HYBREX

B1-408
BX-8
BX-320

SYSTEM PROGRAMMING MANUAL

THIS MANUAL WAS WRITTEN FOR SOFTWARE VERSION B1-I01y (B1-408) CX8AR04a (BX8) & MS-I01sm or or NMSI10p (BX320). WHILE ALL CARE HAS BEEN TAKEN TO ENSURE ACCURACY IT RESTS WITH THE INSTALLER TO ENSURE THAT THE FUNCTIONS PERFORM AS TO THE CUSTOMERS REQUIREMENTS. THE POLICY OF AUTO TELECOM IS ONE OF CONTINUAL IMPROVEMENT AND LATER VERSIONS OF HARDWARE AND SOFTWARE MAY CONTAIN ENHANCEMENTS TO THE OPERATION OR FUNCTIONS OF THE B1-408, BX8 OR BX320. AUTO TELECOM DOES NOT AUTOMATICALLY PROVIDE LATER HARDWARE OR SOFTWARE VERSIONS TO ENHANCE FEATURES OR OPERATION AND A CHARGE MAY BE INCURRED FOR UPGRADES.

NOT ALL THE FEATURES MENTIONED IN THIS MANUAL ARE AVAILABLE IN ALL HYBREX SYSTEMS. AUTO TELECOM IN RESPONDING TO MARKET REQUIREMENTS WILL ADD NEW FEATURES TO ONLY ONE SYSTEM AT A TIME AND IT MAY HAPPEN THAT A FEATURE THAT IS DESCRIBED HERE MAY NOT YET BE FITTED TO THE WHOLE RANGE. WHERE PRACTICAL FEATURES WILL BE EXPANDED ACROSS THE FULL RANGE AS PART OF FUTURE SOFTWARE DEVELOPMENT.

MANUAL NO.

DATE	ISSUED TO	COMPANY NAME

COMMERCIAL IN CONFIDENCE

The information contained in this manual is for the use of authorised dealers and installers of Hybrex BX equipment. Any unauthorised divulging of this information is prohibited.

Written By
Greg Morrison
Technical Manager
AUTO TELECOM AUSTRALIA

HYBREX B1-408, BX-8 & BX320   HYBRID TELEPHONE SYSTEM

SYSTEM PROGRAMMING   **MAY 25 2001**

C O N T E N T S

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Item	Description		
01	Hold Recall Time	A	1=60 Secs.
02	Exclusive Hold Recall Time	A	1=60 Secs.
03	Hold Recall Timeout	A	1=60 Secs.
04	DISA Access Delay Time	C	1=2 Secs.
05	Busy Remind Cycle Time	C	4=8 Secs.
06	Pause Time Duration	D	2=800 ms.
07	DTMF Generation Time	E	2=83 ms.
08	Call Forward No Answer TRF. Time		1=20 Secs.

Item	Description		
01	SLT Dial Tone Timeout	C	5=15 Secs.
02	SLT Inter-Digit Timeout	C	5=15 Secs.
03	Auto Redial Waiting Time		1=10 Secs.
04	SLT Release Time	B	5=800 ms.
05	Flash Time - To CO Line	I	4=640 ms.
06	SLT Hold Signal Duration	G	3=300 ms.
07	Ring On Time	J	2=240 ms.
08	Ring Off Time	F	4=4 Secs.

Item	Description	
01	Make / Break Ratio	0=33/66
02	Automatic Trunk Search	0=Enable
03	Intercom Call Signalling Method	0=Voice
04	PABX Outgoing Code	9=9
05	Toll Access Code	0=0
06	Station Number Digit Length	2=2 digits
07	Intercom Dial Tone Pattern	0=Steady
08	Door Phone Ringing Frequency	0=Continuous

1.1 Programming Initialisation

BEFORE ATTEMPTING ANY PROGRAMMING ON A NEW SYSTEM, AFTER ALL CARDS ARE FITTED AS PER THE FINAL CONFIGURATION <u>PERFORM A SYSTEM RESET IN MODE 25</u> AND ENSURE THAT THE MEMORY BACKUP BATTERY IS ENABLED. THIS ALSO APPLIES IF A LATER VERSION OF SOFTWARE HAS BEEN FITTED TO THE SYSTEM. DO <u>NOT</u> NEGLECT THIS PROCEDURE AS FUTURE PROBLEMS CAN OCCUR IF NOT PERFORMED.

1.2 Entering Program Mode

   Password The system is non-password protected when first installed. After setting a Password in **Program 13,** the system becomes Password protected so that only the person who knows the "password" has access to system database information.

   To Enter System Programming Mode From Any Station:

<u>Password Protected</u>   <u>Unprotected</u>
1. Press **[PRG]**, **[7]**   1. Press **[PRG]**, **[7]**
2. Key in " PASSWORD "   2. Press **[SAVE]/[DSS20]**
3. Press **[SAVE]/[DSS20]**

   To Enter Programming Mode From The First Key Phone Port In the System.

<u>Password Protected</u>   <u>Unprotected</u>
1. Press **[SPK], [7], [0], [7]**   1. Press **[SPK]**, **[7], [0], [7]**
2. Key in " PASSWORD "   2. Press **[SAVE]/[DSS20]**
3. Press **[SAVE]/[DSS20]**

   ! Select the PROGRAM MODE:
          Enter Mode number (01-48).
          Enter Sub-Mode number.
          Enter Item Pointer.
          Press **[SAVE]/[DSS20]** to confirm the selection.

   ! Set data. Press **[SAVE]/[DSS20]** to confirm the entered data.

   ! Press [SPK] to exit.

   1.   When in a Program Mode, press **[SAVE]/[DSS20]** and System will save all valid information in the current mode.
   2.   Busy Tone means that some or all of the data is invalid or out of range. Press **[PRG]/[DSS25]** and re-enter the data.

1.3 Programming Overlay and Default Soft Key Plans

Once programming mode is accessed the function keys will revert to the default settings to allow programming functions to be set. If there is no **[PRG]** or **[SAVE]** in the plan used then **[SPK] 7, 0, 7 [SAVE]/[DSS 20]** from Port 11 will enter programming no matter what the soft key plan has set for **[DSS 20]**.

Programming Overlay

SUB MODE	SUB MODE	CURSOR	CURSOR	
�	▪	▪	▪	▪
DOWN	UP	LEFT	RIGHT	MENU
▪	▪	▪	▪	▪
				SAVE
▪	▪	▪	▪	▪
				MW/PT
▪	▪	▪	▪	▪
				SPD
▪	▪	▪	▪	▪
			DND/CN	AT/MIC

The default Soft Key plan for all KPU6X Key Stations in the BX8 and BX320 is Group 2.
The default Soft Key plan for all AK Key Stations in the B1-408 is Group 3.

Default Key Plan for Group 2

13 ▪	14 ▪	15 ▪	16 ▪	▪
STN 15	STN 16	STN 17	STN 18	PRG/VU
9 ▪	10 ▪	11 ▪	12 ▪	▪
STN 11	STN 12	STN 13	STN 14	SAVE
5 ▪	6 ▪	7 ▪	8 ▪	▪
TK:05	TK:06	TK:07	TK:08	MW/PT
1 ▪	2 ▪	3 ▪	4 ▪	▪
TK:01	TK:02	TK:03	TK:04	SPD
▪	▪	▪	▪	▪
< VOL	>	FWD	DND/CN	AT/MIC

Default Soft Key plan for Group 3.

21 PRG	22 SAVE	23 DND/CN	24 SPD	25 FWD
16 STN 15	17 STN 16	18 STN 17	19 STN 18	20 MW/PT
11 STN 11	12 STN 12	13 STN 13	14 STN 14	15 AT/MIC
6 TK:05	7 TK:06	8 TK:07	9 TK:08	10 VOL>
1 TK:01	2 TK:02	3 TK:03	4 TK:04	5 VOL <

Default Soft Key plan for Group 4

VOL <	VOL >	SPD	DND/CN	PRG
STN 15	STN 16	STN 17	STN 18	SAVE
STN 11	STN 12	STN 13	STN 14	MSG
TK 05	TK 06	TK 07	TK 08	TRF/FL
TK 01	TK 02	TK 03	TK 04	AT/MIC

1. 3B1-408, BX8 & BX320 - SYSTEM PROGRAMMING INFORMATION

Plug and Play Soft Key Plans

From Version CX8I03t (BX8) and B1-I00x (B1-408) the software will automatically recognise certain handset types and allocate the soft key plan to suit.
There are 2 versions of the AK handset in circulation. The original AK series handsets, up to V29 for the AK1-2x and V54 for the AK1-33 have 25 keys with 16 Red Green Leds on the AK1-2x and 10 keys with 4 Red Green Leds on the AK1-33. From mid 1999 a new version of AK handset has been released with 16 Red / Green leds, 6 Red only leds and 3 keys with no leds. The new handsets are able to be automatically recognised by the system and automatically allocated a suitable soft key plan. The soft key plans are allocated to handset types in Mode 05-16-(01-02-03). Handset software types are set in Mode 46-st-07.

1.4 On Line Programming

With this feature, Users can perform programming changes while speaking with an outside party. This is useful for consulting engineering personnel when any problems occur or programming changes are required.

1. During conversation with an outside party.
2. Press **[SPD]**→**[PRG]**→**[7]**.
3. Key in **password** (If protected)
4. Press **[SAVE]/[DSS20]** to enter.

1.5a Remote Programming using a modem and the system manager at the Dealers site and an RPU at the customers site.

By using this feature, a user can call the dealers service personnel and allow them to access the programming and make changes from the dealers office via Modem. The users system must have SMDR and RPU cards fitted. The baud rate on your modem must be set to 2400. This feature is not available on the B1-408.

The Procedures are as per the following Table.

	Customer's Location	*Service Centre*
1	Call the Service Centre for help.	
2		Answer the call from the Customer.
3		Guide Customer to allow the dealer into remote programming.
4	Press [SPD][prog],[*], [Hang up the handset].	
5	The LCD will display Remote Programming Message.	
6	Wait recall from the Service Centre.	
7		Switch the conversation to MODEM.
8		Use System Manager to upload/download /modify and download the Customer's data.
9		Use System Manager to recall the Customer.
10		Switch the conversation back to telephone.
11	Answer the recall.	

System Manager

It is recommended that dealers use the optional System Manager software to save a copy of System Programming on disc. This can then be used for reloading the system programming from a PC rather than having to manually reprogram after software upgrades or system faults. There is currently no System Manager available for the B1-408.

1.5b Remote Programming using a modem and the system manager at the Dealers site and a Modem at the customers site.

The procedure is the same as 1.5a except that in step 4 the customer does the following
Press [SPD][prog],[*], Ext Number (that modem is connected to) [Hang up the handset]. The Modem should be locked to 2400 Baud in Non Volatile memory.

1.6 Remote Programming System to System

By using this feature, a user can call the dealers service personnel and allow them to access the programming and make changes from the dealers office via a display phone .Both the dealers system and the users system must be equipped with SMDR and RPU cards. This feature is not available for the B1-408.

The Procedures are as per the following Table.

	Customer's Location	*Service Centre*
1	Call the Service Centre for help.	
2		Answer the call from the Customer.
3		Guide Customer to allow the dealer into remote programming.
4	Press [SPD][prog],[*], [Hang up the handset].	Press [SPD][PROG][#] [Hang up the handset]
5	The LCD will display Remote Programming Message.	The LCD will display .....Remote PGM Sys <-----> Sys
6	LCD will display Remote PGM ready!	LCD will display Remote PGM ready!
8		Depress [SPD][PROG] 7 Password [SAVE] to enter program mode.
9		Program the system
10		Press[SPK] to quit programming.
11	Answer the ringing phone	Lift handset and talk

Note: Operate the remote programming slowly because data transfer is not reliable at high speed. When the LCD display changes then you can go on to the next step of the programming.

1.7 Function Keys -- for system programming

Function	Keys	Where to use
--------------------	--------------	-----------------
. Digits	[0] to [9]	
. Previous Submode	[DSS 21]	
. Next Sub-mode	[DSS 22]	Every program
. Cursor Left	[DSS 23]	
. Cursor Right	[DSS 24]	
. Confirm Setting	[SAVE]/[DSS20]	
. * (DTMF Signal)	[*]	
. # (DTMF Signal)	[#]	
. Pulse to DTMF	[MW/PT]/[DSS15]	Speed dial
. Pause	[HOLD]	
. Flash	[FL]	
. Assign Trunk line	[AT/MIC]/[DSS5]	
. Don't Care (d)	[DND]/[DSS4]	Speed dial, Allowed Area Code, Allowed Office Code, Voice Mail Digits.
. Clear All Digits	[REDIAL]	Common Permitted Code, Ring Assignment, Console Assignment, Door Ring Assignment, Dial 9 & 87 Group Assignment.
. Clear Single Digit	[FL]	Common Restricted Code
. Exit Current Mode	[PRG/VU]/ [DSS25]	
. Exit Programming	[SPK]	

> Any time that **[PRG]/[DSS25]** is pressed, any new programming that has not been saved by pressing the **[SAVE]/[DSS20]** button is abandoned and the system will return to the MAIN MESSAGE.

1.8 LCD display - For System Programming

. Shows the current programming status to help prevent incorrect data entry.
. The LCD display has 2 lines each of 16 digits:

```
MM-SS-IP        <- Program Status Area
NNNNNNNN        <- System Database Area
```

MM	: Mode Number (2 digits)
SS	: Sub-mode Number (2, 3, or 4 digits)
IP	: Item Pointer. Pointer for setting data.
NNNNNNN	: Data Setting Area.

1. 7B1-408, BX8 & BX320 - SYSTEM PROGRAMMING INFORMATION

2. Station Numbering Plan:

System Default

When the system is used for the first time or has been reset (**Program Mode 25**), the BX 32 system default values for the extension numbers are as follows:

for the first card,   **11 to 18**,
for the second,   **19 to 26**,
for the third,   **27 to 34**.

On the BX 320 the station numbering will automatically change to 3 digits when station numbers exceed the allowed 2 digit numbering scheme.

Change Station Numbering Plan

If the original numbering plan is two-digit:

. Change to three digits: The system will add 100 to Station numbers.
        (Example: 23 will become 123).

. Change to four digits: The system will add 1000 to Station numbers.
        (Example: 23 will become 1023).

If the original numbering plan is three-digit:

. Change to four digits: Add 1000 to the Station numbers.
        (Example: 123 will become 1123).

. Change to two digits : Delete the first digit
        (Example: 123 will become 23).

If the original numbering plan is four-digit:

. Change to three digits: Delete the first digit
        (Example: 1234 will become 234).

. Change to two digits : Delete the first two digits
        (Example: 1234 will become 34).

Available station numbers

two-digit: 10 to 69
three-digit: 100 to 699
four-digit: 1000 to 6999

Programming Applicable to Station Numbering

Program   **41-st-07**   Show the port number (CN) or (csn)
            05-03-06   Assign Station digit length
            43-CN(csn)-01   Enter a Station number for the port

2. Programming Description

Program 01-tk-IP :Ringing Assignment - - Day Time

| 01-tk-IP FLX DAY |
| 111 112 113 114 |

tk = (01-04)(01-08) (01-40), IP = Item Pointer (01-16)
← Assigned station number.

General:

This program assigns each incoming line to ring the programmed stations. The ringing methods can be LINEAR (ring the first available station), CIRCULAR (Ring the next station following the last station who just answered an incoming call), HUNT (Ring the first assigned station for a set period of time (program mode 05-08-01) then if no answer ring the next ring assigned station then the next etc.) or COMMON AUDIBLE (All stations will ring simultaneously). See Program Mode: 35-tk-07 to assign.

Description:

1. This program sets DayTime ringing.
2. The station number can be 2,3,4 digits.
3. A total of 16 (8) stations can be assigned to ring for each trunk.
4. If the location is to be assigned to no station, the location value is set to " 0 ".
5. To clear all entries press **[REDIAL]**.

Program 02-tk-IP :Ringing Assignment - - Night Time

| 02-tk-IP FLX NIG |
| 111 112 113 114 |

tk = (01-04)(01-08) (01-40), IP = Item Pointer (01-16)
← Assigned station number.

General:

This program assigns each incoming line to ring the programmed stations. The ringing methods can be LINEAR (ring the first available station), CIRCULAR (Ring the next station following the last station who answered an incoming call), HUNT (Ring the first assigned station for a set period of time (program mode 05-08-01) then if no answer ring the next ring assigned station then the next etc.) or COMMON AUDIBLE (All stations will ring simultaneously). See Program Mode: 35-tk-08 to assign.

Description:

1. This program sets NightTime ringing.
2. The station number can be 2,3,4 digits.
3. A total of 16 (8) stations can be assigned to ring for each trunk.
4. If the location is to be assigned to no station, the location value is set to 0.
5. To clear all entries press **[REDIAL]**.

Program 03-nn-IP : Door Ring Assignment

03-nn-IP Door 111 112 113 114	nn = Door phone(01) (01-02) IP = 01-08 ← Assigned station number.

General:

This program assigns the door phone to ring the programmed stations.

Description:

1. There are two door phone ports available in the BX8 and Bx320 , 1 in the B1-408.

2. Eight stations can be assigned to ring for each door phone.
   If 99,999,9999 is assigned to the first position all phones will ring.

3. To clear all entries press **[REDIAL]**.

4. Door phone ringing time is set in Mode 05-11-07.

5. Door Relay Unlock Time is set in Mode 05-12-04.

6. Door phone Ringing frequency is set in Mode 05-03-08.

Program 04-gp-IP : Console Assignment

04-gp-IP Console 111 112 113 114	gp = Station group (01-08) IP = 01-04 ← Assigned station number(2 to 4 digits).

General:

This program permits the selection of the consoles in each station group.

Description :

1. There are 8 console groups available.

2. A total of four stations can be set to be the console in each group.

3. The first assigned station is the master console.

4. To clear all entries press **[REDIAL]**. Do this in all unused groups.

5. It is recommended that only one console is used.

Program 05-01-IP : System Timing Parameters - 01

```
05-01-IP SYS PAR     IP = 01-08
1  1  1  1  4  2  2  1   ← System Default.
```

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	Hold Recall Time	A	1=60 Secs.
02	0-9	Exclusive Hold Recall Time	A	1=60 Secs.
03	0-9	Hold recall Timeout	A	1=60 Secs.
04	0-9	DISA Access Delay Time	C	1=2 Secs.
05	0-9	Busy Remind Cycle Time	C	4=8 Secs.
06	0-9	Pause Time	D	2=800 Ms.
07	0-9	DTMF Generation Time	E	2=83 Ms.
08	0-9	Call Forward No Answer TRF. Time		1=20 Secs.

General:

This programming section allows the programmer to assign different system parameters.

Description:

01. Hold Recall time:

This parameter sets the time duration from when Hold is initiated to when the held call starts to ring (recall) the station.

After a pre-determined recall time (see 05-01-03: Hold Recall Timeout), if the station still does not answer, the held call will automatically transfer to the Console.

02. Exclusive Hold Recall time:

This parameter sets the time duration from when Exclusive hold is initiated to when the held call starts to recall the station.

After a pre-determined recall time (see 05-01-03: Hold Recall Timeout), if the station still does not answer, the held call will recall to the Console in addition to the holding station.

03. Hold Recall Timeout:

This parameter sets the time between a call recalling to a holding or transferring station and then recalling to the console if unanswered.

See timing table Grade A for parameters of these 3 features.

04. DISA Access Delay Time:

This parameter sets the time duration that a DISA trunk will ring prior to connection with return dial tone or VSU message. (Stations can answer during this time.)

     0 = Automatic connection, no ring to the stations.
   1-8 = Automatic connection after 2-254 seconds ringing.

See timing table grade C for parameters for this feature.

05. Busy Remind Cycle Time (Off-Hook Ringing):

This parameter selects the length of time an incoming trunk call rings the system before a busy ring assigned station is reminded of the call. A muted, one-second ring will be given to the station through the speaker to indicate the call. The tone will be repeated every busy remind time interval.
This parameter also sets the timing for the SLT Camp-On feature (see Mode 05-08-03 to extend timing for SLT Camp on tone) and the camp on tone for key stations.

See timing table Grade C for parameters of this feature.

06. Pause Time:

This parameter sets the system pause time duration for speed dial entry, trunk access time and voice mail call forwarding tone delay.

See timing table Grade D for parameters of this feature.

07. DTMF Generation Time:

This parameter permits the selection of DTMF Generation output time. The generation time may need to be lengthened to access some older Voice Mail systems or answering machines.

See timing table Grade E for parameters of this feature.

08. Call Forward No Answer Transfer Time:

This parameter sets the duration between calling a station which has set call forward no answer, and the transfer of the call to the station to which it has been forwarded.

    0 = 10 sec. 1 = 20 sec. 2 = 30 sec. ....   9 = 100 sec.

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
A	30	60	90	120	150	180	210	240	253	∞	sec.
C	0	2	4	6	8	15	30	60	120	254	sec.
D	400	600	800	1000	1200	1400	1600	1800	2000	2200	ms.
E	50	66	83	100	115	132	149	164	180	195	ms.

Program 05-02-IP : System Timing Parameters - 02

```
05-02-IP SYS PAR     IP = 01-08
5 5 1 5 4 1 2 4      ← System Default.
```

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	SLT Dial Tone Timeout	C	5=15 Secs.
02	0-9	SLT Inter-Digit Timeout	C	5=15 Secs.
03	0-9	Auto Redial Ringing Time		1=10 Secs.
04	0-9	SLT Release Signal	B	5=800 Ms.
05	0-9	Flash Time - Key Phone	I	4=440 Ms.
06	0-9	SLT Hold Signal	G	1=100 Ms.
07	0-9	Ring On Time	J	2=240 Ms.
08	0-9	Ring Off Time	F	4=4 Secs.

Description:

01. SLT Dial Tone Timeout:

This parameter is for Single Line Telephones. If a key is not pressed before the assigned time period expires when Dial Tone is given, a Busy Tone will be heard.

02. SLT Inter-Digit Timeout:

This parameter is for Single Line Telephones. If the interval between digits dialled exceeds the assigned time period, a Busy Tone will be given.

See timing table Grade C for parameters of these features.

03. Auto Redial Ringing Time:

This parameter is the time duration for which the system will redial the telephone number automatically and then hang up during Auto Redial.

1 = 10 sec.   2 = 20 sec.   ......   9 = 90 sec.

Off Hook	Auto-Redial Pause Time (Program 05-05-08), Y seconds	Off Hook
Auto-Redial Ringing Timer	On Hook	**Auto-Redial Ringing Timer**
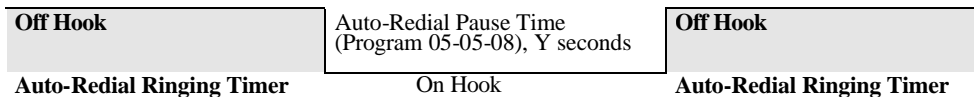
04. SLT Release Signal:

This parameter is the time duration of depressing the hook switch of an SLT that the system will see as a hang up, the system will take it as a hold signal if less than this time but longer than the SLT hook flash time.

See timing table Grade B for parameters of this feature.

05. Exchange Line Flash Time - Key Phone & Analogue Phone:

This parameter permits the selection of Flash time for Key stations when pressing the **[TR/FL]** key or an analogue phone which presses flash and then dials 800 while connected to an outside line. After dialling 800 the flash signal will be sent to the exchange line and the analogue phone will reconnect to the exchange line.

See timing table Grade I for parameters of this feature.

06. SLT Hold Signal:

This parameter permits the selection of the Flash time from a single line telephone that the system will see as a Hold signal if the time is greater than the hold signal but less than the SLT release time.

See timing table Grade G for parameters of this feature.

DURING CONVERSATION	HOOK PRESSED-Period B	HOOK RELEASED
	Period **B** < SLT Release Time	**Hold**

DURING CONVERSATION	HOOK PRESSED-Period B	HOOK RELEASED
	Period **B** > SLT Release Time	**Hang Up**
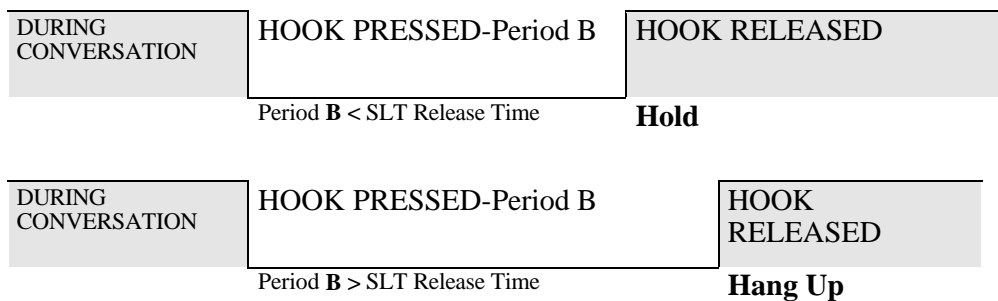
07. Ring On Time:

This parameter allows the system to identify Ring On Time Interval from the Exchange.

See timing table Grade J for parameters of this feature.

08. Ring Off Time:

This parameter allows the system to identify Ring Off Time Interval from the Exchange

See timing table Grade F for parameters of this feature.

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
B	200	200	300	400	600	800	1000	1200	1400	1600	ms.
C	0	2	4	6	8	15	30	60	120	254	sec.
F	2	2	2	3	4	5	6	7	8	9	sec.
G	80	100	200	300	400	500	600	700	800	900	ms.
I	80	120	200	280	440	640	840	1040	1240	1440	ms.
J	120	160	240	360	440	560	640	760	840	960	ms.

