyset.

The following requirements must also be met:
The CLI name must be programmed to display
Names must be programmed for the SSDs
CLI must be received from the network on ISDN calls

When speaking on a call, or making a call, the name will appear on the second line of the display if names are set to appear and TLI is received from the network and matches an SSD or the number dialled matches an SSD.

	ISDN Call Type	Normal	DISA	Personal DDI	Group DDI	Personal DDI > ATT	Group DDI > ATT
Trunk Name Display OFF	No CLI Sent CLI Name OFF	Trunk No.	DISA Incoming	Trunk No.	Trunk No.	Extension & Trunk No.	Group Name & Trunk No.
	CLI Sent CLI Name OFF	CLI No.	DISA Incoming	CLI No.	CLI No.	Extension & Trunk No.	Group Name & Trunk No.
	No CLI Sent CLI Name ON	CLI No.	DISA Incoming	CLI No.	CLI No.	Extension & Trunk No.	Group Name & Trunk No.
	CLI Sent CLI Name ON	CLI Name	DISA Incoming	CLI Name	CLI Name	Extension & Trunk No.	Group Name & Trunk No.
Trunk Name Display ON	No CLI Sent CLI Name Off	Trunk Name	DISA Incoming	Trunk Name	Trunk Name	Extension & Trunk No.	Group Name & Trunk No.
	CLI Sent CLI Name OFF	CLI No.	DISA Incoming	CLI No.	CLI No.	Extension & Trunk No.	Group Name & Trunk No.
	No CLI Sent CLI Name ON	CLI No.	DISA Incoming	CLI No.	CLI No.	Extension & Trunk No.	Group Name & Trunk No.
	CLI Sent CLI Name ON	CLI Name	DISA Incoming	CLI Name	CLI Name	Extension & Trunk No.	Group Name & Trunk No.

Priority Of CLI Name Display When Used With Other Line Information Features

2nd Display Setting **ISDN 1.0 / CPC-EX 1.0**

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

(0-2)#
0# No Display
1# CLI
2# CLI Name (CPC-EX 1.0)

After answering a DASS II incoming call the first 15 digits of the caller's number (OLI) can be displayed on the second line of keysets with an LCD.

Action When Other Party Is Busy **ISDN 1.0**

FF1 6# 1# 5# (0-1)#

0# Wait For Network Disconnect Signal
1# Disconnect Without Waiting For Disconnect Signal

When an outgoing call on the DASS II channels receives busy the DBS can wait for the network to send disconnect or disconnect without waiting for the network signal.

Display When Other Party Is Busy **ISDN 1.0**

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

0# Display In Numbers
1# Display In Characters

When the called party is busy the network will return status information to the DBS to show the reason. The DBS can display the numeric code or brief text explaining the cause to the LCD of keysets.

MC0 (Dial 9) Search **ISDN 1.0**

FF1 6# 1# 7# (0-1)#

0# Search DASS II Channels First
1# Search Analogue Lines First

The DBS can search either the DASS II channels or analogue lines first when 9 is dialled to select a line. If all lines of the preferred type are busy the search continues to the other lines.

DASS II Dialling Type **CPC-EX 1.0 / 1.5**

FF1 6# 1# 8# (0-1)#

(0-1)#
0# Enblock dialling
1# Overlap dialling

The DASS II signalling specification can be set for enblock (all digits collected and sent in a single message) or overlap (each digit is sent to the network as it is dialled).

The default setting of this step has been changed to Overlap dialling from this software level.

ISDN Protocol Selection **CPC-EX v1.5**

FF1 6# 1# 9# (0-1)#

0# Euro ISDN
1# DASSII

Selection of the ISDN protocol to be connected to the system. If two ISDN cards are fitted they must both use the same protocol.

3.1Khz Audio Call - Incoming Ring **CPC-EX v1.5**

FF1 6# 1# 10# (0-1)#

0# Rings To Operator
1# Rings As An Incoming Call

If a 3.1 KHz Audio call is received by the system and is not assigned an answer position it can be directed to the Operator extension or handled as a normal incoming call as required by the system configuration.

DDI Number Output Setting **ISDN 1.0**

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

0# Not Output
1# Output

The DDI number which was dialled by the incoming caller can be output to the call logger if required. It appears in the dialled number field after the incoming ring time.

Other Party's Number Output - Incoming Call **ISDN 1.0**

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

0# Not Output
1# Output

The calling party's OLI can be output to the call logger.

Other Party's Number Output - Outgoing Call **ISDN 1.0**

FF1 6# 2# 3# (0-1)#

0# Not Output
1# Output

The called party's TLI can be output to the call logger.

Sub-address Number Output To The Call Logger **CPC-EX v1.5**

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

0# No Output To Call Logger
1# Incoming Sub-address Number Sent To Call Logger

Incoming sub-address numbers can be sent to the call logging system if required.

Timer Setting For Incoming Calls **ISDN 1.0**

FF1 6# 3# 1# (1-15)#

1#	0.5 sec
2#	1 sec
3#	1.5 sec
4#	2 sec
5#	3 sec
6#	4 sec
7#	5 sec
8#	6 sec
9#	8 Sec
10#	10 sec
11#	12 sec
12#	14 sec
13#	16 sec
14#	20 sec
15#	25 sec

This sets the time the system will wait for Call Answer Message (CAM) from the network after sending Call Answer (CA) before disconnecting the call. In this case the call is considered to have been a false call.

Timer For Answer On Outgoing Calls **ISDN 1.0**

FF1 6# 3# 2# (0-15)#

0#	0 sec
1#	15 sec
2#	30 sec
3#	45 sec
4#	60 sec
5#	75 sec
6#	90 sec
7#	105 sec
8#	120 sec
9#	135 sec
10#	150 sec
11#	170 sec
12#	190 sec
13#	210 sec
14#	230 sec
15#	250 sec

This is the time the system will wait for the Call Connect Message (CCM) answer signal from the network before disconnecting the line.

Timer For Acceptance Of outgoing Calls **ISDN 1.0**

FF1 6# 3# 3# (1-15)#

1#	0.5 sec
2#	1 sec
3#	1.5 sec
4#	2 sec
5#	3 sec
6#	4 sec
7#	5 sec
8#	6 sec
9#	8 Sec
10#	10 sec
11#	12 sec
12#	14 sec
13#	16 sec
14#	20 sec
15#	25 sec

Specifies the time the DBS will wait for the call type acceptance message from the network before disconnecting the call.

Timer For Manual Dial Time-Out **ISDN 1.0**

FF1 6# 3# 4# (1-15)#

1#	1 sec
2#	2 sec
3#	3 sec
4#	4 sec
5#	5 sec
6#	6 sec
7#	7 sec
8#	8 sec
9#	9 sec
10#	10 sec
11#	11 sec
12#	12 sec
13#	13 sec
14#	14 sec
15#	15 sec

This is the dialled digit time-out for manually dialled numbers. After the timer expires the digits stored are sent to the network. The send character # will override the timer sending the data immediately.

Timer For Auto Dial Time-Out **ISDN 1.0**

FF1 6# 3# 5# (1-15)#

1#	1 sec
2#	2 sec
3#	3 sec
4#	4 sec
5#	5 sec
6#	6 sec
7#	7 sec
8#	8 sec
9#	9 sec
10#	10 sec
11#	11 sec
12#	12 sec
13#	13 sec
14#	14 sec
15#	15 sec

This is the dialled digit time-out for automatically dialled numbers (SSDs PSDs etc.). After the timer expires the digits stored are sent to the network. The send character # will override the timer sending the data immediately.

Timer For The Dummy Dial Tone **ISDN 1.0**

FF1 6# 3# 6# (0-15)#

0#	0 sec
1#	5 sec
2#	10 sec
3#	15 sec
4#	20 sec
5#	25 sec
6#	30 sec
7#	35 sec
8#	40 sec
9#	45 sec
10#	50 sec
11#	55 sec
12#	60 sec
13#	65 sec
14#	70 sec
15#	75 sec

The time after which the DBS will disconnect a seized channel if no dialling takes place. The dummy dial tone sent to the extension when the channel is seized changes to busy tone.

Timer For Unanswered Incoming DDI Call **ISDN 1.0**

FF1 6# 3# 7# (0-15)#

0#	0 sec
1#	5 sec
2#	10 sec
3#	15 sec
4#	20 sec
5#	25 sec
6#	30 sec
7#	35 sec
8#	40 sec
9#	45 sec
10#	50 sec
11#	55 sec
12#	60 sec
13#	65 sec
14#	70 sec
15#	75 sec

The time after which the DBS will transfer the call to the operator or disconnect it dependant on programming setting.

Sub-address No Answer Timer **CPC-EX v1.5**

FF1 6# 3# 8# (0-15)#

0# No Timer
1# 5 Sec.
2# 10 sec.
3# 15 Sec.
4# 20 Sec.
5# 25 Sec.
6# 30 Sec.
7# 35 Sec.
8# 40 Sec.
9# 45 Sec.
10# 50 Sec.
11# 55 Sec.
12# 60 Sec.
13# 65 Sec.
14# 70 Sec.
15# 75 Sec.

If a sub-addressed call is not answered before this timer expires the call can be made to call the Operator extension or disconnect.

Related Step: FF1 6# 4# 19# - Sub-address No Answer Mode

DDI Enable **ISDN 1.0**

FF1 6# 4# 1# (0-1)#

0# Disabled
1# Enabled

This step controls the DDI functions of the DASS II software in the DBS. To use DDI this step must be enabled.

Action When Incoming DDI Destination Is Busy **ISDN 1.0 / CPC-EX v1.5**

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

0# Transfer To Operator
1# Terminate Call

When the incoming DDI call destination is unable to take the call the system will transfer the call to the operator or terminate it. The destination is unable to take the call if the extension is busy. Step is removed and no longer used from the CPC-EX v1.5 level of software, it is replaced by DDI Busy No Answer Mode.

Related Step: FF1 6# 5# 4# - DDI Busy / No Answer Mode
FF1 6# 5# 5# - DDI Busy No Answer Transfer Mode

Action When Unrecognised DDI Is Received **ISDN 1.0 / CPC-EX v1.5**

FF1 6# 4# 3# (0-1)#

0# Transfer To Operator
1# Terminate Call

The action to take when an unrecognised DDI number is received. Step is removed and no longer used from the CPC-EX v1.5 level of software, it is replaced by DDI Busy No Answer Mode.

Related Step: FF1 6# 5# 4# - DDI Busy / No Answer Mode
FF1 6# 5# 5# - DDI Busy No Answer Transfer Mode

Action When An Incoming DDI Call Is Unanswered **ISDN 1.0**

FF1 6# 4# 4# (0-1)#

0# Transfer To Operator
1# Terminate Call

This determines the action to take when an incoming DDI remains unanswered after the DDI answer timer has expired.

Related Step: FF1 6# 3# 7# (0-15)# -Timer For Unanswered Incoming DDI Call

Default DDI Number **ISDN 1.0**

FF1 6# 4# 5# (0-999999)#

This step is the default DDI number to be used when extensions which are not assigned a DDI number make a call and the DDI is sent to line.

This step should not be used if there are non DDI channels conected to the system.

Related Step: FF1 6# 5# (1-144)# 1# - DDI Number Setting

Sending DDI On Outgoing Calls **ISDN 1.0**

FF1 6# 4# 6# (0-1)#

0# Do Not Send DDI Data
1# Send DDI Data

The DDI data associate with an extension making a DASS II call can be sent to the network to provide CLI at the receiving end. Extensions which have no DDI set use the Default DDI Number.

Related Steps: FF1 6# 4# 5# - Default DDI Number
FF1 6# 5# (1-144)# 1# - DDI Number Setting

DDI Ringing Pattern **ISDN 1.0**

FF1 6# 4# 7# (1-3)#

1# .375 sec On / .25 sec Off / .375 sec On / 2 sec Off
2# 1 sec On / .25 sec Off
3# .25 sec On / .25 sec Off / .25 sec On / .25 sec Off / .25 sec On / 4.75 sec Off

Sets the ringing pattern for incoming DDI calls.

DDI Group Name Display **ISDN 1.2 / 4.1**

FF1 6# 4# 8# (0/1)#

0# Name displayed
1# Name NOT displayed

Selects weither the DDI group name is displayed on the second line of keyset LCDs curing DDI incoming ringing.

Default DDI Number For Private Wire Groups **CPC-EX 1.0**

FF1 6# 4# (9-11)# (0-999999)#

(9-11)#	Group	(0-999999)#	Default DDI Number
9#	Private wire group 1	CONF#	Clear
10#	Private wire group 2		
11#	Private wire group 3		

The DDI number for private circuit groups breaking out over DASS II can be specified here for use when outgoing DDI data is required to be sent to the network.

Default DDI Number For DISA Break Out **CPC-EX 1.0**

FF1 6# 4# (12-16)# (0-999999)#

(12-16)#	DISA ID Used	(0-999999)#	Default DDI Number
12#	DISA Break Out Using ID1	CONF#	Clear
13#	DISA Break Out Using ID2		
14#	DISA Break Out Using ID3		
15#	DISA Break Out Using ID4		
16#	DISA Break Out Using ID5		

The DDI number for DISA breaking out over DASS II using the transfer ID codes can be specified here for use when outgoing DDI data is required to be sent to the network.

Sub-address Busy Mode **CPC-EX v1.5**

FF1 6# 4# 17# (0-1)#

0# Ring To Operator Extension
1# Terminate The Call

If the sub address destination is busy this step control the action of the system when handling the call.

Sub-address Misdial Mode **CPC-EX v1.5**

FF1 6# 4# 18# (0-1)#

0# Ring To Operator Extension
1# Terminate The Call

If the sub address destination is not recognized as a valid extension this step control the action of the system when handling the call.

Sub-address No Answer Mode **CPC-EX v1.5**

FF1 6# 4# 19# (0-1)#

0# Ring To Operator Extension
1# Terminate The Call

If the sub address destination is not answered before the no answer timer elapses this step control the action of the system when handling the call.

Related Step: FF1 6# 3# 8# - Sub-address No Answer Timer

Sub-address Incoming Ring Pattern **CPC-EX v1.5**

FF1 6# 4# 20# (1-3)#

1# 0.375 Sec. On / 0.25 Sec. Off / 0.375 Sec. On / 2 Sec. Off
2# 1 Sec. On / 2 Sec. Off
3# 0.25 Sec. On / 0.25 Sec. Off / 0.25 Sec. On / 0.25 Sec. Off / 0.25 Sec. On / 4.75 Sec. Off

The incoming ringing pattern used by sub-addressed calls can be selected.

Number Of DDI Digits Used **CPC-EX v1.5**

FF1 6# 4# 21# (1-6)#

(1-6)# Number Of DDI Digits Used
4# 4 DDI Digits

The E-ISDN protocol does not delimit the DDI field like DASSII, therefore the system must be set to extract the correct number of digits from the D channel information accompanying the incoming call before the digits can be used to route internally.

DDI Operator Call Overflow **CPC-EX v2.1**

FF1 6# 4# 22# (0-15)#

0# No Overflow
1# Overflow after 1 DDI call
2# Overflow after 2 DDI calls
3# Overflow after 3 DDI calls
4# Overflow after 4 DDI calls
5# Overflow after 5 DDI calls
6# Overflow after 6 DDI calls
7# Overflow after 7 DDI calls
8# Overflow after 8 DDI calls
9# Overflow after 9 DDI calls
10# Overflow after 10 DDI calls
11# Overflow after 11 DDI calls
12# Overflow after 12 DDI calls
13# Overflow after 13 DDI calls
14# Overflow after 14 DDI calls
15# Overflow after 15 DDI calls

The number of simultaneous ringing incoming DDI calls to the operator extension can be limited to between 1 and 15, If set, further calls will be routed to the specified overflow extension or group as set in FF6 4# 23#. This setting operates in a similar manner to Operator Call Overflow FF1 2# 1# 15#, but the steps are not linked together and each operates independently of the other.

Related Step: FF1 6# 4# 23# - Extension for DDI Operator Overflow

Extension For DDI Operator Call Overflow **CPC-EX v2.1**

FF1 6# 4# 23# (NNNN)#

CONF# Clear
NNNN# Extension or Group Virtual Extension Number

This step specifies the extension number or group (using a virtual extension number) to receive incoming DDI calls which overflow from the operator extension.

