

Crystal

Guard - G2K

Manual

(R 3.0)

1. INTRODUCTION:

Crystal Guard EPAX system has been specifically developed to meet the requirements of group housing societies with latest state-of-the-art features like Panic alarm on single pair intercom cable, Cable cut alarm, 12 party conferencing, Caller ID on extension, Vendor arrival announcement and many more which are totally un-matchable by any other system. Crystal Guard system can be configured from 16 lines to maximum of 2000 lines as desired. This guide will help you find and learn the user codes, so that you can use your CRYSTAL EPAX system exactly the way you want it. Take a little time to read through it and try out some of the codes on your extension.

1.1 Extension Telephone

Standard electronic push button instruments should be used on the Crystal EPAX system.

2. INSTALLATION & COMMISSIONING

2.1 Requirements

Installation should be done by authorized & trained personnel only.

2.2 Site Requirements

CRYSTAL is designed to work in a normal environment. The unit should be placed away from

- 1) Processes producing electricity, fumes, dust, gasses or radiation (e.g. silicon or halon contamination from photo copying or fire protection equipment)
- 2) Electrical meters or switchgears
- 3) Water pipe, gas meters, pipes or appliances
- 4) Dampness
- 5) Vibration

2.3 General

Ensure a good power point for the exchange with a 5 pin socket & switch. If possible, the customer should be asked to provide a "clean" power supply direct from the power distribution board. CRYSTAL is set to work at 220VAC, 50Hz mains supply.

WARNING:

ANTI-STATIC PRECAUTIONS MUST BE TAKEN WHEN WORKING WITH THE CARDS OR COMPONENTS OF CRYSTAL EPAX.

CAUTION:

Never insert or pull cards or any cable from the equipment with the "power on" under any circumstances.

2.4 Commissioning

- 1) Each cabinet has a max. capacity of 128 ports and a total of 16 cabinets can be joined together for a 2048 system.

- 2) Cabinets can be set as 1st\2nd by the help of a 4-way Dip-Switch on the back Mother-Board. Switch setting's is printed on this mother board. For 1st cabinet - all four switches will be OFF, for 2nd - first switch will be ON and rest OFF and so on.
- 3) CPU card shall be installed on the left most slot of 1st cabinet only (not in any other cabinet) . In all other cabinets (2nd ~ 16) , 1st slot will remain empty .
- 4) Line cards shall be inserted in slot nos 2 ~ 9 (total 8 line cards in each cabinet).
 - a. It is not necessary for all line card slots to be filled serially. If any line card becomes faulty, it can be removed keeping that slot empty
 - b. Slot next to CPU – i.e 1st line card slot should NEVER be kept empty or else the system will malfunction**
 - c. Never remove or insert any card with system ON . Switch system OFF , wait for 5 secs and then only remove or add any card
- 5) To join two or more cabinets, a Bridge card is to be inserted in the last slot of each cabinet. Bridge card of two cabinets are joined together using a 25 pin cable.
 - a. Each Bridge card has two 25 pin connectors. The cable can be plugged into any one of these connectors.
 - b. For multiple cabinets, it is not necessary to join cabinets serially – i.e. 1st cabinet cable can go to 3rd and from 3rd to 2nd and so on
 - c. Proper functioning of the system depends on these Bridge card \ Cables. Fix the card's and cables very securely (tighten the cables to the connector using screws) so that there are no loose connections .**
 - d. To install cabinets one top of another, use the fixing plate at the back.
 - e. If you shall be linking two cabinets , remember to cover the bridge cable exit slot with the metal plate provided so that no rodent may enter the system from this opening**
- 6) If you are not using the 32 link Jumbo - Kit, one SMPS – ZX (avoid using SMPS-1) can be used for every two cabinets. A power supply splitter cable is provided for this purpose. If Jumbo-Kit is installed, use individual SMPS for each cabinet
 - a. For multiple SMPS's, there should be a common ON\OFF switch so that all supplies are switch on\off together
 - b. During power ON, CPU shall scan all line cards present. So if the main cabinet is switched ON first and then the slave cabinets, CPU shall ignore these. However, if the slave cabinets are switched ON 1st followed by the main cabinet system shall function normally
 - c. When the system is running, switching OFF any one cabinet shall cause the system to malfunction
- 7) Display unit should be connected to the 9-pin Display port. Upto 32 display units can be connected in parallel
- 8) Switch ON system – RUN LED on the CPU will start blinking after about 5 secs meaning that the CPU has initialized properly. RUN LED's on all line cards shall also blink. Lift

an extension – you should get dial tone. Now you can call any extn and check ring \ speech

The exchange once installed and put into operation needs little routine maintenance. Any extension fault can be isolated at the MDF, and exchange faults can be isolated at the card level. Faulty cards can be replaced with service cards while they are repaired at authorized maintenance center to minimize system down time.

