

PROGRAMMING

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PROGRAMMING

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1. Introduction To Programming

1.1 Programming Overview

The system arrives from the factory with default data. Connect it to trunks, stations and power, turn the system on and it is fully operational. The only thing left to do is customise the data to fit the customer's needs. This is called programming the system.

MMC stands for Man Machine Code and each program is assigned a different 2-digit code. These MMC are used to view, create or change customer data. Programming is simply deciding what needs to be done and knowing which MMC is used to do it.

System programming may be done from any NX-24E , NX-24B or NX-6B keyset (see 1.3.1), add-on module (AOM) or any keyset with an LCD (see 1.3.2). The first thing you must do is open system programming. As a security measure, a passcode is required in order to do this.

1.2 Programming Levels

There are three levels of programming: System, Customer and Station. System and Customer levels are under passcode protection; station programming does not require a passcode.

To prevent conflicting data from being entered, only one person at a time can enter programming with the technician or customer passcode. While programming is in progress, normal system operation is not affected.

SYSTEM LEVEL

This level is entered via MMC 20 and requires the technician-level passcode. It allows access to all system programs, station programs and maintenance programs.

CUSTOMER LEVEL

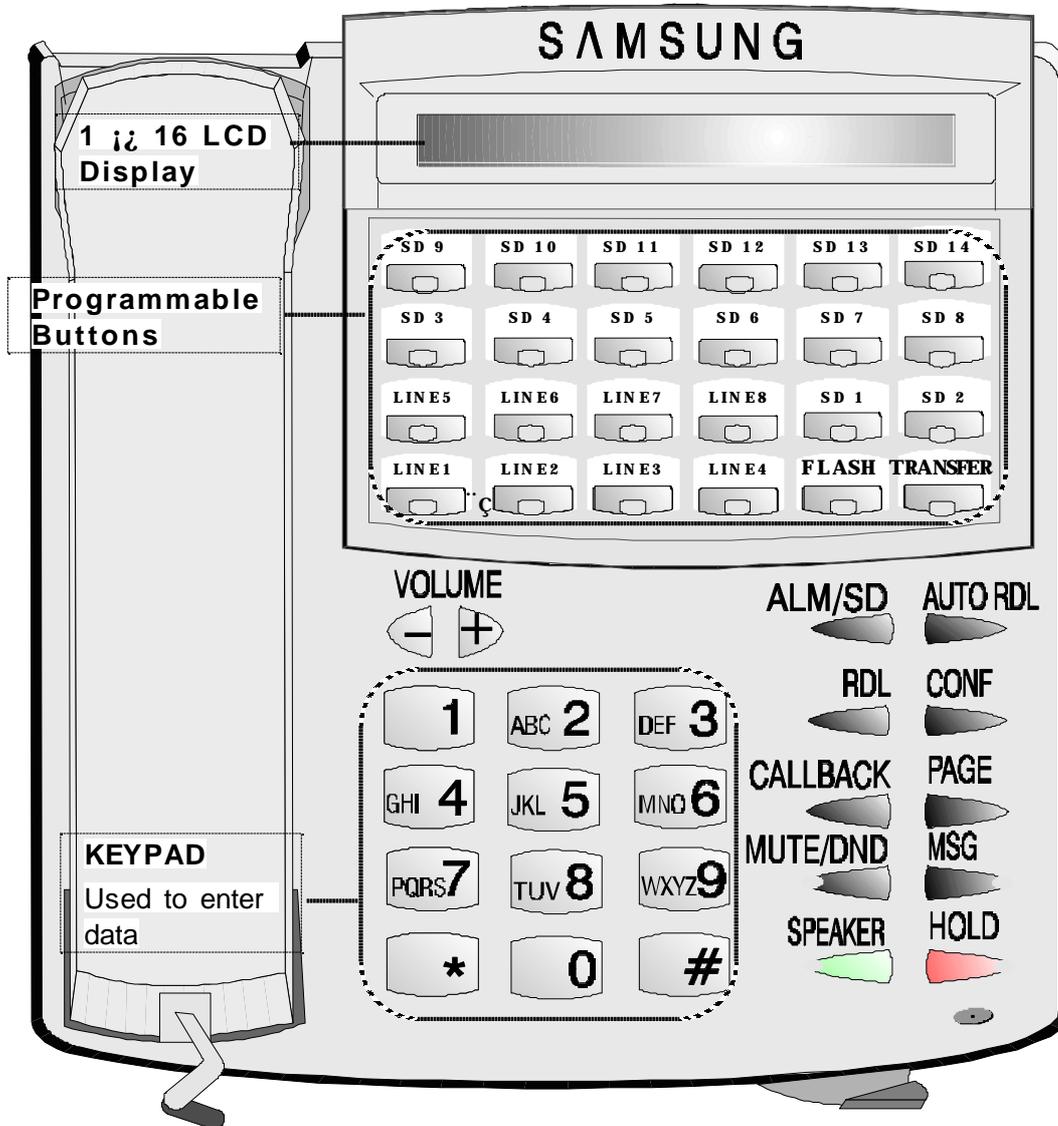
This level is entered via MMC 20 and requires the customer-level passcode. It provides access to station programs and system programs allowed by the technician in MMC 90. When using the customer passcode to access station programs, data for all stations can be viewed or changed.

STATION LEVEL

All keysets can access station programs 10-17 without using a passcode. Each user can only change data for his/her own keyset.

1.3 Program Keys

1.3.1 NX-keyset with LCD



LINE1, LINE2

MUTE/DND or MSG

AUTO RDL

SPEAKER

HOLD

:Scroll through stations or trunks.

:Normally used to select data.

:Enter programming mode. Also used to save changes and exit the program.

:Save changes and advance to the next program.

:Normally used to clear previous data.

1.3.2 Other keysets with LCD

If the user has another type of keyset with an LCD, such as the 816 keyset, the keys used for programming are a little different from the NX- keyset. The following table describes these different keys.

NX-keyset	816 keyset
AUTO RDL	AUTO RDL
ALM/SD	ALM/SD
RDL	RD
CONF	CONF
CALLBACK	CALLBACK
PAGE	PAGE
MUTE/DND	MUTE/DND
MSG	MSG
SPEAKER	SPK
HOLD	HOLD
LINE1/LINE2	TIMER/AUTO ANS

2. Programming Procedures

2.1 Program List

- 00: STATION LOCK
- 01: CHANGE USER PASSCODE
- 10: SET ANSWER MODE
- 11: CALL FORWARD
- 12: STATION ON/OFF
- 13: SET RING FREQUENCY
- 14: STATION NAME
- 15: DATE DISPLAY
- 16: KEY EXTENDER
- 17: STATION SPEED DIAL

- 20: OPEN PROGRAMMING
- 21: CHANGE PASSCODE
- 22: CUSTOMER ON/OFF
- 23: PAGE ZONE
- 24: ASSIGN BARGE-IN
- 25: HOT/WARM LINE
- 26: ALARM REMINDER
- 27: VACANT MESSAGE
- 28: CALL DISC

- 30: STATION TOLL CLASS
- 31: EXT/TRK USE
- 32: INTERCOM USE
- 33: ASSIGN DOOR RING
- 34: ASSIGN PICKUP GROUP
- 35: ASSIGN STATION GROUP
- 36: ASSIGN BOSS/SECRETARY
- 37: ASSIGN ADD-ON MODULE
- 38: SLT DIALING TYPE
- 39: DATA LINE

- 40: C.O./PBX LINE
- 41: TRUNK DIALING TYPE
- 42: TRUNK ON/OFF
- 43: ASSIGN TRUNK RING
- 44: TRUNK NAME
- 45: TRUNK GROUP
- 46: ASSIGN DISA LINE

- 47: ASSIGN MPD
- 50: SYSTEM TIMERS
- 51: TONE/RING CADENCE
- 52: SYSTEM WIDE COUNTER
- 53: TRUNK WIDE TIMER
- 54: MAKE/BREAK RATIO
- 55: CURRENT DATE AND TIME
- 56: ASSIGN AUTO NIGHT TIME
- 57: CALL COST

- 60: TOLL DENY TABLE
- 61: TOLL ALLOW TABLE
- 62: PBX ACCESS CODE
- 63: AUTHORIZATION CODE
- 64: OVERRIDE CODE
- 65: ASSIGN WILD CHARACTER
- 66: SYSTEM SPD DIAL TOLL RESTRICTION
- 67: ASSIGN SYSTEM SPEED DIAL
- 70: DIAL NUMBERING PLAN
- 71: SYSTEM KEY PROGRAMMING
- 72: STATION KEY PROGRAMMING
- 73: KEY TEST

- 80: IO PARAMETER
- 81: SMDR OPTION
- 83: CALL TRAFFIC REPORT

- 90: CUSTOMER USE MMC
- 91: SYSTEM VERSION
- 92: PORT STATUS
- 93: SELECTION LANGUAGE
- 94: HALT PROCESS
- 95: SYSTEM RESTART

2.2 Program Procedures (MMCs)

The following instructions for each MMC assume that you have already opened programming. To open System (Customer) Programming, the procedure is:

1. Press AUTO RDL then 20
2. Enter customer passcode (default = 1234)
3. Enter 1 to Enable

When you have finished programming in MMCs 00-95 and have other programming to do, press SPEAKER to exit the MMC but remain in programming mode and use one of the following methods:

- dial another MMC code directly and continue programming
or
- press LINE1 and LINE2 keys to scroll through all MMC codes. When the desired MMC code is displayed, press SPEAKER and continue programming.

Pressing AUTO RDL will always save changes and exit programming mode.

MMC 00**STATION LOCK****Description:**

Used to lock or unlock stations; e.g. if you want to prohibit another user from using your station.

UNLOCK Normal status

LOCKED1 Prohibits another user from making outside calls.

LOCKED2 Prohibits another user from dialling or receiving any calls.

Action

1. Press **AUTO RDL** and dial **00**

Display

201: UNLOCKED

2. Using **LINE1** or **LINE2**, select the station you want(e.g. 202)

202: UNLOCKED

If you want to select all stations, press **LINE1**

3. Press **MUTE/DND** or **MSG** to make selection
OR
Using **KEYPAD**, dial
0 for **UNLOCKED**
1 for **LOCKED1**
2 for **LOCKED2**
(e.g.1)

202: LOCKED1

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

UNLOCKED

RELATED MMC

MMC 01 CHANGE USER PASSCODE

MMC 01 CHANGE USER PASSCODE

Description:
 Used to reset any keyset's passcode to its default value '1234' (for example, if the user has forgotten his/her passcode). This MMC cannot display station passcodes. Keyset users can set or change their individual passcodes. The passcode is used to lock or unlock the keyset and to access the walking class of service and DISA calls.

NOTE : The following features will not work with the Default Password. (Station lock, DISA calls, and walking class of service).

Action

Display

1. Press **AUTO RDL** and dial **01**

201: DEFAULT?

2. Using **LINE1** or **LINE2**, select the station you want (e.g. 202)

202: DEFAULT?

If you want to select all stations, press LINE1

3. Press **HOLD** to reset selected station's passcode to default data (1234)

202: DEFAULT!

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

1234

RELATED MMC

- MMC 00 STATION LOCK
- MMC 46 ASSIGN DISA LINE

MMC 11 CALL FORWARD

Description:

Used to program the call forward destination for other station users and set the time for FORWARD NO ANSWER. Each station can forward calls under the following conditions:

FORWARD ALL	All calls are forward to destination station
FORWARD BUSY	If the station is busy, calls are forward to destination.
FORWARD NO ANSWER	If the station doesn't answer in 'no answer' time, calls are forward to destination.
NO ANSWER TIME	Used to set no answer time. This time also used for External Call Forward.

Action

Display

1. Press **AUTO RDL** and dial **11**

201: F ALL:

2. Using **LINE1** or **LINE2**, select the station you want (e.g. 202)

202: F ALL:

3. Press **RDL** or **CONF** to select the forward type described above(e.g. FORWARD NO ANSWER)

202: F NOA:

4. Enter the destination station (e.g. 203)

202: F NOA:203

If you want to clear the data, press **HOLD**
 If your selection is **NO ANSWER TIME**, enter 3-digit time in seconds (default = 015sec)

202: TIME: 015S

5. Press **AUTO RDL** to save and exit

DEFAULT DATA : FORWARD TYPE: NONE
 NO ANSWER TIME: 015 SEC

RELATED MMC : NONE

MMC 12

DEFAULT DATA

AUTO HOLD : OFF
AUTO TIMER : ON
HEADSET : OFF
HOT KEYPAD : ON
KEY TONE : ON
RING PREFERENCE : ON

RELATED MMC

NONE

MMC 13**SET RING FREQUENCY****Description:**

Used to select the ring frequency at each keyset. Four types of ring frequency are available. A short tone burst of the selection will be heard when the dial keypad is pressed.

Action

1. Press **AUTO RDL** and dial **13**
Display shows current frequency
2. Using **RDL** or **CONF**, select the station you want (e.g. 202)

If you want to select all stations, press RDL

3. Pressing **MUTE/DND** or **MSG** to makes election.
A short burst tone of selection will be heard
OR
Using keypad, dial

- 1 for FREQUENCY 1**
- 2 for FREQUENCY 2**
- 3 for FREQUENCY 3**
- 4 for FREQUENCY 4 (e.g. 2)**

4. Press **AUTO RDL** to save and exit

Display

201: FREQ. 1

202: FREQ. 1

202: FREQ. 2

DEFAULT DATA

FREQUENCY 1

RELATED MMC

NONE

MMC 14 STATION NAME

Description:

Used to enter a 12-character name to identify an individual station. Names are written using the keypad. Each press of a key selects a character. Pressing another dial pad key will move the cursor to the next position.