Related Steps: FF1 6# 4# 22# - DDI Operator Overflow
FF4 8# - Assignment Of Extension Numbers To Groups

DDI Number Setting **ISDN 1.0 / CPC-EX 1.0**

FF1 6# 5# (1-144)# 1# (N - NNNNNN)# CPC-C
FF1 6# 5# (1-200)# 1# (N - NNNNNN)# CPC-EX 1.0

This table stores the list of 1 - 144 or 1-200 DDI numbers, depending upon processor type, to be used by the system to route incoming calls. Each DDI can be 1 - 6 digits. The numbers should match the length of the DDI requested from the network. These locations contain no data initially.

Related Steps: FF1 6# 5# (DDI)# 2# (0-3)#
FF1 6# 5# (DDI)# 3# (NNNN)#

Day Mode - DDI Ring Mode **ISDN 1.0 / CPC-EX 1.0 / 2.1**

FF1 6# 5# (1-144)# 2# (0-1)# CPC-C
FF1 6# 5# (1-200)# 2# (0-3)# CPC-EX 1.0

0#	Extension	
1#	Group	
2#	Private Wire	(CPC-EX v1.0)
3#	Operator	(CPC-EX v1.0)

This table is used to allocate each DDI stored in the step FF1 6# 5# (DDI)# 1# to ring to an extension or group. There is a setting for each DDI number. The locations 1-144/1-200 correspond to the locations in the other DDI steps. Extension and group are as ISDN v1.2, private wire is to call across a private circuit to a connected system and operator will camp the call onto the operator extension (even when it is busy). The setting will automatically configure FF1 6# 5# 3# to accept the correct format of data.

Related Steps: FF1 6# 5# (DDI)# 1# (N - NNNNNN)#
FF1 6# 5# (DDI)# 3# (NNNN)#

Day Mode - DDI Extension / Group Setting **ISDN 1.0 / CPC-EX 1.0 / 2.1**

FF1 6# 5# (1-144)# 3# (NNNN)# CPC-C
FF1 6# 5# (1-200)# 3# (NNNN)# CPC-EX 1.0

This step stores the extension or group number to be rung by each DDI stored in the step FF1 6# 5# (DDI)# 1#. There is a setting for each DDI number. The locations 1-144/1-200 correspond to the locations in the other DDI steps. The format of data to be stored is determined by the setting made for each entry in FF1 6# 5# 2# as follows:

FF1 6# 5# 2#	Data format
0	extension number
1	1-50 group number
2	extension number on remote system
3	no setting required - all calls to operator extension

Related Steps: FF1 6# 5# (DDI)# 1# (N - NNNNNN)#
FF1 6# 5# (DDI)# 2# (0-3)#

Day Mode - DDI Busy / No Answer Mode **CPC-EX v2.1**

FF1 6# 5# (1-200)# 4# (0-2)#

0# To Operator Extension
1# Terminate Call
2# To Alternative Destination Extension In Step FF! 6# 5# 5#

In Day Mode, if the DDI destination is busy or not answered at the extension or group specified in the DDI table, the call can be routed to the Operator Extension, specified transfer extension (FF1 6# 5# 5#) or terminated

Related Step: FF1 6# 5# 5# - Day Mode - DDI Transfer Telephone Setting

Day Mode - DDI Transfer Telephone Setting **CPC-EX v2.1**

FF1 6# 5# (1-200)# 5# (NNNN)#

NNNN# Extension or Group Virtual Extension Number

In Day Mode, if an incoming DDI call is not answered it can be routed to a specified extension or group. Each DDI can be given its own alternative destination.

Related Step: FF1 6# 5# 4# - Day Mode - DDI Busy / No Answer Mode

Night Mode - DDI Ring Mode **CPC-EX 2.1**

FF1 6# 5# (1-200)# 6# (0-3)#

0#	Extension
1#	Group
2#	Private Wire
3#	Operator

This table is used to allocate each DDI stored in the step FF1 6# 5# (DDI)# 1# to ring to an extension or group. There is a setting for each DDI number. The locations 1-144/1-200 correspond to the locations in the other DDI steps. Extension and group are as ISDN v1.2, private wire is to call across a private circuit to a connected system and operator will camp the call onto the operator extension (even when it is busy). The setting will automatically configure FF1 6# 5# 3# to accept the correct format of data.

Related Steps: FF1 6# 5# (DDI)# 1# (N - NNNNNN)#
FF1 6# 5# (DDI)# 7# (NNNN)#

Night Mode - DDI Extension / Group Setting **CPC-EX 2.1**

FF1 6# 5# (1-200)# 7# (NNNN)#

This step stores the extension or group number to be rung by each DDI stored in the step FF1 6# 5# (DDI)# 1#. There is a setting for each DDI number. The locations 1-144/1-200 correspond to the locations in the other DDI steps. The format of data to be stored is determined by the setting made for each entry in FF1 6# 5# 2# as follows:

FF1 6# 5# 6#	Data format
0	extension number
1	1-50 group number
2	extension number on remote system
3	no setting required - all calls to operator extension

Related Steps: FF1 6# 5# (DDI)# 1# (N - NNNNNN)#
FF1 6# 5# (DDI)# 6# (0-3)#

Night Mode - DDI Busy / No Answer Mode **CPC-EX v2.1**

FF1 6# 5# (1-200)# 8# (0-2)#

0# To Operator Extension
1# Terminate Call
2# To Alternative Destination Extension In Step FF! 6# 5# 5#

In Day Mode, if the DDI destination is busy or not answered at the extension or group specified in the DDI table, the call can be routed to the Operator Extension, specified transfer extension (FF1 6# 5# 5#) or terminated

Related Step: FF1 6# 5# 9# - Night Mode - DDI Transfer Telephone Setting

Night Mode - DDI Transfer Telephone Setting **CPC-EX v2.1**

FF1 6# 5# (1-200)# 9# (NNNN)#

NNNN# Extension or Group Virtual Extension Number

In Day Mode, if an incoming DDI call is not answered it can be routed to a specified extension or group. Each DDI can be given its own alternative destination.

Related Step: FF1 6# 5# 8# - Night Mode - DDI Busy / No Answer Mode

DASSII Red Alarm Detection Timer **CPC-EX v1.5**

FF1 6# 6# 1# (1-15)#

1# 1 Sec.
2# 1.5 Sec.
3# 2 Sec.
4# 2.5 Sec.
5# 3 Sec.
6# 3.5 Sec.
7# 4 Sec.
8# 4.5 Sec
9# 5 Sec.
10# 5.5 Sec.
11# 6 Sec.
12# 6.5 Sec.
13# 7 Sec
14# 7.5 Sec
15# 8 Sec

Used for DASSII connections, this is the length of time a red alarm condition has to be present before the DBS will indicate a red alarm condition. This step has been moved from FF1 6# 99# 1#.

DASS II Red Alarm Recovery Timer **CPC-EX v1.5**

FF1 6# 6# 2# (1-15)#

1# 1 Sec.
2# 2 Sec.
3# 3 Sec.
4# 4 Sec.
5# 5 Sec.
6# 6 Sec.
7# 7 Sec.
8# 8 Sec
9# 9 Sec.
10# 10 Sec.
11# 11 Sec.
12# 12 Sec.
13# 13 Sec
14# 14 Sec
15# 15 Sec

Used for DASSII connections, this is the length of time a red alarm condition once detected must be absent before the DBS will end the red alarm condition. This step has been moved from FF1 6# 99# 2#.

DASSII Incoming Wait Timer **CPC-EX v1.5**

FF1 6# 6# 3# (1-15)#

1# 0.5 Sec.
2# 1 Sec.
3# 1.5 Sec.
4# 2 Sec.
5# 3 Sec.
6# 4 Sec.
7# 5 Sec.
8# 6 Sec
9# 8 Sec.
10# 10 Sec.
11# 12 Sec.
12# 14 Sec.
13# 16 Sec
14# 20 Sec
15# 25 Sec

When using a DASSII connection, this timer is the time the DBS will wait after receiving the Incoming Call Indication and the actual call (opening of the B Channel) arriving. If this timer elapses before the call arrives the call will fail and the channel will be dropped. This step has been moved from FF1 6# 3# 1#.

DASSII Answer Wait Timer **CPC-EX v1.5**

FF1 6# 6# 4# (0-15)#

0# No Timer
1# 15 Sec
2# 30 Sec.
3# 45 Sec.
4# 60 Sec.
5# 75 Sec.
6# 90 Sec.
7# 105 Sec.
8# 120 Sec
9# 135 Sec.
10# 150 Sec.
11# 170 Sec.
12# 190 Sec.
13# 210 Sec
14# 230 Sec
15# 250 Sec

On a DASSII connection, this is the time the DBS will wait for a Call Connect Message, indicating answer by the called party, following sending of the Initial Service Request Message initiating the call. After this it will fail the call if no CCM is received. Setting no timer will disable this feature and the system will wait for CCM until the dialing extension clears. This step has been moved from FF1 6# 3# 2#.

DASSII Answer Confirm Timer **CPC-EX v1.5**

FF1 6# 6# 5# (1-15)#

1# 0.5 Sec.
2# 1 Sec.
3# 1.5 Sec.
4# 2 Sec.
5# 3 Sec.
6# 4 Sec.
7# 5 Sec.
8# 6 Sec
9# 8 Sec.
10# 10 Sec.
11# 12 Sec.
12# 14 Sec.
13# 16 Sec
14# 20 Sec
15# 25 Sec

For DASSII connections, this is the time the DBS will wait for acknowledgment of an Initial Service Request Message from the network when originating a call. This step has been moved from FF1 6# 3# 3#.

E-ISDN Red Alarm Detection Timer **CPC-EX v1.5**

FF1 6# 7# 1# (1-15)#

1# 1 Sec.
2# 1.5 Sec.
3# 2 Sec.
4# 2.5 Sec.
5# 3 Sec.
6# 3.5 Sec.
7# 4 Sec.
8# 4.5 Sec
9# 5 Sec.
10# 5.5 Sec.
11# 6 Sec.
12# 6.5 Sec.
13# 7 Sec
14# 7.5 Sec
15# 8 Sec

Used for E-ISDN connections, this is the length of time a red alarm condition has to be present before the DBS will indicate a red alarm condition.

E-ISDN Red Alarm Recovery Timer **CPC-EX v1.5**

FF1 6# 7# 2# (1-15)#

1# 10 msec.
2# 20 msec.
3# 30 msec.
4# 40 msec.
5# 50 msec.
6# 60 msec.
7# 70 msec.
8# 80 msec.
9# 90 msec.
10# 100 msec.
11# 110 msec.
12# 120 msec.
13# 130 msec.
14# 140 msec.
15# 150 msec.

Used for E-ISDN connections, this is the length of time a red alarm condition once detected must be absent before the DBS will end the red alarm condition.

The following E-ISDN timers are preset and will only require changing under guidance from Panasonic technical staff.

E-ISDN T301 Timer **CPC-EX v1.5**

FF1 6# 7# 3# (0-15)#

0# No Timer
1# 10 Sec
2# 15 Sec.
3# 20 Sec.
4# 30 Sec.
5# 40 Sec.
6# 50 Sec.
7# 60 Sec.
8# 80 Sec
9# 100 Sec.
10# 120 Sec.
11# 150 Sec.
12# 180 Sec.
13# 210 Sec
14# 240 Sec
15# 250 Sec

E-ISDN T302 Timer **CPC-EX v1.5**

FF1 6# 7# 4# (0-15)#

0# No Timer
1# 10 Sec
2# 15 Sec.
3# 20 Sec.
4# 30 Sec.
5# 40 Sec.
6# 50 Sec.
7# 60 Sec.
8# 80 Sec
9# 100 Sec.
10# 120 Sec.
11# 150 Sec.
12# 180 Sec.
13# 210 Sec
14# 240 Sec
15# 250 Sec

E-ISDN T303 Timer **CPC-EX v1.5**

FF1 6# 7# 5# (0-15)#

0# No Timer
1# 0.5 Sec
2# 1 Sec.
3# 1.5 Sec.
4# 2 Sec.
5# 3 Sec.
6# 4 Sec.
7# 5 Sec.
8# 6 Sec
9# 7 Sec.
10# 8 Sec.
11# 9 Sec.
12# 10 Sec.
13# 15 Sec
14# 20 Sec
15# 25 Sec

E-ISDN T304 Timer **CPC-EX v1.5**

FF1 6# 7# 6# (0-15)#

0# No Timer
1# 10 Sec
2# 15 Sec.
3# 20 Sec.
4# 30 Sec.
5# 40 Sec.
6# 50 Sec.
7# 60 Sec.
8# 80 Sec
9# 100 Sec.
10# 120 Sec.
11# 150 Sec.
12# 180 Sec.
13# 210 Sec
14# 240 Sec
15# 250 Sec

E-ISDN T305 Timer **CPC-EX v1.5**

FF1 6# 7# 7# (0-15)#

0# No Timer
1# 10 Sec
2# 15 Sec.
3# 20 Sec.
4# 30 Sec.
5# 40 Sec.
6# 50 Sec.
7# 60 Sec.
8# 80 Sec
9# 100 Sec.
10# 120 Sec.
11# 150 Sec.
12# 180 Sec.
13# 210 Sec
14# 240 Sec
15# 250 Sec

E-ISDN T308 Timer **CPC-EX v1.5**

FF1 6# 7# 8# (0-15)#

0# No Timer
1# 0.5 Sec
2# 1 Sec.
3# 1.5 Sec.
4# 2 Sec.
5# 3 Sec.
6# 4 Sec.
7# 5 Sec.
8# 6 Sec
9# 7 Sec.
10# 8 Sec.
11# 9 Sec.
12# 10 Sec.
13# 15 Sec
14# 20 Sec
15# 25 Sec

E-ISDN T310 Timer **CPC-EX v1.5**

FF1 6# 7# 9# (0-15)#

0# No Timer
1# 10 Sec
2# 15 Sec.
3# 20 Sec.
4# 30 Sec.
5# 40 Sec.
6# 50 Sec.
7# 60 Sec.
8# 80 Sec
9# 100 Sec.
10# 120 Sec.
11# 150 Sec.
12# 180 Sec.
13# 210 Sec
14# 240 Sec
15# 250 Sec

E-ISDN T313 Timer **CPC-EX v1.5**

FF1 6# 7# 10# (0-15)#

0# No Timer
1# 0.5 Sec
2# 1 Sec.
3# 1.5 Sec.
4# 2 Sec.
5# 3 Sec.
6# 4 Sec.
7# 5 Sec.
8# 6 Sec
9# 7 Sec.
10# 8 Sec.
11# 9 Sec.
12# 10 Sec.
13# 15 Sec
14# 20 Sec
15# 25 Sec

E-ISDN T316 Timer **CPC-EX v1.5**

FF1 6# 7# 11# (0-15)#

0# No Timer
1# 10 Sec
2# 15 Sec.
3# 20 Sec.
4# 30 Sec.
5# 40 Sec.
6# 50 Sec.
7# 60 Sec.
8# 80 Sec
9# 100 Sec.
10# 120 Sec.
11# 150 Sec.
12# 180 Sec.
13# 210 Sec
14# 240 Sec
15# 250 Sec

E-ISDN T317 Timer **CPC-EX v1.5**

FF1 6# 7# 12# (0-15)#

0# No Timer
1# 10 Sec
2# 15 Sec.
3# 20 Sec.
4# 30 Sec.
5# 40 Sec.
6# 50 Sec.
7# 60 Sec.
8# 80 Sec
9# 100 Sec.
10# 120 Sec.
11# 150 Sec.
12# 180 Sec.
13# 210 Sec
14# 240 Sec
15# 250 Sec

E-ISDN CRC Check **CPC-EX v1.5**

FF1 6# 7# 13# (0-1)#

0# Enabled
1# Disabled

E-ISDN 64Khz Unrestricted Digital Calls **CPC-EX v1.5**

FF1 6# 7# 14# (0-1)#

0# Rejected
1# Accepted

These calls are rejected as they are not required for voice communication, which would use a lower bandwidth and can be data which is not accepted by the DBS.