Program 05-03-IP : System Timing Parameters - 03

```
05-03-IP SYS PAR      IP = 01-08
0 0 0 9 0 2 0 1       ← System Default.
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Make / Break Ratio	0=33/66
02	0-1	Automatic Trunk Search	0=Yes
03	0-1	Intercom Call Signaling Method	0=Voice
04	0-9,d	PABX (Centel) Outgoing Code	9=9
05	0-9	Toll Access Code	0=0
06	2-4	Station Numbering Plan	2=2
07	0-7	Intercom Dial Tone Pattern	0=Steady
08	0-9,d	Door Phone Ringing Frequency	1=Freq 1

Description:

01. Make/Break Ratio:

This parameter permits the selection of a Make/Break Ratio for Dial Pulse signaling. The default setting of 33/66 is correct for Australia and New Zealand.

      0 = 33/66   1 = 40/60

02. Automatic Trunk Search:

This parameter allows the system to search for an available trunk according to the assigned dial 9 trunk group when automatic dialling features are used; i.e., Speed Dial, Save Redial, Redial, etc.

      0 = Allowed   1 = Not Allowed

03. Intercom Call Signalling Method:

This parameter selects the Intercom calling method. The user can still override this selection by dialling 3 after initiating an intercom call. Individual stations can be set to automatic microphone switch-on in mode 46-st-03 and thus override the system wide ring method.

      0 = Voice Signalling.   1 = Ring Signalling.

04. PABX (Centel) Outgoing Code: (Refer to Program 35-TK-01):

This parameter assigns the PABX outgoing call access code for Redial and Save Redial when the system is installed behind a PABX.

It is used when Trunk Lines are set to be PABX lines in Mode 35-TK-01.
This assignment also enables the system to identify whether the user's dialling is a PABX's Intercom call or an Outgoing call for toll restrictions.

05. Toll Access Code:

This parameter assigns the long distance call access digit. This parameter affects the operation of SMDR operation in regard to recording or not recording local calls. See Mode 14-01-03. With 8 digit numbering plans in use this parameter is not always useable.

06. Station Numbering Plan:

This parameter assigns the number of digits used for the station numbering plan. 2, 3, or 4 digits may be used. In the B1-408 and BX8 the system will set this parameter to 2 digits automatically at the time of system initialisation. In the BX320 the system will initially set the digits to 2 unless the number of stations fitted exceeds the allowed numbering plan in which case the digit length will be set to 3.

07. Intercom Dial Tone Pattern:

This parameter assigns the pattern of intercom dial tone. If the parameter is set to 1 or 2 then analogue phones will receive the special DND tone if call forward or DND has been set for that extension. Item 2 is particularly designed for use when there is a Voice Mail system connected to the system as some Voice mail units have problems with the broken dial tone.

BX320

Value / Function	Dial Tone Type	Special Dial Tone for "Do Not Disturb" or "Call Forward"	Special Dial Tone for Message Wait
0	Steady Tone	Yes	No
1	Interrupted Tone	Yes	No
2	Steady Tone	No	No
3	Interrupted Tone	No	No
4	Steady Tone	Yes	Yes
5	Interrupted Tone	Yes	Yes
6	Steady Tone	No	Yes
7	Interrupted Tone	No	Yes

BX8

    0 = Steady Tone/DND Tone.   1 = Interrupted Tone/DND Tone.
    2 = Steady Tone always   3 = Interrupted Tone always

08. Door Phone Ring Pattern:

This parameter allows for different ring patterns or frequencies for the Door Phone.

    0   = Continuous ring
    1-8 = Ring using Ring frequency 1 to 8 of the AK handset. Not on KPU handsets.
    9   = Ring tone 250 ms on 250 ms off 250 ms on 750 ms off 500 ms on 500 ms off.

Program 05-04-IP : System Timing Parameters - 04

```
05-04-IP SYS PAR     IP = 01-08
0 1 0 0 0 1 0 1      ← System Default.
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-2	Baud Rate For RS232 Port (BX8 & BX320)	0=1200
02	0-1	Dial 9 Flag	1=Enable
03	0-8	Action for Call Duration Limiting	0=Warning
04	0-1	12/24 Hours Clock	0=12 Hours
05	0-9	Flash Delay Time	0=No Delay
06	0-9	Speed Dialling Distribution	1=200 Sets
07	0-1	Single Digit Intercom	0=Disable
08	0-3	Message Waiting Method - Analogue Phones	1=Ring

Description:

01. Baud rate For RS232 Port:

This parameter sets the Baud rate of the RS232 port of the system. Default for the BX8 is 1200 Baud. Default for the BX320 is 2400 Baud. The B1-408 is set to 2400 Baud and cannot be changed.

       0 = 1200   1 = 2400   2 = 3600

02. Dial 9 Flag:

This parameter sets if a station can access an outgoing line by dialling 9. If this parameter is disabled the station can still access an outgoing line by pressing a line key.

      0 = Can not access dial 9 feature   1 = Can access dial 9 feature

03. Action for Call Duration Limiting:

This parameter decides what action will be taken if a station has limit call duration enabled in Mode 40-nnnn-03. Settings 0 to 3 are for outgoing calls only. The outside party will also hear the warning tone.

      0 & 5 = Continuous Warning Tone after Timeout.
      1 & 6 = 1 second Warning Tone for each cycle of Limit Call Duration
      2 & 7 = At 10 seconds before Timeout, 1 second Warning Tone, At 5 seconds before timeout, continuous Warning Tone, At timeout the line is released.
      3 & 8 = At 1 minute before timeout, 1 second warning tone, At 30 seconds before timeout, continuous warning tone At timeout the line is released.

04. 12/24 Hours Clock:

      0 = 12 Hours Clock   1 = 24 Hours Clock

05. Flash Delay Time - BX320:

This parameter defines the period after the user has lifted the handset on a single line phone before the flash signal can be sent.

      0   = No Delay   1-9   = Delay 1- 9 seconds after off hook

06. Speed Dialling Distribution:

This parameter sets the number of speed dial numbers allocated to the system speed dial. Adding extra numbers to system Speed Dial reduces the number of personal Speed Dial numbers available to share between individual stations. The B1-408 has the same capacity as the BX8.

      0 = System 100 (100 to 199) : Individual 500 /200(BX8) : Individual 900/400 (BX320)
      1 = System 200 (100 to 299) : Individual 400/100 (BX8) : Individual 800/300 (BX320)
      2 = System 300 (100 to 399) : Individual 300/000 (BX8) : Individual 700/200 (BX320)
      4 = System 500 (100 to 599) : Individual 100   (BX8) : Individual 500/100 (BX320)
      5 = System 600 (100 to 699) : Individual 400/000 (BX320)
      6 = System 700 (100 to 799) : Individual 300   (BX320)   *Numbers after backslash*
      7 = System 800 (100 to 899) : Individual 200   (BX320)   *indicate sets available with*
      8 = System 900 (100 to 999) : Individual 100   (BX320) *name feature enabled*

07. Single Digit Intercom:

Single digit intercom allows the stations to call up to 5 other stations by dialling one digit only (1 to 5). This feature is for the Hotel / Motel Environment. Up to eight different groups may be programmed. If a group is not programmed with any entries then stations which are in the same number station group will be able to make intercom calls without dialling the room to room dialling prefix (6).

      0 = Disable   1 = Enable

08. Message Waiting Method for Analogue Phones:

On the BX320 if the setting is 0 and the SLUM card is fitted then the message wait will be 90V DC signalling. to drive the neon light on some types of analogue phones. The Auto Telecom supplied Bestel/Hybrex phone is suitable for this application

If the setting is Ring, the analogue phone will receive 30 seconds intercom ringing every 5 minutes until the station answers.

If the setting is Voice Message, the station which is left a message will hear the voice message which is stored by the console after answering the message waiting.

If the setting is 250 Ms. ring the analogue phone will receive a 250 Ms. ring burst every 5 minutes. This is for use with special handsets designed to receive the "pling" signal to turn on message lamp.

      0 = No Message Waiting or 90 V Neon(BX320)   1= Ring   2 = Voice Message
      3 = 250 Ms. Ring   4 = Ring once

Program 05-05-IP : System Timing Parameters - 05

```
┌─────────────────────┐
│ 05-05-IP SYS PAR    │  IP = 01-08
│ 1 0 0 0 0 1 1 0     │  ← System Default.
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-3	Morning Call Type (BX8 & BX320)	1=Music
02	0-1	Meter Pulse Detect (BX8 & BX320)	0=Enable
03	0-9	Speed Dial Unrestricted-1	0=0
04	0-9	Speed dial Unrestricted-2	0=0
05	0-7	Name Feature For Extensions, Trunks, Speed dials	0=Disable
06	0-1	Dial Tone Detection	1=Enable
07	0-9	Auto Redial Times	1=2 Times
08	0-9	Auto Redial Pause Time	0=10 Secs.

Description:

01. Morning Call: (BX8 & BX320)

This parameter is for the Hotel/Motel environment to decide what an extension will hear upon receiving a wake up call and whether the Morning call will be recorded to allow printout on request. If Fidelio PMS is enabled (05-13-01) and Morning call history is enabled then the Front Office computer will automatically print out unsuccessful Morning calls for immediate attention.

    0 = Voice message (requires VSU)
    1 = Back-ground music or DND tone.
    2 = VSU + Record Morning Call History via SMDR
    3 = Back-ground music or DND tone + Record Morning Call History via SMDR

Each station can be set in 44-st-08 to decide whether they hear Background Music or DND tone.

02. Metering Detector: (BX8 & BX320)

If setting is Enable, the system will detect the metering signal from the Exchange during the conversation. Depending on the Exchange's equipment, the metering signal may be 50 Hz (obsolete), or 12 kHz, or 16 kHz. (Currently 12 kHz detection is available new) The SMDR print out will have one more column to indicate the total pulses which are detected by the system during the conversation. This feature is enabled in default and there is no need to disable it. On very old exchanges where obsolete 50 Hz metering is in use it may be necessary to set Meter Pulse detect delay time in Mode 05-07-08 to detect local call meter pulses.

    0 = Enable   1 = Disable

03, 04. Speed Dial Unrestricted 1, 2:

If 03, 04 settings are A, B, then the speed dial codes from 100 to AB0 are not toll restricted. For example if the settings are 1 and 1 then Speed dials up to 110 can be used by stations whether they conflict with toll restrictions or not. Individual stations can be restricted from using this feature in Mode 45-st-07.
If 03, 04 settings are set to 0, 0, then all speed dial codes are toll restricted if the station using the speed dial is restricted.

05. Name Function:

This parameter enables the naming feature for trunks, extensions and speed dials. Note that this will reduce the number of speed dials available in the system. See Mode 05-04-06.

Features \ Values	0	1	2	3	5	7
Display Name instead of number for Extension		✓		✓	✓	✓
Directory Dial for Speed Dial			✓	✓		✓
Directory Dial for Extension					✓	✓

*** When any of the above features are enabled the total number of speed dial sets will be reduced by 300(BX8)and 500(BX320)

06. Dial Tone Detection:

If the setting is enabled, then the system will send out the dialling signals after the system detects the Dial Tone which is sent from the exchange, if dial tone is not detected by the system then dialling signals will not be sent out. If the setting is disabled, then the system will send out dialling signals whether Dial Tone is detected or not.

    0 = Disable   1 = Enable

07. Auto Redial Times:

This parameter is to set the number of auto redial times which the system will attempt.

    0 = 1 times   1 = 2 times   2 = 5 times   3 = 9 Times ....   9 = 69 times.

08. Auto Redial Pause Time:

This parameter is the time duration between the system hanging up an auto redial attempt and starting to redial automatically.

    0 = 10 Secs.   1 = 20 Secs.   2 = 30 Secs.   ....   9 = 100 Secs.

Off Hook	**Auto-Redial Pause Time** **(Program 05-05-08), Y seconds**	Off Hook
Auto-Redial Ringing Timer	**On Hook**	Auto-Redial Ringing Timer
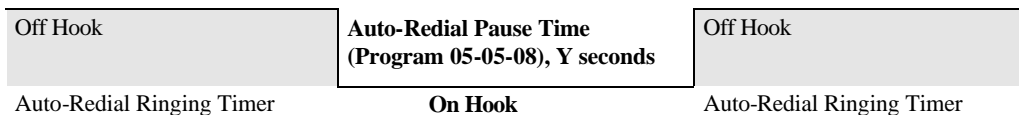
Program 05-06-IP : System Timing Parameters - 06

```
05-06-IP SYS PAR
1 0 0 0 0 3 0 0
```
IP = 01-08
← System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	TRF Busy Recall Timeout	A	1=60 Secs.
02	0-9	TRF Idle Recall Timeout	A	0=30
03	0-1	DISA & ACD-1 VSU Grouping (BX320)		0=Disable
04	0-9	Polarity Reversal		0=Disable
05	0-9	Operator Code		0=0
06	0-9	Unsupervised Conference And ECF Time Setting		3=3 Min.
07	0-1	Hold Method for SLT		0=Flash
08	0-2	Station Hunting Group Ring Method (BX8 & B1-408)		0=Disable

Description:

01. Transfer Busy Recall Timeout:

This parameter sets the time duration between transferring a call to a busy party and automatic transfer back to the transferring party when the called party is busy.

02. Transfer idle Recall Timeout:

This parameter sets the time duration between transferring a call to a station and automatic transfer back to the transferring party when the called party does not answer.

See timing table Grade A for parameters of these 2 feature.

03. DISA and ACD-1 VSU Grouping (BX320):

This parameter enables voice channel grouping for DISA and ACD-1. The groups that VSU channels are assigned to is set in Mode 19-GP-09. Trunks will also need to be assigned to the same groupings in Mode 36-GP.

      0 = Disable   1 = Enable

04. Polarity Reversal:

This parameter is to enable the Polarity Reversal detection feature for incoming caller hang up detection in Australia. See Mode 14-01-08 for SMDR setting. Telstra will need to enable polarity reversal at the exchange. When reversal is enabled on AXE and ARE11 the system will hang up the exchange line when the incoming caller hangs up and the exchange sends a reversal to the system. The software on system 12 exchanges will not send the reversal signal until 30 seconds **AFTER** the caller hangs up. This means that the call will still be connected to the exchange and the Hybrex user will hear busy tone up to this time. The Telstra software is currently under upgrade and the problem may be solved in the future. The recommended setting for reversal is 2.

      0 = Disable   1 = Enable for 1 polarity reverse signal
      2-9 = Delay for 1-8 Seconds and then detect Polarity Reverse Signal

05. Operator Code:

This parameter is to set whether to dial "0" or "9" for the operator or for accessing a CO. line.

      1-9   = Dial "9" for operator, "0" for CO. line.
      0   = Dial "0" for operator, "9" for CO. line.

06. Unsupervised Conference and ECF Time Setting:

This parameter sets the time that the system will allow an Unsupervised Conference or External Call Forward to continue before sending a warning tone to the parties and then disconnecting the call. If either party sends a DTMF digit (0-9) to the system the timer will reset and allow the call to continue for the time setting.

      0 = No Limit   1 = 1 Min.   2 = 2 Min.   3 = 3 Min.   4-9 = 4 Min.

07. Hold Feature for SLT:

This parameter is to set whether Single Line Telephones use [FLASH] (or [Hook-switch]) or [FLASH, 7] (or [Hook-switch, 7]) to place a call on Hold.

      0 = Normal -----> Using [FLASH] or [Hook-switch] to put a call on Hold.
      1 = Alternate --> Using [FLASH, 7] or [Hook-switch, 7] to put a call on Hold.

08. Station Hunting Group Ring Method (BX8 & B1-408):

This parameter sets the ring method used in the station hunting groups. Pilot numbers for hunt groups are set in Mode 67 and Day/Night ring stations are set in Mode 68 & 69.

      0 = Common Audible   1 = Linear   2 = Circular

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
A	30	60	90	120	150	180	210	240	253	∞	sec.

Program 05-07-IP : System Timing Parameters - 07

05-07-IP SYS PAR
0 0 2 0 0 0 0 0

IP = 01-08
← System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Intercom Searching		0=Disable
02	0-1	SLT Toll Override Prevention		0=Disable
03	2-4	DID Digit Length-Analogue Indial (BX320)		2=2
04	0-7	DISA Transfer To Console - No Dialling		0=Enable
05	0-1	KeyPhone Toll Override Prevention		0=Disable
06	0-9	SMDR Digit Mask		0=Disable
07	0-9	Meter Pulse Detect Delay Time	I	0=0 Ms.
08	0-1	ACD Voice Message For DID Service		0=Disable

Description:
01. Intercom Searching:

If setting is enable, when calling an internal station which is busy or does not answer, pressing [4] will call the next station which is in the same station group as the called station. If setting is disable then there will be no transfer.

    0 = Disable   1 = Enable when/busy   2 = Enable no/answer   3 = Enable busy /no answer

02. Toll Override Prevention from quick dial
To protect toll override control when a KeyPhone selects a trunk and quickly dials one digit and overriding the toll control. If Enabled then after selecting a trunk the first digit dialled will be delayed one pause interval

    0= Disable   1= Enable

03. DID Digit Dialling Length - Analogue Indial (BX320):

This parameter sets the number of digits which the system will see sent from the exchange during Analogue Indial operation (not for ISDN). The BX8 will only see 2 digits sent from the exchange.

    0 = Disable   1 = 1 Digits   2 = 2 Digits   3 = 3 Digits   4 = 4 Digits

04. DISA Recall To Console - No Dialling:

If this function is activated, when a DISA call is answered but the caller does not dial any digits or a station number the system will recall the Operator after the assigned DISA Transfer Time no dialling (Mode 05-08-07). If this function is disabled the call will be disconnected after Transfer Time No Dialling elapses.

        0 = Recall To Operator   1 = No Recall To Operator
        2-7 = See table on following page.

Value	No dialling after the first voice announcement of VPC.	The VPC has already announced that the called station is busy/ no answer.	The VPC has already announced the null or number not received completely message.
2	★	✓	★
3	✓	✓	★
4	★	★	✓
5	✓	★	✓
6	★	✓	✓
7	✓	✓	✓
Note	★ = Transfer the incoming call to console. ✓ = System will announce VPC function 6 to the incoming call if time for no dialling exceeds mode 05-08-07 then will release the incoming call if time for no dialling exceeds mode 05-08-07 again.	★ = See Mode 46-st-04 ✓ = See Mode 46-st-04. If it is no recall to console, system will announce VPC function 6 to the incoming call if time for no dialling exceeds mode 05-08-07, then will release the incoming call if time for no dialling exceeds mode 05-08-07 again.	★ = System will transfer incoming call to the console if time for no dialling exceeds mode 05-08-07. ✓ = System will announce VPC function 6 to the incoming call if time for no dialling exceeds mode 05-08-07 then will release the incoming call if time for no dialling exceeds 05-08-07 again.

05. Toll Restriction Override Prevention:

If the setting is Disable, after accessing a line a user will be able to use a DTMF generator directly to the network rather than the DTMF signal generated within the KSU. The result of this is that Toll restrictions can be over-ridden.
If setting is Enable, then no audio will be sent from the handset until 3 digits are received by the KSU from the key station dial pad preventing Toll restrictions being overridden. This parameter will be automatically disabled on any lines which are set to Pulse dial.

      0 = Disable   1 = Enable

06. SMDR Digit Mask:

If setting is "0", then the full length of the telephone number will be output to the SMDR. If setting is n, then the length of the telephone number will be n digits long.

      n = 0 to 9

07. Meter Pulse Detect Delay Time (BX8 & BX320):

If this parameter is enabled the system will wait at the end of a call for the meter pulse to be sent from the exchange. During this delay time the line is not able to be accessed. This is necessary for some older exchanges and only affects local call metering.
This parameter is also used to insert a pause between a line being released and being able to be re-selected for outward dialling.

See timing table grade K for parameters for this feature.

08. ACD Voice Message For DID Service (BX320):

This parameter sets the ACD voice message to answer unsuccessful DID calls before transferring to the operator.

      0 = Disable   1 = Enable

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
K	0	600	1000	2000	3000	4000	5000	6000	7000	8000	m sec.

Program 05-08-IP : System Timing Parameters - 08

```
┌─────────────────────┐
│ 05-08-IP SYS PAR    │   IP = 01-08
│ 0 0 0 0 7 1 4 0     │   ← System Default.
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	Hunt Time Setting	C	0=0 Secs.
02	0-1	DSS Access To Other Trunk Group		0=Enable
03	0-9	SLT Camp On Tone		0=Disable
04	0-1	DISA/DID Transfer Group - No Answer		0=Station Grp
05	0-8	SLT Programming digit		7=7 + Code
06	0-9	DISA /DID TRANSFER Time No Answer/Busy		1=16 Secs.
07	0-9	DISA Transfer Time No Dialling		4=4 Secs.
08	0-5	Music Source Selection (BX8)/		0=Internal/Disable
	0-2	Station Hunt Group Ring Method (BX320)		1=Linear

Description:

01. Hunt Time Setting:

If setting is n, Then when an incoming call rings the first ring assigned extension and that extension is busy, after n seconds the call will ring the second of the ring assigned extensions. If the 2nd extension is busy the call will go to the 3rd extension immediately. All stations that have been passed by the ring assignment will receive off hook busy remind. Up to 16 stations can be in the ring hunt group. If the setting is 0 then only the first ring assigned station will ring.

See timing table C for parameters of this feature.

02. DSS Access To Other Trunk group:

This feature enables or disables the ability of stations to use a DSS key to answer Ringing CO lines not in their own group.

    0 = Enable.   1 = Disable

03. SLT Camp On Tone:

This feature enables a tone to indicate call waiting for a busy Analogue phone and sets the interval between tones. The interval between tones will be the Off Hook Busy Remind Interval (t) x by the setting in this parameter. Off Hook Busy Remind Time is set in Mode 05-01-05.

    0 = Disable   1 = t x 1   2 = t x 2   ....   9 = t x 9

04. DISA/DID Transfer Group:

This parameter decides to which group an unsuccessful DISA or DID call will be transferred if the called station has transfer enabled in Mode 46-st-04.

    0 = Console for the Called Station's group   1 = Console for the Incoming Trunk's group

05. SLT Programming Digit:

This feature changes the programming digit used by an Analogue phone to perform its programmable features. For example call forward is normally 701, If this parameter is set to 3 the call forward code will be 301. If the setting is 0 then the analogue phones cannot do programming. If the setting is 8 it is necessary to press [*][#] before accessing programming or dialling any 8 codes. This will allow the use of digits 1 to 8 as the first digit of a station number.

> 0 = Disable   1 = 1xx   2 = 2xx   3 = 3xx   4 = 4xx   ....   7 = 7xx
> 8 = [*][#][7] for programming, [*][#][8] to access functions beginning with 8.

06. DISA /DID Transfer Time No Answer:

An incoming call is answered by the DISA voice message and transferred to the called extension or a DID call is transferred to the called extension. If the called extension does not answer after this time duration the voice card will announce the status of the station (no answer) or if the station is busy will announce the status (busy) immediately and then retry the station the number of times set in Mode 05-11-06 and depending on the settings for individual stations in Mode 46-st-03 will also transfer the call to the console of the group specified in Mode 05-08-04, transfer the call to the console only or disconnect the call.

> 0 = 8 Seconds   1 = 16 Seconds   2 = 24 Seconds   ....   9 = 80 Seconds

07. DISA Transfer Time No Dialling:

This parameter sets the time that a DISA call will wait after the voice message is completed before transferring to the console if the caller dials no digits. Do not set this to less than about 3 seconds for normal operation.

> 0 = 0 Seconds   1 = 1 Second   2 = 2 Seconds   ....   9 = 9 Seconds

08. Music source selection (BX8) Hunt Group Ring Method (BX320)

This parameter sets the Music Source for Background Music and CO Music on Hold for the BX8. This parameter also sets the activation of a relay for the music source.(06-IP-??)

Set Data	B.G.M.	Relay for BGM on	M.O.H.	Relay for MOH	Set Data	BGM	Relay for BGM	MOH	Relay for MOH
0	Melody IC	Off	Melody IC	off	1	External Source #2	on	Melody IC	off
2	Melody IC	off	External Source #1	on	3	External Source #2	on	External Source #1	on
4	Melody IC	off	External Source #2	on	5	External Source # 2	on	External Source # 2	on

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
C	0	2	4	6	8	15	30	60	120	∞	sec.

Program 05-09-IP : System Timing Parameters - 09

```
05-09-IP SYS PAR       IP = 01-08
0 0 0 0 0 0 0 0        ← System Default.
```

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-7	Paging Tone / Loop Start Control (BX320)		0=Normal
01	0-3	Back Ground Music Control (B1-408)		0=No
02	0-1	Busy Console Queuing (Intercom Calls)		0=Disable
03	0-9	Clear Forward - Loop Break detection		0=Disable
04	0-9	DISA Busy Tone Detect (B1-408 & BX320)		0=Disable
05	0-1	Save Redial Numbers - 1 or 6		0=1
06	0-9	ACD-1 Enable Time	O	0=5 Secs
07	0-9	ACD-1 Segment 2 Recall Time	N	0=Disable
08	0-9	ACD-1 Release Time	P	0=No Release

Description:

01. External Paging Control (BX320):

This parameter enables or disables the start tone and loop start for external paging equipment

Setting	Internal Page with Page Tone	External Page with Page Tone	Page Equipment is Loop Start
0	Yes	Yes	No
1	Yes	No	No
2	Yes	Yes	Yes
3	Yes	No	Yes
4	No	Yes	No
5	No	No	No
6	No	Yes	Yes
7	No	No	Yes

01. Back Ground Music Control (B1-408):

This parameter allows the B1-408 to provide Back Ground Music to handsets. Enabling the parameter will take 1 intercom link .

    0 = Disable   1 = Enable

02. Console Queuing:

This feature enables the busy console(s) to have an intercom call(s) queued to it(them). If the station dials the operator (by 0 or 9) and all the consoles are busy, the system will put this call in the queue to wait for the operators to be free. The calling station will hear ring back tone instead of busy tone and the first operator in the group will receive the Busy Remind Signal. The first operator to go on-hook will receive the call.

    0 = Disable   1 = Enable

03.   Clear Forward Signal Detection - Loop Disconnect

This feature enables loop disconnection as a Clear Forward Signal.