For example if the station name is "SAM SMITH", press the number "7" four times to get the letter "S", and so on to enter the whole name. The characters programmed for each keypad are listed below.

dial count \	1	2	3	4	5	6	7	8	9	0	*	#
1	█	A	D	G	J	M	P	T	W	:	?	
2	1	B	E	H	K	N	Q	U	X	.	&	[
3		C	F	I	L	O	R	V	Y	!	\$]
4		2	3	4	5	6	S	8	Z	0	*	#
5							7		9			

NOTE : When the character you want appears on the same dial pad key as the previous character, press CONF to move the cursor to the right.

Action

Display

1. Press **AUTO RDL** and dial **14**

201:NX828

2. Using **LINE1** or **LINE2**, select the station you want (e.g. 202)

202:

3. Using the table above, enter the station name
Use **CONF** to move cursor right (up to 12 digits)

202:SAM SMITH

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NX 828

RELATED MMC

NONE

MMC 15

DATE DISPLAY

Description:

Used to change the date display mode of each station. Date display modes are:

- | | | |
|---|-------------------|------------------|
| 1 | 24 WESTERN | WED 21 JUN 17:37 |
| 2 | 12 WESTERN | WED 21 JUN 05:37 |
| 3 | 24 EASTERN | 06/21 WED 17:37 |
| 4 | 12 EASTERN | 06/21 WED 05:37 |

SKP-816 model keysets display western mode only.

Action

Display

1. Press **AUTO RDL** and dial **15**

201: 12 WESTERN

2. Using **LINE1** or **LINE2**, select the station you want (e.g. 202)

202: 12 WESTERN

If you want to select all stations, press **LINE1**

3. Pressing **MUTE/DND** or **MSG** to make selection
OR

202: 24 EASTERN

Using KEYPAD, dial

- 1 for 24 WESTERN**
- 2 for 12 WESTERN**

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

12 WESTERN

RELATED MMC

MMC 55 CURRENT DATE AND TIME

MMC 16 KEY EXTENDER

Description:

Used to view the programmable keys assigned to a keyset station. In addition, it allows the system administrator to assign key extenders to some keys that will make a general access feature key more specific. The feature keys that can have extenders are listed below.

FEATURE KEY	EXTENDER
FWE	External Call Forward(00~99)
SPD	Dial(00~99)
VAC	Vacant messages(01~20)
PAG	Page(0~5,*)
DOR	Door & Door Lock control (1~4)
EXC	Boss and Secretary(1~2)
DPC	Direct Pickup(station/trunk-line number)
GPC	Group Pickup(0~9)

Action

Display

1. Press **AUTO RDL** and dial **16**

201 01:701:

2. Using **LINE1** or **LINE2**, select the station you want (e.g. 202)

202 01:701

3. Press **RDL** or **CONF** to select the button (e.g. 22)

202 22:PAG1

OR

Press the button you want to program extender (if the button is programmed).

4. Select the extender according to the table above. Previous extenders will be overwritten

202: 22:PAG2

If you want to clear the previous extender, press **HOLD**

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

EACH KEY EXTENDER IS EQUAL TO STATION KEY PROGRAMMING
(MMC 72) DATA

RELATED MMC

MMC 71 SYSTEM KEY PROGRAMMING
MMC 72 STATION KEY PROGRAMMING

MMC 21 CHANGE PASSCODE

Description:
 Used to change the passcode allowing access to MMC 20 (Open Programming) from its current value.

NOTE:
 ;[⌘] The passcode is four digits long. Each digit can be 0-9. The current (old) passcode is required for this MMC.
 ;[⌘] Allows the technician to reset the customer passcode to default value '1234' by pressing HOLD button.

Action

Display

1. Press **AUTO RDL** and dial **21**

NEW CODE:

2. Enter new passcode via keypad (max four digits)
 To change customer passcode, first enable customer Programming
 To change technician passcode, first enable technician Programming

NEW CODE:****

Display shows

REENTER:

3. Reenter new passcode via KEYPAD

REENTER:****

If re-entered passcode is correct, display will show 'SUCCESS'

SUCCESS

OR

If it is incorrect, display will show 'ERROR' is

ERROR

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

CUSTOMER PASSCODE: 1234

TECHNICIAN PASSCODE: 4321

RELATED MMC

MMC 20 OPEN PROGRAMMING

MMC 22 CUSTOMER ON/OFF

Description:
 Used to allow the system administrator to set the following keyset features:

BGM	When ON, allows the user to hear background music.
DND	When ON, allows the user to set the Do Not Disturb feature.
DOOR	When ON, allows the user to open the door.
HUNT	When ON, the intercom call will be forwarded to the next station of the station group to which the station belongs.
MIKE	When ON, the station can activate the speakerphone call.
PAGE USE	When ON, the station can page.
PAGE RECEIVE	When ON, the station can receive paging announcements.
SMDR	When OFF, the information related to the station will not be printed on the SMDR report.

Action

Display

1. Press **AUTO RDL** and dial **22**

201: BGM: ON

2. Using **LINE1** or **LINE2**, select the station you want
(e.g. 202)

202: BGM: ON

If you want to select all stations, press **LINE1**

3. Press **RDL** or **CONF** to select the keyset feature
(described above, e.g. DND)

202: DND: ON

4. Press **MUTE/DND** or **MSG** to select data
 OR
 Using the KEYPAD, dial
0 for OFF
 or **1 for ON**

202: DND: OFF

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

BGM : ON
DND : ON
DOOR : ON
HUNT : OFF
MIKE : ON
PAGE USE : ON
PAGE RECEIVE : ON
SMDR : ON

RELATED MMC

HUNT : MMC 35 ASSIGN STATION GROUP
PAGE USE, PAGE RECEIVE : MMC 23 PAGE ZONE
SMDR : MMC 81 SMDR OPTION

MMC 23**PAGE ZONE****Description:**

Used to assign a keyset to any of the four internal paging zones and no zone.

NOTE : Number 5 makes all external paging, number 0 makes all internal paging and * makes all internal and external paging.

Action**Display**

1. Press **AUTO RDL** and dial **23**

201: NO ZONE

2. Using **LINE1** or **LINE2**, select the station you want(e.g. 202)

202: NO ZONE

If you want to select all stations, press **LINE1**

3. Pressing **MUTE/DND** or **MSG** to make selection
OR

202: ZONE1

Using KEYPAD, dial

0 for **NO ZONE**

1 for **ZONE 1**

2 for **ZONE 2**

3 for **ZONE 3**

or **4** for **ZONE 4** (e.g. ZONE 1)

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NO ZONE

RELATED MMC

MMC 22 CUSTOMER ON/OFF (PAGE USE / PAGE RECEIVE)

MMC 24 ASSIGN BARGE-IN

This MMC is used to set the type of barge-in permitted at a particular station. After the barge-in type is set, the barge-in class can be set. The barge-in class allows or disallows the user to barge-in on another station.

OPTION	BARGE-IN TYPE	DESCRIPTION
0	NO BARGE-IN	Barge-in feature is unavailable regardless of a station's barge-in status.
1	WITH TONE	Barge-in will produce an intrusion tone and display at the barged-in on station.
2	WITHOUT TONE	Barge-in is allowed. There is no barge-in tone and no display at the barged-in station, and the barge-in station will be muted.

OPTION	BARGE-IN CLASS	DESCRIPTION
00	NN	You cannot barge-in. / Nobody can barge-in on you.
01	NY	You cannot barge-in. / Others can barge-in on you.
10	YN	You can barge-in. / Nobody can barge-in on you.
11	YY	You can barge-in. / Others can barge-in on you.

PROCEDURE

- Press **AUTO RDL** and dial **24**

- Pressing **MUTE/DND** or **MSG** to select barge-in type
 OR
 Using **KEYPAD**, dial
 0 for **NO BARGE IN**
 1 for **WITH TONE**
 or **2** for **WITHOUT TONE**

- Using **LINE1** or **LINE2**, select a station (e.g. 202)
 To select all stations, press **LINE1** first

DISPLAY

NO BARGE IN

WITH TONE

202: NN

MMC 24

4. Using KEYPAD, dial

00 for NN

01 for NY

10 for YN

or **11 for YY**

You can select barge-in class
(NN, NY, YN, YY)

202: YN

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

BARGE-IN TYPE : NO BARGE IN
BARGE-IN CLASS : NN

RELATED MMC

NONE

MMC 25 HOT/WARM LINE

Description:
 Used to assign a hot line/warm line destination for each station. The destination may be one of the following:

- Station Number**
- Station Group Number**
- Trunk Number**
- Trunk Group Number**
- 16 plus Speed Dial Number(00~99)** (16 is SPD ID number described in MMC 70)

The Warm Line Delay Time also can be assigned by this MMC.

Action

Display

1. Press **AUTO RDL** and dial **25**

201: : 0SEC

2. Using **KEYPAD**, select the destination(e.g. 233)

201: 233: 0SEC

3. Enter the Warm Line Delay Time (0 - 9 sec) (e.g. 5)

201: 233: 5SEC

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

DESTINATION : NONE

WARM LINE DELAY TIME: 0 SEC

RELATED MMC

NONE

MMC 26 ALARM REMINDER

Description:
 Used to allow the system administrator or technician to set or change the alarm clock/appointment reminder feature for any station. Three alarms may be set for each station and each alarm may be defined as a DAY alarm or as a DAILY alarm. The DAY alarm is automatically cancelled after it rings, while the DAILY alarm rings every day at the same time.

Action

Display

1. Press **AUTO RDL** and dial **26**

201 A1:HHMM:DAY

Using **LINE1** or **LINE2**, select the station you want(e.g. 202)

202 A1:HHMM:DAY

2. Press **RDL** or **CONF** to select the alarm number (1~3)(e.g. 2)

202 A2:HHMM:DAY

3. Dial the alarm time. The time is entered in 24-hour format (e.g. 2030 is 8:30 p.m.)
 To clear alarm data, press **HOLD**

202 A2:2030:DAY

4. Press **MUTE/DND** or **MSG** to select alarm mode (e.g. DAILY)

202 A2:2030:DALY

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

ALARM1 : HHMM DAY
 ALARM2 : HHMM DAY
 ALARM3 : HHMM DAY

RELATED MMC

MMC 55 CURRENT DATE AND TIME

MMC 27 VACANT MESSAGE

Description:

The system provides up to 20 vacant messages that can be selected by any display keyset user. Of these, 10 messages (01-10) are pre-programmed and the other 10 messages (11-20) can be customised using this MMC. Once activated, the selected message will appear in the display of the calling station.

NO.	MESSAGE
01	IN A MEETING
02	OUT ON A CALL
03	OUT TO LUNCH
04	LEAVE A MESSAGE
05	PAGE ME
06	OUT OF TOWN
07	IN TOMORROW
08	RETURN AFTERNOON
09	ON VACATION
10	GONE HOME

Action

Display

1. Press **AUTO RDL** and dial **27**

MSG11:

2. Using **LINE1** or **LINE2**, select the desired message number (11-20) (e.g. 12)

MSG12:

3. Enter the vacant message (refer to MMC 14 for details of letter entry procedure)

BUSINESS TRIP

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NONE

RELATED MMC

NONE

MMC 28 **CALL DISC**

Description:
 Used to assign the incoming and outgoing status of a selected station.
 There are four different options.

0	No Discrimination
1	Out Only
2	In Only
3	Both

Action

Display

1. Press **AUTO RDL** and dial **28**

201: NO DISC

2. Using **LINE1** or **LINE2**, select the station you want (e.g. 202)

201: NO DISC

If you want to select all stations, press **LINE1**

3. Press **MUTE/DND** or **MSG** key to select discrimination type as above

202: BOTH

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NO DISC

RELATED MMC

- MMC 42 TRUNK ON/OFF
- MMC 50 SYSTEM TMERS
- MMC 46 ASSIGN DISA LINE

MMC 31 EXT/TRK USE

Description:
 Used to allow trunks on a per-station basis the ability to answer incoming calls, to dial out or to do both. These abilities are displayed as Y or N for each action (e.g. NY means disallow dialling out but allow answering of incoming calls).

DIAL DIGIT	TRK USE	DESCRIPTION
00	NN	You cannot either dial and answer
01	NY	You cannot dial but can answer
10	YN	You can dial but cannot answer
11	YY	You can both dial and answer

Action

Display

1. Press **AUTO RDL** and dial **31**

201: USE 701 :YY

2. Using **LINE1** or **LINE2**, Select the station you want (e.g. 202)

202: USE 701 :YY

If you want to select all stations, press **LINE1**

3. Select the trunk number by pressing **RDL** or **CONF** (e.g. 702)

202: USE 702 :YY

If you want to select all trunks, press **RDL**

4. Using keypad, dial
0 (N) to deny action
 or **1 (Y) to allow action**

202: USE 702 :NY

(Two digits must be dialled: first digit for dialling out and second for answering incoming calls, e.g. 01)

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

ALL TRUNK: YY

RELATED MMC

NONE

MMC 32 INTERCOM USE

Description:
Used to allow/disallow station intercom calls.