FF1-7 [NOT USED]

PAD Settings **CPC-EX 1.0**

FF1 6# 98# (1-31)# (0-30)#

(1-31)#	Connection Type	(0-30)#	Level Adjustment
1#	KTS - DASS	0#	0 dB
2#	SLT - DASS	1#	2 dB
3#	RESERVED	2#	4 dB
4#	Analogue Line - DASS	3#	6 dB
5#	DASS - DASS	4#	8 dB
6# - 9#	RESERVED	5#	10 dB
10#	DASS - KTS	6#	12 dB
11#	DASS - SLT	7#	14 dB
12#	RESERVED	8#	16 dB
13#	DASS - Analogue Line	9#	18 dB
14#	DASS - DASS	10#	20 dB
15# - 18#	RESERVED	11#	22 dB
19#	Analogue Line - Analogue Line	12#	24 dB
20#	Analogue Line - Private Wire	13#	26 dB
21#	RESERVED	14#	28 dB
22#	DASS - Private Wire	15#	30 dB
23#	RESERVED	16#	-2 dB
24#	Private Wire - Analogue Line	17#	-4 dB
25#	Private Wire - DASS	18#	-6 dB
26#	Private Wire - Private Wire	19#	-8 dB
27# - 31#	RESERVED	20#	-10 dB
		21#	-12 dB
		22#	-14 dB
		23#	-16 dB
		24#	-18 dB
		25#	-20 dB
		26#	-22 dB
		27#	-24 dB
		28#	-26 dB
		29#	-28 dB
		30#	-30 dB

During conversations involving two lines differences in the line levels can lead to howling. To prevent this the cross connection levels between the installed line types can be adjusted to remove the howl. To use these setting the Synchronisation unit VB3668UK must be installed on the CPC-EX card. The levels can be adjusted +/_ 30 dB using these steps.

ID code-DISA access **2.x**

[SET 4DIGIT DATA]

FF1-8#-(0000-9999)#

[CONF]#: Clear data
(0000-9999)# ID Code

When this step is set the ID code stored must be entered by the caller before the system will accept extension routing digits from an incoming DISA call.

Note: To enable remote maintenance, it is necessary to input the remote program access code separately.

Related step FF2 1# (00-48)# 20# DISA line setting

This step has been replaced by FF1-4#-3# on CPC-EX v1.0

Network Mode Setting **3.1**

[NETWORK TYPE]

FF1-9#-1#-(0-4)#

0#: Standalone
1#: Networked (Route access code 2)
2#: Networked (Route access code 3)
3#: Networked (Route access code 4)
4#: Networked (Route access code 5)

Sets the DBS as a standalone system or network node. This step also assigns the route access code to a networked system.

No Answer Timer **3.1**

[NO ANSWER TIMER]

FF1-9#-2#-(1-5)#

1#: 20 sec
2#: 30 sec.
3#: 40 sec.
4#: 50 sec.
5#: 60 sec.

Sets the time in seconds to cut off a call across an E&M circuit if the recipient end of the private line does not answer. This setting applies to private line calls only.

Route Access Code 2 **3.1**

[R.A.C.2 NUMBER]

FF1-9#-3#-(0-3)#

0#: Local
1#: Private line group 1
2#: Private line group 2
3#: Private line group 3

Assigns the private line group to use for route access code (RAC) 2. If the system is itself allocated RAC 2, set for local. When RAC 2 is used the circuits assigned to the group set here will be used to access the remote system.

Route Access Code 3 **3.1**

[R.A.C.3 NUMBER]

FF1-9#-4#-(0-3)#

0#: Local
1#: Private line group 1
2#: Private line group 2
3#: Private line group 3

Assigns Private line group to use for route access code (RAC) 3. If the system is itself allocated RAC 3, set for local. When RAC 3 is used the circuits assigned to the group set here will be used to access the remote system.

Route Access Code 4 **3.1**

[R.A.C.4 NUMBER]

FF1-9#-5#-(0-3)#

0#: Local
1#: Private line group 1
2#: Private line group 2
3#: Private line group 3

Assigns Private line group to use for route access code (RAC) 4. If the system is itself allocated RAC 4, set for local. When RAC 4 is used the circuits assigned to the group set here will be used to access the remote system.

Route Access Code 5 **3.1**

[R.A.C.5 NUMBER]

FF1-9#-6#-(0-3)#

0#: Local
1#: Private line group 1
2#: Private line group 2
3#: Private line group 3

Assigns Private line group to use for route access code (RAC) 5. If the system is itself allocated RAC 5 set for local. When RAC 5 is used the circuits assigned to the group set here will be used to access the remote system.

Private Line Slot Setting **3.1**

[BOARD NO. SET]

FF1-10#-(1-8)#-(1-4)#

(1-8)# System	Slot Position No.	(1-4)# Card Circuits	Setting No.
DBS-38	1:Line 1 (Note)	Private line 1 to 3	1
	2:Line/Ext		
DBS-68	1:Line 1 (Note)	Private line 1 to 3	1
	2:Line 2	Private line 4 to 6	2
	3:Line/Ext		
DBS-90	1:Line 1 (Note)	Private line 1 to 3	1
	2:Line 2	Private line 4 to 6	2
	3:Line 3		
	4:Line/Ext		
D Master Cabinet	1:Line 1 (Note)	Private line 1 to 3	1
B	2:Line 2	Private line 4 to 6	2
S	3:Line 3	Private line 7 to 9	3
1	4:Line/Ext		
2 Slave Cabinet	5:Line 1 (Note)		
8	6: Line/Ext		
D Master Cabinet	1:Line 1 (Note)	Private line 1 to 3	1
B	2:Line 2	Private line 4 to 6	2
S	3:Line 3	Private line 7 to 9	3
1	4:Line/Ext	Private line 10 to 12	4
5 Slave Cabinet	5:Line 1 (Note)		
8	6:Line 2		
	7:Line/Ext		
D Master Cabinet	1:Line 1 (Note)	Private line 1 to 3	1
B	2:Line 2	Private line 4 to 6	2
S	3:Line 3	Private line 7 to 9	3
1	4:Line/Ext	Private line 10 to 12	4
8 Slave Cabinet	5:Line 1 (Note)		
0	6:Line 2		
	7:Line 3		
	8:Line/Ext		

This setting specifies by system size which slot is used for private circuit cards. Read down the left hand side to the system size then across to get the slot number and across again to get the card setting from the available options. This setting is used for E&M and AC15A private circuit cards.

Note: 1 Power on maintenance is required after programming.

2 Do not insert private circuit cards into the slots allocated for exchange line power fail. But it can be inserted into the line slot of the slave CCU when no exchange line card is installed.

3 In the case of DBS-180 , DBS 128 and DBS-158, a maximum of two private circuit cards can be used in each CCU.

Exchange line interface

Important Note: The format of the exchange line programming steps changed between software versions 2.x and 3.1. Additional modes in 3.1 and higher levels mean the introduction of an additional indicator in the programming step following the FF2 command. For example in version 2.x the command to set dialling mode was FF2 (01-48)# 2# (0-1)# in later versions this became FF2 **1#** (01-49)# 2# (0-1)#. The from versions shown indicate the levels of software the step is first used.

In this section, unless indicated otherwise the portion of the step (01-48)# represents the line number to apply the instruction to.

Trunk Line Prohibition **3.1**

[DENY TRUNK USE]

FF2-1#-(01-48)#-1#-(0-1)#

0#: In Service
1#: Out Of Service

This setting will disable a trunk port on the system preventing any calls being made or received on it.

Important Note When Using The ISDN Interface:

The DASS II equipment for the DBS supports 30 channels. Installations may only be using a small number of these. The nature of the ISDN network is such that unused channels are still active, but calls to them will fail and busy the channel. This cannot be cleared from the DBS.

Therefore all unused DASS channels must be programmned out of use using the following step. The line numbers to be used are from the left hand column of the appropriate table from pages 9 to 11.

Note: When the trunk is set for "Out of service", calls cannot be made or received, although a calling party will hear ring tone not busy tone.

Signalling-MF/Pulse **2.x**

[DIAL SEND TYPE]

FF2-1#-(01-48)#-2#-(0 or 1)#

0#: DTMF signal dial
1#: 10pps pulse dial

MF or pulse dialling can be set independently for each exchange line on the system.

Related step FF2 1# (01-48)# 13# , DTMF signalling specification

Line Group 0 **2.x**

[MCO GROUP '0']

FF2-1#-(01-48)#-3#-(0 or 1)#

0#: Not subject to line group 0
1#: Accessible through line group 0

This program allocates which lines are available to line group 0. these lines are accessed by dialling "9". Lines which are allocated to this group can be sub divided into tenant groups to allow multiple department systems to have each department access their own lines when members dial '9'.

Note: A line already defined as Dedicated Line to an extension cannot be put in the Groups.

Related steps FF2 1# (01-48)# 25# , Exchange line tenant group setting
FF3 (001-144)# 36# , Extension tenant group setting

Line groupings **2.x**

[MCO GROUP '1'-'6']

FF2-1#-(01-48)#-(4-9)#-(0 or 1)#

(4-9)#
4#: Line group 1
5#: Line group 2
6#: Line group 3
7#: Line group 4
8#: Line group 5
9#: Line group 6

(0-1)#
0#: Not subject to line group
1#: Accessible through line group

Sets which exchange lines are available to which line group or groups. A line group can be selected for dialling using the command 81 followed by the group number (1-6).

Note: A line already defined as Dedicated Line to an extension cannot be put in the Groups.

Piggy backing to PBX **2.x**

[TRUNK TYPE]

FF2-1#-(01-48)#-10#-(0 or 1)#

0#: Exchange line
1#: PBX line

This step determines the line type of each exchange line port. When the system is configured as a subsidiary to a host PBX set this to 'PBX line' for the system to handle PBX access codes, pauses, recall signals ,and call barring settings correctly.

Dedicated line to extension **2.x**

[PRIVATE PORT#]

FF2-1#-(01-48)#-11#-(001-144)#

[CONF]#: No dedicated line to extension
(001-144)#: Dedicated line for set extension port number

Each extension can have an exclusive dedicated line. An incoming call from an exchange line set for private use rings on the extension to which that line belongs only. While there can be a number of dedicated lines belonging to one telephone, a single dedicated line cannot belong to a number of telephones. Once set, other extensions can not make calls to or receive calls from that exchange line port.

Note: Before you assign a line as a dedicated line to an extension, remove it from all Line Groups.

Auto pause for PBX working **2.x**

[AUTO PAUSE]

FF2-1#-(01-48)#-12#-(0 or 1)#

0#: No Auto pause
1#: Auto pause used

When piggy backing a pause may to be set for each PBX line if required by the host.
.
Related step FF2-1#-(01-48)#-10# , Piggy backing to PBX
FF1-3#-15# , REDIAL/PBX auto pause time

DTMF Signalling Specification **2.x**

[TONE SEND TIME]

FF2-1#-(01-48)#-13#-(0-1)#

0#: 125 ms ON/125ms OFF
1#: 250 ms ON/250ms OFF

This step allows the duration of DTMF tone sent from the system to be lengthened. This may be required if dial up services requiring further user commands have difficulty detecting the DTMF tones dialled from the system.

Choice of incoming ringing signal **2.x**

[INCOME TONE PTN]

FF2-1#-(01-48)#-14#-(0-3)#

0#: Incoming ring tone synchronised
1#: 0.375 sec ON/0.25 sec OFF/0.375 sec ON/2 sec OFF
2#: 1 sec ON/2 sec OFF
3#: 0.25 sec ON/0.25 sec OFF/0.25 sec ON/0.25 sec OFF/0.25 sec ON/4.75 sec OFF

The ring tone cadence for incoming calls can be selected for each trunk port. If exchange lines are assigned for use by individuals, they will know who the call is for by the ring tone pattern.

Auto line disconnect time **2.x**

[DISCONNECT TIME]

FF2-1#-(01-48)#-15#-(0 -15)#

0#: No Loop down signal
1#: Loop down signal after 50 ms
2#: Loop down signal after 100 ms
3#: Loop down signal after 150 ms
4#: Loop down signal after 200 ms
5#: Loop down signal after 250 ms
6#: Loop down signal after 300 ms
7#: Loop down signal after 350 ms
8#: Loop down signal after 400 ms
9#: Loop down signal after 450 ms
10#: Loop down signal after 500 ms
11#: Loop down signal after 550 ms
12#: Loop down signal after 600 ms
13#: Loop down signal after 650 ms
14#: Loop down signal after 700 ms
15#: Loop down signal after 750 ms

This specifies the pause time before sending out the LOOP DOWN signal to cut off an exchange line when the line is busy or exchange line call is on hold following reception of an external disconnect signal.

Note: Setting this step to 1 will allow the DBS to recognise Calling Party Clear (CPC) signals from the exchange. This should be set when the Voice Announce Unit is installed on the lines ringing to the VAU. Otherwise the VAU will not clear down correctly if a caller hangs up.

Note: CPC is not available on all exchanges

Type of PBX recall signal **2.x**

[FLASH TIMED SET]

FF2-1#-(01-48)#-16#-(0-2)#

0#: No recall
1#: Enable time break
2#: Enable earth recall

This sets each exchange line to time break, earth or no recall.

Related step FF1 3# 16# , Exchange line disconnect time REDIAL/flash
FF1 3# 17# , PBX recall time - earth recall
FF1 3# 18# , PBX recall time - time break recall

Call logging start time **2.x**

[CONNECT TIMER]

FF2-1#-(01-48)#-17#-(0-15)#

0#: No time interval set
1#: 2 secs after dialling.
2#: 4 secs.
3#: 6 secs.
4#: 8 secs.
5#: 10 secs.
6#: 12 secs.
7#: 14 secs.
8#: 16 secs.
9#: 18 secs.
10#: 20 secs.
11#: 22 secs.
12#: 24 secs.
13#: 26 secs.
14#: 28 secs.
15#: 30 secs.

This specifies how soon after dialling the system starts to time an exchange line call and display the elapsed call time on a display keyset.

FF2-1#-(01-48)#-18# [NOT USED]

FF2-1#-(01-48)#-19#- [NOT USED]

DISA (Direct Inward System Access) line setting **2.x**

[ENABLE DISA]

FF2-1#-(01-48)#-20#-(0 or 1)

0#: DISA disabled
1#: DISA enabled

This specifies whether a line port is a DISA line or standard PSTN line for incoming calls. Outgoing calls can made on the line as normal subject to call barring.

Related steps FF2 1# (01-48)# 21# , DISA auto start time
FF2 1# (01-48)# 22# , DISA auto finish time
FF1 2# 1# 30# , Un answered DISA call transfer
FF1 2# 1# 31# , # key feature in DISA call
FF1 3# 26# , DISA inter-signal time
FF1 3# 27# , DISA no answer timer
FF1 3# 30# , DISA cut timer

DISA auto start time **2.x**

[DISA START TIME]

FF2-1#-(01-48)#-21#-(0000-2359)#

[CONF]#: Clear start time: 0000
(0000-2359)#: DISA function start time (24 hour)

This sets a start time for DISA working. DISA calls received prior to the DISA auto start time will be handled as an ordinary line call.

Related step FF2 1# (01-48)# 20# , DISA line setting
FF2 1# (01-48)# 22# , DISA auto finish time

DISA auto finish time **2.x**

[DISA END TIME]

FF2-1#-(01-48)#-22#-(0000-2359)#

[CONF]#: Clear finish time: 2359
(0000-2359)#: DISA function finish time (24 hour)

This sets a finish time for DISA working. DISA calls received after the DISA auto finish time will be handled as an ordinary line call.

Related step FF2 1# (01-48)# 20# , DISA line setting
FF2 1# (01-48)# 21# , DISA auto start time

External relay control - Exchange line setting for LRB (Loud Ringing Bell) **2.x**

[EPI CNTRL SET]

FF2-1#-(01-48)#-23#-(0 or 1)#

0#: External relay control and LRB are not set
1#: External relay control and LRB are set

Sets which exchange lines are monitored by the LRB function.

Related step FF1 2# 1# 24# , External relay control

Dial tone detection **2.x**

[D/T DETECTION]

FF2-1#-(01-48)#-24#-(0 or 1)#

0#: DT detection not required.
1#: DT detection required.

This sets whether dial tone detection is required before the system sends dialling digits.