<table>
<tr><td>0= Disable</td><td>1= Loop Disconnect Signal >80 ms.</td></tr>
<tr><td>2= Loop Disconnect Signal > 160 ms.</td><td>.....</td></tr>
<tr><td>8= Loop Disconnect Signal > 640 ms.</td><td>9= Loop Disconnect Signal > 720 ms..</td></tr>
</table>

04. DISA Busy Tone Detection (B1-408 & BX320):

This feature allows the system to recognise busy tone from the exchange line during DISA operation for clearing down the call. Type 1 busy tone is 250 ms. on, 250 ms. off. Type 2 is 500 ms. on and 500 ms. off. Type 3 = Continuous busy tone (>3.2 seconds). Type 4 = 375 ms. on and 375 ms. Off

<table>
<tr><td>0 = Disable</td><td>1 = Type 1</td><td>2 = Type 2</td><td>3 = Type 1 and 2</td></tr>
<tr><td>4 = Type 3</td><td>5 = Type 1 and 3</td><td>6 = Type 2 and 3</td><td>7 = Type 1, 2 ,3.</td></tr>
<tr><td>8 = Type 4.</td><td>9 = Australian</td><td></td><td></td></tr>
</table>

05. Save Redial Numbers - 1 or 6:

If this parameter is enabled then the user will be able to enter 6 numbers in the Save/Redial scratch pad and then automatically dial them in sequence.

           0 = 1 Save/Redial   1 = 6 Save/Redials

06. ACD-1 Enable Time:

This parameter is to set the time duration before the system answers an incoming call when the ring assigned station(s) are busy, if a VSU card is fitted. The incoming call will show as a normal ring signal on the DSS key and can be answered by the operator at any time even while the voice message is playing to the caller.

           See timing table Grade O for settings for this parameter.

07. ACD-1 Segment 2 Recall Time:

This parameter sets the time an ACD-1 call which has been answered by the VSU company greeting message will stay on hold in the operator queue before the system will play the second part of the ACD-1 message to apologise for the continuing delay. The call back time for the second message starts at 30 seconds and increases in 15-second increments. The message will be played to the caller every time the recall time is reached until answered by the operator or the caller hangs up.

           See timing table Grade N for settings for this parameter.

08. ACD-1 Release Time:

This parameter sets the time at which the system will release the incoming caller during ACD-1 operation when an operator has not answered it. The system will play a warning message to the caller before releasing the call. If polarity reversal or Loop Disconnect is used for incoming call clear down then this parameter must be disabled.

           See timing table Grade P for settings for this parameter

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
N	Dis	30	45	60	75	90	105	120	135	150	sec.
O	5	10	15	20	25	30	35	40	45	50	sec.
P	Dis	5	10	15	20	25	30	35	40	45	Min.

Program 05-10-IP : System Timing Parameters - 10

```
05-10-IP SYS PAR     IP = 01-08
d d d d d d d        ← System Default.
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-9,*,#	Leading Digit 1 For Voice Mail Forwarding	d=None
02	HOLD	Leading Digit 2 For Voice Mail Forwarding	d=None
03	DND	Leading Digit 3 For Voice Mail Forwarding	d=None
04		Leading Digit 4 For Voice Mail Forwarding	d=None
05		Leading Digit 5 For Voice Mail Forwarding	d=None
06		Leading Digit 6 For Voice Mail Forwarding	d=None
07		Leading Digit 7 For Voice Mail Forwarding	d=None
08		Leading Digit 8 For Voice Mail Forwarding	d=None

Description:

This parameter allows the system to insert digits before the call forwarded station number when the call forward is received by the voice mail port if Standard Protocol is selected. If the station numbering is 2, 3 or 4 digits the system will insert additional digits if the Voice Mail requires more. The last digits of the voice mail box number will still have to be the same as the station numbering for correct recognition. The HOLD key can be used to insert a pause in the DTMF tone sending and will display as a (p). The DND key is no digits sent and is shown as (d).

Example:

The HYBREX is set to 2 digit numbering but the voice mail requires 4 digits. The voice mail also requires a pause between answering the call and the tones being sent. Set this parameter to the following

```
05-10-IP SYS PAR
p 1 1 d d d d d
```

When the call forwarded station 11 is answered by the voice mail port after the pause time the digits 1111 will be sent to the port by the system. If station 11's voice mail box is 1111 then the mailbox number 1111 will be automatically opened by the tones.

There are 2 different Voice Mail Protocols available in the Hybrex BX series depending on the setting in Mode 05-12-05. If this mode is set to 0 then the Protocol will be the leading digits entered in this Mode plus the Station Number of the forwarded station. If Mode 05-12-05 is set to 1 then the Enhanced Protocol shown on the following page will be used.

Enhanced Protocol

Internal Call	Call Forward - All Calls (Ext)	C11 + STB + STA
	Call Forward - Busy (Ext)	C12 + STB + STA
	Call Forward - No Answer (Ext)	C13 + STB + STA
	Direct Call From Extension	C14 + STA + STA
	Record Call From Extension	C15 + STA + STA

Incoming CO Line and ISDN Indial

	Call Forward - All Calls (CO)	C21 + STB + TRK
	Call Forward - Busy (CO)	C22 + STB + TRK
	Call Forward - No Answer (CO)	C23 + STB + TRK
	Direct Call from Trunk	C24 + TRK + TRK
	Transfer Back to Voice Mail	C25 + STB + TRK

Incoming DID Line (Not DISA)

	Call Forward - All Calls (CO)	C31 + DID + TRK
	Call Forward - Busy (CO)	C32 + DID + TRK
	Call Forward - No Answer (CO)	C33 + DID + TRK
	Direct Call from Trunk	C34 + DID + TRK
	Transfer Back to Voice Mail	C35 + DID + STB

Definition:

1. CNM - 2 Digits   N: Forward Type 1-9   (1 Digit)
                     M: Leading Digit Type 1-9 (1 Digit)
2. STA:Calling Station Number (2 - 4 Digits) 3. STB:Called Station Number(2 - 4 Digits)
4. TRK:Incoming Trunk Number (2 Digits) 5. DID: DID Inward Number (3 Digits)
The station number will always be 4 digits. The number will be padded out with leading 0=s
Example: C35 + DID + STB --> DID number = 268, STB = 234 - DTMF --> 3 5 0 2 6 8 0 2 3 4

From software version CX8I03t and B1-I00x the following new features have been added.
Answer Digit When a called station answers the System will play **[DTMF A]** to announce answer.
Busy Digit. When a called station is busy the system will play **[DTMF B]** to announce busy.
Disconnect Digit. The system will play **[DTMF C]** when an inside station disconnects or when a
V/M is connected to a TK, which receives polarity reversal, or Loop Disconnect.
These 3 functions will considerably speed up the operation of the V/M as it will not have to wait to
listen to tones to see what is happening with calls.

Answering Machine Operation:
When activated this function allows the caller to set call forward to the Voice Mail as usual but then
monitor calls to the Voice Mail from his key phone (on hook) and if they wish can lift the handset
and take the call back from the Voice Mail. To enable the user presses **[SPK] [7][7][3][1]** and to
disable presses **[SPK] [7][7][3][0]**.

Record Function:
This function is dependant on the Recording Unit being capable of inserting the recording tone to
alert the caller they are being recorded. To record it is necessary for the Key phone to have a
[RECORD] key which is **FCN 48.** During a call the STN presses the [RECORD] button and the
Voice Mail will answer if a port is available and the system will send the Protocol 15 + STN NO +
STN No.
These features are in the software of the **Hybrex** Digimail unit also.

Program 05-11-IP : System Timing Parameters - 11

```
┌─────────────────────┐
│ 05-11-IP SYS PAR    │   IP = 01-08
│ 0 0 0 0 0 0 0 0     │   ← System Default.
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Resume KeyPhone Volume On Plug In		0=No
02	0-1	DISA Password - 1/(24 or 50) Sets		0=1
03	0-1	Select Music On Hold Or Ring Back Tone		0=RBT
04	0-1	DISA Answer Method - VSU Busy		0=Yes
05	0-3	DISA Special Function Access		0=All
06	0-9	DISA/DID Re-check Times To Busy Stn.		0=2 Times
07	0-9	Door Phone Ringing Time		0=5 Sec.
08	0-8	DISA Single Digit Dialling		0=Disable

Description:

01. Resume KeyPhone Volume Settings On Plug In:

In default when the system is turned on after being in service or the KeyPhone has been unplugged, the Key phones will reload the volume settings the user has programmed for Ring volume, Speaker volume and Handset volume (on handsets with the new processor it will also reload the Ring frequency). If this parameter is disabled then the default settings will be used instead.

    0 = Disable   1 = Enable

02. Number of DISA Passwords:

This parameter when enabled will increase the number of DISA passwords from 1 to 24 (BX8) or 50 (BX320). At the default setting of 0 the DISA password will be set in mode 13-02. If the parameter is set to 1, 24 or 50 passwords are available and they will be the same as the forced account codes numbers (24-48) or (49 to 99). Forced account codes are set in Mode 17-(00-99).

    0 = 1 password   1 = 50 Passwords

03. Select Music on Hold or Ring Back Tone:

This parameter selects what the incoming caller will hear during Ring Transfer and Hold Recall conditions. The feature is designed specifically for Australia to prevent the caller incorrectly recognising the HYBREX's International Ring Back Tone as a disconnect or engaged signal and hanging up even though their call is still in progress.

    0 = Ring Back Tone   1 = Music On Hold

04. DISA Call Processing Method When The VSU is busy or not Fitted:

0 =   The DISA caller will hear system dial tone after the system answers the incoming call.

1 =   When the VSU is busy, the DISA call will not be answered by the system unless an internal party answers this DISA call or the VSU is available for service again. During VSU busy, the system will ring the stations assigned in Programming Mode 01 and 02.

05: DISA Special Function Access:

This parameter sets which of the system functions are able to be accessed by DISA callers.

0 =   Allow users to access the DISA special functions by pressing [8],[9],[*],[#].

1 =   Allow users to access the DISA special functions by pressing [*],[#].
Disallow users to access the DISA special functions by pressing [8],[9].

2 =   Allow users to access the DISA special functions by pressing [8],[9].
Disallow users to access the DISA special functions by pressing [*],[#].

3=   Disallow users to access the DISA special functions by pressing [8],[9],[*],[#].

06. DISA/DID/ISDN Indial Re-check Times To Station/Console:

This function sets the number of times that an unsuccessful DISA or DID or ISDN Indial call will attempt to retry a station and or transfer to a console after the ringing time set in Mode 05-08-06 if the Voice Sectioning function is activated and depending on the setting for individual stations in Mode 46-st-04. On PSTN lines if polarity reversal or Clear Forward signal is available set this parameter to 9 and the call will continue to retry until the caller hangs up.

0 = 2 times   1 = 3 times   2 = 4 times .... 8= 10 times
9 = Infinite times

07. Door Phone Ringing Time:

This parameter sets the time that Door Phone ring assigned stations will ring for when the Door Phone button is pressed.

0 = 5 Sec.   1 = 10 Sec.   2 = 15 Sec.   3 = 20 Secs   ....9 = 50 Sec.

08. DISA Single Digit Dialling:

This feature allows a DISA caller to dial stations by 1 digit (1-5) using the settings in Mode 10-gp-IP to set which station will be dialled by each digit.

0 = Disable   1 = Dial the Stations in Group 1
2 = Dial the stations in Group 2   3 = Dial the Stations in Group 3
....   8 = Dial the stations in Group 8

Program 05-12-IP : System Timing Parameters - 12

```
05-12-IP SYS PAR
0 0 0 2 0 0 0 0
```
IP = 01-08
← System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0	....		0=
02	0	....		0=
03	0-1	Exclusive hold capability		0=Yes
04	0-9	Door Unlock Relay Activation Time		2=3 Secs.
05	0-7	Voice Mail C/Fwd Protocol Type/mute digits		0=Std
06	0-1	Linear/Circular Trunk group access		0=Linear
07	0-1	LED indication of Check In/Out on DSS Keys		0=Disable
08	0-9	Fire Alarm Ringing Time		0=1 Min.

Description:

01. Future:

02. Future:

03. Exclusive Hold Capability:

If this parameter is enabled all stations can use the Exclusive Hold Function. If the parameter is disabled no stations will be able to place calls on Exclusive hold.

    0 = Enabled   1 = Disabled

04. Door Unlock Relay Activation Time:

This parameter sets the time that the door unlock relay will remain activated after the Door Unlock function is activated by the user. The Door unlock relay is programmed in Mode 06.

    0 = 1 Sec.   1 = 2 Secs.   2 = 3 Secs.   .... 9 = 10 Secs.

05. Voice Mail Call Forward Protocol Selection and Muting Leading Digits

This parameter selects between Standard Voice Mail Call Forward Protocol and the Enhanced Protocol. For a full description of Voice Mail Protocol see Mode 05-10.It will also set the muting of the leading digits

Setting Value	0	1	2	3	4	5	6	7
VMS Leading Digit Type	Short	Long	Short	Long	Short	Long	Short	Long
Mute Leading Digit	No	No	Yes	Yes	No	No	Yes	Yes
Leading Digit for Auto Attendant (VMS)	No	Yes	No	Yes	No	No	Yes	No

AShort@type: Use the Leading Digit(s) programmed in program 05-10 plus Station number.
ALong@type: Use 10 Digit protocol.
  Mute Leading Digit: The caller will not hear the DTMF signal during the transmission of leading digits. The system will use the last intercom link for this feature.

06. Linear/Circular Trunk Group Access:

If this parameter is set to 0 then line selection will be the first available trunk in the users dial (9-0) group. If the parameter is set to 1 then the lines will be selected in a Circular fashion till all lines have been used and then the selection will start again. Do **NOT** use Circular unless there is a very good reason, as call collision **WILL** result.

             0 = Linear   1 = Circular.

07. LED indication of Check in/ Check out (BX8 & BX320):

This parameter disables or enables the LED indication for Check in/Check out and Clean room status for the DSS consoles and DSS Keys.

             0 = Disable   1= Enable

The LED indications are as follows:
Red / slow flash: When Reception checks out an extension, the extension LED will slow flash red.
Green: When the cleaner has cleaned the checked out extensions room, they can dial [776] from the phone and hang up. The LED for that extension will go Green. This means the room is clean and ready for a new guest.
Red: The room is checked in and the phone is in use
Off: The room is checked in and idle.

08. Fire Alarm Ringing Time:

This parameter sets the time the Fire Alarm will ring for when activated.

       0 = 1 min.   1 = 2 min.   2 = 3 min.   3 = 4 min.   4= 5 min.
       5 = 6 min.   6 = 7 min.   7 = 8 min.   8 = 9 min.   9 = 10 min.

Program 05-13-IP : System Timing Parameters - 13

```
┌─────────────────────┐
│ 05-13-IP SYS PAR    │   IP = 01-08
│ 0 0 0 0 0 0 0 0     │   ← System Default.
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Intercom Hot Key Dialling - B1-408		0=No
01	0-1	PMS (Fidelio) Enable - BX320 only		0=No
02	0-1	LCR Enable (BX320)		0=No
03	0-9	Call Cut Off Timer - No PR Received		0=No
04	0-9,d	Door phone Ring Frequency (Key Phone Only)		0=
05	0	CLI Record Storing Method for LCD Phones		0=No. Only
06	0	....		0=
07	0	....		0=
08	0	....		0=

Description:

01. Intercom Hot Key Dialling -B1-408:

This parameter when enabled allows stations to dial an intercom call On Hook without having to lift the handset or press the **SPK** key.

       0 = Disable   1= Enable

01. PMS (Fidelio) Enable BX320:

This parameter when enabled will allow the BX320 to interface with the Micros Fidelio Property Management System in Hotels/Motels. Enabling this parameter will completely change the SMDR output and will allow the Front Office computer to control Check In/Out, Guest names, Room Change, Wake Up calls, Message Waiting, Clean Room status and DND status. See the Hotel Motel manual for full details.

       0 = Disable   1= Enable

02. LCR Enable (BX320):

This parameter enables LCR (Least Cost Routing) in the Bx320. The LCR tables are programmed in Mode 75-76-77 and 78.

       0 = Disable   1= Enable

03. Call Cut Off Timer - No Polarity Reversal Received.

In Program 29-tk-06 each trunk can be set to cut of an outgoing call if the Polarity Reversal signal is not received within the time set here.

    0 = Disable   1 = 30 Sec.   2 = 45 Sec. 3 = 60 Sec.   4 = 75 Sec.
    5 = 90 Sec.   6 = 105 Sec.   7 = 120 Sec.   8 = 135 Sec.   9 = 150 Sec.

04. Door phone Ring Frequency for Key Phones:

This parameter can assign different ringing frequencies or ring types for Door phone calls.

       0=   As the setting of keyphone≥s Ring.
       1~8= Use the ringing frequency 1~8 of AK key phones as the Door phone≥s ring.
       9=   Use ATone@ as the Doorphone≥s ring.
       d=   Use Background Music as the Door phone ring

05. CLI Record Storing Method For LCD Phones (BX320 and BX8):

This parameter chooses which records and how many are stored for LCD phones when CLI is fitted to the system..

0= Store CLI telephone numbers and 10(BX8) or 16 (BX320) CLI history records per station.
1= Store CLI telephone numbers and names together and 6 (BX8) or 10 (BX320) CLI history records per station.

If mode 05-13-05 = 1, pressing [CLI History] key, system will display CLI number and name. Pressing [MIC/AT] will display the date/time the call took place.

PAGES 29 to 32 ARE LEFT BLANK FOR FUTURE ENHANCEMENTS

Program 05-16 -IP : System Timing Parameters - 16

```
05-16-IP SYS PAR     IP = 01-08
0 0 0 0 0 0 0 0      ← System Default.
```

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-8	Plug & Play KPU6x/Early AK		0=Disable
02	0-8	Plug & Play-New AK1-2x (Ver29+)		0=Disable
03	0-8	Plug & Play-New AK1-33 (Ver54+)		0=Disable
02	0-	....		0=
03	0-	....		0=
04	0-	....		0=
05	0-	....		0=
06	0-	....		0=
07	0-	Reset SIU Buffer Ram		0=No
08	0-	System Event Dump (Factory Supervision Req=d)		0=Disable

Description:

01. Plug & Play KPU6x/Early AK:

From Version CX8I03t (BX8) and B1-I00x (B1-408) the software will automatically recognise certain handset types and allocate the soft key plan to suit.
There are 2 versions of the AK handset in circulation. The original AK series handsets, up to V29 for the AK1-2x and V54 for the AK1-33 have 25 keys with 16 Red Green LED's on the AK1-2x and 10 keys with 4 Red Green LED's on the AK1-33. From early 1999 a new version of AK handset has been released with 16 Red / Green LED's, 6 Red only LED's and 3 keys with no LED's. The new handsets can be automatically recognised by the system and automatically allocated a suitable soft key plan. The soft key plans are allocated to handset types in Mode 05-16-(01-02-03). Handset software types are set in Mode 46-st-07. The system cannot differentiate between the KPU and early AK handset. This will have to be done manually.

> 0 = Disable   1 = Enable and use Soft key plan 1 2 = Enable soft Key Plan 2
> 3-8 = Enable and use soft Key Plan 3-8

02. Plug & Play New AK1-2x (Ver 29+):

As per Item 01.

03. Plug & Play New AK1-33 (Ver 54+) :

As per Item 01.

07. Reset SIU Buffer Ram:

This parameter is available only with the new MPU from software NMSI10d and requires IRS-33 to operate and is for BX320 systems which have an SIU and SIC card fitted, to prevent the occasional stopping of the SIU card. When enabled the system will stop the SIU card at Midnight and clear the buffer and restart the card. It is important that the system clock is set correctly when this parameter is enabled.

$\qquad$ 0 = Disable $\qquad\qquad$ 1 = Enable

08. System Event Dump Output:

This setting is a debugging tool in conjunction with Factory supervision. Not for general use.

Program 06-IP : Relay Assignment

B1-408

```
┌─────────────────────────────┐
│  06-IP Relay      00     │ IP = 01
│  00                      │ ← System Default.
│                          │
└─────────────────────────────┘
```

Item Pointer	Display Data	Programming Data Description
01	00-06	Relay of B1-MSC

BX8

```
┌─────────────────────────────┐
│  06-IP Relay      00     │ IP = 01-02
│  00 00                   │ ← System Default.
│                          │
└─────────────────────────────┘
```

Item Pointer	Display Data	Programming Data Description
01	00-18	Relay of B2-TKU #01
02	00-18	Relay of B2-TKU #02

BX320

```
┌─────────────────────────────┐
│  06-gp-IP Relay          │ gp = 01-04. IP = 01-03
│  00  00  00              │ ← System Default.
│                          │
└─────────────────────────────┘
```

Item Pointer	Display Data	Programming Data Description
01	00-18	Relay # 1 of B4-IPU
02	00-18	Relay # 2 of B4-IPU
03	00-18	Relay # 3 of B4-IPU

Description:

On the B1-408 the MSU or MSU-R has 1 dry contact relay

On the BX8 each TKU has **1** Dry Contact Relay.

On the BX320 each relay card has **3** Dry Contact Relays and each IPU can support 1 relay card

making a total of 12 relays in a 4 cabinet system.

No voltage is provided by the system, the installer will have to provide their own source to suit the application. Do not use the relays to switch 240 V. They are only designed for low voltage control circuits. All Relays are Normally Open contacts and will close on activation of the function for which they have been programmed.

Assign the required Relays one of the following functions.

B1-408

00	No Operation
01	Music On Hold
02	Door open
04	Trunk loud bell
05	Station loud bell
06	System Alarm

BX8 and BX320

Set data	*Function*
00	No Operation
01	Music On Hold
02	Door 1 open
03	Door 2 open
04	Trunk loud bell
05	Station loud bell
06	System Alarm
08	Trunk loud bell - Continue on
09	Station loud bell - Continue on
10	All zone page

BX8 Only

11	External zone 1 page
12	External zone 2 page

BX320 Only

11-18	External Zone 1-8 page
07	Remote Relay Control

An outside caller using DISA, on receiving dial tone, can key in the relay password to turn relays on/off, a tone after keying in the password means the relay is activated.

Relay controlling password:

     841 ---> to control the 1st relay on.
     842 ---> to control the 2nd relay on.
     ....
     849 ---> to control the 9th relay on.
     851 ---> to control the 1st relay off.
     852 ---> to control the 2nd relay off.
     ....
     859 ---> to control the 9th relay off.

Program 07-gp-IP : Flexible Key Group Assignment

07-gp-IP KEY GRP TK: **nn**	gp = 01-08 IP = 01-25 (DSS Key Number) ←TK number for the key
07-gp-IP KEY GRP **xxx**	gp=01-08 IP=01-25 (DSS Key Number) ←Station number for the key
07-gp-IP KEY GRP FN: **ff**	gp=01-08 IP=01-25 (DSS Key Number) ←Function number for the key

Description:
This program assigns 8 groups of Flexible key plans for Key phones. Each KeyPhone can be
assigned to use two groups (Mode 41-st-(02 & 03). Each key can be assigned as either a **Trunk**, a
Station or a **Function**. To change the assignment from TK to Station or to Function or vice versa,
press the **[AT/MIC]** key before setting.
    nn = 01-08 - Trunk Key   (1 to 08)   **xx**   = 11-69   - Station Key (2 digits)
    xxx = 100-699 - Station Key (3 digits) **xxxx** = 1000-6999 - Station Key (4 digits)   **ff** =
00-64 - Function Key (0 to 64)

Group 1

VOL-	VOL+	FWD	DND	PROG
ST15	ST16	ST17	ST18	SAVE
ST11	ST12	ST13	ST14	MSG/PT
TK05	TK06	TK07	TK08	SPD
TK01	TK02	TK03	TK04	MIC/AT

Group 2 (Default for KPU6X)

ST15	ST16	ST17	ST18	PROG
ST11	ST12	ST13	ST14	SAVE
TK05	TK06	TK07	TK08	MSG/PT
TK01	TK02	TK03	TK04	SPD
VOL-	VOL+	FWD	DND/CN	MIC/AT

Group 3 (Default for AK1-2X OLD)

PROG	SAVE	DND	SPD	FWD
ST15	ST16	ST17	ST18	MW/PT
ST11	ST12	ST13	ST14	AT/MIC
TK05	TK06	TK07	TK08	VOL +
TK01	TK02	TK03	TK04	VOL -

Group 4 (Default for AK1-2x Ver 29 + NEW)

Vol Down	Vol Up	SPD	DND/CN	PRG
STN 15	STN 16	STN 17	STN 18	SAVE
STN 11	STN 12	STN 13	STN 14	MSG
TK 05	TK 06	TK 07	TK 08	FWD
TK01	TK02	TK03	TK04	MIC/AT

ff Code	Function	ff Code	Function
00	No Operation	36	Pickup All Groups
01	Program	37	Pickup Group
02	**D**o **N**ot **D**isturb/Conference	38	Pickup Group 1
03	**M**essage **W**aiting/**P**ulse-**T**one	39	Pickup Group 2
04	Microphone/**AUTO** answer	40	Pickup Group 3
05	Speed **D**ial	41	Pickup Group 4
06	**SAVE**	42	Pickup Group 5
07	**Vol**ume **UP**	43	Pickup Group 6
08	**Vol**ume **Down**	44	Pickup Group 7
09	**F**orced **A**ccount **C**ode	45	Pickup Group 8
10	Voice Set up	46	Toll Password
11	User Speed Dial Set up	47	Alarm Assign
12	Console User Speed Dial Set up	48	User Alarm/Voice Mail Record
13	Console System Speed Dial Set up	49	Console- Set up Alarm
14	**S**ecurity **C**ode **S**et up	50	Console- Set up System Time
15	**Help List**	51	Message Select
16	**T**emporary **S**ecurity **C**ode	52	Day / Night
17	**Check In**	53	Forward All
18	**Check Out**	54	Forward Busy
19	Charge Inquire	55	Forward No Answer
20	All Paging (Internal)	56	Meet me Page
21	All Paging (External)	57	Shift Key
22	All Paging (Internal/External)	58	Meter Rate Setting
23	Zone Paging (Internal)	59	Hotel/Motel Function
24	Loop Key 1	60	Call Park (BX 320 only)
25	Loop Key 2	60	Door Phone 1 (88) BX 32 only
26	Loop Key 3	61	Door Phone 2 (89) BX 32 only
27	Loop Key 4	62	Directory key (for name search)
28	Loop Key 5	63	ISDN Pre-Dial Key
29	Loop Key 6	64	Log in/Log out of Queue
30	Loop Key 7	65	Remind Key (Motel use)
31	Loop Key 8	66	Voice Mail Record Key
32	CLI Status		
33	Zone Paging (External) 1		
34	Zone Paging (External) 2		
35	Pickup Own Group		

Program 08-01-IP : Flexible DSS Key-Group Assignment

08-gp-IP KEY GRP TK: **nn**

gp = 01(-08) IP = 01-60 (DSS Key Number)
←TK number for the key

08-gp-IP KEY GRP **xxx**

gp = 01(-08) IP = 01-60 (DSS Key Number)
←Station number for the key

08-gp-IP KEY GRP FN: **ff**

gp = 01-(08) IP = 01-60 (DSS Key Number)
←Function number for the key

General:

This program sets 1 (8) group(s) of programmable DSS keys for **the DSS Console**.
There is no DSS console available for the B1-408, one group only is available for the BX8 and eight for the BX320.

Description:

Each key can be assigned as either a **Trunk**, a **Station** or a **Function**.

To change the assignment from TK to Station to Function or vice versa, press the **[AT/MIC]** key before setting.

nn=	01-08	- Trunk Key (1 to 08)
xx=	10-69	- Station Key (2 digits)
xxx=	100-699	- Station Key (3 digits)
xxxx=	1000-6999	- Station Key (4 digits)
ff=	00-64	- Function Key (0 to 58)

For function key setting use the list provided in Mode 07.

Program 09-nnn-DP : System Speed Dial

> 09-nnn-DP TK:tt
> nnnnnnnnnnnnnnnn

nnn = 100-599(999) DP = 01-30 tt = 01-08
← Telephone number.

General:

This program permits the assignment of up to 500(900) sets of system speed dialling codes.

Description:

>   nnn   = 100-599(999) = Speed dial code, up to 500 (900) sets in total.
>   DP   = 01-30   = Digit Pointer for telephone number.
>   30 digits per speed dial code.
>   tt   = 01-08(40)   = Pre-assigned CO line number.

Pre-Assigned CO Line:

Press the [MIC] key to change or clear the Pre-assigned CO line number. This CO line is the dedicated outgoing line for the speed dial code. If the user presses a speed dial code without selecting a CO line first, the system will select this CO Line automatically. If no CO line is assigned, the system will select an available CO line according to the assigned Dial 9 group (Program 41-nnnn-04). A line may also be selected directly by the user.

Telephone Number:

30 digits maximum may be entered in each memory.
In addition to the digits 1 to 0, *, # the following can also be stored: Pause, Flash, Pulse to DTMF.
Each function occupies one digit.

"Pause" is represented by the [HOLD] key.   -- p
"Flash" is represented by the [FL] key.   -- F
"Pulse to DTMF" is represented by the [PT] key.   -- T

I)   Pause : During dial procedures, the dialling will wait for a programmable period
         (Refer Program 05-01-06).

ii)   Flash : This will make a loop disconnection of a pre-assigned duration.
         (Refer program mode 05-02-05).

iii) Pulse to DTMF : If the dial signal is "pulse", it will change to "DTMF".

Note: Pressing [DND] will erase the digit which the cursor is on.
              Pressing [REDIAL] will erase all the assigned digits.

Program 10-gp-IP   Intercom or DISA Single Digit Assignment

10-gp-IP S.D.I. 000 000 000 000 000	gp = 01-08, IP = 01-05 (digit 1 to 5) ← Station number for digit 1 to 5

General:

This program permits the stations in one or more station groups to call a specific station by dialling one digit only. This feature is for the Hotel/Motel environment only. (Refer to programming mode 05-04-07 to enable single digit dialling). The settings in this Mode are also used by DISA Single Digit Dialling (see Mode 05-11-08 to enable).

Description:

Single Digit Intercom.

When single digit dialling is enabled then the room to room call pre-fix digit (6) must be dialled to call another room.
If a particular group has no entries programmed, the stations in the same number station group will not have single digit dialling and will not have to use the room to room prefix.

Single Digit DISA.

When single digit dialling is enabled and a group (1-8) selected in Mode 05-11-08 then DISA callers will be able to dial the stations in the group selected by dialling the digits 1 to 5. The digit 1 will call the first station in the group, 2 will dial the second station in the group and so on up to digit 5. The caller can also dial 6 and then dial a full extension number to call other extensions or dial (0 or 9) to call the operator.
If a position is left programmed to 0 then station numbers starting with the digit which corresponds to this position can be dialled in full.

Example

10-gp-IP S.D.I. 111 153 222 000 550

In the above example an incoming DISA caller who dials 1 will call station 111, dialling 2 will call station 153, 3 will call Station 222. Dialling 4 will allow the caller to dial the full extension number of any extension which starts with 4, eg 444. 550 has been assigned as a Hunt Group Pilot number so a DISA caller dialling 5 will call the Station hunting group which has 550 as it's pilot Number. Pilot numbers are set in Mode 67 and Hunt groups are programmed in Mode 68 and 69.

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Program 11-IP : Date and Time Setting