Action

Display

1. Press **AUTO RDL** and dial **32**

201: CALL 202:Y

2. Using **LINE1** or **LINE2**, select the station you want (e.g. 202)

202: CALL 201:Y

If you want to select all stations, press **LINE1**

3. Press **RDL** or **CONF** to select call station (e.g. ALL)

202: CALL ALL:?

If you want to select all stations, press **RDL**

4. Pressing **MUTE/DND** or **MSG** to select allow/disallow option(e.g. disallow all intercom calls)
OR

202: CALL ALL:N

Using KEYPAD, dial

0(N) for disallow intercom calls
1(Y) for allow intercom calls

If you select N, intercom calls are not possible but calling the operator is possible

5. Press **AUTO RDL** to save and exit.

DEFAULT DATA

CALL ALL : Y

RELATED MMC

NONE

MMC 34**ASSIGN PICKUP GROUP****Description:**

Used to allow the assignment of stations into call pickup groups. There is a maximum of 10 pickup groups (0-9). An unlimited number of members can belong to each group. Stations can be in only one pickup group at any given time.

Action**Display**

1. Press **AUTO RDL** and dial **34**

[GPC0] 01:220

Display shows the first member of pickup group 0

2. Using **LINE1** or **LINE2**, select the pickup group number (e.g. GPC1)

[GPC1] 01:

3. Dial station number (e.g. 203)

[GPC1] 01:203

If dialled number is a member of another pickup group,
the station number will be removed from the
previous group automatically

The Dialled number overwrites any previous number

Press **HOLD** to clear previous entries

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

[GPC0] : All stations
[GPC1]_i-[GPC9] : NONE

RELATED MMC

NONE

MMC 35 ASSIGN STATION GROUP

Description:

Used to assign members of a station group. There are several options that can be selected for ringing, overflow, group transfer and overflow destination, group types. There is a maximum of twenty (20) station groups.

OPTIONS	DISPLAY	RANGE
Ring mode	RING	
Overflow time	OVER	000 j- 250 sec
Group transfer time	TRSF	000 j- 250 sec
Overflow port	NEXT	
Group types	TYPE	

RING MODES	DESCRIPTION
1 SEQUENTIAL	The first idle station listed in the group will ring. If the first is busy, the next idle station will ring.
2 DISTRIBUTE	The first call will ring the first station listed in the group. The next call will ring the next station listed in the group.
3 CONDITION	All the non busy stations listed in the group will ring.
4 UNCONDITION	All the stations listed in the group will ring. Busy stations will receive off-hook ring.

GROUP TYPES

- 1 NORMAL GROUP
- 2 VMAA GROUP

Action

1. Press **AUTO RDL** and dial **35**

 Display shows ring mode of group 500 (operator group)

2. Using **LINE1** or **LINE2**, select the station group number(500 j-519).

Display

500: RING :DIST

501: RING: DIST

MMC 35

- 3. Pressing **RDL** or **CONF**, select the options(RING, OVER,TRSF,NEXT,TYPE or MEMBER)
Go to 4a - 4f depending on selection

500: OVER: 030S
- 4a. To select RING mode, press **MUTE/DND** or **MSG**
OR
Dial
 1 for SEQUENTIAL
 2 for DISTRIBUTE

500: RING: UNCO
- 4b. To change the OVERFLOW TIME, dial 3 digits

500: OVER: 030S
- 4c To change the GROUP TRSF TIME, dial 3 digits

500: TRSF: 045S
- 4d To assign the overflow port (NEXT), enter the station or station group number (e.g. 501)

500: NEXT: 501
- 4e Press **MUTE/DND** or **MSG** to select the station group TYPE (e.g. NORMAL)
OR
Using keypad, dial
 1 for NORMAL GROUP
 2 for VMAA GROUP

500: TYPE:NORMAL
- 4f To assign MEMBER of a station group, enter the station number (e.g. 201)

500: MEM1:201
- 5. Press **AUTO RDL** to save and exit

DEFAULT DATA

RING : DIST
 OVERFLOW : 030 SEC
 TRANSFER TIME : 045 SEC
 TYPE : NORMAL GROUP
 MEMBER : 500 GROUP : 201
 OTHER GROUP : NONE

RELATED MMC

MMC 22 CUSTOMER ON/OFF

MMC 36 ASSIGN BOSS/SECRETARY

Description:
 Used to assign BOSS keysets to SECRETARY keysets. One SECRETARY station may have up to two (2) BOSS stations.

Action

Display

1. Press **AUTO RDL** and dial **36**

S201 1: 2:

2. Using **LINE1** or **LINE2**, select the SECRETARY station you want(e.g. 202)
 Display shows the BOSS stations

S202 1: 2:

3. Enter the BOSS stations
 (e.g. BOSS1: 220, BOSS2: 230)

S202 1:220 2:230

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

BOSS1:NONE BOSS2:NONE

RELATED MMC

NONE

MMC 37 ASSIGN ADD-ON MODULE

Description:
Used to designate to which station an add-on module (AOM) is assigned.

Action

Display

1. Press **AUTO RDL** and dial **37**
Display shows the first AOM port

205: MASTER:

If there is no AOM port, display shows

AOM NOT EXIST

2. Press **LINE1** or **LINE2**, select the AOM port (e.g. 206)

206: MASTER:

If you want to clear the previous entry, press **HOLD**

3. Enter master station number (e.g. 204)

206: MASTER:204

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NONE

RELATED MMC

NONE

MMC 38**SLT DIALLING TYPE****Description:**

Used to define the type of phone connected to each SLT port for dialling purposes. Keysets are not affected by this MMC. There are two dialling types.

DIALLING TYPES

- | | | |
|---|-------|--------------------------------|
| 1 | DTMF | Dual Tone Multi Frequency type |
| 2 | PULSE | Dial Pulse type |

Action

1. Press **AUTO RDL** and dial **38**
Display shows the SLT port(e.g. 217)

If there is no SLT port, display shows
2. Using **LINE1** or **LINE2**, select the SLT port number (e.g. 218)
3. Press **MUTE/DND** or **MSG** to select the SLT type.
OR
Using KEYPAD, dial
1 for DTMF
or **2 for PULSE**
4. Press **AUTO RDL** to save and exit

Display

217: DTMF

SLT NOT EXIST

218: DTMF

218: PULSE

DEFAULT DATA

DTMF

RELATED MMC

NONE

MMC 39 DATA LINE

Description:
 Used to assign SLT ports that will be used for data transmission.

VOICE The station will be used for voice communication. All intrusion and warning tones will be heard during conversation.

DATA The station will be used for data communication. No intrusion and warning tones will interfere with data transmission

Action

Display

- 1. Press **AUTO RDL** and dial **39**
 Display shows (e.g. 209 is SLT port)

209: VOICE

- 2. Using **LINE1** or **LINE2**, select the SLT port number (e.g. 210)

210: VOICE

If you want to select all SLT ports, press **LINE1**

- 3. Press **MUTE/DND** or **MSG** to select VOICE or DATA
 (the port connected to a peripheral device, such as Fax, is set to DATA line)
 OR
 Dial
 1 for VOICE
 or **2 for DATA**
 (e.g. 2)

210: DATA

- 4. Press **AUTO RDL** to save and exit

DEFAULT DATA

VOICE LINE

RELATED MMC

NONE

MMC 40

C.O. PBX LINE

Description:

Used to select the mode of the C.O. line. If PBX mode is chosen, the PBX access code can be recognised, allowing more complete toll restriction. This mode is assigned on a per-trunk basis.

Action

Display

1. Press **AUTO RDL** and dial **40**

701: C.O

2. Using **LINE1** or **LINE2**, select the trunk number you want(e.g. 702)

702: C.O

If you want select all trunk lines, press **LINE1**

3. Press **MUTE/DND** or **MSG** to set the trunk C.O. or PBX line
 OR
 Using KEYPAD, dial
1 for C.O line
 or **2 for PBX line**(e.g. PBX line)

702: PBX

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

C.O LINE

RELATED MMC

NONE

MMC 41**TRUNK DIALLING TYPE****Description:**

Used to determine the dialling type of each C.O. line. There are two options: Dual Tone Multi Frequency (DTMF) and Dial Pulse (PULSE).

Action**Display**

1. Press **AUTO RDL** and dial **41**

701: DTMF

2. Using **LINE1** or **LINE2**, select the trunk number you want (e.g. 702)

702: DTMF

If you want to select all trunks, press **LINE1**

3. Press **MUTE/DND** or **MSG** to select the trunk dial type

702: PULSE

OR

Using **KEYPAD**, dial

1 for DTMF

or **2 for PULSE**

(e.g. PULSE)

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

DTMF

RELATED MMC

MMC 53 TRUNK-WIDE TIMERS

MMC 54 MAKE/BREAK RATIO

MMC 42 TRUNK ON/OFF

Description:

Used to assign several options on a per-trunk basis:

OPTIONS	DESCRIPTION
1A2 EMULATION	Trunk override call
TRUNK FORWARD	Allows trunk to be forwarded (Refer to APPENDIX D)
RING OVER PAGE	Allows ring over external page
TOLL CHECK FREE	C.O. lines to follow or bypass toll restriction
VOICE MSG	Voice announcement of DISA line
TRK DISC	Enable Trunk disconnection

Action

Display

1. Press **AUTO RDL** and dial **42**

701:1A2 EMUL:OFF

2. Using **LINE1** or **LINE2**, select trunk number you want (e.g. 702)

702:1A2 EMUL: OFF

3. Using **RDL** or **CONF**, select the option you want (as described above, e.g. RING OVER PAGE)

702:PAGE RING:OFF

4. Press **MUTE/DND** or **MSG** to select ON or OFF.
 OR
 Using **KEYPAD**, dial
0 for OFF
 or **1 for ON**

702:PAGE RING:ON

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

1A2 EMULATION : OFF
 TRUNK FORWARD : OFF
 RING OVER PAGE : OFF
 TOLL CHECK FREE : OFF
 VOICE MSG : OFF
 TRK DISC : OFF

RELATED MMC

TRUNK FORWARD : MMC 11 CALL FORWARD
 VOICE MSG : MMC 46 ASSIGN DISA LINE
 TRK DISC : MMC 28 CALL DISC
 MMC 50 STSYEM TIMERS

MMC 44 TRUNK NAME

Description:

Used to allow a 12-character name to identify an individual trunk. Names are written using the keypad. Each press of a key will select a character. For example, to select 'A' press key number 2 once (twice for 'B' and so on). Press the desired key to move the cursor to the next position.

dial count	1	2	3	4	5	6	7	8	9	0	*	#
1	█	A	D	G	J	M	P	T	W	:	?	
2	1	B	E	H	K	N	Q	U	X	.	&	[
3		C	F	I	L	O	R	V	Y	!	\$]
4		2	3	4	5	6	S	8	Z	0	*	#
5							7		9			

NOTE : When the character you want appears on the same dial pad key as the previous character, press CONF to move the cursor to the right. A space can be entered using these keys.

Action

1. Press **AUTO RDL** and dial **44**
2. Press **LINE1** or **LINE2** to select the trunk you want (e.g. 702)
3. Enter the trunk name using above table (e.g. SEOUL LINE)
4. Press **AUTO RDL** to save and exit

Display

701:NX828

702:

702: SEOUL LINE

DEFAULT DATA

NX-828

RELATED MMC

NONE

MMC 45 TRUNK GROUP

Description:

Used to set free trunk selection type and to allow assignment to a specific trunk group or to several trunk groups. There are eleven (11) trunk groups, 9 and 80-89, and three modes of selecting free trunk line in the group.

MODE	DESCRIPTION
DISTRIBUTE	Searches the trunk group in circular order. Each time the group is accessed, the next available trunk in the group is selected.
HIGH TO LOW	Searches the trunk group from last trunk to the first trunk in the group. If the trunk is busy, the previous available trunk in the group is selected.
LOW TO HIGH	Searches the trunk group. If the first trunk in the group is busy, the next one is selected

Action

Display

1. Press **AUTO RDL** and dial **45**
Display shows the free trunk selection mode
2. Press **MUTE/DND** or **MSG** to select the free trunk selection mode
OR
Using KEYPAD, dial
1 for DISTRIBUTE
2 for High to Low
or **3 for Low to High.**
(e.g. 2)
3. Using **LINE1** or **LINE2**, to select the trunk group (e.g. GRP80)
4. Press **RDL** or **CONF** to scroll the members of the group (e.g. 02)
5. Enter a valid trunk number (e.g. 709)
6. Press **AUTO RDL** to save and exit

MODE: DISTRIBUTE

MODE: HIGH TO LOW

GRP80 01:

GRP80 02:

GRP80 02:709

DEFAULT DATA

GROUP 9 : ALL TRUNK LINES
GROUP 80~89 : NONE

RELATED MMC

NONE

MMC 46 ASSIGN DISA LINE

Description:

This MMC is used to allow the system the ability to have Direct Inward System Access (DISA). There are four 4 DISA. If a trunk is set to DISA, the voice announcement feature may be used when the VOICE MSG option is enabled in MMC 42 TRUNK ON/OFF.