Note:

Damage caused on Crystal systems due to high voltages is not covered under warranty.

3. NUMBERING SCHEME:

Extension numbers can be in the range of 1 ~ 6 digits and start from 2001 in default. Further it is also possible to have common starting digits – i.e. 3 , 33 , 3301 and 33011 can be allotted to four different extensions

4. HOOK FLASH

You shall have to use the “Hook-Flash”, prior to dialing any facility code. Hook flash (HF) is a gentle/ slow tap of the cradle switch. After HF, you shall get a slow acceptance tone.

4.1 The Thumb - Rule for using Hook Flash

Whenever dialing any extension number or code from - dial tone/call forward dial tone/engaged tone, dial straight away .For dialing extension number or facility code from ring back tone / conversation mode, first HF and then dial the required number.

Note:

- 1) After completion of any call replace your handset for minimum 1 sec for disconnection before going off hook for the second call.
- 2) If your instrument is provided with a flash key, enquire the timing of key from your system manager / dealer. If it is below 300 milliseconds, do not use this key (it shall be ignored by the system). You may use the cradle switch for HF. If the timing is between 300-600 msec, you may use this flash key for HF.

If while transferring a call, you press any wrong code / extension no. do not Panic. You can HF anytime. You shall get beep tone again .Now you can transfer the call to any extension.

5. MAKING CALLS:

When you pick-up your phone, you will hear internal dial tone, then

Dial desired extension number

6. CALL PICK - UP:

6.1 Specific Call pick-up

If any other extension is ringing, to answer it from your non - ringing phone,

Dial * 76 + XXXX

Where XXXX = Extension Number of the ringing phone.

Note:

Alarm call ringing on a particular extension cannot be picked by any other extension

6.2 Common Call Pick-up

You can make nine call pick-up groups (1 ~ 9). An extension can pick-up any ringing extension in his same group by dialing

*** 77**

However if you do not want this feature between any number of extension, set those extensions in the "0" group .

In default, all extensions are in 0 group

7. AUTO CALL BACK:

If the extension you are trying is busy so that you cannot get through it, you do not have to keep trying it again and again. By using this feature you can program the busy extension to ring back automatically as soon as it becomes free. If you dial any extension number and get busy tone,

To request a ring back, dial

75

Hang - up.

When the extension becomes free, both your phone and the one on which you had programmed auto call back feature will start ringing. When that extension answers, you will be connected.

8. DO NOT DISTURB:

If you are busy with some important work and do not want to be disturbed, you can enable this feature on your extension. Now, if any other extension calls your extension, he will get error tone

To Enable this feature, dial

*** 72 + XXXX**

Where XXXX = Self Extension Number

To Cancel this feature, dial

*** 730.**

Note:

- 1) A broken dial tone is always heard on the extension with this feature enabled.
- 2) Only security extension can call a extension set for DND

9. BARGE - IN:

If any important or priority message is to be passed on to an Extension which is busy, you can break into this extension. To pass on any message, dial

Desired Extension Number.

After getting busy tone, dial

83

You will be immediately connected to the busy extension and all the three extensions will get short beeps as long as the barge - in process continues.

Busy extension can anytime toggle between the barged-in extension and the extension on hold by - Flash 1

Note:

Barge - in shall not work if the busy extension is in Dialing / Ringing / Conference mode

10. MONITOR:

With this facility you can monitor the conversation of two extensions without any indication (short beeps) to the busy extensions. To Monitor, dial

Extension Number.

After getting busy tone, dial

80

You can now monitor the conversation between the busy extensions.

11. CONFERENCING:

11.1 Three Party Conference

When an extension is in speech with some other extension, to bring third extension into conference,

H/F & Dial the third extension number.

When the third extension answers,

H/F & Dial *

11.2 Multi Party Conference

If more than three extensions are to be involved in the conference , dial

*** 21 + Extension Number**

When extension answers

H/F & Dial 2nd Extension number

Keep adding extensions in this manner. When all extensions have been added, to establish a conference ,

H/F & Dial *

A conference call involving all the extensions is established. When the master extension which had originated conference goes On-Hook , conference will be terminated.