Exchange line tenant group setting **3.1**

[SP. MCO TENANT]

FF2-1#-(01-48)#-25#-(0 or 8)#

1#: Tenant No.1
2#: Tenant No.2
3#: Tenant No.3
4#: Tenant No.4
5#: Tenant No.5
6#: Tenant No.6
7#: Tenant No.7
8#: Tenant No.8

This is specifies the Tenant Group number. for each outside line which is allocated to line Group 0. When '9' is dialled, a free line from the designated Tenant Group is seized automatically.

Related steps FF2 1# (01-48)# 3# , Line group 0
FF3 (001-144)# 36# , Extension tenant group setting

E&M Dial tone send **3.1**

[I/C DIAL TONE]

FF2-2#-(1-3)#-1#-(0-1)#

(1-3)#	**(0-1)#**
E&M Group Number	0#: Dial tone not sent
	1#: Dial tone sent

This setting specifies whether or not to send internal dial tone out across a network connection.

Related step FF2 3# (1-8)# 2# , E&M trunk group number

E&M tenant group **3.1**

[TENANT GROUP NO]

FF2-2#-(1-3)#-2#-(1-8)#

(1-3)#	**(1-8)#**
E&M group number	1#: Tenant group 1
	2#: Tenant group 2
	3#: Tenant group 3
	4#: Tenant group 4
	5#: Tenant group 5
	6#: Tenant group 6
	7#: Tenant group 7
	8#: Tenant group 8

This step specifies the tenant group to use when an incoming E&M call requests and outside line.

Related step FF2 1# (01-48)# 25# , Exchange line tenant group setting

E&M Send RAC **3.1**

[DIAL DELETE]

FF2-2#-(1-3)#-3#-(0-1)#

(1-3)#	**(0-1)#**
E&M trunk group	0#: Send RAC
	1#: Do not send RAC

Specifies whether or not to send out the route access code (RAC) as the first digit of the number dialled when making an E&M call. This setting is for use when connecting to a system which is not a DBS and does not require the RAC.

E&M Add RAC **3.1**

[DIAL INSERT]

FF2-2#-(1-3)#-4#-(0-1)#

(1-3)#	**(0-1)#**
E&M trunk group	0#: Do not add RAC
	1#: Add RAC

Specifies whether or not to add the route access code (RAC) of the system as the first digit to the received digits from an E&M circuit. This is for use when the remote system is not a DBS and does not send the RAC.

E&M paging release timer **3.1**

[NET PAG RELEASE]

FF2-2#-(1-3)#-5#-(0-6)#

(1-3)#	(0-6)#
E&M trunk group	0#: Not used
	1#: 30 seconds
	2#: 60 seconds
	3#: 90 seconds
	4#: 120 seconds
	5#: 150 seconds
	6#: 180 seconds

Sets the time in seconds to release the E&M circuit when paging. This timer only takes effect if the paging call goes unanswered and prevents the circuit from being kept unnecessarily busy.

E&M minimum pause **3.1**

[MIN INTERDIGIT]

FF2-2#-(1-3)#-6#-(0-7)#

(1-3)#	**(0-7)#**
E&M trunk group	0#: 300 msec
	1#: 400 msec
	2#: 500 msec
	3#: 600 msec
	4#: 700 msec
	5#: 800 msec
	6#: 900 msec
	7#: 1000 msec

Sets the minimum pause between dial pulses when making an E&M call. The default setting is for DBS to DBS connection and may require adjustment when the remote system is not a DBS.

E&M return confirmation monitor **3.1**

[RELEASE ACK TIM]

FF2-2#(1-3)#-7#-(0-7)#

(1-3)#	(0-7)#
E&M trunk group	0#: 1 second
	1#: 2 seconds
	2#: 3 seconds
	3#: 4 seconds
	4#: 5 seconds
	5#: 6 seconds
	6#: 7 seconds
	7#: 8 seconds

Sets the interval between sending out the release signal to the other party and receiving the release acknowledge signal after ending an internal call via the E&M Card.

E&M return detect timer **3.1**

[RELEASE(E&M)]

FF2-2#-(1-3)#-8#-(0-15)#

(1-3)#	**(0-15)#**
E&M trunk group	0#: 100 msec
	1#: 150 msec
	2#: 200 msec
	3#: 250 msec
	4#: 300 msec
	5#: 350 msec
	6#: 400 msec
	7#: 500 msec
	8#: 600 msec
	9#: 800 msec
	10#: 1000 msec
	11#: 1100 msec
	12#: 1300 msec
	13#: 1700 msec
	14#: 2300 msec
	15#: 3500 msec

This sets the time to detect the release signal

E&M anti collision timer **3.1**

[GLARE (E&M)]

FF2-2#-(1-3)#-9#-(0-15)#

(1-3)#	**(0-15)#**
E&M trunk group	0#: 10 msec
	1#: 15 msec
	2#: 20 msec
	3#: 25 msec
	4#: 30 msec
	5#: 35 msec
	6#: 40 msec
	7#: 45 msec
	8#: 50 msec
	9#: 60 msec
	10#: 70 msec
	11#: 80 msec
	12#: 90 msec
	13#: 100 msec
	14#: 110 msec
	15#: 120 msec

This sets the time after E&M seizure in which both sending and receiving are prohibited to avoid call collision between systems.

E&M flash output timer **3.1**

[FLASH OUT TIME]

FF2-2#-(1-3)#-10#-(0-15)#

(1-3)#	**(0-15)#**
E&M trunk group	0#: No timer 1#: 50 msec 2#: 100 msec 3#: 150 msec 4#: 200 msec 5#: 300 msec 6#: 400 msec 7#: 500 msec 8#: 700 msec 9#: 1000 msec 10#: 1200 msec 11#: 1500 msec 12#: 2000 msec 13#: 2500 msec 14#: 3000 msec 15#: 3500msec

This sets the flash time for private line use.

E&M flash detect timer **3.1**

[FLASH DET DIAL]

FF2-2#-(1-3)#-11#-(0-15)#

(1-3)#	**(0-15)#**
E&M trunk group	0#: 100 msec 1#: 120 msec 2#: 150 msec 3#: 170 msec 4#: 200 msec 5#: 230 msec 6#: 270 msec 7#: 700 msec 8#: 800 msec 9#: 900 msec 10#: 1000 msec 11#: 1100 msec 12#: 1200 msec 13#: 1300 msec 14#: 1400 msec 15#: 1500 msec

This sets the duration of received flash signals. A release signal with a duration less than the setting here will be seen as a flash

AC15 minimum pause **CPC-EX 1.0**
[AC15 INTERDIGIT]

FF2-2#-(1-3)#-12#-(0-7)#

(1-3)#	**(0-7)#**
Private Circuit trunk group	0#: 300 msec 1#: 400 msec 2#: 500 msec 3#: 600 msec 4#: 700 msec 5#: 800 msec 6#: 900 msec 7#: 1000 msec

Sets the minimum pause between dial pulses when making an Private Circuit call. The default setting is for DBS to DBS connection and may require adjustment when the remote system is not a DBS.

AC15 return confirmation monitor **CPC-EX 1.0**
[AC15 RLS ACK]

FF2-2#(1-3)#-13#-(0-7)#

(1-3)#	(0-7)#
Private Circuit trunk group	0#: 1 second 1#: 2 seconds 2#: 3 seconds 3#: 4 seconds 4#: 5 seconds 5#: 6 seconds 6#: 7 seconds 7#: 8 seconds

Sets the interval between sending out the release signal to the other party and receiving the release acknowledge signal after ending an internal call via the Private Circuit Card.

AC15 return detect timer **CPC-EX 1.0**
[AC15 RELEASE]

FF2-2#-(1-3)#-14#-(0-15)#

(1-3)#	**(0-15)#**
Private Circuit trunk group	0#: 100 msec
	1#: 150 msec
	2#: 200 msec
	3#: 250 msec
	4#: 300 msec
	5#: 350 msec
	6#: 400 msec
	7#: 500 msec
	8#: 600 msec
	9#: 800 msec
	10#: 1000 msec
	11#: 1100 msec
	12#: 1300 msec
	13#: 1700 msec
	14#: 2300 msec
	15#: 3500 msec

This sets the time to detect the release signal

AC15 anti collision timer **CPC-EX 1.0**
[AC15 GLARE]

FF2-2#-(1-3)#-15#-(0-15)#

(1-3)#	**(0-15)#**
Private Circuit trunk group	0#: 10 msec
	1#: 15 msec
	2#: 20 msec
	3#: 25 msec
	4#: 30 msec
	5#: 35 msec
	6#: 40 msec
	7#: 45 msec
	8#: 50 msec
	9#: 60 msec
	10#: 70 msec
	11#: 80 msec
	12#: 90 msec
	13#: 100 msec
	14#: 110 msec
	15#: 120 msec

This sets the time after Private Circuit seizure in which both sending and receiving are prohibited to avoid call collision between systems.

AC15 flash output timer **CPC-EX 1.0**
[AC15 FLASH OUT]

FF2-2#-(1-3)#-16#-(0-15)#

(1-3)#	**(0-15)#**
Private Circuit trunk group	0#: No timer 1#: 50 msec 2#: 100 msec 3#: 150 msec 4#: 200 msec 5#: 300 msec 6#: 400 msec 7#: 500 msec 8#: 700 msec 9#: 1000 msec 10#: 1200 msec 11#: 1500 msec 12#: 2000 msec 13#: 2500 msec 14#: 3000 msec 15#: 3500msec

This sets the flash time for private line use.

AC15 flash detect timer **CPC-EX 1.0**
[AC15 FLASH DET]

FF2-2#-(1-3)#-17#-(0-15)#

(1-3)#	**(0-15)#**
Private Circuit trunk group	0#: 100 msec 1#: 120 msec 2#: 150 msec 3#: 170 msec 4#: 200 msec 5#: 230 msec 6#: 270 msec 7#: 700 msec 8#: 800 msec 9#: 900 msec 10#: 1000 msec 11#: 1100 msec 12#: 1200 msec 13#: 1300 msec 14#: 1400 msec 15#: 1500 msec

This sets the duration of received flash signals. A release signal with a duration less than the setting here will be seen as a flash

E&M trunk status **3.1**

[TRUNK STATUS]

FF2-3#-(1-12)#-1#-(0-1)#

(1-12)#	**(0-1)#**
Private circuit number	0#: Used
1-3 card 1	1#: Not used
4-6 card 2	
7-9 card 3	
10-12 card 4	

Determines whether or not a private circuit is used. When a circuit is set to not used the tell-tale LED corresponding to it on the card will remain lit after system start up.

Related step FF1 10# (1-10)# (1-4)# , Slot setting

E&M trunk group number **3.1**

[TRUNK GROUP NO.]

FF2-3#-(1-12)#-2#-(0-3)#

(1-12)#	**(0-3)#**
Private circuit number	0#: Not assigned
	1#: Group 1
	2#: Group 2
	3#: Group 3

Assigns private lines to private line groups. Circuits must be assigned to groups as all E&M access is via group access and not independent circuits.

AC15 Dial Mode **CPC-EX 1.0**

[AC15 DIAL TYPE]

FF2-3#-(1-12)#-3#-(0-1)# (P)

(1-12)#	**(0-1)#**
Private Circuit number	0#: DTMF
1-3 card 1	1#: Pulse
4-6 card 2	
7-9 card 3	
10-12 card 4	

The dialling type for AC15 lines can be set to tone or pulse using this step. If changed a system power Off/On reset is required. If set for DTMF an DTMF receiver card is required in the CCU.

This step will only take effect if the circuit specified is supported by an AC15 card (VB3673) it has no effect when E&M cards are installed.

AC15 DTMF Specification **CPC-EX 1.0**
[AC15 DIAL TIME]

FF2-3#-(1-12)#-4#-(0-1)#

(1-12)#
Private Circuit number
1-3 card 1
4-6 card 2
7-9 card 3
10-12 card 4

(0-1)#
0#: 125ms/125ms
1#: 250ms/250ms

This step sets the ON/OFF times for the DTMF signals when dialling on AC15.

This step will only take effect if the circuit specified is supported by an AC15 card (VB3673) it has no effect when E&M cards are installed.

Extension features

This section covers the setting of extension features. Unless otherwise specified (001-144)# in each step represents the extension port number to which the command is to apply.

Extension number **2.x**

[EXT# NN(NN)]

FF3-(001-144)#-1#-(NNNN)#

[CONF]#:	No setting
(20-59)#:	2 digits number (20, 21 for operators)
(200-599)#:	3 digits number (200, 201 for operators)
(2000-5900)#:	2 digits number (2000, 2001 for operators)

This step specifies the extension number to be allocated to a specified port. The extension number set must correspond to the number of digits specified in system programming. If there are more than 40 extensions connected to the system, extension numbers with 3 or 4 digits must be used. If DSS units are connected, it is not necessary to store extension numbers for them. If operators are used they must connected to ports 1 and 2 and be the first extension numbers.

Note: A extension number cannot be used twice. If a number cannot be stored check that it is not allocated to another extension port. If it is use CONF# to clear it from the other port then re- store it in the required location.

Type of extension **2.x / 3.2 / 4.0 / CPC-EX 1.0 / CPC-EX v1.5**

[TEL TYPE SET]

FF3-(001-144)#-2#-(1-15)# CPC-B & C

FF3-(001-144)#-2#-(1-24)# CPC-EX 1.0

(1-144)# Extension Port	(1-24)#	
	1#	Analogue
	2#	VB3011 Digital SLT
	3#	VB3411 / VB3411D / VB3411DS
	4#	VB3611D / VB3611DS
`	5#	VBD3411 / VBD3411DS
	6#	VBD3611D / VBD3611DS
	7# - 9#	Reserved
	10#	Voicemail Port
	11#	DSS 1 for 1st operator
	12#	DSS 2 for 1st operator
	13#	DSS 1 for 2nd operator
	14#	DSS 2 for 2nd operator
	15# - 16#	Reserved
	17#	12 Key VBD Keyset
	18#	24 Key VBD Keyset
	19#	Reserved
	20#	E-ISDN 3.1Khz Modem
	21#	BLF DSS 1
	22#	BLF DSS 2
	23#	BLF DSS 3
	24#	BLF DSS 4

The basic extension types are automatically sensed when the system is turned on. Some more specialist ones require setting manually. These are DSS & BLF DSS consoles and voicemail ports , this arises because these ports have specialist functions and operations associated with them and their location within the system is not fixed.

Note: When programming DSS, it is necessary either to turn the system power off and then turn it on again, or to disconnect the module jacks for the DSS and then reinsert them.

FF3-(001-144)#-3# [NOT USED]

Forced Account code **3.1**

[FORCED ACC. CODE]

FF3-(001-144)#-4#-(0 or 1)#

0#: No need to input Account code to make an outside call
1#: Need to input Account code to make an outside call

In situations where all calls must be allocated against an account this step will prevent an extension making an outgoing call unless an account number is entered first.

Extension lock-code registration **2.x**

[LOCK OUT CODE]

FF3-(001-144)#-5#-(0000-9999)#

[CONF]#: No extension lock function
(0000-9999)#: Extension lock key code

A lock code can be stored for each extension, when this done the extension can be locked by dialling 74. When locked the extension can only make internal calls and outgoing call allowed by its locked class of service. It can be unlocked by 74 and the lock code stored here.

Related step FF7 1# 17# , Extension class of service when locked

Off-hook signalling **2.x**

[CO OFF-HK SIGNL]

FF3-(001-144)#-6#-(0 or 1)#

0#: No off hook signalling
1#: Off hook signalling set

Each extension can be set to receive exchange line off hook signalling while busy.

Note: Off hook signalling when set will not function during conference calls, whilst the extension is on hold or when using a non appearing (No line key) exchange line.

Related step FF3-(001-144)#-15#, Off Hook Signalling Volume

Call waiting tone and message **2.x**

[CALL WAITING]

FF3-(001-144)#-7#-(0 or 1)#

0#: Call waiting disabled
1#: Call waiting enabled

This specifies whether or not an extension can receive call waiting tones and messages when busy.

Note: Call waiting tones will not be received when the extension is on hold, receiving a call, in conference or if "Absence" has been set.