OPTIONS	DESCRIPTION
0 NO DISA LINE	No DISA service
1 DISA IN NIGHT MODE	In night mode, DISA is available
2 DISA IN DAY MODE	In day mode, DISA is available
3 DISA BOTH NIGHT AND DAY	In day and night mode, DISA is available

Action

Display

1. Press **AUTO RDL** and dial **46**
Display shows

701: NO DISA

2. Using **LINE** or **LINE2** select the trunk you want (e.g. 702)

702: NO DISA

If you want select all trunks, press **LINE1**

3. Press **MUTE/DND** or **MSG** to select
OR
Using **KEYPAD**, dial
0 for **NO DISA LINE**
1 for **DISA IN NIGHT MODE**
2 for **DISA IN DAY MODE**
3 for **DISA BOTH NIGHT AND DAY**
(e.g. 1)

702: NIGHT DISA

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NO DISA

RELATED MMC

- MMC 28 CALL DISK
- MMC 42 TRUNK ON/OFF
- MMC 50 SYSTEM TIMERS

MMC 47 ASSIGN MPD

Description:

Used to allow the trunk to check the Metering Pulse. If you set the MPD option to 'ON' the system must have an MPD card.

OPTIONS	DESCRIPTION
0 NO MPD	No service
1 MPD ON	MPD is available

Action

Display

1. Press **AUTO RDL** and dial **47**

701: NO MPD

2. Press **LINE1** or **LINE2**, to select the trunk you want(e.g. 702)

702: NO MPD

If you want to select all trunks, press **LINE1**

3. Press **MUTE/DND** or **MSG** to make selection
OR
Using KEYPAD, dial
0 for NO MPD
or **1 for MPD ON**
(e.g. 1)

702: MPD ON

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NO MPD

RELATED MMC

MMC 57 CALL COST

MMC 50 SYSTEM TIMERS

Description:
 Used to adjust individual timers as necessary. All available timers are described in the Table of Timers and Values, below.

NOTE: Display shows second as S, millisecond as MS, and minute as MI.

Action

Display

1. Press **AUTO RDL** and dial **50**

ALM R INT :025SEC

2. Press **LINE1** or **LINE2** to select timer (e.g. ALM R DUR)

ALM R DUR: 010SEC

3. Enter new value using KEYPAD(e.g. 005)

ALM R DUR: 005SEC

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

See TABLE OF TIMERS AND VALUES

RELATED MMC

NONE

TABLE OF TIMERS AND VALUES

DISPLAY	DESCRIPTION	DEFAULT	RANGE
ALM R INT (Alarm ring interval)	Controls the time between ring attempts at a station when alarm reminder is set.	025S	1-250S
ALM R DUR (Alarm ring duration)	Controls the length of ring cycle duration when alarm reminder is set at a station.	010S	1-250S
ARDL INT (Auto Redial interval)	Controls the time between attempts after Auto Redial is set on a station.	045S	1-250S
ARDL RELS (Auto Redial release time)	Controls the duration of a Ring No Answer condition on an auto redial number dialled before auto redial is automatically cancelled.	045S	1-250MI
CBACK NOA (Callback no answer time)	Controls the time before the callback is automatically cancelled when a callback detects Ring No Answer.	030S	100-2500MS
CO CO DIS (CO to CO disconnect time)	Monitors the duration of an unsupervised conference, external call; forward or DISA call upon expiring, both trunks are disconnected.	010MI	1-250S
DISA FDG	First digit want time in DISA call	025S	1-250S
DISA IDG	Inter digit duration in DISA call	025S	1-250S
DISA RING	Controls the duration of ringing at the DISA called station before automatically transferred to the operator group.	030s	1-250S
DOOR RELS (Door release time)	Controls the duration of time before the door lock relay is activated.	1500MS	100-2500MS
DOR R OFF (Door Ring OFF duration)	Controls the duration of ringing at the door ring destination before automatically cancelling.	030S	1-250S

MMC 50

DISPLAY	DESCRIPTION	DEFAULT	RANGE
FIRST DGT (First Digit wait time)	Controls how long the system will wait for dialling to begin before dropping the dial tone and returning the user to error tone.	025S	1-250S
HOOK OFF (Hook OFF time)	Controls the time before dial tone is sent to a single line station.	0200MS	100-2500MS
INTER DGT (Inter Digit duration)	Controls the grace period between dialling valid digits and dropping the call and returning the user to error tone.	025S	1-250S
MMC OUT (MMC session time)	Controls the grace period between programming actions while in programming session, and automatically returns system to secure programming status.	030S	10-250S
OFF R INT (Off hook Ring Interval)	Controls the time between ring bursts to a user who has a camped-on call.	015S	1-250S
PAGE MAX (Page duration)	Controls the duration of a page announcement.	020S	1-250S
RCAL DISC (Recall Disconnect time)	This is the time an attendant recall will ring before being disconnected.	002MI	1-250MI
RCAL RING (Recall Ring length)	This is the length of time a transfer recall will ring at a station before recalling the operator.	015S	0-250S
RCAL WAIT (Recall Waiting time)	If a transferred call is recalled at the transferring station and the station is busy, this timer will expire and transfer the call to the operator. This only applies to trunk calls.	015S	0-250S
RCAL HOLD (Recall Hold time)	Determines the time calls can be left on hold before recalling back to the holding station.	045S	0-250S
RCAL TRSF (Recall Transfer time)	Determines the time that transferred calls ring before recalling.	045S	0-250S
SLT F MIN (minimum SLT flash time)	Monitors the duration of a hookswitch flash to ensure that the flash is valid and not a line noise or an accidental hookswitch bounce. It is the minimum time for a single line station.	0100MS	10-2500MS
SLT F MAX (maximum SLT flash time)	Maximum time of hookswitch flash of single line station.	0400MS	10-2500MS
SMDR PULS (SMDR start time for rotary dialing)	this grace period timer starts SMDR recording for pulse (rotary) dialing and controls the LCD duration timer on the keysets.	030S	1~250S
SMDR DTMF (SMDR start time for touchtone dialing)	this grace period timers starts SMDR recording for DTMF (Touch Tone) dialing and controls the LCD duration timer on the keysets.	015S	1~250S
TRK DISC	controls the duration of an outside call	030MIN	1~250S

MMC 51 TONE/RING CADENCE

Description:
 Provides the ability to customise the tone cadence on a system-wide basis. There are eight (8) tone cadences available. **Please call Technical Support before changing any cadences as some systems may require default settings.**

Action

Display

1. Press **AUTO RDL** and dial **51**

DT: CONTINUOUS

2. Press **LINE1** or **LINE2** to select the tone you want

RBT: 100200100200

Press **MUTE/DND** or **MSG** to select dial tone control (continuous tone or interrupt tone) (e.g. interrupt tone)

DT: 100025100025

Default data of interrupt tone is 1000 0250
 1000 0250 msec

3. Dial new interrupt time value, ON/OFF/ON/OFF in intervals of 50 msec. Each value is 3 digits and Represents a unit of 10 msec: e.g. 100/030/100/03
 0 is 1000 msec (100x10) for ON and 300 msec (030x10) for OFF

RBT: 100030100030

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

TONE NAME	DISPLAY	DATA
DIAL TONE	(DT)	CONTINUOUS TONE CHECK
RING BACK TONE	(RBT)	1000 2000 1000 2000 MSEC
BUSY TONE	(BST)	0500 0500 0500 0500 MSEC
TRSF TONE	(TT)	0200 0200 0200 0200 MSEC
ERROR TONE	(ERT)	0500 0250 0500 0250 MSEC
CO LINE RING	(COR)	1000 3000 1000 3000 MSEC
STATION RING	(STR)	0400 0200 0400 3000 MSEC

RELATED MMC

NONE

MMC 52 SYSTEM-WIDE COUNTER

Description:

Used to set the values of the system counters described below.

ALM COUNTER
(ALARM REMINDER
COUNTER)

The number of times that an alarm reminder will ring a station before cancelling (range: 1-99).

ARDL COUNTER
(AUTO REDIAL COUNTER)

The number of times the system will redial an outside number after the auto redial feature has been activated.

Action

Display

1. Press **AUTO RDL** and dial **52**

ALM COUNTER: 03

2. Press **LINE1** or **LINE2** to select the counter you want (e.g. ARDL)

ARDL COUNTER: 10

3. Dial new data (two digit e.g. 05)

ARDL COUNTER: 05

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

ALM COUNTER : 3
ARDL COUNTER : 10

RELATED MMC

NONE

MMC 53 TRUNK-WIDE TIMERS

Description:

Allows trunk timer values to be changed for all trunks. **It is not advisable to change these values, with the exception of trunk flash time, without assistance from Technical Support.**

Ten (10) options are available and are listed below.

DISPLAY	DESCRIPTION	RANGE
CLEARING (clearing time)	The interval after disconnecting the call and reusing the trunk line.	0~25sec
CO SUPV (CO supervision time)	The interval of checking the C.O.	000~9000 msec
F DGT DLY (first digit delay time)	After seizing the trunk line, system sends the first digit.	100~2500 msec
FLASH PBX (PBX flash time)	The duration of a flash when connected to a C.O.	100~2500 msec
MFS ON TM (MF sender on time)	The duration of DTMF Sender ON status when sending DTMF signal	100~2500 msec
MF OFF TM (MF sender off time)	The duration of DTMF Sender OFF when sending DTMF signal.	100~2500 msec
MPD DETCT (MPD detect time)	The minimum duration of MPD signal when the signal is incoming.	40~500 msec
NEW CALL (New Call time)	The duration of a flash sent to the central office to disconnect the line.	100~2500 msec
NO RING (no ring time)	After the incoming outside call is detected, if the outside call is disconnected without call processing, the system checks none of ring signal on the C.O line and release the C.O line.	1-25sec
PAUSE TM (pause time)	This is a pause duration timer. A pause is an instruction for the system to wait.	1~25sec
RNG DETCT (ring detect time)	This timer must be set shorter than the on cycle for C.O. ring. It is intended to prevent noise on the C.O. line from triggering a false ring.	100~2500 msec

NOTE : Display shows second millisecond as MS, and minute as MI.

Action

Display

1. Press **AUTO RDL** and dial **53**

CLEARING: 00S

2. Press **LINE1** or **LINE2** to select the timer you want (e.g. CO SUPV)

CO SUPV: 0000MS

MMC 53

3. Dial new time (e.g. 0500)

CO SUPV: 0500MS

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

CLEARING	: 00 SEC
CO SUPV	: 0000 MSEC
F DGT DLY	: 1000 MS
FLASH PBX	: 0600 MSEC
MFS ON TM	: 0100 MSEC
MF OFF TM	: 0100 MSEC
MPD DETCT	: 40 MSEC
NEW CALL	: 2000 MSEC
NO RING	: 05 SEC
PAUSE TM	: 03 SEC
RNG DETCT	: 0200 MSEC

RELATED MMC

NONE

MMC 54**MAKE/BREAK RATIO****Description:**

Allows the ability to change the duration of the make/break time. This will only affect rotary dial trunks.

Action

1. Press **AUTO RDL** and dial **54**
2. Enter the MAKE/BREAK ratio via the KEYPAD (e.g. MAKE:40 BREAK:60)
3. Press **AUTO RDL** to save and exit

Display

MAKE:33 BREAK:66

MAKE:40 BREAK:60

DEFAULT DATA

MAKE : 33
BREAK : 67

RELATED MMC

MMC 41 TRUNK DIALING TYPE

MMC 55 CURRENT DATE AND TIME

Description:

Allows the system date and time to be set. This will set the system-wide clock.

YY	Year	00~99 (e.g. 1995;æ95)
MM	Month	01~12
DD	Date	01~31
W	Weekday	0~6 (0:SUN 1:MON 2:TUE 3:WED 4:THU 5:FRI 6:SAT)
HH	Hour	00~23
MM	Minute	00~59

Action

1. Press **AUTO RDL** and dial **55**
2. Enter current date and time using above table (e.g. 5th July 1998, Wednesday, 11:35)
3. Press **AUTO RDL** to save and exit

Display

YY MM DD W HH:MM

95 07 05 3 11:35

DEFAULT DATA

SAT 01 JAN 12:00

RELATED MMC

MMC 15 DATE DISPLAY

MMC 56 ASSIGN AUTO NIGHT TIME

Description:

Used to enter the system into night mode automatically. A NIGHT key is not needed as the system will switch automatically, but it is helpful to have a dedicated button so the status can be manually changed. In the display, D is the time the system will switch from night to day service and N is the time the system will switch from day to night service.

There are three types of automatic night time table: WEEK, SATURDAY and SUNDAY. Each of them is composed of two time tables. If the user wants to switch automatically twice a day, it is useful to complete the two time tables in each of the automatic night time tables.