NOTE:

- 1) While adding more extensions for conferencing, the already added extensions continue to get music till the conferencing feature has been activated
- 2) If while adding a new extension , you get
 - a) Busy Tone – Dial another extension on busy tone only w/out H/F
 - b) Error Tone – Dial another extension on error tone without H/F
 - c) No-Reply – H/F on ring back tone . You shall get beeps . Now dial another extension number
- 3) When conference is in progress and if master extension desires to add more extensions, he can do so by dialing H\F + New Extension number and then H\F + *

12. CALL FORWARD:

If you are going to be near another extension phone rather than your own, or if you wish to divert all calls made to you to some other extension, then you can set your phone so that anyone dialing you will be put through to the other extension.

A call forward dial tone (broken dial tone) is always heard on the phone, which has been diverted. This does not mean that you cannot use it for making calls.

To divert your calls to other extension from your own extension, dial

*** 72 + XXXX**

Where XXXX = Extension to which the calls are to be diverted.

Now, anyone dialing your number shall be connected to this programmed extension.

To cancel Call Forward, dial

*** 730**

You will hear normal dial tone

Note:

- 1) Whenever you lift handset you will hear call forward dial tone (broken dial tone). Anyone picking up your phone will hear this tone until diversion is cancelled.
- 2) To use this feature, your extension should be enabled for the same from feature table programming.

13. HOT LINE:

This feature comes in useful when a particular extension is to be used continuously and repeatedly over a period of time. To set any extension for hotline, dial

*** 961 + XXXX# + Y**

Where XXXX = Extension Number

Y = Delay Time (2 ~ 9 sec.)

after which you want the ring to start.

To Cancel hotline, dial

*** 960**

14. ALARMS:

14.1. One Time Alarm:

To program your extension to ring at a specified time, dial

*** 982 + HH MM**

Where HH MM = Time in 24 hour format.

14.2. Repeat Alarm:

Alternately, you can set your extension to ring daily at the specified time. You can set three such timings at which your extension will ring daily .To program a repeat alarm, dial

*** 983 + HH MM (for 1st repeat alarm)**

*** 984 + HH MM (for 2nd repeat alarm)**

*** 985 + HH MM (for 3rd repeat alarm)**

Where HH MM = Time in 24 hour format.

Your extension shall now ring daily at these specified timings till it is cancelled.

To cancel these alarms, dial

*** 980**

If desired, your system can also set for snooze mode – i.e. if you fail to respond in the 1st alarm ring , your extension will ring again after a pre-programmed time . For programming this time interval and how many times your extension should ring , refer to the programming manual

15. FLEXIBLE NUMBERING:

You can allocate any 1~ 6 digit number to any extension.

For Example: You can program
Extension 2001 as 21
Extension 2010 as 301
Extension 2225 as 30100 etc..

Refer to the programming section of the manual for the programming of the above.

Note:

- 1) Same number cannot be assigned to two ports.
- 2) After setting flexible number, any extension programming must be done using revised extension numbers.

16. FEATURE GROUPS:

Following features can be selectively allowed or disallowed to any extension in 10 different combinations.

Feature Name	Feature Number
Internal dialing	01
Auto call back	02
Call pick up	03
Call forward / Do not disturb	04
Hotline	05
Paging / Lift Phone	06
Relay port access	07
Conferencing	08
Alarms	09
Barge - in	10
Monitor	11
* 100	12
Programming	13
Personal SMS	14

Following 10 combinations of features are possible:

Feature No.	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Group 0	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
Group 1	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
Group 2	Y	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
Group 3	Y	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
Group 4	Y	Y	Y	Y	Y	N	Y	N	Y	N	N	Y	N	N	N	N
Group 5	Y	Y	Y	Y	Y	N	Y	N	Y	N	N	Y	N	N	N	N
Group 6	Y	Y	Y	Y	Y	N	N	N	Y	N	N	Y	N	N	N	N
Group 7	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	N	N
Group 8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Group 9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Refer programming section of the manual for above programming.