Busy override (call intrusion) - originating **2.x**

[BUSY OVERRIDE]

FF3-(001-144)#-8#-(0 or 1)#

0#: Break in not allowed
1#: Break in allowed

This sets whether an extension can originate a break in call or not.

Note: Busy override is not possible when the destination extension is set to reject it or by an extension involved in a conference call.

Busy override (call intrusion) - receiving **2.x**

[BUSY OVERRIDEN]

FF3-(001-144)#-9#-(0 or 1)#

0#: Break in call is rejected
1#: Break in call is accepted

This sets whether an extension can receive a break in call or not.

Break in-operator call intrusion **2.x**

[ATT OVERRIDEN]

FF3-(001-144)#-10#-(0 or 1)#

0#: Operator break in is rejected
1#: Break in is accepted.

This sets whether to accept break in from the operator or to reject it.

FF3-(001-144)#-11# [NOT USED]

Prime line pick-up (auto exchange line seizure) **2.x**

[PRIME LINE]

FF3-(001-144)#-12#-(0 or 1)#

0#: No prime line function
1#: To pick up prime line

It is possible to program an extension to seize an exchange line when the handset is lifted. The exchange line to be used has to be programmed under the FF1 key. If line group access has been set under the FF1 key, the highest available line in the group is selected.

Note: When prime line pick up is set for an extension, that extension must have an intercom key set to enable intercom calls to be made. (See FF Key Assignment).

Auto answer **2.x**

[AUTO ANSWER]

FF3-(001-144)#-13#-(0 or 1)#

0#: Auto answer disabled
1#: Auto answer enabled

When set the longest ringing call assigned to the extension is automatically answered when the extension goes off hook.

Note: This function will only operate with calls that are assigned to ring at the extension and calls transferred to it. If the extension is not set to ring no calls will be answered even if other extensions are ringing.

Note: Ports used for Voice Annouce Units require auto answer enabled.

Call logging printout-exchange lines **2.x**

[SMDR PRINT Y/N]

FF3-(001-144)#-14#-(0 or 1)#

0#: Information from exchange line calls not printed out by call logger / printer
1#: Information from exchange line calls printed out by call logger / printer

This sets whether information from exchange line calls made by the extension are to be output to the call logging interface. This allow calls from selected extensions to be kept private.

Off-hook signalling volume level **2.x**

[I TONE VOLUME]

FF3-(001-144)#-15#-(1-4)#

1#: minimum
2#: normal
3#: middle
4#: maximum

The Off-hook signalling tone can be set by extension to 4 different levels.

Note: A soft reset (switch system off and back on) is required after changing this step.

Call waiting tone ringing cadence **2.x**

[OFF-HK SIG PTN]

FF3-(001-144)#-16#-(0 or 1)#

0#: Call Waiting signal is sent out until the call is answered
1#: Call Waiting signal is sent out once only

Personal Speed Dial (PSD) directory display **2.x**

[PSD DISP. MODE]

FF3-(001-144)#-17#-(0 or 1)#

0#: List 5 PSD names at one time
1#: List 10 PSD names at one time

For key telephones with large display, a choice can be made to display either 5 or 10 personal speed dial (PSD) names at one time under the 'Personal Dial' menu option.

Paging Group Assignment **2.x**

[PAGE GRPUP (#00-#07)]

FF3-(001-144)#-(18-25)#-(0 or 1)#

(18-25)#
18#: Paging group 0
19#: Paging group 1
20#: Paging group 2
21#: Paging group 3
22#: Paging group 4
23#: Paging group 5
24#: Paging group 6
25#: Paging group 7

(0-1)#
0#: Not a member
1#: Is a member

This step is used to assign extensions to paging groups. In default all extensions are in group 0. Extensions can belong to multiple paging groups.

Large display key station - display options **2.x**

[DISPLAY ON IDLE]
[DISPLAY ON IDT]
[DISPLAY ON INT]
[DISPLAY ON CO-1]
[DISPLAY ON CO-2]
[DISPLAY ON PAGE]
[DISPLAY ON WAIT]
[DISPLAY ON BUSY]

FF3-(001-144)#-(26-33)#-(0-15)#

(26-33)#
26#: Idle mode
27#: Internal dial tone
28#: Internal call
29#: External call before duration displayed
30#: External call after duration displayed
31#: Receiving paging call
32#: Receiving call waiting tone
33#: Receiving busy tone

(0-15)#
0#: No change
1#: Menu information
2#: Personal speed dial index
3#: System speed dial index
4#: Extension index
5#: Guidance menu 1
6#: Guidance menu 2
7#: Guidance menu 3
8#: Guidance menu 4
9#: Guidance menu 5
10#: Guidance menu 6
11#: Guidance menu 7
12#: Function 1
13#: Function 2
14#: Function 3
15#: Function 4

This step sets the display screen to show on a large display key handset when it's operating mode matches that specified above left to the display specified above right. each extension can have one display option specified for each mode. This will allow the most appropriate screen to be displayed automatically as the phone is used.

Analogue extension time break recall time **2.x**

[SLT HOOK FLASH]

FF3-(001-144)#-34#-(0-13)#

0#: Less than 20 ms	200-500 ms	over 500 ms
1#: Less than 20 ms	200-750 ms	over 750 ms
2#: Less than 20 ms	200-1000 ms	over 1000 ms
3#: Less than 20 ms	200-1200 ms	over 1500 ms
4#: Less than 20 ms	200-1500 ms	over 200 ms
5#: Less than 20 ms		over 200 ms
6#: Less than 20 ms	30-150 ms	over 200 ms
7#: Less than 20 ms	60-150 ms	over 200 ms
8#: Less than 20 ms	65-150 ms	over 200 ms
9#: Less than 20 ms	70-150 ms	over 200 ms
10#: Less than 20 ms	75-150 ms	over 200 ms
11#: Less than 20 ms	80-150 ms	over 200 ms
12#: Less than 20 ms	85-150 ms	over 200 ms

This sets the time break recall time for analogue extensions. This step is useful to match the time break recall time generated by connected analogue equipment if problems are encountered using recall. The default setting is suitable for the majority of installations. This step has no effect on the operation of digital extensions.

System speed dial (SSD) group selection **2.x**

[1:SSD-1 2:SSD-2]

FF3-(001-144)#-35#-(1 or 2)#

1#: SSD group 1
2#: SSD group 2

This specifies which group of system speed dials the extension has access too. The SSDs are divided into two groups of 90 numbers. Each extension can have access to either group 1 or group 2.

Extension tenant group setting **3.1**

[SP. MCO TENANT]

FF3-(001-144)#-36#-(1-8)#

1#: Tenant No.1
2#: Tenant No.2
3#: Tenant No.3
4#: Tenant No.4
5#: Tenant No.5
6#: Tenant No.6
7#: Tenant No.7
8#: Tenant No.8

This is specifies the tenant group number for each extension. A tenant group is a sub group of lines available to line group 0. When '9' is dialled, a free line from the designated tenant group is seized automatically.

Related steps FF2 1# (01-48)# 3# , Line group assignment - group 0
FF2 1# (01-48)# 25# , Exchange line tenant group setting

Extension Off Hook Monitor **CPC-EX 1.0**

FF3 (1-144)# 37# (0-1)#

(1-144)#	(0-1)#	
Extension port	0#	Disabled
	1#	Enabled

The extension off hook monitor facility of the VBD handsets can be individually switched on or off for each extension. When enabled and extension user who presses the On/Off key when on a call will hear the call via the speaker and handset at the same time.

Incoming Ringing Volume Setting **CPC-EX 1.0**

FF3 (1-144)# 38# (0-1)#

(1-144)#	(0-1)#	
Extension port	0#	Disabled
	1#	Enabled

The extension incoming ring volume facility of the VBD handsets can be individually switched on or off for each extension.

Monitor Volume Setting **CPC-EX 1.0**

FF3 (1-144)# 39# (0-1)#

(1-144)#	(0-1)#	
Extension port	0#	Disabled
	1#	Enabled

The extension monitor volume facility of the VBD handsets can be individually switched on or off for each extension.

Call Forward To External Number **CPC-EX 1.0**

FF3 (1-144)# 40# (0-1)#

(1-144)#	(0-1)#	
Extension port number	0#	Not allowed
	1#	Allowed

This step can bar or allow an extension to set call forward to an external number.

Assignment Of Extension To Work With BLF DSS **CPC-EX 1.0**

FF3 (1-144)# 41# (0-4)#

(1-144)# Extension Port	(0-4)#	
	0#	No BLF DSS associated
	1#	Works with BLF DSS 1
	2#	Works with BLF DSS 2
	3#	Works with BLF DSS 3
	4#	Works with BLF DSS 4

The BLF DSS uses the existing DSS console as an extended BLF unit which can be assigned to work with any non-operator key station. The BLF DSS will not operate in conjunction with the VB3011 or an SLT and any keyset can only have 1 BLF DSS unit associated with it. Up to four such BLF DSS units can be assigned for the system. This is in addition to the Operator positions which can still have 2 fully functioning DSS consoles at each of the two Operator positions as with previous software versions.

When used as a keyset BLF DSS the console will operate only as a BLF. Single key transfer will operate, but extension pick up will not be supported.

On Hook Transfer To Trunk **CPC-EX v1.5**

FF3 (1-144)# 42# (0-1)#

0# Disabled
1# Enabled

Transferring of calls to outgoing trunks can be disabled for extension users who do not require or are not permitted to use this feature.

Related Step: FF1 2# 5# - Cross Connection Permissions

Ringing assignment

This section contains the programming steps which control the ringing of calls within the system. Unless otherwise specified (001-144)# represents the extension port number and (01-48)# represents the line port number.

Incoming ring - Day mode **2.x**

[DAY RING SET]

FF4-1#-(001-144)#-(01-48)#-(0 or 1)#

0#: No Ring
1#: Rings

This sets which exchange lines ring on which extensions when in day mode.

Note: By default, operator telephones ring for all incoming exchange lines

Incoming ring - Night mode **2.x**

[NIGHT RING SET]

FF4-2#-(001-144)#-(01-48)#-(0 or 1)#

0#: No Ring
1#: Rings

This sets which exchange lines ring on which extensions when in night mode.

Note: By default, operator telephones ring for all incoming exchange lines.

Related step FF1-3#-1# , Auto night mode

Incoming ring - Operator overflow / Delayed Ringing **2.x**

[ATT OV RING SET]

FF4-3#-(001-144)#-(01-48)#-(0 or 1)#

0#: No Ring
1#: Rings

This step specifies the ring pattern to use when the operator overflow or delayed ringing functions are active.

Related step FF1 2# 1# 15# , Operator call overflow
FF1 2# 1# 26# , Delayed ringing

Type of hunt group **2.x**

[HUNTING MODE]

FF4-4#-(1-16)#-1#-(0 or 1)#

(1-16)#	**(0-1)#**
Hunt group number	0#: Terminate 1#: Circular

An incoming call to an extension within the hunt group which is busy, it is automatically transferred according to the order laid down in the hunt group table. The system supports 16 different hunt groups. There are two types of hunt group.

1) Circular: An incoming call to any extension within the hunt group which is busy will automatically be transferred to the next extension in the hunt group table.

2) Terminal: A call to member number 1 in the hung group will be automatically transferred to the next free extension in the hunt group. If the last group member is busy the call is terminated and the caller will receive busy tone. Call to other members of the group will not hunt.

Note1: An incoming exchange line which rings a busy hunt group will hear ringing and not busy.
Note2: An extension can only belong to a single hunt group or single coverage group.

Hunt group transfer **2.x**

[NEXT HUNT GROUP]

FF4-4#-(1-16)#-2#-(1-16)#
From To

To cancel the feature input [CONF]key.

If all the extensions in one hunting group are busy, the incoming call can be automatically transferred to another hunt group. A hunt group into which automatic transfer is actually operating cannot receive a call from a further hunt group.

Hunt group assignment to extension **2.x**

[MEMBER EXT.#]

FF4-4#-(1-16)#-(3-10)#-(Ext No.)#

(1-16)#	**(3-10)#**	**(Ext No.)#**
Hunt Group Number	3#: Member 1 4#: Member 2 5#: Member 3 6#: Member 4 7#: Member 5 8#: Member 6 9#: Member 7 10#: Member 8	Extension Number Conf# to clear stored number

A maximum of 8 extensions can belong to each hunt group. An incoming call to the group, is transferred to the first free extension according to the order in which the extensions are stored. An extension can only belong to one hunt group or one coverage group and cannot be stored more than once. If an entry is rejected check that it has not been stored against another group.

Hunt Group Type **CPC-EX 1.0**

FF4 4# (1-24)# 1# (0-2)#

(1-24)#	(0-2)#	
Hunt group number	0	Terminate
1-16 in pre CPC-EX	1	Circular
1-24 in CPC-EX and later	2	Cyclic

Sets the group type for hunt groups 1 to 24. For Terminate and circular options refer to FF4-4#-(1-16)-1# above. New options are eplained below.

The hunt group facilities have been extended. The DBS will now support up to 24 hunt groups of up to 32 member extensions. Cyclic hunting and No Answer hunting (ringing hunting) are now available for internal calls directed at hunt groups according to programming.

Cyclic Hunting — The first call will hunt from member 1 upwards until a free extension is located and ring there. The next call will begin to hunt from the member extension following the last one which received a cyclic hunt call, until a free extension is located, and so on for successive calls to the group. When the last member is reached hunting continues from member 1 and the cycle repeats. This will give an even call distribution across the members of the hunt group.

To operate Cyclic Hunting the hunt group type must be set to 'cyclic' and the first extension assigned to a virtual extension number (i.e. An extension which is not installed or covered by spare extension card capacity) or a permanently busy extension and all calls directed to this first member extension.

No Answer Hunting — An internal call will ring on a member extension, and if unanswered will move onto the next extension and continue to do this until answered or transferred to a non No Answer Hunting group.

Hunt Group To Hunt Group Transfer **CPC-EX 1.0**

FF4 4# (1-24)# 2# (1-24)#

(1-24)#	(1-24)#
From Group	To Group

Select the next hunt group to transfer calls to when the first hunt group is busy

Hunt Group Members Setting **CPC-EX 1.0**

FF4 4# (1-24)# (3-34)# NNNN#

(1-24)#	(3-34)#	NNNN#
Hunt Group	Member 1 - 32	Member Extension

Places extensions into hunt groups. An extension can only belong to single hunt group or coverage group.

Hunt Group Member No Answer Timer **CPC-EX 1.0**

FF4 4# (1-24)# 35# (0-15)#

(1-24)# Hunt Group	(0-15)#	
	0#	Busy Hunting
	1#	4 sec
	2#	8 sec
	3#	12 sec
	4#	16 sec
	5#	20 sec
	6#	24 sec
	7#	28 sec
	8#	32 sec
	9#	36 sec
	10#	40 sec
	11#	44 sec
	12#	48 sec
	13#	52 sec
	14#	56 sec
	15#	60 sec

Select the no answer time for extension in the specified hunt group to enable No Answer hunting.

No Answer hunting uses 2 timers; a member no answer timer and a group no answer timer. This mode of hunting can be used with terminate, circular or cyclic hunt groups.

An incoming call will ring for the duration of the member no answer timer and if unanswered, move on to the next member and restart the timer. This will continue for the duration of the group no answer timer. When the group no answer timer elapses the hunt will move onto the next designated hunt group and continue hunting according to the new group's settings.

If the member no answer timer is set to 0, the busy hunting mode will be used (the hunting mode used in software levels up to v4.x and ISDN 1.x).

If all members are busy the call will wait at the extension it was directed to until the member no answer timer elapses at which point it will hunt again.

Hunt Group No Answer Timer **CPC-EX 1.0**

FF4 4# (1-24)# 36# (0-15)#

(1-24)#	(0-15)#	
Hunt Group	0#	Busy Hunting
	1#	40 sec
	2#	60 sec
	3#	80 sec
	4#	100 sec
	5#	120 sec
	6#	140 sec
	7#	160 sec
	8#	180 sec
	9#	200 sec
	10#	220 sec
	11#	240 sec
	12#	260 sec
	13#	280 sec
	14#	300 sec
	15#	320 sec

Select the no answer time for the specified hunt group to enable No Answer hunting.