Table type	Description
WEEK	Used for Monday through Friday
SATURDAY	Used for Saturday
SUNDAY	Used for Sunday

Action

Display

1. Press **AUTO RDL** and dial **56**

WEK1 D0000 N0000

2. Press **LINE1** or **LINE2** to select the auto night time table:

There are six tables available (WEEK1, WEEK2, SAT1, SAT2, SUN1, SUN2)

If you want to switch to the night mode twice a day, you must enter the time of two related tables (e.g. WEEK1 and WEEK2)

If you do not, the system will switch to the night mode once a day

WEK2 D0000 N0000

3. Enter the day start time and the night start time (e.g. 7:00 a.m. and 5:30 p.m.)

WEK1 D0700 N1730

Eight digits must be entered (if there are less than eight digits, data will not be changed)

MMC 56

- 3a. If you want to switch twice a day, you must enter two related tables simultaneously (e.g. WEEK1 and WEEK2)

WEEK1 D:0700 N:1200

AND

WEEK2 D:1300 N:1700

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

DAY : 0000
NIGHT : 0000

RELATED MMC

MMC 55 CURRENT DATE AND TIME

MMC 57**CALL COST****Description:**

Used to program the unit cost of the metering pulse generated by Central Office. If the MPD card is installed in the system, it will detect the metering pulse provided by the Central Exchanger and determine the call cost by the number of metering pulses and the unit cost programmed by this MMC. The unit cost is four (4) digits, measured in the lowest denomination of currency (e.g. pence in the UK).

Action

1. Press **AUTO RDL** and dial **57**
2. Enter 4-digit call cost.
(If you don't enter four digits, the data will not be changed)
3. Press **AUTO RDL** to save and exit

Display

CALL COST: 0000

CALL COST: 0320

DEFAULT DATA

CALL COST : 0000
(Range of UNIT COST is 0001-9999)

RELATED MMC

MMC 47 ASSIGN MPD

MMC 60 TOLL DENY TABLE/APPLY

Description:
 Allows you to define what leading digit(s) in a dialling plan are to be restricted and which class(es) should be applied in this toll deny table. Each entry can be defined by up to 11 digits.

Acton

Display

1. Press **AUTO RDL** and dial **60**

TOLL DENY : NEW

2. Press **MUTE/DND** or **MSG** to select the search class (search class = NEW, ALL, B, C, D, E)

05464602834:1111

3. Pressing **LINE1** or **LINE2** to find the desired entry or Empty entry

:BCDE

4. Enter the dial number to be restricted and press **CALLBACK** or **RDL** to assign the toll restriction apply class
 Then dial four (4) digits:
 0 for **NO**
 1 for **YES**

0546 :0011

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

NONE

RELATED MMC

- MMC 30 STATION TOLL CLASS
- MMC 61 TOLL ALLOW TABLE/APPLY

MMC 61 TOLL ALLOW TABLE/APPLY

Description:
 Allows you to define what leading digit(s) in a dialling plan are to be allowed and which class(es) should be applied in this toll allow table. Each entry can be defined by up to 11 digits.

Action

Display

1. Press **AUTO RDL** and dial **61**

2. Pressing **MUTE/DND**, select the search class
 (search class =NEW, ALL, B,C,D,E)

3. Press **LINE1** or **LINE2** to find the desired entry or Empty entry

4. Enter the dial number to be allowed and press **CALLBACK** or **RDL** to assign the toll class
 Then dial four (4) digits
 0 for NO
 1 for YES

5. Press **AUTO RDL** to save and exit

TOLL ALLOW: NEW

05464602834:1111

:BCDE

0546 :0011

DEFAULT DATA

NONE

RELATED MMC

- MMC 30 STATION TOLL CLASS
- MMC 60 TOLL DENY TABLE

MMC 62 PBX ACCESS CODE

Description:
 Used to identify PBX access codes so that toll restriction will work. When a PBX line is accessed, the dial tone originates in another PBX and extension numbers on that switch can be dialled.

To get an outside line, an access code must be dialled. If this access code appears in this list, it is ignored and the toll restriction plan examines the digits following the PBX access code. It has five entries (1-5) with a maximum of four digits per entry.

Action

Display

1. Press **AUTO RDL** and dial **62**

PBX1:

2. Press **LINE1** or **LINE2** to select the entry (e.g. PBX2)

PBX2:

3. Enter new PBX access code(maximum four digits, e.g. 9)

PBX1:9

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NONE

RELATED MMC

MMC 40 C.O. PBX LINE

MMC 63 AUTHORIZATION CODE

Description:

Used to list all allowable authorisation codes. An authorisation code must be four digits long. There are 50 codes allowed in this table. Duplications or number conflicts are not permitted.

Each authorisation code has an associated dialling class of service. When the code is entered, the dialling class of service is changed to that of the authorisation code.

Action

Display

1. Press **AUTO RDL** and dial **63**

AU01:	COS:
-------	------

2. Enter two digits(01~50), or press **LINE1** or **LINE2** to select the entry

3. Enter 4-digit code and dialling class (e.g. 0312 end 1)

AU01:0312	COS:1
-----------	-------

There are five dialling classes

- 1 : A CLASS**
- 2 : B CLASS**
- 3 : C CLASS**
- 4 : D CLASS**

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

NONE

RELATED MMC

MMC 30 STATION TOLL CLASS

MMC 64**OVERRIDE TABLE****Description:**

Used to enter up to five exceptions to toll restriction. These exceptions can be accessed by any class in both the day and night modes. These entries are useful in allowing access to emergency numbers.

Caution should be taken with the entries in this table because they will not be blocked for outgoing calls.

Action**Display**

1. Press **AUTO RDL** and dial **64**
2. Press **LINE1** or **LINE2** to select the urgent code number that you want (e.g. 911)
3. Enter the number to allow (e.g. 911)
4. Press **AUTO RDL** to store and exit

URG1:

URG2:

URG1:911

DEFAULT DATA

NONE

RELATED MMC

NONE

MMC 65 ASSIGN WILD CHARACTER

Description:
 Provides flexibility to toll restriction when a specific numbering plan is desired. There are only three entry tables, but more than one digit can be assigned per table if needed.

Action

Display

1. Press **AUTO RDL** and dial **65**

X:111111111111

2. Press **LINE1** or **LINE2** to select the wild character(X,Y or Z, e.g. Y)

Y:111111111111

3. Enter the digit '1' under the desired digit.
 Twelve (12)
 Digits must be entered
 (If there re less than 12 digits, data will not be changed)

X:000000000000

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

```

1234567890*#
X : 111111111111
Y : 111111111111
Z : 111111111111
    
```

RELATED MMC

```

MMC 60 TOLL DENY TABLE
MMC 61 TOLL ALLOW TABLE
    
```

MMC 66 SYSTEM SPD DIAL TOLL RESTRICTION

Description:
 Enables you to define whether the system allows or denies long distance numbers in system speed dialling to override toll restriction.

BYPASS TOLL Any station can use system speed dial numbers without restriction, regardless their classes.

FOLLOW TOLL The system checks all the system speed dialings according to the station class and deny/allow table.

Action

Display

1. Press **AUTO RDL** and dial **66**

BYPASS TOLL

2. Press **MUTE/DND** or **MSG** to select data
 OR
 Dial **1** for **BYPASS TOLL**
 or **2** for **FOLLOW TOLL**

FOLLOW TOLL

3. Press **AUTO RDL** to save and exit

DEFAULT DATA

BYPASS TOLL

RELATED MMC

- MMC 30 STATION TOLL CLASS
- MMC 60 TOLL DENY TABLE
- MMC 61 TOLL ALLOW TABLE
- MMC 67 ASSIGN SYSTEM SPEED DIAL

MMC 67 ASSIGN SYSTEM SPEED DIAL

Description:
 Used to store up to 80 system speed dial numbers. The system speed dial number is composed of two digits (20-99) and a maximum of 30 digits per telephone number can be stored at each speed dial number. Eighty (80) system speed dial numbers are commonly used at every station and the system toll restriction is set using MMC 66. A speed dial number comprises an access code and the number to be dialed. The access code can be any trunk group, individual trunk, station group, and individual station. If you dial a valid trunk, trunk group, station or station group access number, it will automatically insert the separator (:).

Action

Display

1. Press **AUTO RDL** and dial **67**

SYS SPD TABLE:

2. Using **LINE1** or **LINE2** to select the entry
 OR
 Dial the entry number (20~99, e.g. 20)

20:

3. Enter the speed dial number (up to 30 digits)

20:7019P0546460

4. Enter trunk access code(e.g. 9) followed by
 the number to be dialed(e.g. 1234567)

17:9:1234567

5. Press **LINE1** or **LINE2** to enter another speed
 dial number and return to step 3

6. Press **AUTO RDL** to save and exit

DEFAULT DATA

NONE

RELATED MMC

NONE

MMC 70 DIAL NUMBERING PLAN

Description:
 Provides the access codes and dialling plan needed for operation of features and programs. The system comes with a wide range of acceptable numbering plans set as default and the option to customise the dialling plan. There is also a confirm message provided because of the chance of duplicating an access/feature code.

Action

Display

1. Press **AUTO RDL** and dial **70**

STN09:201:

2. press **MUTE/DND** or **MSG**, select the desired numbering plan group(STATION, STATION GRP, TRUNK, TRUNK, GRP or FEATURE)

3. Search the desired numbering plan entry by pressing **LINE1** or **LINE2**

4. Enter digits via the dial keypad (Max 3 digits)

STN09:201:401

5. Press **LINE1** or **LINE2** to enter change and continue to make changes

STN10:202

OR

Press **MUTE/DND** or **MSG** to enter change and continue to select numbering plan groups in step 2

If confirm message appears indicating duplication of access code, dial

0 for no change
 or **1 for change**

SGR01:500:

6. Press **AUTO RDL** to save and exit

MMC 70

DEFAULT DATA

ACC	: 47	: ACCOUNT CODE
ALM	: 58	: ALARM
AMD	: 68	: ANSWER MODE
ATH	: 65	: AUTHORIZATION CODE
BRG	: 40	: BARGE-IN
CBK	: 44	: CALL BACK
CMP	: 45	: CAMP-ON
CNF	: 46	: CONFERENCE
COS	: 59	: CLASS OF SERVICE
CPS	: 54	: CHANGE PASSCODE
DND	: 64	: DO NOT DISTURB
DOR	: 13	: DOOR
DPC	: 10	: DIRECT PICKUP
EXC	: 12	: EXECUTIVE / SECRETARY
FAT	: 14	: FORCED AUTO ANSWER
FLS	: 49	: FLASH
FWA	: 61	: CALL FORWARD ALL
FWB	: 62	: CALL FORWARD BUSY
FWC	: 60	: CALL FORWARD CANCEL
FWN	: 63	: CALL FORWARD NO ANSWER
GPC	: 66	: GROUP PICK UP
GPS	: *	: SELF GROUP PICK UP
HED	: 69	: HEADSET
HLD	: 11	: HOLD
IOG	: 53	: IN / OUT GROUP
LNR	: 19	: LAST NUMBER REDIAL
MPG	: 56	: MEET ME PAGE
MSA	: 43	: MESSAGE ANSWER
MSC	: 42	: MESSAGE CLEAR
MSL	: 41	: MESSAGE LEFT
OPR	: 0	: OPERATOR
PAG	: 55	: PAGE
REC	: 18	: DISA VOICE RECORDING
SDI	: 15	: SPEED DIAL INSERTION
SNR	: 17	: SAVED NUMBER REDIAL
SPD	: 16	: SPEED
SGR	: 500-519	: STATION GROUP
STN	: 2XX	: STATION NUMBER
TRK	: 7XX	: TRUNK NUMBER
TGR	: 9, 80-89	: TRUNK GROUP
UPC	: 67	: UNIVERSAL NIGHT ANSWER
VAC	: 48	: VACANT MESSAGE

RELATED MMC

ALL PROGRAM AND FEATURES

MMC 71 SYSTEM KEY PROGRAMMING

Description:
Allows for the customising of programmable keys on a system-wide basis.

Action

Display

1. Press **AUTO RDL** and dial **71**

TYPE: NX24

2. Press **LINE1** or **LINE2** to select the type of the keyset:

TYPE: NX12

3. Press the desired key
OR
Press **RDL** or **CONF** to select desired key. (e.g. 13)

13:NONE

4. Enter the key programming via keypad.
Trunk number, Trunk Group number, Station number, Station Group number, or feature number can be programmed keys

13:*26

If you want to program a feature key, you must press '*' key
Before entering the feature key ID (e.g. NIT : *26)

Programmable key assignments are listed below (Default Data)

If you want to change another key, return to step 3

5. Press **AUTO RDL** to save and exit.

DEFAULT DATA

NX-24E/NX-24B					
19: 209	20:210	21: 211	22: 212	23: 213	24: 214
13: 203	14: 204	15: 205	16: 206	17: 207	18: 208
07: 705	08: 706	09: 707	10: 208	11: 201	12: 202
01: 701	02: 702	03: 703	04: 704	05: FLS	06: TRN

NX-6B					
01: 701	02: 702	03: 703	04: 704	05: FLS	06: TRN

MMC 71

SKP-816						
09: 201	17: 209		01: 701	02: 702	03: 703	04: 704
10: 202	18: 210		05: 705	06: 706	07: 707	08: 708
11: 203	19: 211					
12: 204	20: 212					
13: 205	21: 213					
14: 206	22: 214					
15: 207	23: 215					
16: 208	24: 216					

NX-AOM	
01: NONE	13: NONE
02: NONE	14: NONE
03: NONE	15: NONE
04: NONE	16: NONE
05: NONE	17: NONE
06: NONE	18: NONE
07: NONE	19: NONE
08: NONE	20: NONE
09: NONE	21: NONE
10: NONE	22: NONE
11: NONE	23: NONE
12: NONE	24: NONE

MMC 71

Programmable Key Assignment

*00 :	ACC	Account code	*20 :	IOG	Group In/Out
*01 :	ALM	Set Alarm	*21 :	LNR	Last Number Redial
*02 :	AMD	Answer Mode	*22 :	LSN	Group Listening
*03 :	ARD	Auto Redial	*23 :	MPG	Meet Me Page
*04 :	BRG	Barge-In	*24 :	MSG	Message
*05 :	CBK	Callback	*25 :	MUT	Mute
*06 :	CMP	Camp-on	*26 :	NIT	Night mode
*07 :	CNF	Conference	*27 :	OPR	Operator group
*08 :	DND	Do Not Disturb	*28 :	PAG	Page
*09 :	DOR	Door	*29 :	PSE	Pause Dialing
*10 :	DPC	Direct Pickup	*30 :	SNR	Saved Number Redial
*11 :	EXC	Boss/Secretary	*31 :	SPD	Speed Dialing
*12 :	FAT	Forced Auto Answer	*32 :	TMR	Timer
*13 :	FLS	Flash	*33 :	TRN	Transfer
*14 :	FWA	Call Forward All	*34 :	UPC	UNA Pickup
*15 :	FWB	Call Forward Busy	*35 :	VAC	Vacant Message
*16 :	FWE	External Call Forward			
*17 :	FWN	Call Forward No answer			
*18 :	GPC	Group Pickup			
*19 :	HED	Headset mode			

NOTE : : The SPD, VAC, PAG, DOR, EXC, DPC and GPC keys can be assigned with extenders. Refer to MMC 16 KEY EXTENDER.