If any extension is barred from extension to extension dialing, then that extension shall be able to dial only security access code

17. HOUSING GROUP

In an housing society if the complex is divided into separate wings then accordingly you can divide the extensions into groups (maximum 32) . Following features can be availed individually by each extension group

- A) Security extension group - Each extension group can have its own security extension's (though the access code shall be same) . For example if we assume an society with following lay out (with security access code as 9)

Wing A ---- Extensions 2001 ~ 2035 ---- Security extn – 2001 \ 2002

Wing B ---- Extensions 2036 ~ 2067 ---- Security extn – 2036 \ 2037

Wing C ---- Extensions 2068 ~ 2120 ---- Security extn – 2068 \ 2069

Wing D ---- Extensions 2121 ~ 2256 ---- Security extn – 2121 \ 2122

Now when extension 2012 shall dial 9 extension 2001\2002 shall ring when extension 2045 shall dial 9 extension 2036\2037 shall ring when extension 2088 shall dial 9 extension 2068\2069 shall ring and so on

- B) FND Display - upto 32 FND Displays can be connected (one for each group) , which shall function independently to show calling extension number of that group only. However in case of panic by an extension in any group , all FND's shall indicate simultaneously.
- C) Watch Dog For Watchman - Each security shall have its own independent watch dog timings

- D) Visitors Double Check - Each security extension can set for visitors double check for his group of extensions.
- E) Last Five Called Numbers - Last five called numbers of an extension can be viewed on the FND of that particular group.
- F) Vendor Arrival - When any vendor arrives and the security dials the code for the particular vendor, then only those extensions which are in the wing of this security and have set a request for the above vendor shall ring. (Chairman's broadcast shall be common for all extension's regardless of extension grouping)

18. SPEECH GROUP

If you want that a group of extensions should not be able to call a particular 2nd group of extensions, you can make upto 31 speech groups (02 ~ 32). Extensions within one speech group shall be able to dial only those extensions which are in the same group and security access code.

However extensions in group 01 shall be able to call all other groups and any group can call group 01 extension. Important extensions, such as chairman \ management etc can be kept in this group so that they are accessible by all.

19. LIFT PHONE

Any normal extension can be set as a Lift-Phone. A lift phone shall be permanently Off-hook (A normal speaker phone with hand-set removed can be hung in the lift to function as a lift phone) . Any one dialing for lift phone extension shall be directly connected to this extension.

To make an outward call from the lift phone – press FLASH key or flash from the hook-switch. You shall get dial tone and can dial security access code. Alternately one can also set this lift phone for hot-line mode. Whenever anyone shall press FLASH key, hot-line extension shall ring

If the called extension is busy, simply disconnect and then go Off-Hook again . Now you dial again or wait for hotline extension to ring

20. WATCH DOG FOR WATCH MAN :

Crystal Guard intercom system can be utilized to keep a watch on your watchman too! You can program a set of 10 timings for a day (for setting of timings refer to programming section of the manual). During the programmed timings, the first extension of the security group shall ring. If the ring is not acknowledged by going off - hook, (i.e. the watch man was asleep or missing) then the missed time / date shall be recorded. A full record of all missed timings for the complete 31 days of the month shall be kept in record.

You can view the missed record on the FND display.

For this, dial from user password (from security extension only)

22 + DD

Where DD = Date (01 to 31)

Missed records shall be displayed as “**DATE HH MM** “

Starting from the first of every month, the new record shall automatically over write the old record of that same date. The timings at which the watch-man did not respond (i.e he was either not on duty or was asleep) will be displayed in RED , and timings at which hos extension was busy , will be displayed in GREEN (i.e. if all displayed time is in green , it shall mean that he had kept the handset off-hook permanently)

21. VISITORS DOUBLE CHECK:

With this feature the security guard can keep a double check on any visitor visiting a flat owner. While conversation with a desired flat / extension is going on, security (By default extension 2001) shall dial

H/F + Dial **

Now, after 10 min (Programmable) extensions of security and the flat shall ring simultaneously. When the flat responds the security can confirm whether the visitor has reached the flat and is a genuine person only.

22. PANIC ALARM / CABLE CUT ALARM:

Crystal Guard system has a unique cable-cut / panic alarm feature which can be utilized as an effective burglar alarm system.

To utilize the panic alarm feature, any number of push-to-off switches can be installed in any flat (say one in kitchen, one near the entry door, one in the bedroom etc.).Whenever any switch is pressed, it shall trigger the panic alarm and the pre-programmed extension at the

security (Max. 4) shall start ringing. Simultaneously the extension number (which has triggered the panic) shall be flashed on the FND Display Panel.

For this FND display indication you can have two options – one is that the panic extension number & hooter indication will be displayed on all display units connected to the system or the 2nd option is that it will be displayed only on the display unit of the housing group of the panic extension.