Manager/secretary working **2.x**

[SECRETARY NO1]

FF4-5#-(1-16)#-(1-8)#-(Ext No.)#

(1-16)#	**(1-8)#**	**(Ext No.)#**
Group Number	1#: Secretary 1	Extension Number
	2#: Secretary 2	Conf# to clear stored data
	3#: Manager 1	
	4#: Manager 2	
	5#: Manager 3	
	6#: Manager 4	
	7#: Manager 5	
	8#: Manager 6	

The DBS supports upto 16 Manager/Secretary (Coverage) Groups each consisting of 1 or 2 secretary extensions and upto 6 manager extensions. An extension can only belong to one hunt group or one coverage group and cannot be stored more than once. If an entry is rejected check that it has not been stored against another group.

Pick-up Group setting **3.1**

[MEMBER EXT.#]

FF4-6#-(1-20)#-(1-8)#-(Ext. No.)#

(1-20)#	**(1-8)#**	**(Ext No.)#**
Group Number	Member Number	Extension Number
		Conf# to clear stored data

The DBS supports upto 20 call pick-up groups each of which can have up to 8 members. An extension can only belong to a single pick-up group.

DDI Group Setting **ISDN 1.0 / CPC-EX 2.1**

FF4 7# (1-50)# (1-8)# (NNNN)#
FF4 7# (1-50)# (1-32)# (NNNN)# CPC-EX 2.1

(1-50)# Group Number (1-8)# / (1-32)# Member Number (NNNN)# Ext. No.

Stores the extension numbers of member extensions in the DDI ringing groups. A maximum of 50 groups can be defined with up to 8 members each on software levels upto CPC-EX1.x, or 32 members for CPC-EX 2.x or later.

Note: If a number of groups with more than 8 members are defined and are ringing simultaneously the system may experience a slow down until the ringing calls are answered. .

Assignment Of Extension Numbers To Groups **ISDN 1.2 / 4.1**

FF4 8# (1-50)# Number#

(1-50)# Group Number
Number# Extension Number To Be Assigned

An extension number from the range in use by the system must be assigned to a DDI / Ring group so that it can be dialled by other extension users. This is not required for DDI only groups. The number can be an existing extension number, in such a case the extension sharing the number is automatically made a group member in addition to other stored member extensions. Group numbers cannot be duplicated by other groups.

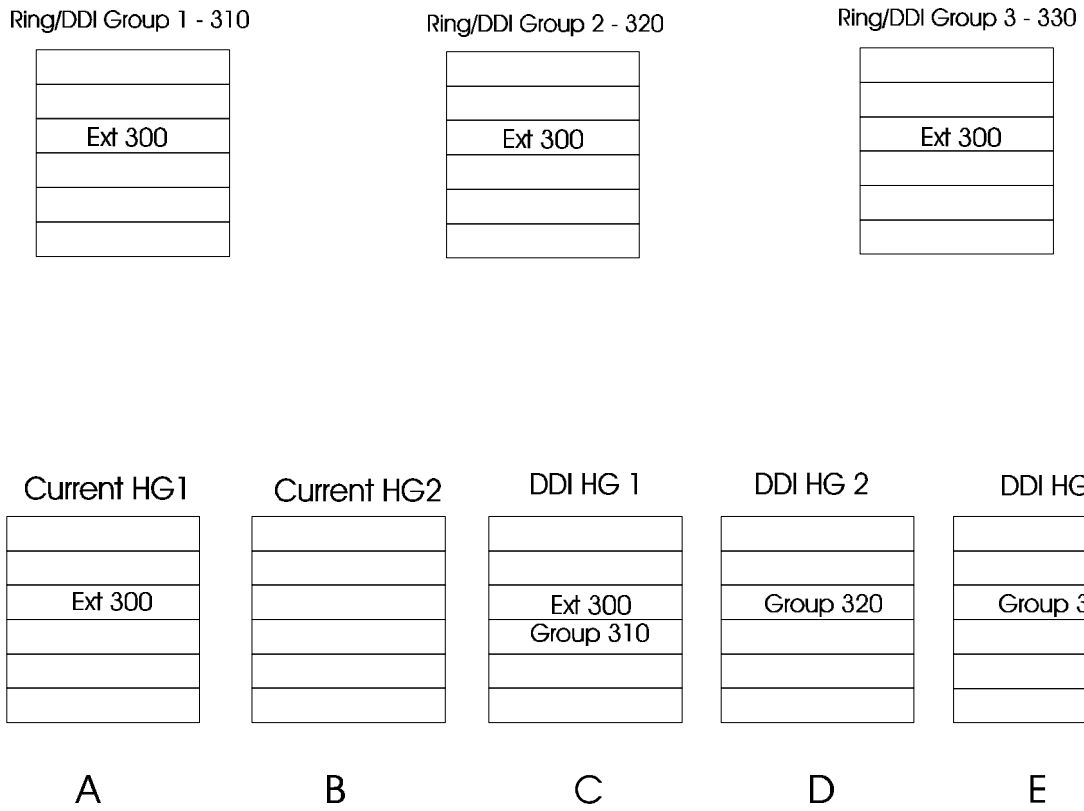
DDI Hunt Group Members Setting **CPC-EX 2.1**

FF4 10# (1-16)# (1-16)# NNNN#

(1-16)#	(1-16)#	NNNN#
Hunt Group	Member 1 - 16	Member Extension / Group

Places extensions into DDI hunt groups. Extensions cannot be members of more than 1 DDI Hunt Group and cannot be included in a more than 1 Ring Group assigned to a DDI Hunt Group, but can be individually in the same DDI Hunt Group as a Ring Group in which it is also a member.

Group membership conditions for normal Hunt Groups are unchanged. (see following example)



In this example:

a) Cannot assign EXTN 300 to B, D and E
b) Cannot assign GROUP 310 to A, B, D and E
c) Cannot assign GROUP 320 to A, B, C and E
d) Cannot assign GROUP 330 to A, B, C and D

The original Hunt Group hunting takes precedence over the DDI Hunt Groups. If there are calls to A and C and 300 becomes idle, the call on A will have priority over the call to C.

DDI Hunt Group Member No Answer Timer **CPC-EX 2.1**

FF4 10# (1-16)# 17# (0-15)#

(1-16)# Hunt Group	(0-15)#	
	0#	Busy Hunting
	1#	4 sec
	2#	8 sec
	3#	12 sec
	4#	16 sec
	5#	20 sec
	6#	24 sec
	7#	28 sec
	8#	32 sec
	9#	36 sec
	10#	40 sec
	11#	44 sec
	12#	48 sec
	13#	52 sec
	14#	56 sec
	15#	60 sec

Select the no answer time for extension in the specified DDI hunt group to enable No Answer hunting.

An incoming call will ring for the duration of the member no answer timer and if unanswered, move on to the next member and restart the timer.

If the member no answer timer is set to 0, the busy hunting mode will be used (the hunting mode used in software levels up to v4.x and ISDN 1.x).

If all members are busy the call will wait at the extension it was directed to until the member no answer timer elapses at which point it will hunt again.

FF key assignment

FF Key assignment - Extensions **2.x**

[FUNCTION REGIST]

FF5-(001-144)#-(01-24)#-(Feature Code)#

(001-144)#	**(01-24)#**	**(Feature Code)#**
Extension Port	FF Key Number	See table overleaf

FF Key Assignment - DSS Consoles

FF5-(145-148)#-(01-72)#-(Feature Code)#

(145-148)#	**(01-72)#**	**(Feature Code)#**
145#: DSS1 Operator 1	FF Key Number	See table overleaf
146# DSS2 Operator 1		
147#: DSS1 Operator 2		
148#: DSS2 Operator 2		

FF Key Assignment - BLF DSS Consoles

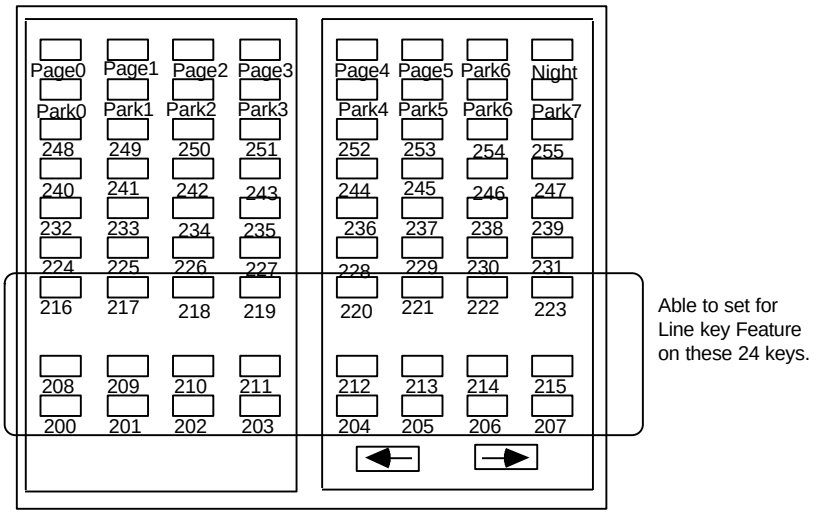
FF5-(149-152)#-(01-72)#-(Extension Number)#

(145-148)#	**(01-72)#**	**(Extension Number)#**
145#: BLF DSS1	FF Key Number	Extension number only
146# BLF DSS2		Feature codes are not
147#: BLF DSS3		available to BLF DSS
148#: BLF DSS4		

These steps allow the FF Keys with the two colour LED lamps to be centrally programmed. Each extension and DSS console can be individually programmed. When a port is assigned as a DSS the settings here for real port number are ignored and the appropriate DSS settings are used.

Note 1: Changes to the data can be made after first entering CONF# to delete data already set.
Note 2: To input "#", use FF12 key and to input "", use FF11 key.*

Default key assignments for DSS1 for each operator position



List of Features which can be stored in FF keys

FUNCTION	Dial	Note
Line Key	[MIC]NN	NN=01-48 Exchange line Number
ISDN Send Key	#9	Requires ISDN v1.0 SW
Operator Call	[0] or [9]	
Intercom Call (DSS/BLF)	2000~5999, 200~599 20~59	
Paging	[6]N [FF12][0][0]~ [FF12][0][7]	N=0-7
LRB Pick Up	[6][8]	
Meet Me Answer	[6][9] [FF12][FF12]	
Group Call Pick-up	[7][0]	
Absence Message Set/Clear	[7][1]N YYYY	N=09, yyyy=0000-9999
Call Divert-All Calls	[7][2]	
Do-Not-Disturb/Clear	[7][3]	
Station lockout set/Clear	[7][4]	4 digits Lock code must be dialled manually to clear.
Message Waiting Set/Cancel	[7][5]	Ext.# must be dialled manually.
Alarm Set/Clear	[7][8]	Time (hh=00-23, mm=00-59) must be dialled manually.
Direct Call Pick Up	[7][FF11]	
Page Do-Not-Disturb/Clear	[7][FF12]	
Line Group Access	[8][1]N or [9]	N=1-6
Call Park	[8][2]	
Operator Call Park	[8][2]N	N=0-9
Dial Exchange Line Access	[8][8]NN	NN=01-48
Account Code Entry	[8][7] [MEMO] [FF12]	Max. 10 digits account code must be dialled manually.
Answer Key	[FF11][1]	
Release Key	[FF11][2]	
Talkback Key	[FF11][3]	To Answer Off-hook Call Notification (Call Waiting)
Flash Key	[FF11][4]	
Mic Key	[FF12][2]	
Intercom Key	[FF12][8]	To get IDT when using prime line feature
Dial Tone On/Off	[FF12][5][0]	
Headset On/Off	[FF12][5][1]	
Night Mode	[FF12][5][2]	(Operator only)
BGM On/Off	[FF12][5][3]	
Storing Save Dial	[MEMO][MEMO][FF11]	
Save Number REDIAL	[MEMO][FF11]	
Speed Dial Key (SSD/PSD)	[MEMO]NN	NN=00-99
MSG Waiting Recall	[MEMO][REDIAL]	
MSG Waiting Cancel	[MEMO][FLASH]	
E&M Group Access	1,2 or 3	E&M group 1, 2 or 3
MIC Key	#2	VBD KTS and CPC-EX only
Mute Key	#54	VBD KTS and CPC-EX only
Transfer Key	*6	VBD KTS and CPC-EX only

Storing names and messages

Each extension name, System Speed Dial (SSD) name, Personal Speed Dial (PSD) name, and absence message can be stored. To store these from programming mode the operator telephone must be used for programming and a DSS (VB3631 or VBD631) console is required associated with it. In this mode the keys of the DSS are automatically re-assigned as shown , depending upon processor card and software level used..

If there is no DSS on the system this programming mode cannot be used. Extension names ,SSD names and PSD names can be stored without a DSS, please see Operating Instructions for details.

A	B	C	D
H	I	J	K
O	P	Q	R
V	W	X	Y
a	b	c	d
h	I	j	k
o	p	q	r

E	F	G	&
L	M	N	/
S	T	U	(
Z	*	#	)
e	f	g	‘
l	m	n	-
s	t	u	=

v	w	x	y
:	.	,	<

z	_	SP	%
>	BS	$	?

VB-3631 DSS console with CPC-B and CPC-C to v1.2

K	L	A	B
O	P	Q	R
S	T	U	V
e	f	Y	Z
I	j	k	l
m	n	o	p
#	=	s	t

C	D	E	F
G	H	I	J
W	X	M	N
$	%	?	‘
a	b	c	d
q	r	g	h
u	v	w	x

:	/	-	.
(	)	<	>

y	z	;	*
BS	SP	_	,

VB-3631 DSS Console with CPC-C v1.3 or CPC-EX v1.x

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	R
S	T	U	V	W	X
Y	Z	$	%	?	‘
a	b	c	d	e	f
g	h	I	j	k	l
m	n	o	p	q	r
s	t	u	v	w	x
y	z	;	*	#	=
_	,	:	/	-	.
(	)	<	>	BS	SP

VB-D631 DSS Console with CPC-C v1.3 or CPC-EX v1.x

BS : Back Space	**RELEASE : To right**
SP : Space	**ANSWER : To left**

Storing extension names **2.x**

[NNNN INT.NNNN]

FF6-1#-(001-144)#-(Name)#

(001-144)#	**(Name)#**
Extension Port	Maximum 10 letters

Names can be stored for each of the extension ports. When names are stored for each of the extensions, they will be displayed on key sets with LCD screens when internal calls are made and appear in the extension directory on large display key sets

Storing names for SSD group 1 **2.x**

[SSD XX -SSD XX]

FF6-2#-1#-(00-89)#-(Name)#

(00-89)#	(Name)#
System speed dial code	Maximum 16 letters

This is to store a name for each SSD (system speed dial) code. Storing a name for each SSD code allows the name to be confirmed when making calls using SSDs the name will be displayed on the lower line of display keysets and will appear in the directory on large display keysets.

Storing name for SSD group 2 **2.x**

[SSD XX -SSD XX]

FF6-2#-2#-(00-89)#-(Name)#

(00-89)#	(Name)#
System speed dial code	Maximum 16 letters

This is to store a name for each SSD (system speed dial) code. Storing a name for each SSD code allows the name to be confirmed when making calls using SSDs the name will be displayed on the lower line of display keysets and will appear in the directory on large display keysets.

Storing name for personal speed dial **2.x**

[PSD XX -PSD XX]

FF6-3#-(001-144)#-(90-99)#-(Name)#

(001-144)#	**(90-99)#**	**(Name)#**
Extension port	PSD Location	Maximum 16 letters

Names can be stored for the PSD locations of each extension.

Storing absence messages **2.x**

[MSG#0 IN MEETING]

FF6-4#-(0-9)#-(Message)#

(0-9)#	**(Message)#**
Message number 0#: IN MEETING 1#: AT LUNCH 2#: OUT OF OFFICE 3#: HOLIDAY 4#: ANOTHER OFFICE	Maximum 15 letters

Ten absence messages can be stored for use by extensions. Please see Operating Instructions for details regarding the use of absence messaging. The first five are set as indicated but can be changed.

Storing call waiting messages **2.x**

[C.W#5 VISITOR HERE]

FF6-5#-(5-9)#-(Name)#

(5-9)#:	**(Message)#**
Message number	Maximum 15 letters

Five call waiting messages can be stored for use when signalling waiting calls to display keysets. Please see Operating Instructions for details about using call waiting messages.