RELATED MMC

MMC 16 KEY EXTENDER
MMC 72 STATION KEY PROGRAMMING

MMC 72 STATION KEY PROGRAMMING

Description:
 Allows for the customising of programmable keys on specific electronic keysets. This program also provides a tool for duplicating keysets (so that each has the same key format structure). A limitation is that copied and target sets must be the same type of keyset.

Action

Display

1. Press **AUTO RDL** and dial **72**

201 CPY FROM:

2. If you want to copy from another station key assignment, enter the station number(e.g. 202)

201 CPY FROM: 202

Press **LINE1/LINE2** to select the station

201 01:701

3. Press the desired key
 OR
 Press **RDL** or **CONF** to select desired key

201 13:NONE

4. Press dial pad key number to make selection.
 If you want to change another key, return to step 3

201 13:*10702

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

Same as MMC 71

RELATED MMC

- MMC 16 KEY EXTENDER
- MMC 72 STATION KEY PROGRAMMING

MMC 73 **KEY TEST**

Description:
 Allows you to check whether each key works properly.

Action

1. Press **AUTO RDL** and dial **73**
 All LEDs light and station rings
 Display sets show the full matrix pattern for 16 characters
2. Press each function button and dial pad key to test its operation (e.g. 2)
3. Lift the handset and end testing

Display

| á; á

DIGIT2::

DEFAULT DATA

NONE

RELATED MMC

NONE

MMC 80 I/O PARAMETER

Description:

Provides a mean of setting parameters for the serial I/O ports (COM1 and COM 2) to work with SMDR and Remote MMC. COM1 and COM2 may be found on the SMDR/R-MMC card. COM1 is the SMDR port and COM2 is R-MMC port on the card. COM1 is used as SMDR or TRAFFIC port and COM2 is used for remote programming.

PARAMETER	OPTIONS
TYPE OF SERVICE	SMDR, REMOTE, TRAFFIC
REMOTE STN	REMOTE only
BAUD RATE	300, 600, 1200, 2400, 4800, 9600 BPS
CHARACTER LENGTH	7 BIT, 8 BIT
PARITY	NO PARITY, EVEN PARITY, ODD PARITY
STOP BIT	1 BIT

Action

Display

1. Press **AUTO RDL** and dial **80**

COM1:9600 8 NONE

2. Press **LINE1,LINE2** to select the serial port (COM1, COM2)

3. Press **RDL** or **CONF** to select the parameter you want

COM1:4800 8 NONE

4. Press **MUTE/DND** or **MSG** to select the data

COM1:4800 7 ODD

5. Press **AUTO RDL** to save and exit

DEFAULT DATA

COM1 : 9600 8 NONE
 COM2 : 9600 8 NONE
 COM1 : XON OFF : ON
 COM2 : XON OFF : ON
 SMDR : COM1
 TRAFFIC : COM1
 REMOTE : COM2 STN : NONE

NOTE : 'XON OFF' means whether the system checks the CTS pin of the serial port.
 'REMOTE STN' means the port displaying the Remote MMC procedure. When remote programming is in progress, it is not possible to access this port.

RELATED MMC

NONE

MMC 81 SMDR OPTION

Description:

Allows the system administrator to select the information to be printed on the SMDR report. The following options may be selected.

OPTIONS	DESCRIPTIONS
PAGE HEADER	Determines whether or not a page header will print at the top of each page. This feature is normally turned off if SMDR is sent to a call accounting machine.
LINE PER PAGE	Selects the length of each page to determine when to print the SMDR header. The number of lines is in the range 10-99.
INCOMING CALL	Determines whether incoming calls will print on SMDR.
AUTHORIZE CODE	Determines whether the table number of authorisation codes will print on SMDR.
LESS START TIME	Determines whether valid calls will include the minimum call time in total call duration.
ALARM	Determines whether stations receiving an alarm reminder call will print on SMDR.
COMPANY NAME	Allows the system administrator to enter a 16-character name which will appear on the SMDR header.

Action

DISPLAY

1. Press **AUTO RDL** and dial **81**

PAGE HEAD:YES

2. Press **LINE1** or **LINE2** to select the parameter you want (e.g. LINE PER PAGE)

LINE PER PAGE:66

3. Press **MUTE/DND** or **MSG** to select data
 OR
 Using KEYPAD, dial
0 for NO
1 for YES
 For LINE PER PAGE, enter the line number(10-99)
 For COMPANY NAME, refer to MMC 14
 (STATION NAME)

4. Press **AUTO RDL** to save and exit

DEFAULT DATA

PAGE HEADER : YES
LINE PER PAGE : 66
INCOMING CALL : NO
AUTHORIZE CODE : YES
LESS START TIME : NO
ALARM : NO
COMPANY NAME : NONE

RELATED MMC

MMC 80 I/O PARAMETER

MMC 83 CALL TRAFFIC REPORT

Description:

Used to print a traffic report. Four types of printing are available and each type has two options.

NO.	TYPE	DESCRIPTION
0	NO	No print
1	NOW	Printed on demand
2	DAILY	Printed at the end of day automatically (PM 12:00)
3	WEEKLY	Printed at the end of week automatically (PM 12:00 on Saturday)
NO.	OPTIONS	DESCRIPTION
0	CLEAR	A report is printed and all totals are reset to 0
1	SAVE	A report is printed and all totals are saved

Action

1. Press **AUTO RDL** and dial **83**
2. Press **MUTE/DND** or **MSG** to select type you want
OR
Using KEYPAD, dial
0 for **NO**
1 for **NOW**
2 for **DAILY**
or **3** for **WEEKLY** (e.g. 3)
3. Press **LINE1** or **LINE2** and dial
0 for **CLEAR**,
or **1** for **SAVE** (e.g. 1)
4. Press **AUTO RDL** to save and exit

Display

PRINT : NO

PRINT : WEEKLY

DATA: SAVE

DEFAULT DATA : PRINT : NO
DATA : SAVE

RELATED MMC : MMC 80 I/O PARAMETER

MMC 90

CUSTOMER USE MMC

Description:

Allows the customer to have access to certain MMCs. For example, it is advised that the customer have access to MMC 11, Call Forward, for call forwarding but it is not advised that the customer have access to MMC 60, Toll Deny for toll restriction.

Action

DISPLAY

1. Press **AUTO RDL** and dial **90**.

00:STN LOCK : YES

2. Press **LINE1** or **LINE2** to select the MMC you want.
 OR
 Using KEYPAD, enter the desired MMC number.

00:STN LOCK : NO

3. Press **MUTE/DND** or **MSG** to make selection.
 (NO = Customer cannot access the MMC)

01:STN CODE: YES

4. Press **AUTO RDL** to save and exit.

DEFAULT DATA

- | | | | |
|--------------|------|--------------|------|
| 00:STN LOCK | :YES | 20:PGM MODE | :NO |
| 01:STN CODE | :YES | 21:PGM CODE | :YES |
| 10:ANS MODE | :YES | 22:CUS MISC | :YES |
| 11:CALL FWD | :YES | 23:PAGE ZONE | :NO |
| 12:STN MISC | :YES | 24:BARGE IN | :NO |
| 13:RING FREQ | :YES | 25:HOT WARM | :YES |
| 14:STN NAME | :YES | 26:ALM CLK | :YES |
| 15:DATE FORM | :YES | 27:VAC MSG | :YES |
| 16:KEY EXTEN | :YES | 28:CALL DISC | :NO |
| 17:STN SPD | :YES | 30:STN COS | :NO |
| | | 31:TRK USE | :NO |
| | | 32:INTERCOM | :NO |
| | | 33:DOOR RING | :NO |

MMC 90

34:PICK GRP	:NO	60:TOLL DENY	:NO
35:STN GRP	:NO	61:TOLL ALLOW	:NO
36:BOSS SECR	:YES	62:PBX CODE	:NO
37:SET AOM	:NO	63:AUTH CODE	:NO
38:SLT TYPE	:NO	64:URGENT CD	:NO
39:DATA LINE	:NO	65:WILD CHAR	:NO
40:PBX LINE	:NO	66:SPD TOLL	:NO
41:TRK DIAL	:NO	67:SYS SPD	:YES
42:TRK MISC	:NO	70:NUM PLAN	:NO
43:TRK RING	:NO	71:SYS KEY	:NO
44:TRK NAME	:NO	72:STN KEY	:NO
45:TRK GRP	:NO	73:KEY TEST	:NO
46:DISA LINE	:NO	80:IO PARA	:NO
47:SET MPD	:NO	81:SMDR OPT	:NO
50:SYS TIME	:NO	83:TRFC RPT	:YES
51:TONE CADE	:NO		
52:SYS CNTR	:NO		
53:TRK TIME	:NO		
54:MAKE RATE	:NO		
55:DATE TIME	:YES		
56:NITE TIME	:YES		
57:CALL COST	:NO		

RELATED MMC

NONE

MMC 91

SYSTEM VERSION

Description:

Provides a display of the current software version of the KSU and the keyset, and the date when product was made. This is a READ-ONLY MMC.

Action

1. Press **AUTO RDL** and dial **91**.

2. Press **LINE1** or **LINE2** to select the display you want.

3. Press **AUTO RDL** to and exit.

Display

KSU:V1.0 EKTS:01

MADE:1996.01.01

DEFAULT DATA

SOFTWARE VERSION AND PRODUCT BUILD DATE

RELATED MMC

NONE

MMC 92 PORT STATUS

Description:
 Displays the status of a port. There are 16 status types: IDLE, BUSY, CALLBACK, DOOR RING, TRK RING, STN RING, GRP RING, RCL RING, PROGRAM, ON T HOLD, ON S HOLD, ON E HOLD, IS PAGED, IS SEIZED, WRAP UP, OFF HOOK.

Action

Display

1. Press **AUTO RDL** and dial **92**.

[702] IDLE

2. Press **LINE1** or **LINE2** to see the status of the port.

[702] BUSY

If you want to clear the port's status, press **HOLD**

[702] IDLE

3. Press **AUTO RDL** to save and exit.

DEFAULT DATA

IDLE

RELATED MMC

NONE

MMC 93**SELECTION LANGUAGE****Description:**

Used to select the language that is displayed in the LCD. The languages available are listed below with their entry numbers.

ENTRY NUMBER	LANGUAGE
1	ENGLISH
2	SPANISH
3	PORTUGUESE

NOTE : English is displayed in LCD, when you are in MMC mode.

Action**DISPLAY**

1. Press **AUTO RDL** and dial **93**.
2. Press **MUTE/DND** or **MSG** to select the language.
OR
Using KEYPAD, dial
1 for ENGLISH
2 for SPANISH
or **3 for PORTUGUESE.**
3. Press **AUTO RDL** to save and exit.

ENGLISH

SPANISH

DEFAULT DATA

ENGLISH

RELATED MMC

NONE

MMC 94**HALT PROCESS****Description:**

Used only in the event that all data processing needs to be stopped. A 4-digit technician's passcode is required to access this MMC. This MMC doesn't interfere with the call in progress, but when making a new call you will hear a busy tone.

Action

1. Press **AUTO RDL** and dial **94**.
2. Enter technician's passcode
3. Press **MUTE/DND** or **MSG** to select data.
OR
Using KEYPAD, dial
0 for **PROCESSING**
or **1** for **HALT**
(e.g. 0)
4. Press **AUTO RDL** to save and exit.

Display

PASSCODE:

PASSCODE:****

PROCESSING

DEFAULT DATA

PROCESSING

RELATED MMC

NONE

MMC 95 SYSTEM RESTART

Description:

Provides two methods of restarting the system.

OPTIONS	DESCRIPTION
RESET SYSTEM	It will restart the system only.
CLEAR MEMORY	It restart the system and clear all memory. If clear all memory is selected, only the default data will return.