```
┌─────────────────────────┐
│ 11-IP Date/Time         │  IP = 01-06
│ 08  27  87  18  16  4   │  ← Setting Data
└─────────────────────────┘
```

Item Pointer	Display Data	Programming Data Description
01	01-12	Month.....................
02	01-31	Day.......................
03	00-99	Year......................
04	00-23	Hour......................
05	00-59	Minute....................
06	1-7	Week day (Monday = 1, Tuesday = 2)..

General:

This program permits the setting of system Date & Time. Please note that all Hybrex products are Year 2000 compliant including the recognition of the year 2000 as a leap year

Description:

The Date & Time will be held during a power failure on the BX8 and BX320, there is no need to reset the Time after power is restored. On a B1-408 if no B1-CKC is fitted then the time will need to be re entered after a power failure.

Program 12-nn : System Alarm Clock

```
┌─────────────────────────┐
│ 12-nn Alarm             │  nn = Alarm schedule (01-10)
│ hh  mm  dd              │  ← Setting Time
└─────────────────────────┘
```

Location Pointer	Display Data	Programming Data Description
hh	00-23	Hour.
mm	00-59	Minute.
dd	00-99	Duration.

General:

This program permits the assignment of 10 time schedules for alarm clock purposes.

Description:

When the assigned time is reached, Background music will be broadcast over all Key telephones which are idle. The time duration for alarm clock music is programmable (00 to 99 minutes.).

Program 13-nn : Password

```
┌─────────────────────┐
│ 13-nn Password      │    nn = Password Assigned  (01-09)
│ d d d d d d d d     │    ← Setting password
└─────────────────────┘
```

General:

This program permits the assignment of 9 different passwords in the system.

Description:

The password length is from 1 to 8 digits. All unused digit positions must have d entered in them.

Password No. 1 = Programming Password. System Default is None.

Password No. 2 = DISA Password. System Default is 3472

Password No. 3 = Toll Free. System Default is 8655

Password No. 4 = DISA Monitor Password.

Password No. 5 = Password for remote access to VSU

Password No. 6 = DISA Remote Paging Password.

Password Nos. 7 to 9 = Future.

Program 14-01-IP: SMDR Specifications

```
┌─────────────────────────┐
│ 14-01-IP S.M.D.R.       │   IP = 01-08
│ 0 0 0 0 0 2 21 0 0      │   ← System Default
└─────────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	
01	0-9	Call Duration Start Time	0=00 Secs.
02	0-1	Record Incoming Call	0=Record
03	0-1	Record Local Call	0=Record
04	0-1	Record Incoming Call No Answer	0=Record
05	0-1	Print out the Title	0=Yes
06	00-99	Number of records between titles	21=21
07	0-4	SMDR Output Port - BX320 Only	0=MPU
08	0-8	Polarity Reversal/Mini Call Acc/CLI.	0=No

General:

This program assigns SMDR parameters.

Description:

01. Call duration start time:

This parameter assigns the start time for the Call duration timer.

0 = 00 seconds	1 = 05 seconds	2 = 10 seconds	3 = 15 seconds
4 = 20 seconds	....	9 = 45 seconds	

02. Record Incoming Calls:

This parameter decides whether incoming calls will be recorded.

0 = Record   1 = Do not Record

03. Record Local Calls:

The system decides which are local calls by the toll access code set in Mode 05-03-05.

04. Record Incoming Calls No Answer:

This parameter decides whether unanswered incoming calls will be recorded.

0 = Record   1 = Do not Record

05. Print out the Title:

This parameter decides whether the system will output the description of each column.

0 = Print out the Title.   1 = Do not print out the Title.

06. Number of records between the Title:

This parameter permits the assignment of the number of records between each Title. If the Number = 00, The whole SMDR feature will be disabled.

07. SMDR Output Port (BX320):

This parameter sets which RS232 port on the BX320 will carry the SMDR information.

      0 = MPU   1 = IPU1   2 = IPU2   3 = IPU3   4 = IPU4

08. Polarity Reversal and Mini Accounting Feature (Except B1-408)/CLI:

If reversal is disabled, the system will start the call timer after accessing a CO line.
If reversal is enabled, the system will start the call timer after the called party answers.

      0= Not Detect P.R. / Normal SMDR format output
      1= Detect P.R. / Normal SMDR format output
      2= Not Detect P.R. / Simple SMDR format output
      3= Detect P.R. / Simple SMDR format output
      4= Not Detect P.R. / Enable Mini-Accounting Feature
      5= Detect P.R. / Enable Mini-Accounting Feature
      8= Not Detect P.R. / Enable intercom SMDR / Normal SMDR format / Enable CLI
      9= Detect P.R. / Enable intercom SMDR / Normal SMDR format / Enable CLI

* If the Mini-Accounting Feature has been enabled, the system will not record the call without any meter pulses being received.

* When the Mini Call Accounting feature is enabled it is necessary to set Administration phones to not record calls against them in Mode 45-st-08. This will prevent the system memory from being used to record calls unnecessarily. If administration phones are allowed to record their calls and are not checked out regularly then they will fill the system memory and prevent other calls being recorded. The BX8 can store up to 350 records and the BX320 can store 1400 records.

* For software versions before I02w on the BX8 **all system speed dials are** disabled, for I02w 10 system speed dial slots will be allowed. For I03m there will be 10 personal speed dials available (1 block) and they will need to be allocated to the stations which are to use them in Mode 42-st-02. This will allocate the speed dials to the DSS keys on each phone and the speed dials will be shared between all allocated handsets.   On the Bx320 speed dials are not affected by Mini Call Accounting.

SMDR OUTPUT DATA FORMAT - OLD

```
ST.    TK S TELEPHONE NUMBER        Account  MM/DD START DURATION   RING      UNIT
112    01   001188629645752         12345678 10/02 08:35 00:02'35"            00012
115    02   Incoming                87654321 10/02 08:45 00:10'20"  00'10"
000    03   Incoming no answer               10/02 12:00            00'35"
112    04   001188629645752         FAC:01   10/02 12:10 00:02'00"            00023
112    03 X FAC or PSW error                 10/02 12:30
112    05 X 001                              10/02 12:35 00:00'05"
121    01 # 0294150100                       10/02 14:15 00:00'55"            00001
117    01 * 0294150100                       10/02 14:15 00:03'10"            00004
D3     05   0418220212                       10/02 21:01 00:02'30"            00003
D-03   D    << D I S A   OFF >>              10/02 21:00 00:02'40"
```

TITLE DESCRIPTION:

ST = Station No.   : 11 to 6999, D = DISA
TK = Trunk No.   : 01 to 08,
S = Status   : # = Hold, * = Answered the hold, X = Cut off by toll restrictions.
Telephone Number   : First 24 digits
Account   : 8 digits in total
MM/DD   : Month/Day
Begin_Time hh:mm: The start time of accessing the trunk line.
Duration_Tm hh:mm:ss   : Time duration of the call.
Ring_Tm   mm:ss   : Incoming ring time.
Unit   00000   : Meter Pulse Count

CASE EXPLANATION:

CASE 1: October 2, 08:35 A.M., Station 112 made a call (telephone No. is 00116495256611) through line 1. The call lasted 2 minutes and 35 seconds, Account code No. 12345678 was entered for the call and 12 meter pulses were recorded.

CASE 2: October 2, 08:45 A.M., An incoming call on line 2, rang for 10 seconds, station 115 answered the call and stored an Account No. 87654321.

CASE 3: October 2, 12:00 P.M., An incoming call through line 3, rang for 35 seconds, no one answered and the call was abandoned.

CASE 4: October 2, 12:10 P.M., Station 112 made a Long Distance call through line 4 by Forced Account Code 1 and 23 meter pulses were recorded.

CASE 5: October 2, 12:30 P.M., Station 112 made a call by Forced Account Code but was denied because of a wrong code.

CASE 6: October 2, 12:35 P.M., Station 116 made a call which was restricted.

CASE 7: Line 1 was used by station 121 for 55 seconds then put on hold. One meter pulse was recorded against this station for it's section of the call.

CASE 8: The held line 1 was answered by station 117 and he occupied the line for 3 minutes and 10 seconds. Four meter pulses were recorded against this station for it's section of the call.

CASE 9: Incoming Line 3, using the DISA function, made an outside call 018220212 on line 5. The Duration time is for line 5. 3 meter pulses were recorded for this call.

CASE 10: DISA is completed. The Duration time is for line 3.

SMDR OUTPUT DATA FORMAT - NEW With CLI Output

```
ST.    TK S TELEPHONE NUMBER        Account  MM/DD START DURATION   RING     UNIT
 112   01  001188629645752          12345678 10/02 08:35 00:02'35"           00012
 112   02  DDI Num:  94150112                 10/02 08:45 00:10'20"  00'10"
       03  CLI NoAns:294176288               10/02 12:00 00:00'00"  00'35"
 111   05  CLI  Num :294150100*11            10/02 12:35 00:00'05"  00'05"
       05  DDI NoAns:94150112                10/02 12:37 00:00'00"  00'27"
```

Case 1: Outgoing call. All information remains as before.

Case 2: Incoming call on an ISDN system. The number displayed is the Indial number dialled by the calling party. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialled or the CLI information of the incoming caller

Case 3: An incoming call rang for 35 seconds and no one answered. The CLI number of the calling station is displayed.

Case 4: An incoming call on line 5 (ISDN) was answered by station 111. The SMDR displayed the CLI number (294150100) of the calling party and the extension number (112) of the calling party. The extension number shown is what the system will receive if the call is from another Hybrex with **ISDN**. The format may be different or non existent from other telephone systems or on PSTN lines. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialled or the CLI information of the incoming caller. The number 94150100 is the pilot number of the Indial group.

Case 5: An incoming call rang for 27 seconds and no one answered. The Indial number the calling station dialled is displayed.

TOLL PLAN INFORMATION FOR EARLY VERSION BX8 SOFTWARE (UP TO AND INCLUDING VERSION "I") IS IN APPENDIX A AT THE END OF THE MANUAL

PAGES 49 TO 52 ARE LEFT BLANK FOR FUTURE REQUIREMENTS

Program 17-nn : Forced Account Code

| 17-nn FCAC CODE | nn = Forced Account Code (01-48)(01-99) |
| _ _ _ _ _ _ _ _ | ← Forced account code (8 digits max.) |

General:

This program creates 48 (B1-408 & BX8) or 99 (BX320) Forced Account codes.

Description:

The forced account code will temporarily override a station's toll restrictions.
48 (B1-408 & BX8) or 99 (BX320) codes of up to 8 digits maximum are allowed. If the system is fitted with a call accounting output the entry for a call made using a forced account code will display the code used in the account code column. The actual numbers of the code will not be displayed for security reasons, the reading will show FAC:XX. XX is the forced account code number 01 to 48 (99).

The Forced Account Code will not be displayed on the screen of Executive phones when it is entered.

Digit "_" is keyed in by **[FL]** button and means " No digit ".

Clear all digits by pressing **[TRF/FL]** to insert a line in place of the original entry.

Do not use Redial to clear forced account code entries as this will insert "don't cares" which will allow any digit as a forced account code.

The Forced Account Codes may also be used as DISA passwords to allow call accounting to show which user was making an external call using DISA from outside the system. In the B1-408 & BX8, Forced Account Codes 24 to 48 can be used for this purpose and in the BX320, Forced Account Codes 49 to 99 can be used. This feature will need to be enabled in Mode 05-11-02.

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Program 18-nn-TK : Assign Toll Plans To Trunk Lines

18-nn-tk Toll 0 0 0 0 0 0 0 0	nn = Toll plan number (00-09), tk = (01-08)(01-40) ← Toll class for each trunk (class 0-9)

General:

This Mode assigns Toll Plans to trunk lines. The Toll plans are to be written in Modes 51 to 59 and 61 to 66.

Description:

10 toll plans can be used.

Each Toll Plan assigns each trunk line a Toll Class. It is possible to allow a toll class to have different restriction level on a line by line basis.

Example 1: Mode 18-00 is set to 0000dddd. Any station in the system which is set to toll class 0 will be unrestricted on lines 1 to 4 but will be unable to dial out on lines 5 to 8.

Example 2: Mode 18-01 is set to 111100dd. Any station in the system which is set to toll class 1 will be restricted by toll class 1 on lines 1 to 4, will be unrestricted on lines 5 and 6 but will be unable to dial out on lines 7 and 8.

To assign toll plans to stations, see Program **41-st-05, 41-st-06**.

Toll Classes:

Class	Function	Prog. Mode
0	Unrestricted	Default
1	Use Mode 51 for the Unrestricted numbers. Use Mode 61 for the Restricted numbers	Mode **51,61**
2	Use Mode 52 for the Unrestricted numbers. Use Mode 62 for the Restricted numbers	Mode **52,62**
3	Use Mode 53 for the Unrestricted numbers. Use Mode 63 for the Restricted numbers	Mode 53,63
4	Use Mode 54 for the Unrestricted numbers. Use Mode 64 for the Restricted numbers	**Mode 54,64**
5	Use Mode 55 for the Unrestricted numbers. Use Mode 65 for the Restricted numbers	Mode 55,65
6	Use Mode 56 for the Unrestricted numbers. Use Mode 66 for the Restricted numbers	Mode 56,66
7	Use Mode 57 for the Unrestricted numbers.	Mode **57**
8	Use Mode 58 for the Unrestricted numbers.	Mode 58
9	Use Mode 59 for the Unrestricted numbers.	Mode 59
∗	Use Mode 51-56 for unrestricted numbers. Use Mode 61-66 for all restricted numbers	
d	**Cannot access the trunk line.**	

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Program 19-IP : Voice Service (VPC) Assignment

```
19-IP VAC ASN        IP = 01-08
00  00  00  00  00   ← Function of Voice segment on VPC
```

General:

This program assigns voice services to segments of the VPC. The VPC Access Code is 86 on the BX8 and B1-408. On the BX320 the channel numbers are X901 to X940. X is the SLT programming digit set in Mode 05-08-05 (normally 7).
The station numbers on the first VSU card are X901-X904.
The station numbers on the second VSU card are X905-X908.
The station numbers on the last VSU card are X937-X940.

Description:

IP = 01   Voice segment number 01.   IP = 05   Voice segment number 05.
IP = 02   Voice segment number 02.   IP = 06   Voice segment number 06.
IP = 03   Voice segment number 03.   IP = 07   Voice segment number 07.
IP = 04   Voice segment number 04.   IP = 08   Voice segment number 08.
IP = 09   Assign Channel to VSU Group (BX320)
IP = 09   0 = 60 second voice chip, 1 = 16 second voice chip (BX8) 1= future use (B1-408)

Eight voice segments are valid for the VAC card and each can be assigned one of 18 functions.

Set data Function
   00   No-Operation
   01   DISA: Company greeting message (on answer)
   02   DISA: Message to tell the outside party that the called extension is **Busy**.
   03   DISA: Message to tell the outside party that the called extension is **Not Answering**.
   04   DISA: Message to tell the outside party that the extension number is **Not-Valid.**
   05   DISA: Message to tell the outside party the Console(s) is(are) busy, please wait.
   06   DISA: Message to tell the outside party the DISA Time duration has expired.
   07   DISA: Message to tell the outside party that the Console(s) is(are) still busy, this
            line will be disconnected, please call again later.
   08   DISA: Night greeting message (on answer).
   09   ECF: Message to advise caller that the call is being external call forwarded.
   10   ACD: Message to tell caller that the operator(s) are busy, please wait
   11   ACD: Message to tell caller that the operator(s) are still busy, please wait.
   12   ACD: Message to tell caller that the operator(s) are still busy, the call will be
            disconnected, please call back later.
   13   * Reserved for future use.
   14   Morning Call -- Wake up Message.
   15   Call Waiting Message.(Refer to programming mode 05-04-08.)
   16   * Reserved for future use.
   17   * Reserved for future use.
   18

09. When VSU grouping is enabled for the BX320 in mode 05-06 then this parameter assigns the channel to the group (1 to 8) with which it will work.

During DISA operation if there is no VSU channel allocated to DISA Night Answer (type 08) then DISA calls will be answered by the DISA Day message in both Day and Night mode.

RECORDING VOICE MESSAGES

VOICE MESSAGES MUST BE RECORDED FROM A MASTER CONSOLE ONLY.

There is only one channel available in the BX8 and this is accessed by dialling 86 from the console. The BX320 has multiple channels which will be numbered 79 (01-40). Each channel can be divided into 1 to 8 segments depending on requirements. Channel numbers indicated on the sample screens in Bold only refer to the **BX320.**

> VOICE PORT **7901** (1)
> 0=REC 7=PLAY

Dial 0 and after the tone has stopped, record the company greeting message,

> VOICE PORT **7901**
> RECORDING..............

When completed Dial 1 and the screen display will be,

> VOICE PORT **7901** (2)
> 0=REC 7=PLAY

The 2 in brackets indicate that the second message segment is ready to record. Dial 0 and record the message to apologise for the continuing delay,

> VOICE PORT **7902**
> RECORDING..............

When the message is recorded dial 1. Continue using the same procedure until all the required segments are recorded and then hang up.

Remote VSU Recording Feature (BX320)

This allows the user to remotely record/play/copy VSU messages. To use this feature it will be necessary to enable DISA and install the EMC card on the B4-MPU.
! The operation method is:
    (1) Enable DISA feature by setting mode 35-tk-04.
    (2) Dial [#][7] during DISA to access the remote access code.
    (3) Dial [Password] that has been assigned in mode 13-05.
    (4) Dial 7901 ~ 7940 to access different VSU channels.
    (5) Dial [0] for remote recording
        Dial [7] for remote playing
        Dial [1] to change to the next recording segment
        Dial [3] to copy the first channel of the VSU card into the other three channels.
        Dial [#] to go back to the first voice segment of VSU channel.
    (6) Dial [*] to end this feature.

! Programming Mode 13-05 - Password for Remote Accessing VSU Card. The default is 9703.
! Programming Mode 25 - press [8] to clear all related timers of VSU remote accessing.
! Only one DISA line can remotely access the VSU at a time.
! The VSU cannot answer DISA lines during remote access of the VSU.
! The remote access feature will always access the first voice segment of the channel (7901~7940).
! Flowchart for remotely accessing VSU recording:

```
                START
                                   (DISA answers)


                                        >


                      [#]        [EXT_NO]    [*]   [8]  [9]

        Dial
        Tone          [7]        [100~299] for system speed dial

                      13-05
                      VSU PSW.

                      Confirm
                      Tone

                        <
            #         7901 ~
                      7940

                        >                                 0 = Record
                                           Confirm        1 = Stop and move to next
                                           Tone               Segment
            *         0 or 1        #                     3 = Copy from Channel 7901

            End       or 3 or 7                           7 = Play


                      access
                       VSU
```
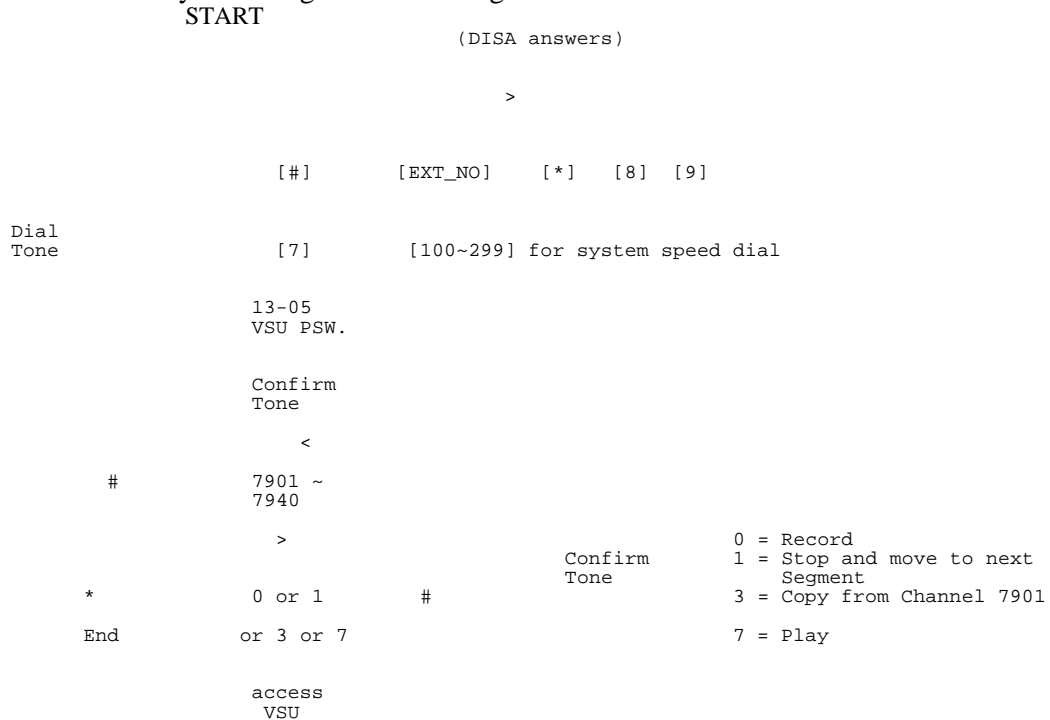
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Program 20-nn : Define Day-Time Schedule

```
20-nn Day Time
hh  mm  HH  MM
```

nn = Day schedule pointer (00-06)
← Setting data

General:

This program assigns day time from Sunday to Saturday for automatic night switching.