Group Names **ISDN v1.2**

FF6 6# (1-50)# (NNNNNNNN)#

(1-50)# Group Number (NNNNNNNN)# Group Name (Max 8 characters)
Initial Setting GRP01 - GRP50

A name of up to 8 characters can be assigned to each DDI group. Character entry is the same as for other DBS name storage via programming using the DSS.

Setting Line Names **ISDN 1.2 / 4.1**

FF6 7# (1-48)# Name#

(1-48)# Trunk number
Name# Trunk name (max. 16 characters)

Using the DSS character overlay names can be assigned to trunks. Names can be assigned for both analogue and ISDN trunks.

Call barring

The DBS has five classes of call barring which can be assigned by line and extension. These classes can themselves be modified through programming.

Important Note: Some settings will be affected by the National Code Change (NCC) step from version 4:

FF10 (ID Code)# 9# 1# (0-1)#

The defaults for these settings will be annotated NCC when there is difference between the pre and post NCC settings.

First digit for STD national call **2.x**

[SET 1DIGIT NO]

FF7-1#-1#-(0-9)#

(0-9)# First digit of STD code

The first digit for national STD calls must be stored here. Long-distance call barring is implemented for the following digits when the first digit dialled after the line is seized matches the number here.

Note: Initial value is "0".

Code for international dialling **2.x**

[SET 4DIGIT NO]

FF7-1#--2#-(0-9999)#

(0-9999)#: International code maximum 4 digits

The code for international dialling must be stored here for international call barring to operate correctly. International call barring performs its checks on the digits following the international dialling code.

Note: The initial value is 010 and changes to 00 post NCC

First digit for operator service **2.x**

[SET 1DIGIT NO]

FF7-1#-3#-(0-9)#

(0-9)#: First digit of operator services

The first digit of operator service calls must be stored here for the operator service call barring to function correctly.

Note: Initial value is 1.

Dialling restriction on incoming line **2.x**

[DIALING AT INCM]

FF7-1#-4#-(0 or 1)#

0#: Can Dial
1#: Dialling Restricted

This step controls the transmission of DTMF dialling out on an incoming call. This will prevent otherwise barred users from generating calls following reception of an incoming call without hanging up. If doorphones are used on this system this step must be set to o# to allow dialling to trigger the lock mechanism.

Digit restrictions - Special Number **2.x**

[SET MAX DIGIT]

FF7-1#-5#-(0,3 or 4)#

(0,3 or 4)#
0#: No digit restriction
(3-4)#: 3 or 4 digit restriction

This step sets the maximum number of digits which can be dialled when making calls to special numbers. By default this step has no restriction set.

Digit restrictions - Local Calls **2.x**

[LOCAL TRS TYPE (2-4)]

FF7-1#-(6-8)#-(0,3 or 4)#

(6-8)#
6#: Local calls - class 2
7#: Local calls - class 3
8#: Local calls - class 4

(0,3 or 4)#
0#: No digit restriction
(3-4)#: 3 or 4 digit restriction

This step sets the maximum number of digits which can be dialled when making the specified type of calls in the specified modes. By default these steps have no restriction set.

Digit restrictions - Long Distance Call **2.x**

[LONG TRS TYPE(3-4)

FF7-1#-(9-10)#-(0,3 or 4)#

(9-10)#
9#: STD national - class 3
10#: STD national - class 4

(0,3 or 4)#
0#: No digit restriction
(3-4)#: 3 or 4 digit restriction

This step sets the maximum number of digits which can be dialled when making the specified type of calls in the specified modes. By default these steps have no restriction set.

Digit restrictions - Operator Service **2.x**

[SP. TRS TYPE(2-4)]

FF7-1#-(11-13)#-(0,3 or 4)#

(11-13)#
11#: Operator service - class 2
12#: Operator service - class 3
13#: Operator service - class 4

(0,3 or 4)#
0#: No digit restriction
(3-4)#: 3 or 4 digit restriction

This step sets the maximum number of digits which can be dialled when making the specified type of calls in the specified modes. By default these steps have no restriction set.

Local Call Restriction **2.x**

[DIAL TRS TYPE(2-4)]

FF7-1#-(14-16)#-(0 or 1)#

(14-16)#	**(0-1)#**
14#: Class 2	0#: Can make local calls
15#: Class 3	1#: Cannot make local calls
16#: Class 4	

This specifies by call barring class whether or not local calls can be made.

Extension class of service when locked **2.x**

[TRS CHANGE TYPE]

FF7-1#-17#-(1-5)#

1#: Class 1
2#: Class 2
3#: Class 3
4#: Class 4
5#: Class 5

The class of service of an extension can be changed when the extension is locked. This step sets that class of service. It is possible to set a higher service class for and extension when locked compared to when it is unlocked.

Restriction override using SSD code in group 1 **2.x**

[TYPE5 SSD ENTER]

FF7-1#-18#-(00-89)#

[CONF]#: All SSD calls are subject to restriction class
(00-89)#: SSD codes including the registered number to 89 can make calls

This step allows a specified block of system speed dial (SSD) entries in side 1 to override the call barring on the calling extension if they would normally be restricted. SSDs stored in the location specified here and all others upto 89 can override call barring provided the extension using them has been allowed to use SSD override.

Related step FF7 9# (001-144)# , SSD restriction override

Restriction override using SSD code in group 2 **2.x**

[TYPE5 SSD ENTER]

FF7-1#-19#-(00-89)#

[CONF]#: All SSD calls are subject to restriction class
(00-89)#: SSD codes including the registered number to 89 can make calls

This step allows a specified block of system speed dial (SSD) entries in side 2 to override the call barring on the calling extension if they would normally be restricted. SSDs stored in the location specified here and all others up to 89 can override call barring provided the extension using them has been allowed to use SSD override.

Related step FF7 9# (001-144)# , SSD restriction override

*** Restriction** **2.x**

[*TRS TYPE(2-3)]

FF7-1#-(20-21)#-(0 or 1)#

(20-21)#	**(0-1)#**
20#: Class 2	0#: * not restricted
21#: Class 3	1#: * restricted

The dialling of * within the first four dialled digits can be barred in classes 2 and 3. This restricts access to certain network services.

*Note 1: Dialling * to convert from pulse to tone dialling is not affected by this step*

*Note 2: This step applies only to classes 2 and 3 because the definitions of the other classes determine their ability to dial *.*

 # Restriction **2.x**

[#TRS TYPE(2-3)]

FF7-1#-(22-23)#-(0 or 1)#

(22-23)#	**(0-1)#**
22#: Class 2	0#: # not restricted
23#: Class 3	1#: # restricted

The dialling of # within the first four dialled digits can be barred in classes 2 and 3. This restricts access to certain network services.

Note: This step applies only to classes 2 and 3 because the definitions of the other classes determine their ability to dial #.

2nd digit of STD code **4.0**

[SET 1DIGIT NO]

FF7-1#-24#-(0 -9)#

[CONF]#: Clear (1 after NCC is set)
(0-9)#: S digit number

This step sets the second or S digit of the STD code for use when dialling. When the system is set for NCC this is automatically set to 1.

Storing 8 special service numbers **2.x**

[DIAL- 1: *]**

FF7-2#-(1-8)#-(000-999)#

[CONF]:	Clear to initial code
(000-999)#:	3 digit dial numbers
Initial set:	1# 999# and 1# 112#

Up to eight 3-digit fixed numbers can be registered as special call numbers. When the dialled number matches a registered special call number, all the call restrictions except for the special number digit restriction will be ignored. This setting is applicable to call restriction class 1-4. The default setting permits dialling to the emergency services.

Local Call Dial Restriction **2.x**

[DIAL-01:******]**

FF7-3#-(1-50)#-(0-99999999)#

(1-50)#	**(0-99999999)#**
List entry	[CONF]#: Clear
	(0-99999999)#: 8 digit dial numbers

A list of upto 50 number scan be stored to restrict local call dialling in classes 2 to 4. Each entry can be upto 8 digits long. An extension in these classes will not be allowed to dial a number stored on this list.

Note: Pause, "#" and "", can not be set in the dial number.*

Class of service-daymode **2.x**

[DAY TRS TYPE]

FF7-4#-(001-144)#-(01-48, 49)#-(1-5)#

Class of service-night mode

[NIGHT TRS TYPE]

FF7-5#-(001-144)#-(01-48, 49)#-(1-5)#

(001-144)#	**(01-48,49)#**	**(1-5)#**
Extension Port	01-48#: Line number	1#: Class 1
	49#: Apply to all lines	2#: Class 2
		3#: Class 3
		4#: Class 4
		5#: Class 5

Class 1:	Can make internal and emergency calls only
Class 2:	As class 1, plus local and special service calls only.
Class 3:	As class 2, plus STD national calls.
Class 4:	As class 3, plus international calls.
Class 5:	No restrictions

These steps specify the level of call barring to apply to each extension by line or using the line code 49# for all lines in day and night modes. The restrictions of each class are shown above.

Call barring look up table - operator service **2.x**

[SP-DIAL TYPE(2-4)]

FF7-6#-(1-3)#-(0-999)#-(0 or 1)#

(1-3)#	**(000-999)#**	**(0-1)#**
1#: Class 2	Digits following	0#: Enable to dial
2#: Class 3	first digit for	1#: Disable to dial
3#: Class 4	operator service	

These three tables allow the access to network operator services for classes 2, 3 and 4 to be controlled. The digits stored are those dialled in addition to the first digit of operator service. E.g. if the first digit is set to 1 and 192 is to be barred only 92 needs to be stored here.

When entering the numbers wildcards can be used to block program. The wildcard character is * and entered using the FF11 key. It represents all numbers in the location it is entered. If the entered number is less than three digits long the remaining locations are filled by the wildcard character. Thus:

00* is equivalent to 00# which represents numbers 000 - 009
0** is equivalent to 0# which represents numbers 000 - 090

Call barring look up table - STD national **2.x**

[LONG DIGIT TYPE(3-4)]

FF7-7#-(1-2)#-(0-999)#-(0 or 1)#

(1-3)#	**(000-999)#**	**(0-1)#**
1#: Class 3	Digits following	0#: Enable to dial
2#: Class 4	first digit for	1#: Disable to dial
	STD national calls	

These three tables allow the access to specific STD areas for classes 2, 3 and 4 to be controlled. The digits stored are those dialled in addition to the first digit of STD national calls. E.g. if the first digit is set to 0 and 0344 is to be barred only 344 needs to be stored here.

When entering the numbers wildcards can be used to block program. The wildcard character is * and entered using the FF11 key. It represents all numbers in the location it is entered. If the entered number is less than three digits long the remaining locations are filled by the wildcard character. Thus:

00* is equivalent to 00# which represents numbers 000 - 009
0** is equivalent to 0# which represents numbers 000 - 090

Long Distance Call Restriction Override **3.2**

[L.D.C. FREE]

FF7-7#-3#-(1-16)#-(0-999)#

(1-16)#	**(0-999)#**
List number	Conf#: Clear
	0-999#: Override

A list of up to 16 numbers of up to 3 digits each can be stored and used to override local call restrictions in classes 2 to 4.

Restriction overrides **4.0**

[FREE DIAL TYPE(2-4)]

FF7-7#-(4-6)#-(1-32)#-(0-9999)#

(4-6)#	**(1-32)#**	**(0-9999)#**
4#: Class 2	List number	Conf#: Clear
5#: Class 3		0-9999#: Override
6#: Class 4		Class 2: 800
		Class 3,4: 2,3,4,5,6,7,8,9

For each class 2 to 4 a list of 32 override codes can be stored. Each entry can be upto 4 digits. These codes are checked against the 2nd to 4th dialled digit after the first STD national call digit. If a match is found the call is allowed overriding other call restrictions. E.g. 800 in class 2 will allow 0800 calls from extensions in class 2

Call barring look up table - international calls **2.x**

[OVERSEAS TABLE]

FF7-8#-(0-999)#-(0 or 1)#

(000-999)#	**(0-1)#**
Digits following code for international calls	0#: Enable to dial 1#: Disable to dial

This table allows control of international call access in class 4. The digits stored are those dialled in addition to the code for international dialling. E.g. if the code is set to 010 and 010 353 is to be barred only 353 needs to be stored here.

When entering the numbers wildcards can be used to block program. The wildcard character is * and entered using the FF11 key. It represents all numbers in the location it is entered. If the entered number is less than three digits long the remaining locations are filled by the wildcard character. Thus:

00* is equivalent to 00# which represents numbers 000 - 009
0** is equivalent to 0# which represents numbers 000 - 090

SSD restriction override **2.x**

[SPD TRS TABLE]

FF7-9#-(1-144)#-(0 or 1)#

(001-144)#	(0-1)#
Extension port	0#: Override using SSD is not allowed 1#: Override using SSD is allowed

This enables SSD override of call barring on an extension port basis, subject to the selected SSD being able to override call restrictions.

Related step FF7-1-18 , Restriction override using SSD in group 1
FF7-1-19 , Restriction override using SSD in group 2

E&M class of service - day mode **3.1**

[NET DAY TRS TYP]

FF7-10#-1#-(1-3)#-(01-48)#-(1-5)#

E&M class of service - night mode

[N.NIGHT TRS TYP]

FF7-10#-2#-(1-3)#-(01-48)#-(1-5)#

(1-3)#	**(01-48)#**	**(1-5)#**
E&M trunk group	Line number	Class of service

These steps control the classes of service applying to calls breaking out through the system from a remote site via an E&M card link. The class restrictions are the same as those for extensions.

DISA Break Out Class Of Service **CPC-EX 1.0**

FF7 10# (3-4)# (1-5)# (1-48)# (1-5)#

(3-4)#	(1-5)#	(1-48)#	(1-5)#
3# Day Mode	DISA ID Code	Line Number	Class of service
4# Night Mode	To Set Class For		1# Class 1
			2# Class 2
			3# Class 3
			4# Class 4
			5# Class 5

When using DISA ID codes to allow break out from incoming DISA calls the ID code can be used to define the caller's dial out class of service. Class of service can be different for each ID code for day and night service.

DBS call restriction

			Class								
			1	2	3	4	5	Call Code	Barring	Other	General
Incoming		Own Extension	A	A	A	A	A				
		Other Extension	A	A	A	A	A				
		Outward Dial Stop	P	P	P	P	A		FF7-1-4		
		Piggy Backed	A	A	A	A	A				
Outgoing	Special No.	Digit Restriction	P	P	P	P	A		FF7-1-5		FF7-1-17
		Dial Restriction	A	A	A	A	A			FF7-2-(1-8)	FF7-1-(18-19)
	Local	Digit Restriction	D	P	P	P	A		FF7-1-(6-8)		FF7-1-24
		Dial Restriction	D	P	P	P	A		FF7-1-(14-16)	FF7-3-(1-50)	FF7-7-(4-6)
	Opeator	Digit Restriction	D	P	P	P	A	FF7-1-3	FF7-1-(11-13)		FF7-9
		Dial Restriction	D	P	P	P	A		FF7-6-(1-3)		FF7-10
	National	Digit Restriction	D	D	P	P	A	FF7-1-1	FF7-1-(9-10)		
		Dial Restriction	D	D	P	P	A		FF7-7-(1-2)		
	International	Dial Restriction	D	D	D	P	A	FF7-1-2	FF7-8		
	* Restrict	Dial Restriction	D	P	P	A	A		FF7-1-(20-21)		
	# Restrict	Dial Restriction	D	P	P	A	A		FF7-1-(22-23)		

D Denied
P Can Be Changed Via Programming
A Allowed

This table illustrates the connection between the classes of service, call type and programming steps which are used to modify the parameters.

Class call types marked D and A are fixed and their parameters cannot be changed via programming.

Copy mode

Certain system features can be copied to other locations and ports to alleviate the need to repeatedly enter similar settings.

Exchange line setting **2.x**

[COPY OK ?]

FF8-1#-(01-48)#-(01-48)##

(01-48)#: Original trunk number (01-48)#: Destination trunk number

The settings for one trunk port are copied to another trunk port. All the items programmed are copied with the exception of the private port number.

Note: The double # is used to confirm the copy process

Extension setting **2.x**

[COPY OK ?]