WARNING

Extreme care should be taken when using this MMC. If the system is restarted, all voice/data connections are dropped. If memory is cleared, all customer data is deleted and the system returns to default status.

Action

1. Press **AUTO RDL** and dial **95**.
2. Enter the technician's passcode
3. Press **LINE1** or **LINE2** to select the option.
(e.g. CLEAR MEMORY)
4. Dial 0 for NO or 1 for YES

DISPLAY

PASSCODE:

RESET SYSTEM?

CLEAR MEMORY?

If you selected CLEAR MEMORY you are asked to confirm your choice:

Dial **0** for **NO**
or **1** for **YES**

ARE YOU SURE?

DEFAULT DATA

NONE

RELATED MMC

NONE

APPENDIX

Appendix A

Remote Programming

Remote programming capability has been incorporated into the NX-828H via the communication (serial) R-MMC port of the optional SMDR/R-MMC card mounted on the base unit. This port is fixed as a programming port only. The remote programming capability of the NX-828H can be used to add, delete or modify a customer database. While remote programming gives added flexibility to the NX-828H, it is not possible to upload to, or download from, a disk or tape. All NX-828H MMCs may be accessed via remote programming.

1. Site Requirements

1.1 Customer Site Requirements

Before using remote programming:

- Install the optional NX-SMDR/R-MMC card in the base unit.
- Use MMC 80 to set the baud rate of the R-MMC port of the optional NX-SMDR/R-MMC card to match the customer site's modem. Baud rate speed selections are 300, 600, 1200, 2400, 4800 and 9600. (8 Data bit, No parity, 1 stop bit is default.)
- Use MMC 80 Remote Station option: When remote programming is used, it must reference an installed NX24E keyset at the customer site. This assigned keyset will be disabled for the duration of the remote programming session. When remote programming is not in use, this assigned keyset will function as a normal keyset. No default data has been set and a keyset port selection should be made that will offer the minimal inconvenience at the job site.

NOTE : There are no physical connections to be made between keyset and modem or keyset and communications port. The assigned keyset is used as a software reference point only.

A customer-provided modem and cable must be connected to the R-MMC port.

- Use a voice grade dial-up line on which the modem can be called.

1.2 Remote Site Requirements

- A personal computer (PC) with communications software that can emulate VT 102 terminal.

NOTE : Since communication software can vary, no assurance can be made that every communications software package available will work.

- An internal or external modem able to match baud rate speed with the modem at the customer site.

• A voice grade dial-up line to call the customer modem.

1.3 Begin Programming

Dial the customer modem number and establish a communications link with the customer site. Once communications have been established, press the TAB key on the PC keyboard and you will receive the NX-828H system header display (shown below).

```

                WELCOME TO NX SERIES REMOTE PROGRAM
                -----
                CUSTOMER   :
                DATE       : Sat, 01 , Jan
                TIME       : 00:02
                -----
                TRANSFER   : TAB
                SPEAKER    : RETURN
                UP/DOWN    : UP/DOWN
                REDIAL/FLASH: LEFT/RIGHT
                HOLD       : BACKSPACE

                PROGRAM CODE:
    
```

If you receive a "SORRY!DESTINATION PORT IS BUSY" display, the keyset assigned as the remote station in MMC 80 is currently busy and no remote programming can be done at this time. When the NX-828H system header is displayed, you can enter MMC 20, type the necessary passcode to open programming and begin the remote programming session.

1.4 Programming Protocol

The NX-828H will only recognise keystrokes on the PC keyboard that have been assigned as an NX-keyset equivalent. These keystrokes are fixed and are not programmable. Use the PC equivalent in place of the NX24E key as called for in MMC programming procedures. These keystrokes are described below. Dial pad numbers may be entered using the standard number keys of the PC keyboard or the number pad on the right-hand side of the PC keyboard (if equipped).

CAUTION : Do NOT use MMC 73 or 95 (Clear Memory option) while in remote programming. Defaulting the system will clear all necessary data needed for remote programming. Someone at the customer site will be needed to assign the necessary data for remote programming to work.

2. On-site Programming Via PC Terminal

On-site programming via a PC terminal has been incorporated into the NX-828H via the communication (serial) R-MMC port on the optional SMDR/R-MMC card mounted in the base unit. This port is fixed as a programming port only. The on-site programming capability of the NX-828H can be used to add, delete or modify a customer database. While on-site programming gives added flexibility to the NX-828H, it is not possible to upload to or download from a disk or tape. ALL NX-828H MMCs may be accessed via on-site programming.

2.1 On-site Requirements

Before on-site programming can be used:

- Install the optional SMDR/R-MMC card in the base unit.
- Use a customer-provided PC terminal with communications software that can emulate a VT 103 type terminal.

NOTE : Since communications software can vary, no assurance can be made that every communications software package available will work.

- Use MMC 80 to set the baud rate, Data bit, Parity bit, and Stop bit of the R-MMC port of the optional SMDR/R-MMC card to match the customer's PC terminal. Baud rate speed selections are 300, 600, 1200, 2400, 4800 and 9600. 8 bit / 7 bit data, No parity / Even parity / Odd parity, and 1 stop / 2 stop bit are selectable.
- Use MMC 80, Remote Station option: When on-site programming is used, it must reference an installed NX24 keyset at the customer site. This assigned keyset will be disabled for the duration of the on-site programming session. When on-site programming is not in use, this assigned keyset will function as a normal keyset. No default data has been set and a keyset port selection should be made that will offer the minimal inconvenience at the job site.

NOTE : There are no physical connections to be made between the assigned keyset and the communications port. The assigned keyset is used as a software reference point only. If the assigned keyset is a display keyset, it will echo the programming keystrokes from the PC terminal.

- A customer-provided cable must be connected between the PC terminal and the R-MMC port.

2.2 Begin Programming

Once communications have been established, press the TAB key on the PC keyboard and you will receive the NX-828H header display (shown below). If you receive a "SORRY DESTINATION PORT IS BUSY" display, the keyset assigned in MMC 80 is currently busy and no on-site

programming can be done at this time. When the NX-828H header is displayed, you can enter MMC 20, type the necessary passcode to open programming and begin the on-site programming session.

NOTE : CUSTOMER in the header will display the name assigned in MMC 81.

2.3 Programming Protocol

The NX-828H will only recognise keystrokes on the PC keyboard that have been assigned as an NX24 keyset equivalent. These keystrokes are fixed and are not programmable. Use the PC equivalent in place of the NX24 key as called for in MMC programming procedures. These keystrokes are described below. Dial pad numbers may be entered using the standard number keys of the PC keyboard or the number pad on the right-hand side of the PC keyboard (if equipped).

Appendix B

Database Download

1. Introduction To Database Download Programming

A database download programming capability has been incorporated into the **NX-828** via the communication (serial) **SMDR** port of the optional **SMDR/R-MMC** card mounted in the base unit. This is a software utility designed to allow a certified **NX-828** technician the ability to perform a database download on-site.

1.1 Customer Site Requirements

Certain conditions must be satisfied before installing the software package on a personal computer:

1. Install the optional **NX-SMDR/R-MMC** card in the base unit.
2. Use a 286 or higher IBM-PC or 100% IBM-compatible computer with the following
 - **MS-DOS** version 5.0 or higher
 - **MS-WINDOWS** version 3.1 or higher
 - 3 "5¼" or 5 "3½" high-density floppy drive
 - **VGA** monitor.
3. Rs-232C cable

2. Installing Database Downloading

2.1 Getting Started

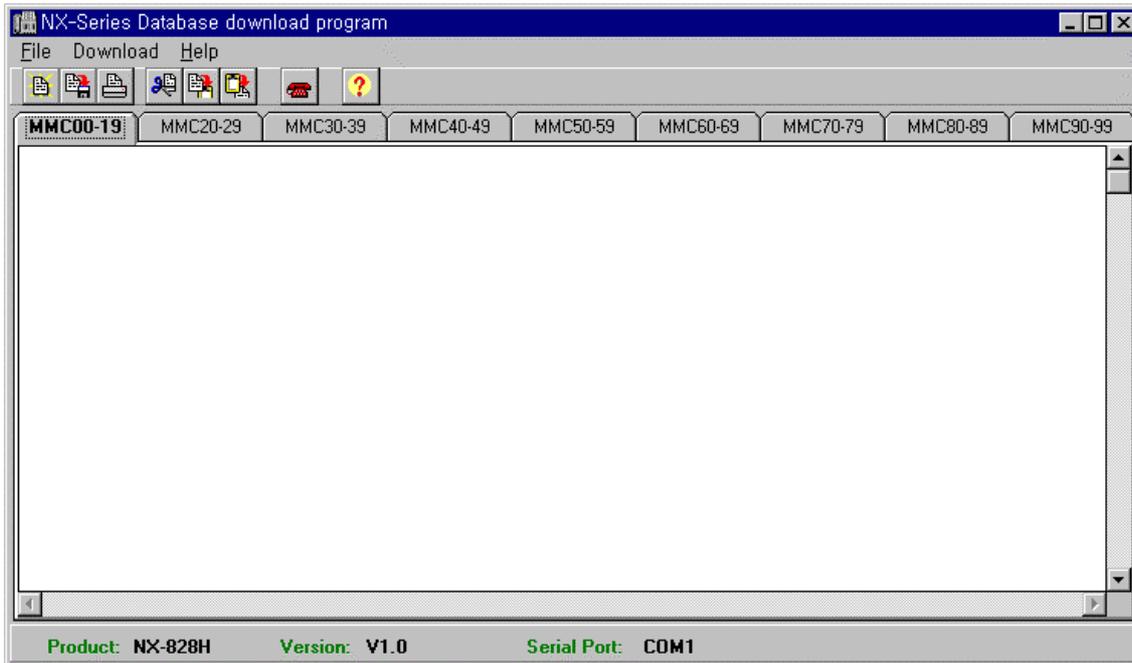
1. Create a directory to store the **DATABASE DOWNLOAD** program.
2. Copy the file to the new directory. The file is compressed and will have a name similar to **NX71229.exe** where **71229** is the date the file was generated.
3. Type "**NX71229**" to uncompress the file or Double-click file name on the file name in the Windows file manager.
4. Double-click on the icon that was created by the install program in the Windows file manager - "**NX_DOWN.EXE**".

3. Setup of Database Downloading Program

3.1 Starting NX Download Program

1. Connect the cable required (**RS-232C**)
2. Turn on the **PC**.
3. Enter the **DATABASE DOWNLOAD** directory.
4. Double-click on the icon that was created by the install program in the Windows - "**NX_DOWN**"
5. You will see Windows shown below.

Figure 1.1 Main Window



3. 2 Setup Of Database Downloading Program

Setup is one of the most important parts of the **DOWNLOAD PROGRAM**. Many problems can result simply from an incorrect connection. The **DATABASE DOWNLOADING** program communicates with the **NX-828** via the COM port in your computer and a port on the **NX-SMDR/R-MMC** card.

Select the required option and a check mark appears in the check box.

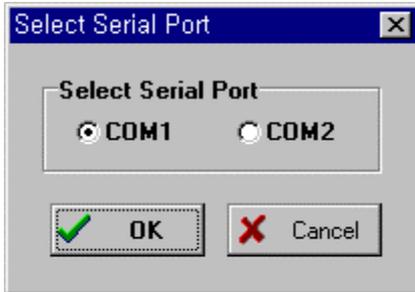
1. Choose Download / Version; !
2. Select the item in the Product check box
3. Select the item in the Version check box.
4. Select the item in the Country check box(optional)
5. Select OK button.

Figure 1.2 Version & Product Dialog Box



6. Choose Download / Serial Port; |
7. Check **COM** port in the Select serial port check box
8. Select OK button.

Figure 1.2 Port dialog box



4. Using database downloading program

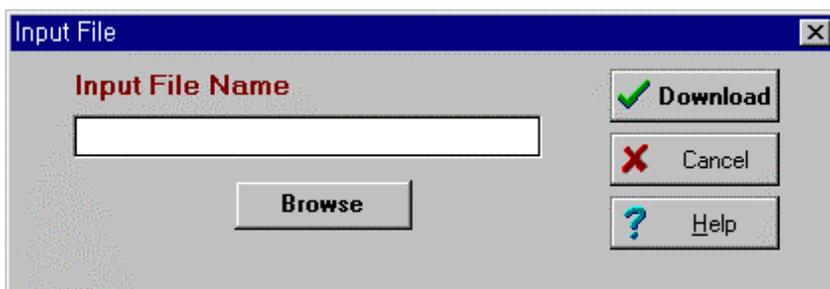
4.1 Downloading

1. Choose **DOWNLOAD** / Download to File; |.
2. Input file name that will contain the **MMC** data.
3. Select Download button.
4. "**DOWNLOADING...** Press ESC key to cancel" will be displayed on the screen. It will take about 15 minutes to finish database downloading.

NOTE:

If the download fails, recheck the setup as described above and repeat the process.
 If the Program stops during downloading, please wait for 5-10 sec, until the program restarts.