Description:

The system is capable of switching automatically between day and night settings using the time parameters set in this Mode. To change from manual to automatic night switching the console presses **[PRG] /[TRF]** / **＊**. Pressing **＊** toggles between the 2 modes.
If a Function key has been set to function 52 then pressing this key will change from Day to night mode by one touch but will not change between Automatic and Manual switching.

    00 = Sunday
    01 = Monday
    02 = Tuesday
    03 = Wednesday
    04 = Thursday
    05 = Friday
    06 = Saturday

   HH, hh = Hour   MM,mm = Minute

   Day time is from hh:mm to HH:MM.

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Program 21-st-IP : Multiple Station Intercom Group Access-BX320

```
┌─────────────────────┐
│ 21-st-IP TK SPEC    │   st = 01-xx, IP = 01-08
│ 0 0 0 0 0 0 0 0     │   ← System Default
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Member of Group 1 Intercom Access	0=Disable
02	0-1	Member of Group 2 Intercom Access	0=Disable
03	0-1	Member of Group 3 Intercom Access	0=Disable
04	0-1	Member of Group 4 Intercom Access	0=Disable
05	0-1	Member of Group 5 Intercom Access	0=Disable
06	0-1	Member of Group 6 Intercom Access	0=Disable
07	0-1	Member of Group 7 Intercom Access	0=Disable
08	0-1	Member of Group 8 Intercom Access	0=Disable

Description:

01. Multiple Station Intercom Group Access:

This parameter permits the overlapping of station groups allowing or disallowing a station access to other groups in conjunction with Program 45-st-05 and 41-st-01. This parameter is available on the BX320 only from software version PMS-7 (2 Meg EEPROM) and later. This parameter has no effect unless Mode 45-st-05 is enabled. Once enabled the stations will not be able to call other stations which are not in the same group as themselves unless Mode 21 allows them access to one or more extra groups in addition to their own.

EXAMPLE
Station 100 is assigned to Group 1 in 41-100-01.
Station 200 is assigned to Group 2 in 41-200-01
Station 300 is assigned to Group 3 in 41-300-01.
Station 400 is assigned to Group 4 in 41-400-01.

All stations are able to call any other station in the system whether they are in the same station group or not.
Then program Mode 45-200-05 is set to 1
Then program Mode 45-300-05 is set to 1
Then program Mode 45-400-05 is set to 1
Now Station 100 can still, call all other stations because it is not restricted but stations 200,300 and 400 can only call stations which are in their own station group. Even though station 100 can call all of them, they cannot call station 100.
Then program Mode 21-200-01 is set to 1.
Then program Mode 21-300-01 is set to 1
Then program Mode 21-400-01 is set to 1
Now stations 200, 300 and 400 can also call to station 100 but still cannot call each other.

Then program Mode 21-200-03 is set to 1
Now station 200 can call stations in group 3 including station 300 but not station 400 and neither 300 or 400 are able to contact 200 still.

PAGES 65 TO 70 ARE LEFT BLANK FOR FUTURE REQUIREMENTS

**TOLL PLAN INFORMATION FOR EARLY VERSION BX8 SOFTWARE
(UP TO AND INCLUDING VERSION "I") IS IN APPENDIX A AT THE END
OF THE MANUAL**

Program 25 : Reset Data to System Default

```
25 - Reset Data
0 - 9  Default
```

General:

This program resets all data to System Default. All new systems must be reset to default before any programming in case corruption has been caused during handling or shipping. It will also be necessary to reset to default after a software upgrade is installed. When using item 3 or 4 these must be done AFTER the system reset is performed.

Description:

1 = System data will be reset to system default except System Speed Dial Programming.

2 = The system data will be totally reset to system default.

WARNING: All user defined data will be lost.

3 = For all Stations set

44-st-02=1 (Hold Feature restricted)
44-st-03=1 (Call Split Feature restricted)

This feature is for Hotel/Motel operation. After setting this Mode it is necessary to reprogram the Console and any Administration phones in Mode 44-st-02 to allow them to place calls on hold.

4 = For all stations set

40-st-01=0 (Barge In not allowed)
40-st-02=0 (Monitor not allowed)

It is strongly recommended that this parameter is used on ALL systems to prevent accidental Barge In operations being misinterpreted as crosstalk.

All other system programming information remains unchanged when using 3 or 4.

BX320
5=   Clear all registered CT2 Handsets and restart all CT2 Base Stations (CFP).
6=   Restart all CT2 Base Stations (CFP).

7 = Spare

8 = Clear all timers for VSU Remote Programming

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Program 26-gp-IP : DID Route Table (Analogue Indial)

```
┌─────────────────────┐
│ 26-000 DID ROUTE    │   cd = 000-999
│ 000                 │   <- Setting Data
└─────────────────────┘
```

General:

This program assigns the incoming digits received from the DID line to individual extensions. This parameter is for the Analogue Indial on the BX8 and BX320.
.
Description:

The incoming DID line will pass 2 digits to the BX8 and either 2 or 3 digits to the BX320. This programming Mode enables the user to assign individual numbers sent by the exchange to ring the required extensions. It is recommended that the numbering scheme in the system is set to allow the extension number of the station to line up with the last 2 (or 3) digits of the telephone number although this is not necessary if it conflicts with the customers requirements for station numbering.

Example 1: DID digits the same as extension numbers

The customer has a block of 10 Indials reserved and the main number is 94176200. The extension-numbering scheme is 3 digits starting at 200, which is the reception point. The programming would be as below for extensions to line up with the last digits of the phone number.

     26-00 = 200
     26-01 = 201
     26-02 = 202
     26-03 = 203
     26-04 = 204
     26-05 = 205
     26-06 = 206
     26-07 = 207
     26-08 = 208
     26-09 = 209

When an incoming caller dials 94176200 the call will go directly to the reception extension (Stn 200). If the caller dials 94176205 the call will be routed to extension 205, 94176206 will go to ext 206 etc. If the call is unsuccessful the action taken by the system will depend on the setting for the individual station in Mode 46-st-04.

Example 1: DID Digits different to extension numbers

The customer has a block of 10 Indials reserved and the main number is 94176210. The extension-numbering scheme is 3 digits starting at 200, which is the reception point. The programming would be as below for extensions to line up with the last digits of the phone number.

      26-10 = 200
      26-11 = 201
      26-12 = 202
      26-13 = 203
      26-14 = 204
      26-15 = 205
      26-16 = 206
      26-17 = 207
      26-18 = 208
      26-19 = 209

When an incoming caller dials 94176210 the call will go directly to the reception extension (Stn 200). If the caller dials 94176215 the call will be routed to extension 205, 94176216 will go to ext 206 etc. If the call is unsuccessful the action taken by the system will depend on the setting for the individual station in Mode 46-st-04. The disadvantage with this method is that the customer has to remember a translation between the phone number and his extension number whereas if the last digits and the extension number line up it will minimise confusion.

Program 27-tk-IP : Print Programming Data

```
27-01-IP
0 0 0 0 0 0 0 0
```

IP = 01-99
← System Default

General:

This program permits programming information to be passed to a serial printer via the system's RS232 port on the BX320.

Description:

00   = Stop printing out data

01-98 = Print out the programming modes individually

99   = Print out all programming data

If a serial printer is connected to the MPU serial port, the system programming can be sent to the printer to provide a hard copy for record purposes.

PAGES 77 & 78 ARE LEFT BLANK FOR FUTURE REQUIREMENTS

Program 29-tk-IP : Trunk Specifications - 2

```
29-tk-IP TK SPEC        tk = 01-08, IP = 01-08
0 0 0 0 0 0 0 0         ← System Default
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Place Calls On Hold Awaiting Answer	0=Disable
02	0-8	ACD-1 Function Enable	0=Disable
03	0-3	ISDN Incoming Call type	0=Inblock sending
04	0-9,d	Set Ring Frequency (AK H/sets Only)	0=H/set Setting
05	0-9	Allow Audible Ring For Incoming Calls	0=All Stns
06	0-1	Trunk Timer Start Time	0=Line Loop
07	0-	Trunk Call Limit Duration	0=Mode 4**B**st-03
08	0-	....	0=

Description:

01. Place Calls On Hold Awaiting Answer:

This parameter requires the exchange to provide a polarity reverse signal on B party answer. If this is available the call can be placed on hold awaiting answer and then the system will notify the caller when the called party has answered.

         0 = Disable   1 = Enable

02.ACD-1 Function Enable:

This parameter enables or disables the ACD-1 function for each trunk individually and is able to select whether ACD-1 operates in Day or Night or Both Modes.

         0 = Day Time - Disable ACD function,   Night Time - Disable ACD function
         1 = Day Time - Disable ACD function,   Night Time - Enable ACD function[*1]
         2 = Day Time - Disable ACD function,   Night Time - Enable ACD function[*2]
         3 = Day Time - Enable ACD function[*1],   Night Time - Disable ACD function
         4 = Day Time - Enable ACD function[*1],   Night Time - Enable ACD function[*1]
         5 = Day Time - Enable ACD function[*1],   Night Time - Enable ACD function[*2]
         6 = Day Time - Enable ACD function[*2],   Night Time - Disable ACD function
         7 = Day Time - Enable ACD function[*2],   Night Time - Enable ACD function[*1]
         8 = Day Time - Enable ACD function[*2],   Night Time - Enable ACD function[*2]
         9 = Reserved for future use.
         *1:   Enable ACD-1 function only when all ring assigned stations are busy.
         *2:   Enable ACD-1 function when time set in mode 05-09-06 has elapsed.

03.   ISDN Incoming Call Type (BX320):

This feature allows the user to set the ISDN lines to suit different incoming call types.
         0 = Inblock Sending. (**Australian Standard is Inblock sending**)
         The ISDN Central Office will send xtension Called Party Number@ or AExtension   Sub-
address Number@ during the setup procedure.
         1 = Overlap Sending.
         The ISDN Central Office does not send AExtension Called Party Number@ or AExtension Sub-
         address Number@ during the setup procedure.
         2~9 = MSN.
         System rings the extensions assigned in Program 01/Program 02 when there is an incoming
         ISDN call.

04.   Set Ring Frequency (AK H/sets Only):

This feature allows each trunk to ring at AK handsets with it≥s own individual ring frequency and override the frequency set by the user for all calls.

    0 =   As per the key phone≥s ring setting (user defined on AK handset).
    1~8 = Use the ringing frequency 1~8 of key phone (AK types) as the trunk≥s ring.
    d=   Use ABackground Music@ as the Door phone≥s ring

05.   Allow Audible Ring For Incoming Calls:

This feature allows either some or all stations which are ring assigned in Mode 01 or 02 to receive the audible ring signal when a trunk rings at the station. If the audible signal is disabled the station will still be able to answer a call by lifting the handset only, if they are ring assigned in Mode 01 or 02

    0 = All stations assigned in Mode 01 & 02 will receive audible signal for an incoming call
    1 = Only the first station assigned in Mode 01 & 02 will receive audible signal for an incoming call. the other ring assigned stations will still be able to answer a call by lifting the handset only
    2 = The first 2 stations assigned in Mode 01 & 02 will receive audible signal for an incoming call. the other ring assigned stations will still be able to answer a call by lifting the handset only
    3 to 8............
    9 = The first 9 stations assigned in Mode 01 & 02 will receive audible signal for an incoming call. the other ring assigned stations will still be able to answer a call by lifting the handset only.

06. Trunk Timer Start Time:

This parameter allows each trunk to be set as to whether the timer starts when the line is looped or when a polarity reversal signal is received. If Mode 14-01-08 is set to 1 then all trunks will start their timer when a polarity reverse signal is received otherwise only the trunks set to 1 in this parameter will start their timer when the reversal is received. See also Mode 05-13-03 for call cut off timer if no polarity reverse signal is received.

    0 = Start at loop   1 = Start on reversal

07. Trunk Call Limit Duration:

This parameter allows trunks to be limited to a set duration for each call. If this setting is enabled then calls on this trunk will be limited to the duration set otherwise if disabled the timing will follow the setting in Mode 40-st-03 for individual stations.

0 = Mode 40-st-03	1 = 3 minutes	2 = 5 minutes	3 = 10 minutes
4 = 15 minutes	5 = 20 minutes	6 = 30 minutes	7 = 40 minutes
8 = 50 minutes	9 = No limit		

Program 30-gp-IP : DID Group Index (Analogue Indial)

```
30-gp-IP DID INDEX
000
```
gp = 1-30, IP = 01 <- Setting Data

General:

To assign a Group to be rung by a specified DID Inward Dialling Number. This parameter is for the Analogue Indial on the BX8 and BX320.

Description:
- **!** gp = DID Ringing Assigned Group (gp = 01~30). Each Group can assign a maximum of 16 stations to ring for each group. Please refer to Program Mode 33, 34.
- **!** nnn = DID Inward Dialling Number (00~99 or 000~999).
- **!** The DID Inward Number can be 2 or 3 digits in the BX320 and 2 digits only in the BX8. Refer to Program Mode:05-07-03 to set DID digit length for the BX320.

Example:
If you would like a specified DID number (for example: 941762-56) to ring stations 11, 12, 13, 14, 15 and another specified DID number (for example: 941762-57) to ring stations 12, 16, 17 in the Day Time and in the Night Time, you would like the specified DID number (941762-56) to ring stations 21, 22, 23, 24, 25 and the other specified DID number (941762-57) to ring stations 22, 26, 27.

Programming method:
.   To program mode 26-56 and 26-57 to 000.

```
26-56 DID ROUTE
000
```
```
26-57 DID ROUTE
000
```

.   Program mode 30-01 to 56 and 30-02 to 57. 56/57: DID Inward Dialling Number.

```
30-01 DID INDEX
56
```
```
30-02 DID INDEX
57
```

Program mode 33-01 and 33-02 as follows:

```
33-01-01 FLX DAY 11
12 13 14 15
```
```
33-02-01  FLX  DAY  12
16 17 00 00
```

Program mode 34-01 and 34-02 as follows:

```
34-01-01  FLX  NIG  21
22 23 24 25
```
```
34-02-01 FLX NIG 22 26
27 00 00
```

Related System Programming: Mode 05-07-03, 05-07-08, 26, 33, 34

PAGES 82 TO 86 LEFT BLANK FOR FUTURE REQUIREMENTS

Program 33-gp-IP : DID Group Ring Assignment - Day (Analogue Indial)

33-gp-IP FLX DAY 000 000 000 000	gp = 01-30, IP = 01-16 <- Setting Data

General:

This program assigns the stations into a group to be rung by a specific DID Inward Dialling Number in the **DAY** time. This parameter is for Analogue Indial on the BX8 and BX320.

Description:

1. This program sets the stations which will ring for each group (01 to 30) for Day Time only.

2. The station number can be 2, 3 or 4 digits. Refer to program mode 05-03-06.

3. Up to a total of 16 stations can be assigned to ring for each group

4. gp = DID Ringing Assigned Group (gp = 01~30.)

5. Entries can be deleted by entering 0's over a station number.

6. To assign a particular DID number to each group see Mode 30.

7. The Ring method will be Common Audible only.

8. To clear all entries press **[REDIAL]**

Related System Programming: Mode 05-03-06, 05-07-03, 05-07-08, 26, 30, 34.

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Program 34-gp-IP : DID Group Ring Assignment - Night (Analogue Indial)

```
34-gp-IP FLX NIG
000  000  000  000
```
gp = 01-30, IP = 01-16
<- Setting Data

General:

This program assigns the stations into a group to be rung by a specific DID Inward Dialling Number in the **NIGHT** time. This parameter is for Analogue Indial on the BX8 and BX320.

Description:

1. This program sets the stations which will ring for each group (01 to 30) for Night Time only.

2. The station number can be 2 .3 or 4 digits. Refer to program mode 05-03-06.

3. Up to a total of 16 stations can be assigned to ring for each group

4. gp = DID Ringing Assigned Group (gp = 01~30.)

5. Entries can be deleted by entering 0's over a station number.

6. To assign a particular DID number to each group see Mode 30.

7. The Ring method will be Common Audible only.

8. To clear all entries press **[REDIAL]**

Related System Programming: Mode 05-03-06, 05-07-03, 05-07-08, 26, 30, 34.

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Program 35-tk-IP : Trunk Specifications - 1

```
┌─────────────────────┐
│ 35-tk-IP TK SPEC    │   tk = (01-04)(01-08)(01-40), IP = 01-08
│ 0 1 0 0 3 0 0 0     │   ← System Default
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-4	Trunk Type	0=CO
02	0-1	Dialling Signal	1=DTMF
03	0-8	External Call Forward	0=No
04	0-8	DISA	0=No
05	0-3	Pick Up	3=Yes
06	0-9	Loud Bell	0=No
07	0-4	Inward Line Ringing Type - Day	0=Com. Audible
08	0-4	Inward Line Ringing Type - Night	0=Com. Audible

General:

This program permits every trunk line to be assigned different parameters.

Description:

01. Trunk Type:

      0 = CO.   = Trunk line is Central Office line.

      1 = PABX .   = Trunk line is installed behind a PABX or is a Centel line.

      2 = DID   = Trunk line is a Analogue DID line. The system will automatically detect
                     The installation of a DID card and set this parameter itself.

      4 = ISDN   =Trunk line is ISDN The system will automatically detect the installation of
                     an SIU card and set this parameter itself.

02. Trunk Signal:

      0 = Pulse   = Trunk dialling signal is Dial Pulse.

      1 = DTMF   = Trunk dialling signal is DTMF (Touch-Tone).

03. External Call Forward - ECF:

      0 = No ECF.

      1 = ECF to system speed dial 101

      2 = ECF to system speed dial 102

      3 = ECF to system speed dial 103

      4 = ECF to system speed dial 104

      5 = ECF to system speed dial 105

      6 = ECF to system speed dial 106

      7 = ECF to system speed dial 107

      8 = ECF to system speed dial 108

04. DISA/ECF (Direct Inward System Access/External Call Forward):

0 = Day - Disable   Night - Disable
1 = Day - Disable   Night - DISA Enable
2 = Day - DISA Enable   Night - Disable
3 = Day - DISA Enable   Night - DISA Enable
4 = Day - Disable   Night - ECF Enable
5 = Day - ECF Enable   Night - Disable
6 = Day - ECF Enable   Night - ECF Enable
7 = Day - DISA Enable   Night - ECF Enable
8 = Day - ECF Enable   Night - DISA Enable

* Enable = Listed feature is operational.

05. Pick Up:

0 = Day - can not   Night - can not
1 = Day - can not   Night - can
2 = Day - can   Night - can not
3 = Day - can   Night - can

Can   = An incoming call on this line can be answered by non ringing stations.

Can not = An incoming call on this line can not be answered by non ringing stations.

This feature is to assign "Private Lines" in conjunction with the programming of dial 9 groups, or to prevent incoming calls being answered by users other than the ring assigned stations.

06. Loud Bell:

Refer to Program 06 to assign Relay to operate for a Loud Bell.
B1-408
    0 = No Operation.
    1 = RELAY on the MSU (R) will be activated when the trunk is ringing.

BX8
    0 = No Operation.
    1 = RELAY on the first TKU will be activated when the trunk is ringing.
    2 = RELAY on the second TKU will be activated when the trunk is ringing.

BX320
    0 = No Operation.   1 = Relay 1 in cabinet 1
    2 = Relay 2 in cabinet 1   3 = Relay 3 in cabinet 1
    4 = Relay 1 in cabinet 2   5 = Relay 2 in cabinet 2
    6 = Relay 3 in cabinet 3   7 = Relay 1 in cabinet 3
    8 = Relay 2 in cabinet 3   9 = Relay 3 in cabinet 3

The system does not provide any voltage from the assigned relay. A separate ring voltage and ring device will need to be provided by the installer

07. Inward Line Ringing Method Assignment (Day):

As described in Program 01-tk-IP, there are four ringing methods plus a Private line setting:

COMMON AUDIBLE

Ring all assigned Extensions simultaneously.

LINEAR

Each incoming call rings the first available Extension in order of the Extensions assigned in **Program 01-tk.**

CIRCULAR

The first incoming call on each trunk rings the first assigned Extension, the 2nd incoming call rings the next station, etc.

HUNT

If an incoming line rings an extension which is busy or does not answer, after the assigned Hunt Time (Program **05-08-01**,) the call will ring the next available extension assigned in the same group. If the next ringing station is busy then the call will immediately move to the next ring assigned extension but if the station does not answer then the call will wait for the Hunt time and then ring the next assigned extension. Once the ring assignment has passed a station which is busy then it will provide Off Hook Busy Remind signal and when the station is free if the call is still unanswered the station will commence ringing for that call. Stations which do not answer a call will also continue to ring until the call is answered.

PRIVATE

This is for an incoming private line. The station that owns this private line can set the call forward (All, Busy, No Answer) for this private line to the Voice Mail Port (See Program **43- ST-02**).

0 = Day - COMMON AUDIBLE	1 = Day - LINEAR
2 = Day - CIRCULAR	3 = Day - HUNT
4 = Day - PRIVATE	

08. Inward Line Ringing Method Assignment (Night):

As described in Program 02-tk-IP, there are four ringing methods plus a Private line setting: All settings in item 08 are the same as item 07.

0 = Night - COMMON AUDIBLE	1 = Night - LINEAR
2 = Night - CIRCULAR	3 = Night - HUNT
4 = Night - PRIVATE	

Program 36-gp-tk : Trunk Group Assignments

36-gp-IP TK GRP
01 02 03 04 05

gp = 01-08, IP = (01-04)(01-08)(01-40)
← trunks to be included

General:

This program permits each trunk line to be assigned to different Trunk groups. There are eight groups in total.

Description:

In the bottom data-setting area, the trunk number (01-04)(01-08)(01-40) means that the trunk is included in the specified group. Press REDIAL to clear all entries from the table before entering the required trunks. Always set outgoing calls to start from the highest fitted trunk and program in descending order to the lowest trunk fitted. This will prevent call collision particularly in systems with SLT'S.

There are (4)(8) (40) trunks maximum in a trunk group.

This parameter will work with the following features:

  . Dial 9 or 0 access to trunk group.
  . Tenant service.
  . ACD-1 and DISA Grouping (BX320)

Program 37-tk : Busy Out Trunks

```
37-tk Busy Out
0 0 0 0 0 0 0 0
```

tk = (01-04)(01-08)(01-40)
← Busy out Type

General:

This program permits the trunk line to be locked by a Technician.

Description:

This feature is used when the user does not want to use the trunk or to remove a problem line. When the trunk is set to BUSY OUT, the LCD display on the phone will display "Access denied" when that line button is pressed.

        0 = Line is unlocked
        1 = Busy for Outgoing calls
        2 = Busy for Incoming and Outgoing calls (set loop on)
        3 = Busy for Incoming and Outgoing calls (set line LED on)

Program 38-gp-tk : Dial 87 Trunk Group Assignment

38-gp-IP TK GRP 01 02 03 04 05	gp = 01-08, IP = (01-04)(01-08)(01-40) ← trunks to be included

General:

This program permits each trunk line to be assigned to different Trunk groups which can be accessed by dialling [87]. There are 8 groups in total. This group will be available to a station in addition to it's dial 9 group. Always set outgoing calls to start from the highest fitted trunk and program in descending order to the lowest trunk fitted. This will prevent call collision particularly in systems with SLT'S. Press REDIAL to clear all entries in the table before entering required trunks.

Description:

This mode is programmed in the same way as Mode 36-gp-tk. But this program is only used for dialling [87] to access a Trunk Line.

Once a dial [87] group has been programmed it will need to be assigned to the stations who are to use it in Mode 46-Stn-01.

Program 39-IP : Sensor Assignment

B1-408

39-IP Sensor 00 00	IP = 01-02 ← System Default

Item Pointer	Display Data	Programming Data Description
--------	--------	---
01	00-18	SENSOR #1 on MSU Card
04	0-6	SENSOR #1 Contact Type and Activating Time

BX8

39-IP Sensor 00 00 00 00 00	IP = 01-06 ← System Default

Item Pointer	Display Data	Programming Data Description
--------	--------	---
01	00-18	SENSOR #1 on Station Card #1
02	00-18	SENSOR #2 on Station Card #2
03	00-18	SENSOR #3 on Station Card #3
04	0-6	SENSOR #1 Contact Type and Activating Time
05	0-6	SENSOR #2 Contact Type and Activating Time
06	0-6	SENSOR #3 Contact Type and Activating Time

BX320

39-gp-IP Sensor 00 00 00 00	gp = 01-04 IP = 01-04 ← System Default

Item Pointer	Display Data	Programming Data Description
--------	--------	---
01	00-18	SENSOR #1 of IPU Card
02	00-18	SENSOR #2 of IPU Card
03	0-6	SENSOR #1 Contact Type and Activating Time
04	0-6	SENSOR #2 Contact Type and Activating Time

Each group can be programmed the same as group 1 and the group number refers to the cabinet number in which the IPU supporting the sensors is installed.

Description:

Each Station Card has **1** Sensor (BX8) or each IPU has 2 Sensors (BX320).
Each Sensor can be assigned one of the following 18 functions in items 39-(01-03) in the BX8 and in items 39-(01-02) in the BX320.

Set data	Function
00	No Operation
01	Fire Alarm
02	Break Alarm
03	Door Phone 1 (88)
04	Door Phone 2 (89)
05	Reserved for future use
:	:
18	Reserved for future use

The SENSOR type may be normally open or normally closed and can be set to be activated in Day or Night switching or in both. Parameters 39-(04-06) in the BX8 and parameters (39-gp-(03-04) in the BX320 set each sensor contact to be a normally open or normally closed type and set whether to work in Day or Night Mode or both.

    00 = Disable Sensor function
    01 = Normally Open, Activated for Daytime.
    02 = Normally Closed, Activated for Daytime.
    03 = Normally Open, Activated for Nighttime.
    04 = Normally Closed, Activated for Nighttime.
    05 = Normally Open, Activated for Day and Nighttime.
    06 = Normally Closed, Activated for Day and Nighttime.

The applications are as the following:

    1 = Fire Alarm: Sensor detects fire, all idle extensions will be rung and all busy
                Extensions will hear the alarm tone.
        . The fire alarm will continue for 10 minutes.
        .Pressing **[7][7][7]** from the console will stop the fire alarm.
        The LCD display will show FIRE ALARM !!!! when the alarm is activated.

    2 = Break Alarm
        . The Sensor detects the signal appears, all idle extensions will be rung.
        . The Sensor detects the signal disappears, all extensions will stop ringing.

        The LCD display will show BREAK ALARM !!!! when the alarm is activated.

Individual stations can be programmed to not receive the Break Alarm in Mode 45-st-06.

The ring cadence for the fire alarm will be as follows

    a   b   c   b   a   b   c   b   a   b

a = 1.25 seconds On   b = 0.25 seconds off   c = 0.25 seconds on.

If door key has been set in mode 07 and mode 39, the specific Door key on DSS will get the following indications:

LED Indication	Door Phone Status
Off	Normal Close for Sensor
Red-Slow Flashing	Normal Open for Sensor
Red-Fast Flashing	Door Phone Is Calling
Green on	This Station is talking to the Door Phone
Red on	Another Station is talking to Door Phone

Program 40-st-IP: Station Class of Service - 1

```
┌─────────────────────┐
│ 40-st-IP STCOS      │   st = Extension NO.(2-4 digits). IP = 01-08
│ 1 1  0 0 0 0 0  00  │   ← System Default
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-9	Override Level	1=Low
02	0-9	Monitor Level	1=Low
03	0-9	Limit Call Duration	0=No
04	0-3	Station Loud Bell	0=No
05	0-1	Access Paging	0=Yes
06	0-1	Receive Paging	0=Yes
07	0-1	Security Code Status	0=None
08	00-48	Forced Account Code	00=All

General:

This programming Mode permits each station to be assigned a different Class of Service.