FF8-2#-(001-144)#-(001-144)##

(001-144)#: Original extension port (001-144)#: Destination extension port

The settings for one extension are copied to another extension. All the items programmed are copied with the exception of the extension number, terminal classification and lock code.

Note: The double # is used to confirm the copy process

FF (programmable) key setting **2.x**

[COPY OK ?]

FF8-3#-(001-144)#-(001-144)##

(001-144)#: Original extension port (001-144)#: Destination extension port

The contents of the FF keys of one extension can be copied to another extension.

Note: The settings described in Mode 3 - Extension Setting, Mode 4-1 and 4-2 - Ringing Assignments and Modes 7-4 and 7-5 Call Barring will also be copied.

Note: The double # is used to confirm the copy process

SSD group members **2.x**

[COPY OK ?]

FF8-4#-(1-2)#-(00-89)#-(00-89)##

(1-2)# Group (0-89)#: Original SSD (0-89)#: Destination SSD

Name and number of one SSD in group 1 or 2 that has already been set, can be copied to another SSD in the same group. Thus allowing them to be moved into areas not restricted by call barring.

Note: The double # is used to confirm the copy process

Related steps FF7 1# 18# , Restriction override by SSD in group 1
FF7 1# 19# , Restriction override by SSD in group 2
FF7 9# (001-144)# , SSD restriction override

Personal speed dial **2.x**

[COPY OK ?]

FF8-5#-(001-144)#-(001-144)##

(001-144)#: Original extension (001-144)#: Destination extension

The PSD details of one extension can be copied to another. Useful for extension using the same PSDs or staff movement.

Note: The double # is used to confirm the copy process

System speed dial memory

The content of system speed dials (SSD's) and personal speed dials (PSD's) can be set via programming or by the system user. The required programming steps are listed here.

System speed dials **2.x**

[SSD NN]

FF9-1#-(1-2)#-(0-89)#-(DIAL)#

(1-2)#	**(0-89)#**	**(Dial)#:**
SSD group 1 or 2	SSD location	Number to be stored 24 digits maximum

Personal Speed dial **2.x**

[PSD NN]

FF9-2#-(001-144)#-(90-99)#-(DIAL)#

(001-144)#	**(90-99)#**	**(dial)#**
Extension port	PSD location	Number to store 24 digits maximum

LCR

DBS LCR is designed to take up to 7 indirect access networks in addition to a directly connected network. In default programming, network 1 is set up for Mercury Communications and network 8 is set for access to BT. When LCR is used, the DBS will select the cheapest network based on the programming options set here.

LCR programming is password protected and requires an access code to be entered before the programming mode is enabled. The default setting for this password is 0000.

Use of LCR **2.x**

[0:NOT USE 1:USE]

FF10-(PASSWORD)#-1#-1#-(0 or 1)#

0#: LCR is not used
1#: LCR is used

Set this to enable LCR in the system.

LCR programming password **2.x**

[SET 4DIGIT DATA]

FF10-(PASSWORD)#-1#-2#-(0000-9999)#

[CONF]: The password is 0000
(0000-9999): Required password

The password to access LCR programming can be changed. This code cannot be confirmed when it is once registered but can be defaulted and re-entered.

NOTE: If the password is changed and forgotten the system must be completely reset to regain access to LCR programming.

Pause after network access code **2.x**

[LCR PAUSE TIMER]

FF10-(PASSWORD)#-1#-3#-(1-15)#

1#: 1 second
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

After sending the network access code, an automatic pause time is provided to ensure that dialling is delayed until the carrier's secondary dial tone is received.

Registration of network carriers **2.x**

[0:NOT SET 1:SET]

FF10-(PASSWORD)#-1#-(4-10)#-(0 or 1)#

(4-10)#	**(0-1)#**
4#: Carrier 1	0#: Not Used
5#: Carrier 2	1#: Used
6#: Carrier 3	
7#: Carrier 4	
8#: Carrier 5	
9#: Carrier 6	
10#: Carrier 7	

Each network carrier to be used must be enabled. The system can use up to 7 carriers in addition to the directly connected lines. In default Carrier 1 is used and its defaults are those required for Mercury, carriers 2 to 7 are not used and have no default values set.

Assignment of network operators to lines **2.x**

[0:NOT SET 1:SET]

FF10-(PASSWORD)#-2#-(01-48)#-(1-7)#-(0 or 1)#

(01-48)#	**(1-7)#**	**(0-1)#**
Line number	Carrier number	0#: Not assigned 1#: Assigned MCL is assigned for every line in default

Network operators (carriers) are assigned to each line on which their service is available.

Storing access codes for each network operator **2.x**

[ACCESS DIAL MODE]

FF10-(PASSWORD)#-3#-1#-(1-8)#-(0-9999999999)#

(1-8)#	**(0-9999999999)#**
1#: Carrier 1	Access code
2#: Carrier 2	maximum 10 digits
3#: Carrier 3	
4#: Carrier 4	
5#: Carrier 5	
6#: Carrier 6	
7#: Carrier 7	
8#: Directly connected network	

Each carrier the system uses can have an access code stored which is used to dial up the service and for forcing calls via a particular carrier. In default carrier 1 is set for 131 , Mercury and the direct network 8 for 121, BT. These can all be changed as required by programming.

Restricted numbers **2.x**

[4 DIGIT DIAL SET]

FF10-(PASSWORD)#-3#-2#-(1-8)#-(0000-9999)#

(1-8)#	**(000-999)#**
List number 1 and 2 are fixed 3 to 8 are programmable	Restricted number

A list of 8 numbers which must always be sent via the directly connected network, E.g. emergency numbers, can be stored. These numbers cannot be forced via carriers 1 to 7.

In default item 1 is set to 999 and 2 for 112, the emergency services and these cannot be changed.

Call set-up protocols **2.x / 4.1 / ISDN 1.2**

[LCR ADD KIND SET]

FF10-(PASSWORD)#-4#-(1-7)#-(01-48)#-(1-4)#-(0-255)#

(1-7)#	**(01-48)#**	**(1-4)#**	**(0-255)#**
Carrier	Line number	List item number	Instruction 0 Convert LD dialling to DTMF 1-48 authorisation code number 203 3 digit call serial number 213 3 digit cost centre code 255 end of list

For each carrier and each line a list of commands governing the set up of call can be stored. Each list consists of upto 4 items. When a call is to be made via a carrier the appropriate line protocol list is selected and the system implements the instructions working down the list until the null (255) setting is reached, at which point the call is set up. The instructions can be stored in any order provided the end of list 255 is the last item.

The instructions are:

0	Covert from pulse/LD dialling to DTMF dialling after the network access code. This is not required if the line is already DTMF dialling
1-48	The authorisation code to use from the list of codes available for the carrier selected in the (1-7)# part of the step. Each carrier can have up to 48 different authorisation codes.
203	Call serial number. This instruction will send 3 digit call serial numbers after the authorisation code. These start at 001 and run to 998 before cycling round and repeating. 112 and 999 are not sent as serial numbers.
213	A 3 digit cost centre code is sent to the network after the authorisation code. This will be the extension number if three digit extension numbers are in use, the port number if 2 or 4 digit numbers are in use or [ ] if breaking out from a private circuit.

Note: 203 and 213 are mutually exclusive. Only one may be used in a single 4 item list.

Note: From v4.1 / ISDN 1.1 the display indication of KIND and TRK numbers is reversed.

Storing authorisation codes for network operators **2.x**

[NO.01 SET 16 DIGIT]

FF10-(PASSWORD)#-5#-(1-7)#-(1-48)#-(0-99..99)#

(1-7)#	**(1-48)#**	**(0-99..99)#**
Carrier	List number	Authorisation code maximum 16 digits

A list of up to 48 different authorisation codes each of up to 16 digits can be stored for each network operator. The list number is the reference used to select the authorisation code in the call set up protocol list.

LCR look up tables **2.x**

[SELECT DIAL]

FF10-(PASSWORD)#-6#-(1-7)#-(000-999)#-(0 or 1)#

(1-7)#	**(000-999)#**	**(0-1)#**
Carrier	STD code excluding first digit of STD national dialling setting	0#: Not Used 1#: Used

This step allows the look up table for each carrier to be set. The STD code entered excludes the first digit of STD dialling as set under call barring. When the system is set for NCC the STD data becomes 4 digits. By default the codes for carrier 1 are set ready for Mercury access and will require the installation's local codes to be set 'Not used'.

Priority table setting **2.x**

[SET DIAL]

FF10-(PASSWORD)#-7#-(1-4)#-(000-999)#-(1-8)#

(1-4)#	**(000-999)#**	**(1-8)#**
Priority table number	STD data excluding first STD national digit	Carrier

The system contains 4 priority tables in which the carrier for each STD code can be specified.

When entering the numbers wildcards can be used to block program. The wildcard character is * and entered using the FF11 key. It represents all numbers in the location it is entered. If the entered number is less than three digits long the remaining locations are filled by the wildcard character. Thus:

00* is equivalent to 00# which represents numbers 000 - 009
0** is equivalent to 0# which represents numbers 000 - 090

Note: Initial setting for all dial numbers for the priority table No.1 is carrier 1 (Mercury). Initial setting for all dial numbers for the priority tables No.2-4 is BT.

Time priority start time **2.x**

[PRI START TIME]

FF10-(PASSWORD)#-8#-(1-4)#-1#-(00-24)#

(1-4)#	**(00-24)#**
Priority table	Start hour 24 hour format

This is to set the start time when a specified priority table becomes effective.

Time priority finish time **2.x**

[PRI END TIME]

FF10-(PASSWORD)#-8#-(1-4)#-2#-(00-24)#

(1-4)#	**(00-24)#**
Priority table	Start hour 24 hour format

This is to set the finish tine when a specified priority table is disabled.

Priority day of the week setting **2.x**

[DAY PRIORITY]

FF10-(PASSWORD)#-8#-(1-4)#-3#-(0-4)#

(1-4)#	**(0-4)#**
Priority table	0#: Sunday-Saturday 1#: Monday-Saturday 2#: Monday-Friday 3#: Saturday, Sunday 4#: Sunday

This is to set the days of the week in which the specified priority table is effective between its start and finish times.

NCC Switch **4.0**

[0:OLD 1:NEW]

FF10-(PASSWORD)#-9#-1#-(0-1)#

(0-1)#
0#: Before NCC mode
1#: After NCC mode

This switch controls the system settings concerned with the National Code Change (NCC). When set for 'After NCC mode' the look up table in LCR are increased to 4 digits and call barring settings automatically reset to accommodate the new national dialling scheme. These tables are created set to default values and will need to be configured before they can be used.

Remote Programming

Remote Programming Outline

Programming can be performed from outside the system through telephone lines using a Remote Administration Interface (RAI) or via the RS232 call logging port. For external modem access the system must be equipped with the optional RAI card. See Installation Manual for details.

In such cases, the programming is done from commercially available data terminals, usually a PC and modem.

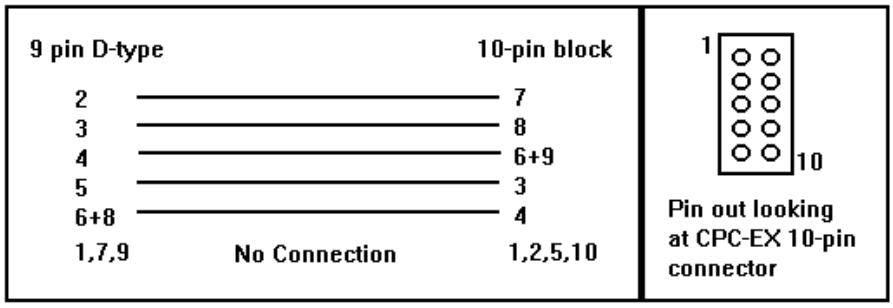
CPC-EX Bus Monitor / PC Programming Serial Port

With the introduction of the CPC-EX a second serial port has been added for use when collecting Bus Monitor data and performing remote programming. It is located directly on the PCB of the CPC-EX card at the front just above the tab used to slide the card in and out of its slot.

On the CPC-EX card the call logging port is reserved exclusively for call logging and the second connection is provided on the CPC-EX card itself for the connection of a maintenance PC only. Programming is no longer possible via the call logging connection.

To connect to this a cable will need to be prepared to connect from the PC to the 10-pin connector. Below is a diagram for wiring to a 9 way D-type connector which is common on most modern PCs. If your PC connector is different please consult your computer expert to get the equivalent cable designed and made.

The 10-way plug is available from most large electronic component suppliers and are not expensive.



Without this cable there is no way to link a PC for programming or collection of Bus Monitor (fault finding) data.

In addition to the second serial port the maximum port speed has been increased from 9600 bps to 19200bps. The ports' usage is also separated, i.e. The call logging port is for call logging only and the new port for system monitor and programming only. When in programming mode the call logging is suspended and buffered and resumes when programming is complete. When programming mode is exited the system will return top call logging and bus monitor modes.

The following commands can be entered from the operator extension for control of the new port:

#99(ID CODE)	Enter On site programming mode
#90	Normal bus monitor mode
#91	Accumulated bus monitor mode
#92	Polling bus monitor mode

#93 call logging toggle is deleted and no longer operates.

Additional programming steps have been added to the call logging parameters to allow configuration of the new port.

Starting Remote Programming

There are two ways of starting remote programming.

The first method is completely externally using the DISA function and dialling directly to the RAI card.

The second method is to put the system in hold with the operator's telephone and have the operator initiate the link to the RAI card.

A) Remote Programming Mode with DISA

After the system has answered the call made to the exchange line specified in the system as DISA, enter the DISA ID if used and then dial #6 and the remote programming ID. The remote programming ID is 9999 in default. The system will respond with the opening screen for remote access.

B) Remote Programming Mode by Attendant's telephone

The incoming call for remote programming is placed on hold by the operator’s extension and the operator dials #6 and the programming ID (9999 default), this will connect to the RAI card and display the opening screen.

Remote Programming Modes

There are 3 modes for the remote programming. When the opening screen is displayed these modes can be selected.

INPUT [P]	for Programming
INPUT [D]	for Memory Dump (Hex dump - for engineering use)
INPUT [CTRL] [Z]	Remote Maintenance Complete - Quit

Effective Number of Digits for Input

When the number of digits input is less than 3, 0 is used to fill out the entry to make it 3 digits When it is more than 3 digits, the last 3 digits only are taken while the rest are ignored.

1	=>	001
100	=>	100
1000	=>	000
12345	=>	345

This restriction is common to all the remote programming modes.

Completion of Remote Programming

The remote programming operation is completed by entering [Ctrl] + [Z]. The first time will return to the top level screen (or disconnect if already at the top level screen) and the second time will sign off.

The following situations will also cause the remote programming mode to terminate.

A) When data has not been input for more than 16 minutes.

B) When the outside line is cut off.

Remote Programming Display - Sample

REMT>

Press "P" and Enter key.
(Note : "P" must be input by Capital letter)

DBS System Programming

- 0.1 System param - 0.6 Name assignment
- 0.2 Trunk param - 0.7 TRS param
- 0.3 Extension param - 0.8 Copy mode
- 0.4 Ring assignment - 0.9 SPD param
- 0.5 FF key assignment -.1.0 LCD param

* Control key*

- B : Back to previous address
- F : Forward to next address
- R : Return to provide mode
- b : Back to previous port
- f: Forward to previous port

Enter Selection Data

Press "- 0.1" and press "ENTER key"

SYSTEM PROGRAM
System Program Parameters

1. Calendar 5. ID code set for Program
2. System mode sel 6. F.N.P. Setting
3. Time 7. F.N.P. reference
4. Remote mente 8. DISA ID code setting

Press "1" and press "ENTER key"

SELECT TIME MODE
Calendar

1. Month, Day , Year
2. Hour Minute

Enter Selection Data

Press "1" and press "Enter key"

DATA SET MODE
Day Month Year Setting Mode

Input Data Format : DDMMYY
DD Day (01-31)
MM Month (01-12)
YY Year ('89 - '20)

Enter Selection Data

Press "1" and press "Enter key"

TIME SET MODE
Hour Minutes Setting Mode

Input Data Format : HHMM

HH Hour (00-23)
MM Minute (00-59)

Enter Selection Data

Press "0821" and press "Enter key"