Figure 1.4 Input File name dialog box

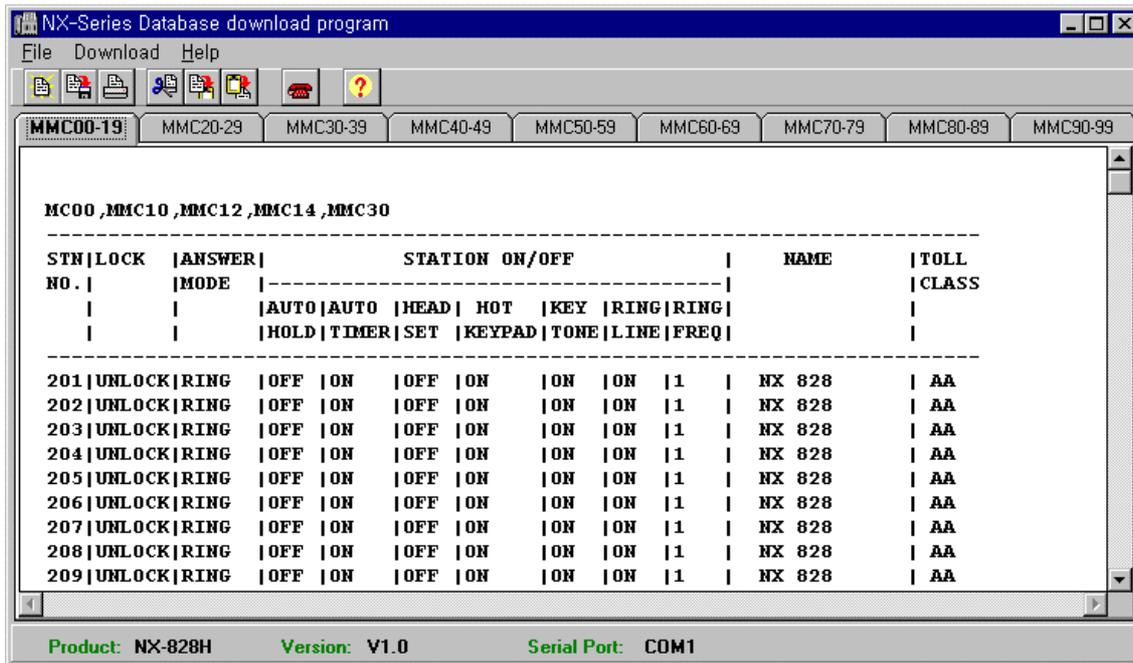


4.2 Open file

You can now open the downloaded database file.

1. **Click MMC** page tab that you want to see.
 or
2. You can use another editor e.g.) the built-in DOS editor, Notebook, or another Windows editor.

Figure 1.6 MMC page tab



4.3 Save file

This option saves the downloaded file with another name with the save file option.

4.4 Print file

This option prints the database file that you downloaded

4.5 Help

This option shows the program version

Appendix C

DISA Voice Announcement

1. Automatic Answer for DISA

The system automatically answers an incoming DISA (Direct Inward System Access) call and sends a message, e.g. "This is XXX company. Extension number, please". This facilitates handling of your DISA calls and tells the calling party the status of the called extension by recorded voice message (phrase 2 or 3).

The message is approximately five seconds long (15 seconds in the case of guide information). You can record any message you want.

1. Phrase Configuration

PHRASE	CONTENTS	TIME
1	Guide information	15 sec
2	Busy state	5sec
3	Invalid input	5sec
4	Operator	5sec

NOTE:

1. If the called extension is busy, voice message (phrase 2 and 4) is sent to the calling party.
2. If the digits dialled by the calling party is an invalid number, voice message is sent to the calling party.
3. If you use this function, you should set 'VOICE MESSAGE' to 'ON' in MMC 42.

3. How to Record & Monitor Message

3.1 Recording for Initialisation

1. Dial 18 to display 'RECORD:PLAY ?' in LCD.
2. Press 0, and record phrase 1.
3. After recording phrase 1, play phrase 1 automatically to check it.
4. Display 'RECORDING' in LCD for recording phrase 2.
5. Record phrase 2, and play phrase 2 automatically.
6. Record phrases 3-4 in the same way.

3.2 Recording

1. Dial 18 to display 'RECORD:PLAY ?' in LCD.
2. Select phrase number (1-4) you want to record, and display 'RECORDING' in LCD.
3. Start to record through handset or speaker phone.
4. After recording, you can automatically hear the recorded message.

NOTE: When you first switch on, you should record from phrase 1 to phrase 4 in order.

3.3 Monitoring

1. Dial 18 to display 'RECORD:PLAY ?' in LCD.
2. Select phrase number (5-8) you want to monitor, and display 'PLAYING' in LCD.

You can hear the selected message.

NOTE:

1. In order to change a recorded message, record a new message following procedure (1), so the message will be updated.
2. If you carry out monitoring procedure when no message is recorded, you might hear error tone.
3. You cannot record a message while a message is being played back.
4. If you stop recording prematurely, you can neither record a new message nor monitor a recorded message until the predetermined record time elapses.
5. The above procedures specify 18 to be dialled for recording. It is possible that this number might have been changed

Appendix D

1. External Forward

If you want to use FWE(External Call Forward) function, you must do the following steps.

- 1.1 Make a "FWE" key in programmable key using MMC 71 or MMC 72
- 1.2 Make a key extender for "FWE" key.
 - extender number should be 00 ~ 99(speed dial list no.)
- 1.3 Store speed dial number to the speed list assigned in "FWE" extender.
 - If you make a "FWE00" key, then you must store the speed number for speed list "00".
- 1.4 Press "FWE" key, then External Call Forward is setted.

Note) External Call Forward function works only for incoming trunk call.

This means that External Call Forward is C.O to C.O call.

And External Call Forward does not work for group call.

You must assign station number in MMC 43.

Note) Each trunk line must be in for "TRK FWRD" in MMC 42.

Note) If External Call Forward is working, then C.O to C.O call is disconnected after C.O to C.O disconnect time(MMC 50).

BACK-UP DATA SHEETS

NX - 828 SYSTEM
DATABASE FORMS

CUSTOMER NAME : _____

ADDRESS : _____

TELEPHONE NUMBER : _____

DATABASE CONTAINS _____ SHEETS

MMC 23		PAGE ZONE										
ZONE	ENTRY											

MMC 24		BARGE-IN										
OPTION :												
STATION NO.	BARGE-IN CLASS											

MMC 25		HOT / WARM LINE										
STATION NO.	DESTINATION	WARM LINE DELAY TIME										

MMC 26		ALARM REMINDER										
STATION NO.	ALARM NO.	ALARM TIME	DAY/DALY									

MMC 27		VACANT MESSAGE										
MESSAGE NO.	MESSAGE											

MMC 31		TRUNK USE	
STATION NO.	TRUNK NO.	DIAL	ANSWER

MMC 32		INTERCOM USE	
STATION NO.	DESTINATION STATION	USE	

MMC 33		ASSIGN DOOR RING	
DOOR NO.	DAY	NIGHT	

MMC 34		PICKUP GROUP	
GROUP NO.	MEMBER ID	STATION NO.	

PICKUP GROUP NO.				

THE MAXIMUM NUMBER OF PICKUP GROUP IS 10.
 COPY AS NEEDED

MMC 35	STATION GROUP
---------------	----------------------

STATION GROUP NO. :							
RING	OVERFLOW TIME	TRSF. TIME	OVERFLOW PORT	TYPE			
NUMBER							

THE MAXIMUM NUMBER OF STATION GROUP IS 20.

MMC 36	BOSS / SECRETARY
---------------	-------------------------

SECRETARY	BOSS 1	BOSS 2

MMC 37	ADD-ON MODULE
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AOM	MASTER	AOM	MASTER	AOM	MASTER

MMC 38	SLT DIALING TYPE
---------------	-------------------------

STATION NO.	TYPE	STATION NO.	TYPE

MMC 39	DATA LINE
---------------	------------------

STATION NO.	VOICE / DATA	STATION NO.	VOICE / DATA

MMC 40		C.O PBX LINE	
TRUNK NO.	CO/PBX	TRUNK NO.	CO/PBX

DATA FOR TRUNK LINES									
TRUNK NO.	DIAL TYPE (41)	TRUNK ON / OFF (22)					ASSIGN RING (43)		NAME (44)
		1A2EMUL	FORWARD	PAGE RING	TOLL FREE	VOICE MSG	DAY	NIGHT	

MMC 45		TRUNK GROUP							
MODE :									
GROUP NO. :									
MEMBER :									

THE MAXIMUM NUMBER OF TRUNK GROUP IS 11.

MMC 46		ASSIGN DISA LINE	
TRUNK NO.	DISA OPTION	VOICE MSG (42)	

MMC 50		SYSTEM TIMERS			
TIMER	RANGE		DEFAULT		NEW
ALM R INT	1~250	sec	025S	sec	
ALM R DUR	1~250	sec	010S	sec	
ARDL INT	1~250	sec	045S	sec	
ARDL REAL	1~250	sec	045S	sec	
CBACK NOA	1~250	sec	030S	sec	
CO CO DIS	1~250	min	010MI	min	
DISA FDG	1~250	sec	025S	sec	
DISA IDG	1~250	sec	025S	sec	
DISA RING	1~250	sec	030S	sec	
DOOR RELS	100~2500	ms	1500MS	ms	
DOR R OFF	1~250	sec	030S	sec	
FIRST DGT	1~250	sec	025S	sec	
HOOK OFF	100~2500	ms	0200MS	ms	
INTER DGT	1~250	sec	025S	sec	
MMC OUT	10~250	sec	030S	sec	
OFF R INT	1~250	sec	015S	sec	
PAGE MAX	1~250	sec	020S	sec	
RCAL DISC	1~250	ms	002MI	ms	
RCAL RING	0~250	sec	015S	sec	
RCAL WAIT	0~250	sec	015S	sec	
RCAL HOLD	0~250	sec	045S	sec	
RCAL TRSF	0~250	sec	045S	sec	
SLT F MIN	10~2500	ms	0100MS	ms	
SLT F MAX	10~2500	ms	0400MS	ms	
SMDR PULAS	1~250	sec	030S	sec	
SMDR DTMF	0~250	sec	015S	sec	

MMC 51		TONE / RING CADENCE			
TONE/RING	ON	OFF	ON	OFF	

MMC 52		SYSTEM WIDE COUNTER	
OPTION		COUNTER	

MMC 53		TRUNK WIDE TIMER			
TIMER	RANGE		DEFAULT		NEW
CLEARING	1~25	sec	00	sec	
CO SUPV	100~2500	ms	0000	ms	
F DGT DLY	100~2500	ms	1000	ms	
FLASH PBX	100~2500	ms	0600	ms	
MFS ON TM	100~2500	ms	0100	ms	
MF OFF TM	100~2500	ms	0100	ms	
NEW CALL	100~9900	ms	2000	ms	
NO RING	1~250	sec	05	sec	
PAUSE TM	1~250	sec	003	sec	
RNG DETCT	100~2500	ms	0200	ms	

MMC 54		MAKE / BREAK RATIO	
MAKE :		BREAK :	

MMC 56		ASSIGN AUTO NIGHT TIME	
TABLE TYPE :			
SUB-TABLE NO.	DAY	NIGHT	

MMC 57		CALL COST	
UNIT COST :			

MMC 60					TOLL DENY TABLE / APPLY				
ENTRY	APPLY				ENTRY	APPLY			
	B	C	D	E		B	C	D	E

MMC 61					TOLL ALLOW TABLE / APPLY				
ENTRY	APPLY				ENTRY	APPLY			
	B	C	D	E		B	C	D	E

MMC 62		PBX ACCESS CODE	
PBX NO.	CODE	PBX	CODE

MMC 63			AUTHORISATION CODE		
NO.	CODE	CLASS	NO.	CODE	CLASS

MMC 64		OVERRIDE TABLE			
NO.	CODE	NO.	CODE	NO.	CODE

MMC 65		WILD CHARACTER			
X :		Y :		Z :	

MMC 67		ASSIGN SYSTEM SPEED DIAL			
NO.	SPEED DIAL NO.	NO.	SPEED DIAL NO.	NO.	SPEED DIAL NO.

MMC 70		DIAL NUMBERING PLAN			
ENTRY	ACCESS CODE	ENTRY	ACCESS CODE	ENTRY	ACCESS CODE

MMC 71 / 72		KEY PROGRAMMING			
--------------------	--	------------------------	--	--	--

NX-24E/NX-24B					
19:	20:	21:	22:	23:	24:
13:	14:	15:	16:	17:	18:
07:	08:	09:	10:	11:	12:
01:	02:	03:	04:	05:	06:

NX-6B					
01:	02:	03:	04:	05:	06:

SKP-816						
09:	17:		01:	02:	03:	04:
10:	18:		05:	06:	07:	08:
11:	19:					
12:	20:					
13:	21:					
14:	22:					
15:	23:					
16:	24:					

NX-AOM	
01:	13:
02:	14:
03:	15:
04:	16:
05:	17:
06:	18:
07:	19:
08:	20:
09:	21:
10:	22:
11:	23:
12:	24:

MMC 80		IO PARAMETER					
COM1	COM2	XON OFF		SMDR	REMOTE		TRAFFIC
		COM1	COM2		PORT	STN	

MMC 81		SMDR OPTION				
PAGE HEADER	LINE PER PAGE	INCOMING CALL	AUTHORX E CODE	LESS START TIME	ALARM	COMPANYN AME



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