Description:

01. Override Level:

Higher level stations can override lower level stations, equal levels may override each other.

> 0 = Disable   1 = Lowest level 9 = Highest level

02. Monitor Level:

Higher level stations can monitor lower level stations, equal levels can not monitor each other.

> 0 = Disable   1 = Lowest level 9 = Highest level

03: Limit call duration:

Conversation will be interrupted by a Busy Tone. A warning tone will be given 10 seconds before the end of the timed duration. (see Mode 05-04-03 to set call limiting action)

> 0 = No limit   1 = 3 min.   2 = 5 min. 3 = 10 min. 4 = 15 min.   5 = 20 min.
> 6 = 30 min. 7 = 40 min. 8 = 50 min.   9 = 60 min.

04. Station Loud Bell:

Refer to Program 06 to assign Relay to operate for a Loud Bell.
BX8
     0 = No operation
     1 = Operate relay on the MSU card when calls are received on this station.

BX8
     0 = No operation
     1 = Operate relay 1 on Trunk card 1 when calls are received on this station.
     2 = Operate relay 2 on Trunk card 2 when calls are received on this station.

BX320

0 = No Operation.	1 = Relay 1 in cabinet 1
2 = Relay 2 in cabinet 1	3 = Relay 3 in cabinet 1
4 = Relay 1 in cabinet 2	5 = Relay 2 in cabinet 2
6 = Relay 3 in cabinet 3	7 = Relay 1 in cabinet 3
8 = Relay 2 in cabinet 3	9 = Relay 3 in cabinet 3

The system does not provide any voltage from the assigned relay. A separate ring voltage and ring device will need to be provided by the installer

05. Access Paging:

     0 = The "All Page" signal can be broadcast by this station.
     1 = The "All Page" signal can not be broadcast by this station.

06. Be Paged:

     0 = The "All Page" signal can be received by this station.
     1 = The "All Page" signal can not be received by this station.

This feature is useful for someone who does not want to be disturbed by page calls.

07. Security code status:

     0 = The station is unlocked.(Can make outgoing calls.)
     1 = The station is locked. (Can not make outgoing calls except emergency calls.)

If a phone becomes locked accidentally or the user forgets their lock code, this parameter will unlock the phone. There is no way of finding what the lock code was.

08. Forced account code:

There are (48-BX8)(99-BX320) forced account codes which can be used on the system. Each user can be allocated use of one or all of these. If a station has a Forced Account Code (01-48)(01-99), the user can key **[SAVE] [MW]** and the account code to override toll restrictions for one call only. If the setting is from (01-48)(01-99) then this Account Code ONLY can be used by the station. If the setting is 00 then the station can use any one or all Account Codes.
Refer to Mode 17: Create Forced Account Code

Program 41-st-IP : Station Class of Service - 2

```
41-st-IP STSPE
1 2 0 1 0 0 CN
```
st = Extension NO.(2-4 digits). IP = 01-07
← System Default

Item Pointer	Display Data	Programming Data Description	Default
01	1-8	Station Group / Agent Group for ACD	1=1
02	1-8	Key Group For KeyPhone	2=2
03	0-8	Shift Key Group For KeyPhone	0=None
04	1-8	Dial 9 trunk group	1=1
05	0-9,d	Toll plan - Day	0=0
06	0-9,d	Toll plan - Night	0=0
07	cn	c = Card number, n = Port number (B1-408 & BX8)	
07	csn	c = Cabinet numbers = Slot Number, n = Port number (BX320	

Description:

01. Station group:

This parameter will work with the following features:

     - Call Pickup Group.
     - Single Digit Intercom Group
     - Paging Group

In program mode 45-st-05 a station can be prevented from calling others which are not in the same station group but in Program 21 the stations can then be allowed access to other groups in a block even though mode 45-st-05 does not allow this.

02. Flexible key pattern group assignments (key phone):

This parameter assigns stations to one of 8 flexible key pattern groups.
In the BX320 from s9 software this mode also is used by DSS consoles for their key group rather than Mode 43-02.

See Mode 07: Flexible key group assignment to write soft key plans.

03. Shift Key Group For KeyPhone:

Each station can have access to a second soft key group accessed by the shift key. The shift key must be programmed in the first group assigned to the station. When the shift key is used to access the second group then it will light red and over ride the function assigned to it in the second group. In the BX320 from s9 software this mode also is used by DSS consoles for a shift key group.

     0 = Disable   1-8 = Soft Key Plan 1 to 8

04. Dial 9 trunk group:

When a station selects a trunk line by dialling 9, the system finds an available trunk according to the dial 9 group assignment. If a trunk is not in a stations assigned dial 9 group then the station will not be able to make outgoing calls on that trunk.

05. Toll plan - Day:

This parameter assigns the toll plan to be used by the station in day mode.

Refer to Mode 18 for Toll plan details.

06. Toll plan - Night:

This parameters assigns the toll plan to be used by the station in night mode.

Refer to Mode 18 for Toll plan details.

07. Port number:

This is for checking only, the system will automatically show the correct port number. It is not possible for the user to change or remove this parameter.

In the B1-408 the port number consists of 2 digits, the first is the card number (1) and the second is the position on the card (1 to 8).

In the BX8 the port number consists of 2 digits, the first is the card number (1 to 3) and the second is the position on the card (1 to 8).

In the BX320 the port number consists of 3 digits, The first is the cabinet number (1 to 4), the second is the slot number in the cabinet (0-9) and the third is the position on the card (1 to 8).

Program 42-st-IP : Register Memory Block for Individual Speed Dial

42-st-IP SPD-T	st = Station No. (2-4 digits) IP = 01-02
b1 B2	← blocks (2 max.) for a Station

b1: Block 1 of Individual Speed Dial Codes (00-09)
b2: Block 2 of Individual Speed Dial Codes (DSS1-10)

General:

This program divides sets of **Individual Speed Dial** into blocks for use by Stations.

Description:

In program **05-04-06**, divide the 500 (900 for BX320) sets of Speed Dial into System or Individual Speed Dial.

> **!** If in program **05-04-06,** the Individual Speed Dial Codes are assigned:
> **900** sets, The maximum blocks in this program are **90** blocks.(BX320)
> **800** sets, The maximum blocks in this program are **80** blocks.(BX320)
> **700** sets, The maximum blocks in this program are **70** blocks.(BX320)
> **600** sets, The maximum blocks in this program are **60** blocks.(BX320)
> **500** sets**,** the maximum blocks in this program are **50** blocks.(B1-408-BX8-BX320)
> **400** sets, the maximum blocks in this program are **40** blocks.(B1-408-BX8-BX320)
> **300** sets**,** the maximum blocks in this program are **30** blocks.(B1-408-BX8-BX320)
> **!** Each block has 10 sets of Individual Speed Dial.
> **!** Each set has up to 30 digits.
> **!** Each Station can use up to 2 blocks (20 sets of Individual Speed Dial.)

Example:

42-**553**-IP SPD-T	**553**: Station No. (2-4 digits)
01 02	**01 02**: Station 553 can use block **01** and **02** for Individual Speed Dial (20 sets)

42-**105**-IP SPD-T	**105**: Station No. (2-4 digits)
04 00	**04 00**: Station 105 can use block **04** (10 sets) for Individual Speed Dial (00-09), **00** : for no block.

42-**550**-IP SPD-T	**550**: Station No. (2-4 digits)
00 03	**00 03**: Station 550 can use block **03** for Individual Speed Dial (DSS 1-10)

*   Refer to **KeyPhone Operation**, **G.04** for the programming of Individual Speed Dial.
*   Be sure to program these parameters before programming speed dial on key phones.

If problems are encountered with stations not being able to program speed dial numbers, check this parameter to be sure that speed dial locations are available to the station. If the station card was fitted at the time of system initialisation then the blocks will have been allocated automatically.

Program 43-cn-IP : Port Specifications

```
┌─────────────────────────┐
│ 43-cn-IP Port           │   cn = Port No. (2/3 digits)  IP = 01-06
│ st  0  1  2  00  00     │   ← Parameters for the port
└─────────────────────────┘
```

cn c = Extension **C**ard Number (1~3), **n** = Position **N**umber on Card (BX8)
csn c = **C**abinet number(1-3) **s** = **S**lot Number(0-9) **n** = Position **N**umber on Card

Item Pointer	Display Data	Programming Data Description	Default
01	nnnn	Station Number (2 to 4 digits)	System
02	0-9	Equipment Type	System
03	1-8	DSS Key Group Assignment	1=Grp.1
04	0-8	Disallow SLT Connection	0=Yes
05	00-09	DTMF Detector Timeout for Modem Port (B1-408)	00=Normal
06	00-	....	00=

General:

This program permits each port to be assigned different parameters and station numbers.

Description:

01. Station number:

Use this setting to assign station numbers for the Flexible Numbering Plan.

This parameter also assigns the DSS console to the station that is to control it. To assign the DSS control station, first ascertain which port the DSS console is connected to, then enter this Port number and then enter the number of the station which will control it in the first position on the screen. It may be necessary to connect the DSS console to the system and then power down and re power the system to allow proper recognition of the DSS unit.

02. Equipment type:

0 = None connected	1 = KeyPhone (25 key without LCD)
2 = KeyPhone (25 key with LCD)	3 = Dual port (BX320)/Hybrid port no KeyPhone
4 = Single Line Telephone	5 = DSS Console
6 = Reserved	7 = KeyPhone With OHCA
8 = Voice Mail Port	9 = ISDN Extension (BX320)

Types 0 to 5 are recognised by the system automatically.

Type 3 can be assigned to an analogue port on a BX320 and that port can then be given the same Station number as a Key Phone which will enable operation of the 2 phones in the same way as a Hybrid port on a BX8 with dual port capability enabled.

B1-408, BX8 and BX320:

Type 8 can be assigned to an analogue port to enable the system to send DTMF tones identifying a call forwarded calls originating station. A Voice Mail port will receive DTMF tones from call forwarded stations identifying the mailbox to which the call is intended. The mail box number must be the same as the station number for this parameter to work although Mode 05-10 can insert leading digits before the station number is sent to the Voice Mail and is also able to insert pauses before or during the string. There is also an Enhanced Protocol to provide more information to the Voice Mail unit, see Mode 05-10 for descriptions of the protocols available.

03. Key pattern group assignments for DSS (BX320):

This parameter assigns DSS consoles to the pattern group. Currently there is only 1 group available for the BX8 so this parameter is used only for the BX320. From I01s9 software in the BX320 there is a Shift key available to the BX320 DSS console so the soft key plans are allocated in program 41 - st - (02-03).

See Mode 08 to create or modify flexible DSS key patterns.

04. Disallow SLT Connection:

This parameter when enabled will prevent an SLT from being used on a Hybrid port.

      0 = Disabled   1 = Enabled

05. DTMF Detector Timeout for Modem Port - B1-408:

To use a Modem at high speed on a b1-408 it is necessary to program the port to which it is connected to release the DTMF decoder quickly after dialling. The recommended setting is 02.

06. Reserved for future use:

To set an extension name -
        1.   Enter system-programming Mode 43.
        2.   Depress [MIC/AT] to enter the Name mode.
        3.   Input the name for the related extension by the following function keys.

Key Pad	Depress 1 time	Depress 2 times	Depress 3 times	Depress 4 Times
1	Q	Z	Space	1
2	A	B	C	2
3	D	E	F	3
4	G	H	I	4
5	J	K	L	5
6	M	N	O	6
7	P	R	S	7
8	T	U	V	8
9	X	Y	Z	9
0	0	:	&	0
*	-	/	!	*
#	(	)	$	#
DSS23	Cursor Left			
DSS24	Cursor Right			

        4.   Press [SAVE] to store the data.
        5.   The next extension port will appear ready to program names.

Program 44-st-IP : Station Class of Service - 3

```
44-st-IP STCOS        st = Station No. (2-4 digits) IP = 01-08
0 0 0 0 0 0 0 0       ←  System Default
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	System Alarm	0=Enable
02	0-1	Hold feature	0=Enable
03	0-1	Call Split	0=Enable
04	0-1	Manual Line	0=Disable
05	0-1	Headset feature	0=Disable
06	0-1	Use Engineering Password	0=Enable
07	0-1	DTMF Receiver Control For Voice mail Ports	0=Normal Timeout.
08	0-1	Station Alarm Signal Type	0=Music

General:

This program permits each station to be assigned to a different Class of Service.

Description:

01. System Alarm:

If the setting is disable, the station will not receive system alarm clock signals.

      0 = The "System Alarm" signal will be received on this station.
      1 = The "System Alarm" signal will not be received on this station.

02. Hold feature:

If the setting is disable, the station will not be able to place calls on hold.

      0 = Hold function allowed
      1 = Hold function not allowed

03. Call Split:

If the setting is disable, the station will not be able to activate call splitting function. When activated and the station presses hook flash after placing a call on hold the call will not be retrieved. Dialling 9 (or 0) or 72 will retrieve the held call.

      0 = Call Splitting function allowed
      1 = Call Splitting function not allowed

04. Manual Line:

If the setting is Enable, lifting the handset of the station will call the operator directly without dialling any digits.

     0 = Disable   1 = Enable

05. Headset feature:

If this setting is enabled it will be necessary to leave the handset of the key station off hook. The best method is to use the wall-mounting hook in the wall mount position to hold the handset off hook but still sitting in the normal position. The user can then use the **[SPK]** key to go on or off hook. If the station is a headset phone then it is not necessary to leave the handset off hook
The user will overwrite this programming mode if they use **[SPK 775]** to switch between handset and headset mode.

     0 = Disable   1 = Enable

06. Use Engineering Password:

If the setting is disable the station is unable to use the engineering password to enter programming mode.

The engineering password is 117277.

     0 = Enable   1 = Disable

07: DTMF Receiver Control For Voice mail Ports:

This program controls the operation of DTMF detectors for each Voice mail Port. The parameter is set to free DTMF detectors quickly for systems with high Voice Mail traffic.

        0 =   After the Voice Mail dials the extension number, The system releases the DTMF receiver after the timeout of mode 05-02-02.
        1 =   After the Voice Mail dials the extension number, The system releases the DTMF receiver immediately.

08. Station Alarm Signal:

This parameter decides what the station will hear when a station alarm or Morning Call is activated.

     0 = Back Ground Music   1 = Busy tone

Program 45-st-IP : Station Class of Service - 4

```
┌─────────────────────┐
│  45-st-IP STCOS     │   st = Station No. (2-4 digits) IP = 01-08
│  0 0 0 0 0 0 0 0    │   ←  System Default
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Intercom Call Limitation	0=Disable
02	0-1	Dual Port Capability (B1-408 & BX8)	0=Disable
03	0-1	Ringing Volume Up Gradually	0=Disable
04	0-1	Allow Trunk Access	0=Yes
05	0-1	Intercom Calls To Different Station Groups	0=Yes
06	0-1	Receive Break Alarm	0=Yes
07	0-1	Allow Unrestricted Speed Dial	0=Yes
08	0-1	Record Station's SMDR Data (BX8 & BX320)	0=Yes

General:

This program permits each station to be assigned to a different Class of Service.

Description:

01. Intercom Call Limitation:

If this setting is enabled, the station can not make an intercom call by dialling a station number. Under this condition, the Key Phone still can press a Flexible Key to make an intercom call or the Key Station or Analogue phones can call a station using the "Single Digit" feature.

     0 = Disable   1 = Enable

02. Dual port Capability - B1-408 & BX8:

If this function is enabled, a Single Line Telephone can be paralleled with the Key Telephone on a Hybrid Extension Port.

     0 = Disabled (No Parallel connection).   1 = Enabled   (Parallel connection Allowed).

03. Ringing Volume Up Gradually Capability:

Using this function, the key telephone's ringing volume will gradually increase when the Extension is ringing. This is now a user-defined feature and is no longer done from programming.

     0= Disable   1= Enable

04. Allow Trunk Access:

If this function is disabled then the station will be unable to access any trunks for incoming or outgoing calls.

    0 = Enable   1 = Disable

05. Intercom Calls to Different Station Groups:

If this function is disabled then stations will not be able to make intercom calls outside their own station group (Mode 41-st-01). This parameter is for use in tenancy arrangements where each company wish's to remain totally separate although some stations can still be allowed this function, for instance a shared Receptionist.

    0 = Enable   1 = Disable

06. Receive Break Alarm:

If this parameter is disabled then the station will not receive the Break Alarm signal if one has been programmed in Mode 39.

    0 = Enabled   1 = Disable

07. Allow Unrestricted Speed Dial Access:

If this parameter is disabled then the station will not be able to access any of the Speed Dial numbers which have been unrestricted in Mode 05-05-03/04 if they conflict with the stations toll restrictions.

    0 = Enabled   1 = Disable

08. Record Station's SMDR Data for Mini Call Accounting (BX8 & BX320):

If this parameter is disabled then calls to and from this station will not be recorded or output to the SMDR or the Mini Accounting feature. When the Mini Accounting feature is enabled (see Mode 14-01-08) then all stations which are used for administration should have this feature disabled to prevent using memory unnecessarily to record their calls. If calls are allowed to accumulate against stations that are not checked in or out regularly then the system memory buffer will become full and calls will not be recorded.

    0 = Record   1 = Do not Record

Program 46-st-IP : Station Class of Service - 5

```
46-st-IP STCOS        st = Station No. (2-4 digits) IP = 01-08
0 1 0 0 0 7 0 0       ← System Default
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-8	Dial [87] Trunk Group	0=None
02	0-9	Send Message Wait Signal Level	1=Low
03	0-2	Automatic Microphone Switching	0=No
04	0-7	DISA /DID/Indial Recall Capability	0=None
05	0-9	Maximum Number Of Transfer Times Allowed	0=No Limit
06	0-1	Door Lock/DND/CFWD Access	7=Yes (1=early ver)
07	0-2	Handset Software Version	0=1 BX (2/B1)
08	0-	....	0=

General:

This program permits each station to be assigned to a different Class of Service.

Description:

01. Dial [87] Trunk Group:

If this setting is from 1 to 8, after the station dials [87], the system will automatically search for a free line which is assigned in group 1 to 8 in Program Mode 38.

If the setting is 0, then no dial 87 group is available to this station.

02. Message Waiting Level:

The Stations assigned higher levels can leave message for stations with the same or lower levels. Ten levels (0-9) are available (9=highest level, 0=lowest level).

    9 = Can do Message Waiting to Stations assigned level 0-9;
    0 = Can not do Message Waiting (lowest level).

03. Automatic Answer Capability:

This parameter if enabled will automatically switch on the microphone of the station if it receives an intercom call. This setting is independent of whether the system is set to voice or ring signalling for intercom calls.

    0 = No   1 = MIC permanently on.   2 = MIC will switch on for Intercom calls

04. DISA/DID/Indial Recall Capability:

If this parameter is enabled then when a DISA, DID or ISDN Indial call rings the extension but the station is busy or does not answer (depending on setting) after the voice message announcing the status of the station is heard then the system will recall the operator after the assigned DISA transfer time. Using settings 1 to 3 the called station will continue to ring until the console answers the call. Using Settings 5 to 8 the call will ring the station for 1 cycle (Mode 05-08-06) and then camp on to the console only and cease to ring the called station. If the parameter is set to 0 then the call will stay at the station until answered or terminated..

    0 = No Recall to Operator   1 = Recall to Operator/No Answer
    2 = Recall to Operator/Busy   3 = Recall to Operator/No Answer or Busy
    5 = Recall to Operator/no Answer   6 = Recall to Operator/Busy
    7 = Recall to Operator/No Answer or Busy
    4 = An ISDN Indial call to this station will receive Busy signal if the station is busy

05. Maximum Re-Transferred Times:

This feature allows the user or the automatic attendant console to re-transfer the same call for the number of times set in this parameter.

    0 = No Limit   1 = Allow 6 times   2 = Allow 7 times
    3 = Allow 8 times ......   8 = Allow 13 times   9 = Allow 14 times

06. Door Unlock/DND/CFWD Access:

	0	1	2	3	4	5	6	7
Door Unlock	★	✓	★	✓	★	✓	★	✓
DND	★	★	✓	✓	★	★	✓	✓
CFWD	★	★	★	★	✓	✓	✓	✓

This parameter allows or disallows the station from accessing the Door Unlock, Do Not Disturb and Call Forward features as per the table.

07. Handset Software Type:

This parameter sets the different versions of KPU6X and AK software fitted to the handsets. This parameter must be changed manually. The B1-408 will be set to a 2 in default, early BX systems will be set to 0 and later versions to a 2. Later software will also operate the Plug and Play settings.

0 = Ver_1 (old KPU).   1 = Ver_2 (new KPU).   2 = AK old series handset.
6 = AKI with V54(AK1-33) or later7 = AK1 with V29 (AK1-2x) or later
KPU software Ver_2 has the following features:
Quick resume of volume settings (speaker, ring and handset) when initialising.
The Busy Remind Signal is adjusted with the Ring Volume not fixed at level 2.
The AK early software has the following features:
As per VER_2 plus, 8 ring frequency selections can be set.
The later AK SOFTWARE allows the Plug and Play facility to automatically select the handset
Type and allocate the Soft Key plans programmed in Mode 07 and 05-16-(01-03).

Program 47-st : Hot line Assignment

47-st HOT LINE 000

st = Station No. (2-4 digits)
← Data. (Extension Mode)

47-st HOT LINE SPD:000

st= Station No. (2-4 digits)
← Data. (SPEED DIAL Mode)

General:

This feature allows a user to lift the handset and directly call a specific outside party through System Speed Dial or an Intercom Extension without dialling any digits.

      * Pressing **[SPK]** on a KeyPhone allows the Hot line to be over-ridden.

Description:

1. Enter a System Speed Dial Number for an outgoing call or a Station Number for an Intercom call.

Example:

47-**550** HOT LINE SPD:101

550 = Station No. (3 digits)
← Speed Dial 101 (for example: **94150100**)

When the user lifts the handset, the System will automatically call 94150100 through System Speed Dial 101.

2. Press **[MIC]** to select a hot line Intercom. (Press again → back to SPD assignment), the display shows:

47-550 HOT LINE 000

! Enter an Extension number → **151**

47-550 HOT LINE 151

! The system calls Extension number **151**
when the handset is lifted

The Hot Line is the recommended method of connecting a Fax machine to the system. Use a spare analogue port and make the Fax extension a Hot Line to an unused Speed Dial number and allocate the fax line to be used by that Speed Dial. Do not program any number into the Speed Dial. When the fax goes off line it will select the Fax line and then wait for the Fax to dial the number required.

Program 48-st-IP : Register Memory Blocks for Function Keys (BX320)

48-st-IP FUN-T b1	st = Station No. (2-4 digits) IP = 01 ← block (1 max.) for a Station

b1:(00-99) Block for DSS Function Keys (DSS keys 16-24)

General:

This program allocates memory blocks for use by DSS function keys on individual Key Stations.

Description:

Each block provides memory for programming 9 DSS function keys per station. The DSS keys for functions are the 4 leftmost keys of the top row and the second top row of the KPU handset.

Each memory block allows up to 5 keystrokes to be stored by each DSS key.

There are 99 blocks available for assignment.

Program 49-st-IP : Register Credit Limit (BX320)

```
49-st-IP Credit
0  0  0  0  0
```
st = Station No. (2-4 digits) IP =01
 < set credit limit for each Station

General:

This feature is for Hotel/Motel installations and allocates credit limits for individual stations when meter pulse detection is fitted to the system.

Description:

This feature allows each individual station to be set a limit on the cost of calls able to be made. When this limit is reached the phone will be automatically Checked Out (locked) by the system and no further calls can be made from it. The call in progress can continue. The credit limit can be set using Hotel Function Key [9] so this programming mode will not normally be used however it is possible to scroll through the program to see what limits are set for stations and also to clear them if needed.

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Program 50-st-IP : Station Class of Service - 6

50-st-IP STCOS 0 0 0 0 0 0 0 0	st = Station No. (2-4 digits) IP = 01-08 ← System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Disable SPK/HOLD/TRF Key	0=no
02	0-1	Call Forward LED Indicator	0=Yes
03	0-1	ISDN Incoming Call Display Type	0=CLI
04	0-1	CTI Screen Pop - BX8	0=No
05	0-	....	0=
06	0-	....	0=
07	0-	....	0=
08	0-	....	0=

Description:
01. Disable SPK/HOLD/TRF Key:

This parameter when enabled will prevent the operation of the SPK/HOLD/TRF keys. If a KeyPhone is being used for a door phone or courtesy phone or an application where the user should be prevented from accessing system features this feature will be useful.

       0 = Enable   1 = disable

02. Call Forward LED Indicator:

This parameter enables or disables the indication of **A**Call Forward**@** on the large LED indicator of key telephones.

       0 = Show   "Call Forward**@** on big LED of key telephone. 1 = Do Not Display

03. ISDN Incoming Call Display Type (BX320):

This parameter selects what will be displayed on the screen of an LCD phone when an incoming call is received, either the CLI number or the ISDN Indial number. CLI on PSTN lines requires optional equipment to be fitted. This will also select what will be displayed on the SMDR output for incoming calls. From Software version PMS-6 this setting also allows the naming of indials or CLI numbers using System Speed Dial Name / numbers. If Names are enabled and this setting is set to a 1 then when an incoming call with CLI or an Indial number rings the BX320 will search the System Speed dials and if this number is entered then the name associated with it will be displayed on the screen. Because ISDN CLI currently omits the 0 on CLI It will be necessary to enter the Speed Dial exactly as Telstra sends it. The Indial number is entered as the standard 8 didgit number without area code.

       0 = CLI / Name   1 = ISDN Indial Number / Name

04. CTI Screen Pop enable (BX8):

This feature enables or disables the stations interaction with CTI software and Screen Pops on the users PC. Feature still under development at this time.

        0 = Disable   1 = Enable

Program (51 to 56)-code-IP: Toll Plans - Allowed Digits - Class 1 to 6

```
┌─────────────────────┐
│ 51-code-01 Allow    │   code = code no 01-16(20), IP = 01-08(12)
│ - - - - - - - - - - - │    < System default
└─────────────────────┘
```

General:

This program sets allowed exception numbers for Toll Class 1. These Modes should be read in conjunction with Modes 61 to 66.

Description:

There are 16 codes for each Toll Class and each code contains up to 12 digits

In default any station allocated to Toll Plans 1 to 6 will be able to dial unrestricted until the associated Modes are programmed.

Allowed entries in this Mode are 0 to 9, d and _. d = Don't care and means that any digit can be dialled in this position. _ = no digit is allowed to be dialled beyond this position. If a digit is allowed as the beginning of a number then the entry should be filled with don't care's to the end of the line or the caller will not be able to dial the full number.

Modes 51 to 56 are used in conjunction with Modes 61 to 66 and Modes 57 to 59 are used independently.

Toll Classes:

Class	Function	Prog. Mode
0	Unrestricted	Default
1	Use Mode 51 for the Unrestricted numbers. Use Mode 61 for the Restricted numbers	Mode **51,61**
2	Use Mode 52 for the Unrestricted numbers. Use Mode 62 for the Restricted numbers	Mode **52,62**
3	Use Mode 53 for the Unrestricted numbers. Use Mode 63 for the Restricted numbers	Mode 53,63
4	Use Mode 54 for the Unrestricted numbers. Use Mode 64 for the Restricted numbers	**Mode 54,64**
5	Use Mode 55 for the Unrestricted numbers. Use Mode 65 for the Restricted numbers	Mode 55,65
6	Use Mode 56 for the Unrestricted numbers. Use Mode 66 for the Restricted numbers	Mode 56,66
7	Use Mode 57 for the Unrestricted numbers.	Mode **57**
8	Use Mode 58 for the Unrestricted numbers.	Mode 58
9	Use Mode 59 for the Unrestricted numbers.	Mode 59
d	Cannot access the trunk line.	

Note 1: Default numbers in Mode 61, 62, 63, 65, 66 are: dddddddd
Note 2: Default numbers in Mode 51, 52, 53, 55, 56, 57, 58, 59 are:------------
Note 3: d: Don't care ie: any digit is allowed in this position.
Note 4: _: The system does not allow any digits dialled after this symbol.

Program (61 to 66)-code-IP : Toll Plans - Restricted Digits - Class 1 to 6

61-code-01 Restrict
d d d d d d d

code = code no 01-16(20), IP = 01-08(12)
 < System default

General:

This program sets restricted numbers for Toll Class 1. These Modes should be read in conjunction
with Modes 51 to 56.

Description:

There are 16 codes for each Toll Class and each code contains up to 8 digits
In default any station allocated to Toll Plans 1 to 6 will be able to dial unrestricted until the
associated Modes are programmed.

Allowed entries in this Mode are 0 to 9, d and _. d = Don't care and means that any digit can be
dialled in this position. _ = no digit is allowed to be dialled beyond this position. If a digit is allowed
as the beginning of a number then the entry should be filled with don't care's to the end of the line or
the caller will not be able to dial the full number.

Modes 51 to 56 are used in conjunction with Modes 61 to 66 and Modes 57 to 59 are used
independently and do not have an associated restriction table.

In Default stations that are allocated Toll Plans 0 to 6 are able to dial any numbers.
When a station is allocated Toll Plans 7 to 9 they can dial no digits until the plans are programmed.

Mode 51 and 61 combine to produce Toll Plan 1, Mode 52 and 62 combine to produce Toll Plan 2
and so on up to Mode 56 and 66 for Toll Plan 6. Toll Plans 7, 8 and 9 are associated with Mode 57,
58 and 59.

The principle of these Toll Plans up to Plan 6 is to deny unwanted digits in Mode 61 to 66 and then
allow any exceptions for these digits in Mode 51 to 56. If 0ddddddd is entered in Mode 61 and
000_and 013 are entered in Mode 51 then a station allocated to Toll Plan 1 will be able to dial any
local number plus 000 for emergency and 013 for Directory assistance. Any other number beginning
with 0 will be disallowed.

Example 1: Local calls plus mobiles free calls and Directories Prior to 8 digit numbering scheme.

Set Mode 41-111-05/06 = 1

When this mode is set and Mode 51 and 61 are still at default then station 111 will still be unrestricted.

Set Mode 61 to the following,

      Mode 61-01 = 0dddddddddd
      Mode 61-02 = 1dddddddddd

Station 111 will now be only able to dial numbers beginning with digits 2 to 8.
To allow mobiles, free calls and directory assistance program Mode 51 to the following.

      Mode 51-01 = 000ddddddddd
      Mode 51-02 = 0080dddddddd
      Mode 51-03 = 18dddddddddd
      Mode 51-04 = 01dddddddddd
      Mode 51-05 = 041ddddddddd
      Mode 51-06 = 19123------

The _ in entry 51-06 means that no digits can be dialled once 19123 has been dialled.

Example 2: All calls except ISD, 005 and 19 numbers.

Set Mode 41-111-05/06 = 2

When this mode is set and Mode 52 and 62 are still at default then station 111 will still be unrestricted.

Set Mode 62 to the following,

      Mode 62-01 = 00dddddddddd
      Mode 62-02 = 1dddddddddd

Station 111 will now be only able to dial numbers beginning with digits 2 to 8.
To allow mobiles, free calls and directory assistance program Mode 51 to the following.

      Mode 52-01 = 000ddddddddd
      Mode 52-02 = 008ddddddddd
      Mode 52-03 = 18dddddddddd
      Mode 52-04 = 01dddddddddd
      Mode 52-05 = 041ddddddddd
      Mode 52-06 = 19123------
      Mode 52-07 = 13dddddddddd

The _ in entry 51-06 means that no digits can be dialled once 19123 has been dialled.

Example 1: Local calls plus mobiles free calls and Directories for 8 digit numbering for Sydney and Melbourne.

Set Mode 41-111-05/06 = 1

When this mode is set and Mode 51 and 61 are still at default then station 111 will still be unrestricted.

Set Mode 61 to the following,

      Mode 61-01 = 0dddddddddd   Mode 61-02 = 1dddddddddd
      Mode 61-03 = 2dddddddddd   Mode 61-04 = 3dddddddddd
      Mode 61-05 = 4dddddddddd   Mode 61-06 = 5dddddddddd
      Mode 61-07 = 6dddddddddd   Mode 61-02 = 7dddddddddd

Station 111 will now be only able to dial numbers beginning with digits 7 & 8.
To allow mobiles, free calls and directory assistance program Mode 51 to the following.

      Mode 51-01 = 000ddddddddd
      Mode 51-02 = 18ddddddddd
      Mode 51-03 = 01ddddddddd
      Mode 51-04 = 041dddddddd
      Mode 51-05 = 19123------

The _ in entry 51-05 means that no digits can be dialled once 19123 has been dialled.

Example 2: All calls except ISD, 005 and 19 numbers.

Set Mode 41-111-05/06 = 2

When this mode is set and Mode 52 and 62 are still at default then station 111 will still be unrestricted.

Set Mode 62 to the following,

      Mode 62-01 = 00dddddddddd
      Mode 62-02 = 1dddddddddd

Station 111 will now be only able to dial numbers beginning with digits 2 to 8.
To allow mobiles, free calls and directory assistance program Mode 51 to the following.

      Mode 52-01 = 000ddddddddd
      Mode 52-02 = 18ddddddddd
      Mode 52-03 = 01ddddddddd
      Mode 52-04 = 041dddddddd
      Mode 52-05 = 19123------
      Mode 52-06 = 13ddddddddd

The - in entry 51-05 means that no digits can be dialled once 19123 has been dialled.

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Program (57 & 58)-code-IP : Toll Plans - Allowed Digits - Class 7 & 8

```
┌─────────────────────────┐
│                         │
│  57-code-01 Allow       │   code = code no 01-16(20), IP = 01-08(12)
│                         │    < System default
│  - - - - - - - - - - -  │
│                         │
└─────────────────────────┘
```

General:

This program sets allowed numbers for Toll Plans 7 to 9.

Description:

There are 16 codes for each Toll Class and each code contains up to 12 digits. In default any station allocated to this toll plans will not be able to dial any numbers.

Example 1: Local calls plus mobiles free calls and Directories on 8 digit numbering scheme for Sydney.

Set Mode 41-111-05/06 = 7

When this mode is set and Mode 57 is still at default then station 111 will be totally restricted.

Set Mode 57 to the following,

      Mode 57-01 = 8ddddddddddd   Mode 57-02 = 9ddddddddddd
      Mode 57-03 = 041ddddddddd   Mode 57-04 = 01ddddddddddd
      Mode 57-05 = 18ddddddddd   Mode 57-06 = 19123_ _ _ _ _
      Mode 57-07 = 000ddddddddd   Mode 57-08 = 13ddddddddd

The - in entry 51-06 means that no digits can be dialled once 19123 has been dialled.

Example 2: Intercom calls only.

Set Mode 41-111-05/06 = 7

When this mode is set and Mode 57 is still at default then station 111 will be totally restricted.

Set Mode 57 to the following,

      Mode 57-01 = 000ddddddddd

Program 59-code-IP : Toll Plan - Common Permitted Code - Class 9

| 59-code-01 Allow
- - - - - - - - - - - | code = code no 01-16, IP = 01-12
 < System default |

General:

This program sets allowed numbers for **ALL** Toll Plans 0 to 9.

Description:

Up to 16 Common Permitted Codes can be entered and each code contains up to 12 digits. Any station regardless of the Class of service they have been allocated can dial any number entered in the common permitted code. In default the Common Permitted numbers allocated in this table are 000 and 1144d.

Program 67-Gp-IP : Hunt Group Pilot Number

67-gp HUNT NO 000	GP = 01-10 < System default

General:

This program sets Pilot Numbers for Hunting Groups 1 to 10 (30).

Description:

There are 10 Hunt Groups available in the B1-408 & BX8 and 30 in the BX320. Each Hunt Group is assigned a Pilot Number in this Mode. The pilot number can be any valid unused number and will have the same number of digits as the station-numbering scheme used in the system (2, 3 or 4).

Hunt group pilots can be assigned to be rung from Single Digit DISA.

Once Hunting Ring Type is enabled in Mode 05-06-08 (B1-408 & BX8) or Mode 05-08-08 (BX320) then ringing this pilot number will access the stations in the group according to the ringing method selected and the order in which they are programmed in Mode 68 (Day) and Mode 69 (Night). Each Hunt Group can be from 1 to 5 stations in the B1-408 & BX8 and 1 to 16 stations in the BX320.

There are 2 types of Ring available, Linear and Circular. From I01t version in the BX320, Common Audible will also be available.

If Linear Ring is enabled then calling the pilot number will always call the first available station in the order in which they are programmed in Mode 68 or 69.

If Circular Ring is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

If Common Audible Ring is enabled then calling the pilot number will call all ring assigned stations simultaneously.

Stations can remove themselves from receiving Hunt calls by using the DND key but this will also prevent them from receiving direct calls. On the BX320 stations can be given a function key to Log In or Out of the hunt group. This key is programmed in Mode 07-Grp to be function key 64.

It is still possible to call each station in the Hunting group directly by dialling it's own individual station number.
If a station in a Hunt Group has set call forward to a station or another Hunt Group (for instance Voice Mail Group) then only direct calls to the station will be forwarded. If Hunt calls come to the station and it is call forwarded it will still ring for the call.

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Program 68-Gp-IP : Hunt Group Assignment - Day

```
┌─────────────────────────┐
│ 68-GP-IP HUNT DA        │   GP = 01-10, Ip = 01-05
│ 000                     │   < System default
└─────────────────────────┘
```

General:

This program sets Stations into Hunting Groups 1 to 10 for the B1-408 & BX8 and 1 to 30 for the BX320 and assigns the order in which they will be accessed during Daytime.

Description:

There are 10 (30) Hunt Groups available and 5 (16) stations can be assigned into each group for Day and 5 (16) for Nighttime.

There are 2 types of Ring available, Linear and Circular.
If Linear Ring is enabled then calling the pilot number will always call the first available station in the order in which they are programmed in Mode 68 or 69.
If Circular Ring is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

It is still possible to call each station in the Hunting group directly by dialling it's own individual station number.

Program 69-Gp-IP : Hunt Group Assignment - Night

```
69-GP-IP HUNT NI
000
```

GP = 01-10, Ip = 01-05
< System default

General:

This program sets Stations into Hunting Groups 1 to 10 for the B1-408 & BX8 and 1 to 30 for the BX320 and assigns the order in which they will be accessed during Nighttime.

Description:

There are 10 (30) Hunt Groups available and 5 (16) stations can be assigned into each group for Day and 5 (16) for Nighttime.

There are 2 types of Ring available, Linear and Circular.
If Linear Ring is enabled then calling the pilot number will always call the first available station in the order in which they are programmed in Mode 68 or 69.
If Circular Ring is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

It is still possible to call each station in the Hunting group directly by dialling it's own individual station number.

PAGES 131 - 132 LEFT BLANK FOR FUTURE USE

Program 70-Cd-IP ISDN Interface Specifications (BX320)

70-Cd-IP S/T TYP
1 1 1 1 1 1 1 1

Cd= 01-04, IP= Item Pointer (01-08)

General:

To assign the ISDN interface to be either an AS@ interface or a AT@ interface. And to set the Interface to be either point to point or point to multi point.

Description:

Cd=01~02 is to assign the AS@ or AT@ interface for the ISDN port on the B3-SIU card.

    0= AS@ interface. The AS@ interface can connect two ISDN devices.
    1= AT@ interface. To connect to the ANT1@ interface of the ISDN line.

The @T@ interface setting is for a standard ISDN line connection where the output of the NT1 is connected directly to one of the inputs of the SIU.

The AS@ interface setting allows the SIU port to be used as an output to drive 2 ISDN devices as extensions of the BX320. Each can be given it's own extension number in program 43. The station type for ISDN extensions is 9. The ISDN devices can be Modems or ISDN phones or any other compatible device. If the ISDN Modem is a 128Kb unit then the other extension cannot be used at the same time as the Modem.

    Cd = 03~04 are for test purposes only.
    0= Loopback disabled   1= Loopback enabled

    Cd=05~06
    0=Point to point   1=Point to Multi point

The recommended setting for Australia is Point to Multi Point and this will require Telstra to set the line to Point to Multi Point at the exchange. The application form for ISDN allows the user to specify whether they require Point to Point or Point to Multi Point for their service.

The following table is the Cross Reference Table for the physical position of the ISDN interface and its programming position.

Cd						
		S/T Interface	S/T Interface	Loopback	Loopback	P-P / P-MP	P-P / P-MP
		Cd=01	Cd=02	Cd=03	Cd=04	Cd=05	Cd=06
	IP=01	1st interface	9th interface	1st interface	9th interface	1st interface	9th interface
	IP=02	2nd interface	10th interface	2nd interface	10th interface	2nd interface	10th interface
	IP=03	3rd interface	11th interface	3rd interface	11th interface	3rd interface	11th interface
	IP=04	4th interface	12th interface	4th interface	12th interface	4th interface	12th interface
	IP=05	5th interface	13th interface	5th interface	13th interface	5th interface	13th interface
	IP=06	6th interface	14th interface	6th interface	14th interface	6th interface	14th interface
	IP=07	7th interface	15th interface	7th interface	15th interface	7th interface	15th interface
	IP=08	8th interface	16th interface	8th interface	16th interface	8th interface	16th interface

EXAMPLE 1

```
70-02-IP S/T TYP
1 1 0 0 1 1 0 1
```

This sets the 9th, 10th, 13th, 14th, 16th ISDN interfaces to be ‶T″ interfaces and the 11th, 12th and 15th interfaces to be ‶S″ interfaces.

If this SIU card is installed in the 1st slot of the second cabinet and it is set to be an ‶S″ interface then the user can program the station numbers in Mode 43 to ports 205~206, 207~208, 215~216.

EXAMPLE 2

```
70-05-IP S/T TYP
1 1 1 0 0 0 0 0
```

This sets the 1st, 2nd and 3rd ISDN interfaces to be Point to Multi Point interfaces and the remaining interfaces to be point to point.

Program 71-tk ISDN Line Number Assignment (BX320)

```
71-ch SIU NUMBER
d d d d d d d d d d d
```
ch= 01-32 (ISDN B Channels)

General:

To assign the ISDN line number for an ISDN line.

Description:

This program can assign an identifying number to each B channel of an ISDN line.
For standard operation this program is not needed in Australia as the exchange sends the identifying line number for CLI. The user can program a number in this mode but currently the exchange will ignore it and send the pilot number. If the user wants to send the extension number of the station which makes an ISDN call this is programmed in Mode 73.

Each ISDN interface has 2 B-channels.

A Maximum 12 digits can be assigned.

Example:

```
71-04-SIU   NUMBER
2 9 4 1 5 0 1 0 0 d d d
```
Cd= 01-04, IP= Item Pointer (01-08)

Assign an identifying number 0294150100 to the 2nd B-channel of the 2nd ISDN S/T interface.
The exchange does not require the leading 0 of the area code to be sent.

Program 72-St ISDN Indial Extension Number Assignment (BX320)

```
72-St  ST NUM
dddddddddddd
```

St= Extension Number

General:

This mode is used to assign Indial numbers to ring Extension numbers.

Description:

When the incoming caller dials individual numbers from the customers assigned number range then this program will assign which extension will be rung by each number.

Each extension can have its own Indial Number .
If an Indial number is not assigned to any station in mode 72 then it will ring the assigned stations for the incoming trunk (Mode 01 or 02).
If there are two extensions that have the same Indial Number, only the first extension assigned will be rung.

A maximum of 12 digits can be assigned.

Example:

```
72 - 12  ST  NUM
9 4 1 5 0 1 1 2 d d d
```

Assign an identifying number 94150112 to extension 112 for ISDN incoming calls.

Program 73-St ISDN Extension Sub-Address (MSN) Assignment (BX320)

```
73-St ST SubAdd
d d d d
```

St= Extension Number

General:

To assign the ISDN Sub-Address numbers to the internal extensions.

Description:

If the ISDN incoming call has the information of the Sub-Address number, the system will ring this desired extension directly.

Each extension can have its own Sub-Address Number.

If there are two extensions that have the same Sub-Address Number, only the first extension assigned will be rung.

A maximum of 4 digits can be assigned.

If this mode is programmed to give an extension number it's own identifying number this will then be transmitted with the CLI information and be displayed on the receiving parties screen if they have CLI available (only if the receiving party is using a system with full ETSI Specification).

Example:

```
73-112 ST Sub Add
       112
```

Assign an identifying Number 112 to extension 112 for sending of CLI information

PAGES 138 - 140 ARE LEFT BLANK FOR FUTURE REQUIREMENTS

Program 75-Num LCR Digit Analysis Tables (BX320)

```
┌─────────────────────┐
│ 75-Num-01  Dg  Tab  │  Num = 001-500
│ - - - - - - - - - - 0 0 │  01-10 = nominated digits 11-12 = Route table
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01-10	0-9,*,#,_ -, d.	Analysed Digits Entry	d=none
11-12	01-20	Routing Table to Use	00=None

General:

This parameter analyses digits dialled and passes matching digits to a route number for further processing.

Description:

This parameter checks for the presence of nominated digits in the telephone number dialled and if present allocates the number dialled to a route table. Up to 500 entries can be programmed and each can be up to 10 digits long. Don't care is a valid entry in this parameter. Items 01 to 10 are the digits to be analysed and items 11 and 12 are the route number that the call will be controlled by if the digits are present in the number dialled. Once a route is selected for the digits dialled then the call is transferred to mode 76-route number to determine the next action to be taken with the call which can be time related, trunk group related and modify table related.

LCR is enabled in Mode 05-13-02 and once enabled when the user Dials 9 to select a line , no line will be selected and the LCD display will show LCR Pre-Dial .. until the user dials enough digits to allow the LCR function to decide how to handle the call. Once enough digits are dialed a line will be selected, any inserted or deleted digits will be processed and all digits will be sent to the exchange in the nominated order.

The following is a simple example of LCR as used in the ATA office in Sydney. We are using One-Tel as the carrier in this example and their access code is 1478. Co lines 01 to 06 are ISDN and Lines 09 to 12 are PSTN.

Digit Analysis Table	Number Dialled	Route No.	Digit Analysis Table	Number Dialled	Route No.
75-01	001ddddddd	01	75-07	08ddddddd	01
75-02	02ddddddd	01	75-08	09ddddddd	01
75-03	03ddddddd	01	75-09	8dddddddd	02
75-04	05ddddddd	01	75-10	9dddddddd	02
75-05	06ddddddd	01	75-11	04ddddddd	03
75-06	07ddddddd	01	75-12	01ddddddd	03
			75-13	4dddddddd	04

Mode 76 - Route table

Route	Start Time	End Time	Ist Tk Grp	Ist Mod Table	2nd Tk Grp	2nd Mod Table	3rd Tk Grp	3rd Mod table	4th TK Grp	4Th Mod Grp
01-A	00	23	1	01						
01-B										
01-C	------	--------								
02-A	00	23	2	00						
02-B										
02-C	-------	--------								
03-A	00	23	1	00						
03-B										
03-C	-------	-------								
04-A										
04-B										
04-C	------	-------								

Modify Table No.	Delete Digit Length	Added Digits
01	00	1478
02	00	
03	00	
04	00	
05		
06		
07		

Program 76: Route -Time Trunk Group Tables

```
┌─────────────────────────────┐
│ 76-01 -A  Route Table       │   Route = A
│ B B  B B  B  B B  B  B B    │
└─────────────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01-02	00-23	Time Range of Route xxA	**B B**
03	1-8	First Priority Trunk Group For Route xxA	**B**
04-05	00-20	First Modify Table For Route xxA	**B B**
06	0-8	Second Priority Trunk Group For Route xxA	**B**
07-08	00-20	Second Modify Table For Route xxA	**B B**
09	1-8	Third Priority Trunk Group For Route xxA	**B**
10-11	00-20	Third Modify Table for Route xxA	**B B**
12-13	1-8	Fourth Priority Trunk Group For Route xxA --	
14-15	00-20	Fourth Modify Table For Route xxA	**B** --

```
┌─────────────────────────────┐
│ 76-01 -B  Route Table       │   Route = B
│ B B  B B  B  B B  B  B B    │
└─────────────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01-02	00-23	Time Range of Route xxB	**B B**
03	1-8	First Priority Trunk Group For Route xxB	**B**
04-05	00-20	First Modify Table For Route xxB	**B B**
06	0-8	Second Priority Trunk Group For Route xxB	**B**
07-08	00-20	Second Modify Table For Route xxB	**B B**
09	1-8	Third Priority Trunk Group For Route xxB	**B**
10-11	00-20	Third Modify Table for Route xxB	**B B**
12-13	1-8	Fourth Priority Trunk Group For Route xxB --	
14-15	00-20	Fourth Modify Table For Route xxB	**B** --

```
┌─────────────────────────┐
│ 76-01 -C  Route Table   │   Route = C
│ B B  B B  B  B B  B  B B │
└─────────────────────────┘
```

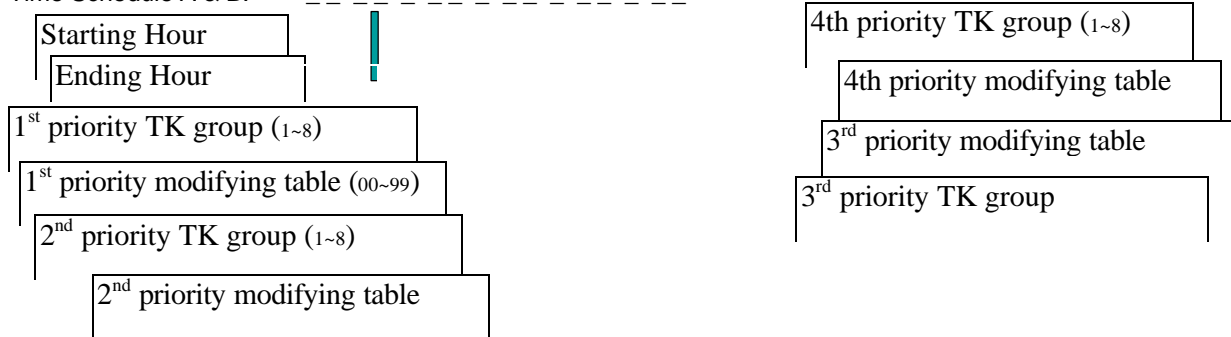| Item Pointer	Display Data	Programming Data Description	Default
01	1-8	First Priority Trunk Group For Route xxC **B**	
02-03	00-20	First Modify Table For Route xxC	**B B**
04	1-8	Second Priority Trunk Group For Route xxA	**B**
05-06	00-20	Second Modify Table For Route xxA	**B B**
07	1-8	Third Priority Trunk Group For Route xxA	**B**
08-09	00-20	Third Modify Table for Route xxA	**B B**
10-11	1-8	Fourth Priority Trunk Group For Route xxA	--
12-13	00-20	Fourth Modify Table For Route xxA	**B** --

Description:

Calls will be routed to Mode 76 after being first analysed by Mode 75 to see if they contain digits that need to be modified before being dialled. Modification can consist of selecting an appropriate trunk group, time of day and deleting a nominated number of digits from the leading edge of the number and also inserting a nominated number of digits in front of the number with or without first deleting any digits from the number. Mode 76 selects the Time of day, trunk group - up to 4 different trunk groups in priority and the Modify tables - 01 to 20. The modify tables are created in Mode 77.

If a route is to operate 24 hours a day then enter 00 23 as the first entry and that will enable all day operation. If a Route is set to operate for x hours per day in part A and x number of hours in Part B then any hours not covered by A and B will be covered by part C which has no hours setting specified.

Each Route no has 4 alternative Trunk groups /modify tables in Part A, part B and Part C. When a number is dialled by the user and it is programmed in mode 75 to be routed to Mode 76 it will first of all check the time then it will according to the route select the Trunk group and modify table in ascending order until all are used up. Mode 78 can allow the station at this time to go on to other uncontrolled trunks assuming that any is available.

Time Schedule A & B:

Starting Hour
Ending Hour
1st priority TK group (1~8)
1st priority modifying table (00~99)
2nd priority TK group (1~8)
2nd priority modifying table

4th priority TK group (1~8)
4th priority modifying table
3rd priority modifying table
3rd priority TK group

Program 77: LCR Modify Tables

```
┌─────────────────────┐
│ 77- 01-01 Mo Tab    │   Table  = 01-99
│ 0 0  d d d d d d d   │   01-02 = delete digit number 03-19 = Insert Digits
└─────────────────────┘
```

Item Pointer	Display Data	Programming Data Description	Default
01-02	00-10	Deleted Digit Length	00= None
03-12	0-9,*,#,d,-	Inserted Digits	dddddddddd

Description:

This table will delete the number of digits specified in 01-02 from the leading edge of the number dialled and will also insert digits specified in items 03-10 in front of the number dialled before sending the complete digits to the Exchange for processing. It is not necessary to delete any digits before inserting the new digits in fact the delete digit feature will not be widely used at the the present stage only the insert digits. Insert digits will normally be the 4 digit code for an alternative carrier (ie: 1478 etc) for long distance or ISD. The default setting is all Don≠t cares and the Don≠t cares should be left in place where any digits are not entered. If no digits are to be deleted then the default setting of 00 should be left untouched.

Program 78-st-IP : Station Class of Service - 7 (BX320)

```
78-st-IP STCOS
0 0 0 0 0 0 0 0
```
st = Station No. (2-4 digits) IP = 01-08
← System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-5	LCR - Route Level Limit	0=No LCR
02	0-1	LCR - Direct Access to Trunk	0=Not Allowed
03	0-		0=
04	0-		0=
05	0-		0=
06	0-		0=
07	0-		0=
08	0-		0=

01. LCR Route Level Limit:

0 = Disable LCR.
1 = Allow this station to use the 1st priority trunk group only.
2 = Allow this station to use the 1st and the 2nd priority trunk groups only.
3 = Allow this station to use the 1st~3rd priority trunk groups only.
4 = Allow this station to use the 1st~4th priority trunk groups.
5 = Allow this station to use the 1st~4th priority trunk groups. If there is no available trunks in the 1st~4th priority trunk groups, the system will allow this station to dial normally.

Related system Programming: 75, 76, 77, 78-st-01, 78-st-02

02. LCR B Direct Access to Trunk

This parameter allows a station to select a trunk manually under the LCR environment.

0 = Do not allow to access a trunk direct (need to dial 9 (or 0) first).
1 = Allow this station to access a trunk direct (by pressing line key button).

Program 83-st-IP : Register Memory Blocks for CLI Record Storage (BX320)

| CID Table Assign | st = Station No. (2-4 digits) IP = 01 |
| ST: _ _ _ | ← block (1 max.) for a Station |

b1:(00-40) Memory Block for CLI Name / Number Storage

General:

This program allocates memory blocks for use by the CLI function to store names and numbers of calls that ring at the Station. The station must be a LCD phone to utilise this function.

Description:

Each block provides memory for storing 10 memories combining name and number per station or 18 displaying the number of the calling party only per station.

There are 40 blocks available for assignment.

Program 84-st-IP : Home Area Code For Caller ID and Smart Redial

```
84-01  Home Area
ddd
```

General:

This program allows the entry of the users home area code to correct anomalies in Caller Id information sent by the Central Office.

Description:

Different Telephone companies have different methods of presenting the Caller ID and in particular the area code to the Hybrex. Some Companies even send the PSTN and ISDN area codes differently to each other. To allow the phone number to be presented to the LCD display correctly and to be able to call the number back just by using the Redial key it is necessary to enter the users area code.
If the area code entered is 02d and an incoming call is received by the Hybrex with the number 0294150100 is presented then the Hybrex will remove the 02 and present the number 94150100 to the LCD phone. If the Line is ISDN the caller ID number will be presented as 294150100 in some countries (Australia for example). The Hybrex will remove the 2 and present the number as 94150100 again. If the Caller Id number is presented as 394150100 the Hybrex will insert the missing 0 and present the number as 03 94150100 to the LCD display and Smart redial will be able to recall the number directly.

BX SERIES PROGRAMMING - APPENDIX A
TOLL RESTRICTION PROGRAMMING (BX8 UP TO VERSION "I")

Mode 05-03-   05   Toll Access Code   0=0
                 08   Allowed Digit Length in Toll Class 4   7=7

05. Toll Access Code:

This parameter assigns the long distance call access code. This is necessary to enable the correct operation of Area code and Office code toll tables. This parameter also enables the SMDR settings in Mode 14 to decide which are local calls and which are long distance calls.

08. Allowed Digit Length in Toll Class 4:

This parameter assigns the allowed digit length in Toll Class 4. If this parameter is set to 0 then there is no digit length restriction and Toll Class 4 will behave as another unrestricted Toll Class.

 Refer to Mode 18-04-tk.

Program 15-nn : Common Permitted Code (Up to I software only)

| 15-nn Permitted |
| _____ |

nn = Permitted Code (01-20)
← Telephone number (Max.11 digits)

General:
This program sets codes that allow stations to dial some commonly used numbers, eg , information, emergency numbers, etc. which are otherwise restricted. Any code which is entered in this table will also be able to be dialled by locked stations.

Description:

Twenty Permitted Codes are allowed.

Code 03 is set to 000 and code 04 is set to 1144d for Australian compliance.

Each code can be 11 digits maximum.

To clear one digit only press **[FL]**.

Clear all digits by pressing **[REDIAL]**.

The "Don't Care" code **[DND]** code must be carefully assigned. If the first digit of any Common Permitted Code is set to "Don't Care" then there are no Toll Restriction on any stations.

Program 16-nn : Common Restricted Code (Up to I software only)

| 16-nn Restricted |
| _____ |

nn = Restricted Code (01-20)
← Telephone number (Max.11 digits)

General:
This program sets some special charge telephone numbers that only Toll plan 0 stations can dial. Any numbers entered in this Mode will be restricted to all other Toll plans.

Description:

Twenty Restriction Codes are allowed.

Each code can be 11 digits.

To clear one digit only press **[FL]**.

Clear all digits by pressing **[REDIAL]**.

Program 18-nn-tk : Assign Toll Plans To Trunk Lines (Up to I software only)

```
18-nn-tk Toll
0 0 0 0 0 0 0 0
```

nn = Toll plan number (00-09), tk = 01-08(01-40)
← Toll class for each trunk (class 0-8)

General:

This Mode assigns Toll Plans to trunk lines. The Toll plans will have to be written in Modes (15-16-21-22-23-24 & 05-03-08).

Description:

9 toll plans can be used.

Each Toll Plan assigns each trunk line a Toll Class. It is possible to allow a toll class to have different restriction level on a line by line basis.

Example 1: Mode 18-00 is set to 00008888. Any station in the system which is set to toll class 0 will be unrestricted on lines 1 to 4 but will be unable to dial out on lines 5 to 8.

Example 2: Mode 18-01 is set to 11110088. Any station in the system which is set to toll class 1 will be restricted by toll class 1 on lines 1 to 4, will be unrestricted on lines 5 and 6 but will be unable to dial out on lines 7 and 8.

It is not recommended that digit length restriction is used as with the growing popularity of Voice Mail many stations would be prevented from accessing Voice Mail systems.

To assign toll plans to stations, see Program **41-st-05, 41-st-06**.

Toll Classes:

Class	Function	Related Mode
0	Unrestricted	
1	Can dial numbers with: Allowed Area Code A, Office Code A	Mode **21,23**
2	Can dial numbers with: Allowed Area Code B, Office Code B	Mode **22,24**
3	Allowed to dial any number except: Common Restricted Code	Mode **16**
4	Dialled local numbers ≤ assigned length	**05-03-08**
5	Can dial numbers with: Allowed Area Code A+B, Office Code A+B	Mode **21-24**
6	WATS line only	
7	Can only dial Common Permitted Code	Mode **15**
8	Can not access the trunk line	
9	Reserved	

Program 21-nn : Allowed Area Code - A (Up to I Software Only)

```
 ┌─────────────────────┐
 │                     │   nn = Area Code pointer (01-16)
 │  21-nn Area-A       │   ← Area code
 │  ___                │
 └─────────────────────┘
```

```
  Item   Display
Pointer Data   Programming Data Description
-----------    -----------    ----------------------------------------------
01,02,03       Digits  permitted Area Codes
```

Description:
Each code is 3 digits maximum.

Do not enter the 0. ie: if the desired code is 018 enter 18 "Don't care". If "Don't care" is not entered
only 018 will be allowed.

Mode 05-03-05 must be set to 0 to allow this mode to work.

"Don't Care" code **[DND]** must be carefully assigned. If the first digit of any Allowed Area Code is set to
"Don't Care" then every Area Code is allowed.

Digit "_" is keyed in by **[FL]** button and means "No digit".
Clear all digits by pressing **[REDIAL]**.

Program 22-nn : Allowed Area Code - B (Up to I Software Only)

```
 ┌─────────────────────┐
 │                     │   nn = Area Code pointer (01-16)
 │  22-nn Area-B       │   ← Area code
 │  ___                │
 └─────────────────────┘
```

```
Item            Display
Pointer Data   Programming Data Description
-----------    -----------    -------------------------------------
01,02,03       Digits  Permitted Area Codes
```

Description:
Each code is 3 digits maximum.

Do not enter the 0. ie: if the desired code is 018 enter 18 "Don't care". If "Don't care" is not entered
only 018 will be allowed.

Mode 05-03-05 must be set to 0 to allow this mode to work.

"Don't Care" code **[DND]** must be carefully assigned. If the first digit of any Allowed Area Code is set to
"Don't Care" then every Area Code is allowed.

Digit "_" is keyed in by **[FL]** button and means "No digit".
Clear all digits by pressing **[REDIAL]**.

Program 23-nn : Allowed Office Code - A (Up to I Software Only)

23-nn Office-A ___	nn = Area Code pointer (01-16) ← Area code

```
 Item   Display
Pointer Data   Programming Data Description
-----------    -----------    -------------------------------------
01,02,03       Digits  Permitted Office Codes
```

General:
This program assigns up to 16 Office Codes. An office code is basically a local call.

Description:
Each code is 3 digits maximum. If all 3 digits are not entered, "Don't care" must be added to the code for all spare positions.

"Don't Care" code **[DND]** must be carefully assigned. If the first digit of any Allowed Office Code is set to "Don't Care" then every Office Code is allowed.

Digit "_" is keyed in by **[FL]** button and means "No digit".
You can clear all digits by pressing **[REDIAL]**.

Program 24-nn : Allowed Office Code - B (Up to I Software Only)

24-nn Office-B ___	nn = Area Code pointer (01-16) ← Area code

```
 Item   Display
Pointer Data   Programming Data Description
-----------    -----------    -------------------------------------
01,02,03       Digits  Permitted Office Codes
```

General:
This program assigns up to 16 Office Codes. An office code is basically a local call.

Description:
Each code is 3 digits maximum. If all 3 digits are not entered, "Don't care" must be added to the code for all spare positions.
"Don't Care" code **[DND]** must be carefully assigned. If the first digit of any Allowed Office Code is set to "Don't Care" then every Office Code is allowed.

Digit "_" is keyed in by **[FL]** button and means "No digit".
You can clear all digits by pressing **[REDIAL]**.

Appendix B - Name Function Programming

To set an extension name -

    1. Enter system programming Mode 43.
    2. Enter the port number of the Station to name
    3. Depress [AT/MIC] to enter the Name mode.
    4. Input the name for the related extension by the following function keys.
    5. Press [SAVE] to store the data.
    6. The next extension port will appear ready to program names.

To set a Trunk name -

    1. Enter system programming Mode 35.
    2. Enter the Trunk number
    3. Depress [AT/MIC] to enter the Name mode.
    4. Input the name for the related extension by the following function keys.
    5. Press [SAVE] to store the data.
    6. The next trunk will appear ready to program names.

To set a System Speed Dial name

    1. Enter system programming Mode 09 or System Speed Dial From the Console
    2. Enter the Speed Dial number
    3. Enter the telephone number
    3. Depress [AT/MIC] twice to enter the Name mode
    4. Input the name for the Speed Dial by the following function keys
    5. Press [SAVE] to store the data.
    6. The next Speed dial will appear ready to program

Key Pad	Depress 1 time	Depress 2 times	Depress 3 times	Depress 4 Times
1	Q	Z	Space	1
2	A	B	C	2
3	D	E	F	3
4	G	H	I	4
5	J	K	L	5
6	M	N	O	6
7	P	R	S	7
8	T	U	V	8
9	X	Y	Z	9
0	0	:	&	0
*	-	/	!	*
#	(	)	$	#
DSS23	Cursor Left			
DSS24	Cursor Right			

Appendix C - Programming Cross reference

Ringing Assignment

# 01-tk-IP	Ringing Assignment - Day Time
# 02-tk-IP	Ringing Assignment - Night Time
# 20-nn	Define Day-Time Schedule for Automatic Night switch
# 05-08-01	Hunt Time Assignment
# 35-tk-07	Inward Line (Day) Ringing Type
# 35-tk-08	Inward Line (Night)

DISA

# 35-tk-04	DISA Trunk Day/Night Assignment
# 05-01-04	DISA Access Delay Time

 # DISA Transfer

04-(01-08)	Console Assignment
05-06-03	VSU Grouping (BX320)
05-06-04	Polarity Reverse Detection
05-08-04	DISA Transfer Group (Extension or Trunk Group)
05-07-04	DISA Recall Capability-No Dialling
05-08-06	VPC Remind Time for DISA Transferring (No Answer or Busy)
05-08-07	Dialling Wait Time after DISA Service Message
05-09-04	DISA Busy Tone Detection (BX320-B1-408)
05-11-04	DISA Passwords
05-11-03	MOH or RBT
05-11-04	DISA Answering Method-VSU Busy
05-11-05	DISA Call Function Access
05-11-06	DISA Re-Check Times to Busy Station/Console
05-11-08	DISA Single Digit Function
10-(01-08)	Single Digit DISA And Intercom Assignment
46-st-03	DISA Recall Capability (No Answer/Busy)

# 20-nn	Define Day-Time Schedule for Automatic Night switching

 # Voice Service (Optional)

19-IP	Voice Service Assignment

Night Transfer

# 09-nnn-IP	System Speed Dial (101-109)
# 35-tk-03	External Call Forward, Speed Dial Assignment
# 35-tk-04	DISA/ECF, Day/Night Assignment
# 20-nn	Define Day-Time Schedule for Automatic Night switch

Trunk Pick up

# 35-tk-05	Pick up (Trunk Specifications)

Trunk Specifications

# 05-01-05	Busy Remind Cycle Time
# 05-02-07	Ring On Time
# 05-02-08	Ring Off Time

Intercom Call Signalling

# 05-03-03	(Voice/Ring)
# 46-st-03	Automatic Microphone Switching
# 05-07-01	Intercom Hunting Capability
# 41-st-01	Station Group Assignment

Hunt Groups

# 67-(01-10(30))	Assign Hunt Group Pilot Number
# 68-(01-10(30))	Assign Stations To Hunting Group-Day
# 69-(01-10(30))	Assign Stations To Hunting Group-Night
# 05-06-08 (BX8)	Set Hunting Group Ring Method
# 05-08-08 (BX320)	Set Hunting Group Ring Method

Dial Tone Pattern

05-03-07

Single Digit Dialling

# 05-04-07	Intercom Single Digit Capability
# 10-gp-IP	Intercom Single Digit Assignment
# 41-st-01	Group Assignment (Station Specifications)

Direct Station Select

# 07-gp-IP	Flexible Key Group Assignment
# 41-st-02	KeyPhone Flexible Key Group
# 41-st-03	KeyPhone Flexible Shift Key Group

Operator Calls

# 04-(01-08)	Console Groups
# 05-06-05	Operator Code
# 44-st-04	Manual Line
# 05-09-02	Intercom Calls Camp on To busy Console

Intercom Dialling Restriction

# 45-st-01	Intercom Call Limitation
# 45-st-05	Intercom Calls To Different Station groups

Dial 9/87 Settings

# 05-04-02	Activate **Dial 9 Flag** Capability
# 36-gp-tk	Dial 9 Trunk Group Assignment
# 41-st-04	Dial 9 Group (Station Specifications)
# 38-gp-tk	Dial 87Trunk Group Assignment

Outgoing Code

# 05-03-04	Dial 0/9 for outgoing Access

Trunk Specifications

# 35-tk-01	Trunk Type
# 35-tk-02	Dialing Signal
# 05-01-06	Pause Time Duration
# 05-01-07	DTMF Generation Time
# 05-02-05	KeyPhone Flash Time
# 05-02-07	Ring On Time
# 05-02-08	Ring Off Time
# 05-03-01	Make/Break Ratio

Speed Dial

# 05-04-06	Speed Dial Distribution
# 05-01-06	Pause Duration for Speed Dial
# 42-st-01/02	Register Memory Blocks for Individual Speed Dial
# 09-nnn-DP	System Speed Dial
# 05-03-02	Automatic Trunk Search
# 05-05-03/04	Speed Dial Unrestricted

Auto-Redial

# 05-03-02	Automatic Trunk Search
# 05-02-03	Auto-Redial Waiting Time
# 05-05-07	Auto-Redial Times
# 05-05-08	Auto-Redial Pause Time

Hold & Hold Recall

# 05-01-01	Hold Recall Time
# 05-01-02	Exclusive Hold Recall Time
# 05-01-03	Hold Recall Timeout
# 05-06-01	Transfer Busy Recall Time
# 05-06-02	Transfer No Answer Recall Time
# 44-st-02	Hold Capability
# 05-07-04	DISA Recall Capability

Busy Remind signal (Off Hook Signalling)

# 05-01-05	Busy Remind Cycle Time

Message Waiting Level

# 46-st-02	Set message wait Level

Override

# 40-st-01	Set Over ride Level

Console Assignment

# 04-gp-IP	Assign Consoles for each group

Flexible Key Group Assignment

# 07-gp-IP	Flexible Key Group Assignment
# 41-st-02	Assign Key group to a station
# 41-st-03	Assign Shift Key group to a station

Trunk Group

# 36-gp-tk	Trunk Group Assignment
# 41-st-04	Assign Dial 9 Trunk Group to a Station

Group Assignment (Station Specifications)

# 41-st-01	Zone Paging/Pick Up/Station/Single Digit Groups
# 45-st-05	Disable calls to other station groups
# 21-st-(01-)	Enable intercom calls to other groups on a group by group basis

Toll Restriction

# 18-gp-tk	Toll Plan Programming for Trunks
# 41-st-05/06	Toll Plan Assignment for Stations (Day/Night)
# Code Assignment	
# 05-03-05	Toll Access Code
# 51-59-ip	Allow Tables
# 61-66-ip	Restrict Tables
# 05-05-03/04	Speed Dial Unrestricted

Forced Account Code

# 17-nn	Setting Forced Account Codes
# 40-st-08	Station Allocation of Forced Account Codes

Call Limit

# 40-st-03	Station Call Limit Duration
# 05-04-03	Call Limit Type

Passwords

# 13-01	Password for System Programming
# 13-02	Password for DISA
# 05-11-02	Number of DISA Passwords
# 13-03	Password for Toll Free

Station Lock

# 40-st-07	Lock / Unlock by Security Code

Busy Out Trunk

# 37-tk	

Time Setting

# 05-04-04	12/24 Hours Clock
# 11-IP	Date and Time Setting
# 20-nn	Define Day-Time Schedule

System Alarm

# 12-nn	System Alarm Clock
# 44-st-01	System Alarm Capability
# 44-st-08	System/User Alarm Signalling

Morning Call

# 05-05-01	Morning Call Signalling
# 19-IP	Voice Service Assignment

Flexible Station Numbering

# 41-st-07	Show the Port Number (cn)(csn)
# 05-03-06	Assign Station Number Digit Length
# 43-cn-01	Enter a Station Number for the port

SLT Parameters

# 05-02-01	SLT Dial Tone Timeout
# 05-02-02	SLT Interdigit Timeout
# 05-02-04	SLT Release Time
# 05-02-06	SLT Hold Signal
# 05-04-05	SLT Flash Delay Time (BX320)
# 05-04-08	SLT Message Waiting Type
# 05-06-07	Affirmative SLT Hookswitch (Hold) Capability
# 05-07-02	SLT Calling Proof Capability
# 05-08-03	SLT Busy Remind Tone Flag
# 05-08-05	SLT Programming Digit
# 43-st-04	Analogue Extension allowed on Hybrid port
# 44-st-02	Hold Feature Enable
# 44-st-03	Call Split Feature Enable
# 45-st-02	Dual Port Capability

Paging

# 40-st-05	Access to Paging
# 40-st-06	Receive all Page Signal
# 41-st-01	Station / Paging Group Assignment

Call Split

# 44-st-03	Allow/Disallow Call Split

Call Transfer

# 05-06-01	Transfer Recall Timeout (Busy)
# 05-01-03	Transfer Recall Timeout (No Answer)
# 05-08-06	VPC Remind Time for DISA Transferring (No answer or Busy)
# 05-08-07	Waiting Dialling Time after DISA Service Message

Call Forward No Answer Transfer Time

 # 05-01-08   Set Timer for Call Forward No Answer

Hot Line

 # 47-nnnn   Allocate Hot Line to Station
 # 09-nnnn-IP   System Speed Dial

Doorphone & Doorswitch

 # 03-nn-IP   Door Phone Ring Assignment
 # 05-03-08   Door Phone Ring Frequency
 # 05-11-07   Door Phone Ring Time
 # 05-12-04   Door Relay Unlock Time
 # 06-IP   Door Relay Assignment
 # 46-st-06   Door Unlock Access

DSS Console

 # 08-gp-IP   Flexible DSS Key Group Assignment
 # 41-st-07   Port Number for DSS Console
 # 43-cn-01   Assign Station Number for DSS Console
 # 43-cn-03   DSS Key Group **(BX320)**

Fax Monitor

 # 05-04-05   Fax Monitoring Capability

Headset

 # 44-st-05   Headset Capability
 # User Function   **[SPK][7][7][5]**

Loud Bell (Trunk)

 # 06-IP=04   Assign the Relay for Trunk Loud Bell
 # 35-tk-06   Assign the trunk to activate Relay

Loud Bell (Station)

 # 06-IP=05   Assign the Relay for Station Loud Bell
 # 40-st-04   Assign the Station to activate Relay

External Music Source

 # 06-IP=01   Relay Assignment
 # 05-08-08   Music Source Selection **(BX8)**

Paging (External Paging)

 # 06-IP=10-12   Relay Assignment

SMDR

 # 14-01-(01-08) Station Message Detail Recording
 # 05-07-06   SMDR Digit Masking

Meter Pulse Detection

 # 05-05-02   Meter Pulse Detection
 # 05-07-07   Meter Pulse Detection Delay Time

Voice Processing Service

 # 19-IP   Voice Service Assignment
 # 05-05-01   Morning Call Signalling

System Reset

 # 25- 1   Reset System Programming Data To Default Except Speed Dials.

 # 25- 2   Reset **All** System Programming Data To Default.

 # 25- 3   Restrict **All** Stations from Using Hold and Call Split.

 # 25- 4   Restrict **All** Stations from Using Barge in And Monitor.