Further , it may be so desired that during panic – security extension + the extension from which panic has occurred , both should ring together (say if a gas or fire alarm is installed in any flat - the flat owner shall be immediately intimated for the panic occurrence)

The ringing / flashing on display shall continue until and unless the alarm is reset as follows:
Dial (From security extension)

*** 14 + Panic Extension Number**

.Similarly, when there is wire cut of any enabled extension, then programmed extensions will ring and the extension number shall be displayed on the display panel. Connection layout for above panic shall be as follows

Note : 12K resistor at the telephone end is necessary for proper operation of this feature

If there is panic from multiple extensions simultaneously , to reset panic ring of all extensions , dial (From security extension),

*** 14 + Self Extension Number**

Note:

To set - Panic ring extensions , Self Ring , Display on one / all FND's and to enable / disable extensions for this feature , refer programming section of this manual

In default, all extensions are disabled for this feature.

22.1 Panic Alarm For Door Break

You can also install “ Magnetic door open sensor “ on any extension . The sensor contacts should be with normally closed contacts when door is closed. Connections of this sensor should be done in the same manner as that for a panic switch . Extensions on which this sensor is installed shall have to be programmed for Delay-Panic.

Activating the Sensor

To activate sensor, dial (from Dial Tone)

*** 121**

On return , the sensor should be reset within 30 secs (programmable from 01 ~ 99 seconds) of opening the door . To reset, after closing the door, dial (from Dial-Tone)

*** 120 + Personal Password**

This personal password by default is 1111. To change this password, dial (from Dial-Tone)

*** 123 + Old Password + New Password**

If an intruder enters the flat by opening the door (and does not reset the sensor) panic alarm will be initiated at the security after 30 seconds.

In the day-time when you are present in the flat but need to open the door frequently , you can either install a switch to by-pass the sensor or disable the sensor . If you disable the sensor

- a) Always remember to enable it when you leave your flat (by dialing *121)
- b) If disable, other sensors – i.e smoke \ fire \ wire-break etc. , if installed , wont function too

To disable sensor, dial

*** 122 + Personal Password**

22.2 Sending Panic SMS

You can also attach a CRYSTAL FCT to your Guard system which can be used to send SMS's whenever there is a panic. To use this feature

- a) Connect Crystal FCT to the PC port of your system
- b) All extensions should feed in their personal mobile numbers on which the SMS has to be sent
- c) For each housing group , you can programme one master mobile number also (from Main Programming mode)

To programme personal mobile number, dial (from dial tone)

*** 124 + Personal Password + Mobile Number + #**

To wash this number, dial

*** 124 + Personal Password + #**

Now whenever there is any panic

- a) Panic flat number will be displayed at the security along with hooter indication
- b) Panic SMS will be sent on the programmed mobile number of that flat . After the SMS message , a missed call ring will also be given on the mobile , to alert the user of the message.
- c) If a master number has been programmed , SMS + ring will also be sent on this master number

Note : Whenever you programme your mobile number , a blank SMS will be sent on this number as a confirmation.

23. PANIC- BY- CODE:

One can also initiate panic by dialing ‘ * 100 ‘.

To reset panic, dial from security extension,

*** 14 + Extension Number**

Note: If you want panic only by code and not by panic switch / cable cut , do not enable for panic extension feature from main password,

24. EMERGENCY REPORTING:

In case, there is an emergency situation in any flat, the flat owner can either use the panic feature or invoke emergency reporting.

For this,

Dial * #

Each extension can set for any 4 extension's of his choice to ring during emergency condition . To set, dial (from dial tone mode)

***115 + Extension No.# + Extension No.# + Extension No.# + Extension No.#**

Now whenever this extension shall dial * #, above set extension's shall ring simultaneously. Any ringing extension going off hook shall be connected to the originating extension. If a voice module is connected in the system, you may feed in a voice prompt as-”Please Help” etc. When any extension shall dial * # and disconnect, programmed four extensions shall keep on ringing. Any extension going off hook shall get this voice prompt .

If an extension has not set for these four extensions and dial *# then 1st four extensions – i.e. 2001 to 2004 shall ring

25. CLI FEATURE:

If you install a CLI telephone on any extension, you can avail this facility. The calling extension number shall be displayed on your extension.

In default, this feature is disabled on all extensions.

25.1 CALLER ID WITH NAME

If desired , you can programme your personal name against your extension . Now whenever you call any extension , both your extension number plus your name will be displayed on the called instrument (provided the telephone supports both number & name display).

To programme your name , dial (from dial tone)

***125 + Personal Password + Name (max 16 digits) #**

Name feeding can be done from any normal telephone , in the same fashion as one types SMS from a mobile hand-set – i.e. pressing 2 one time is “A” , pressing 2 two time is “B” and so on . After every character , press “*” to jump to position . For example , to feed in ANIL , dial

A N I L

*** 125 + Personal Pasword + 2 * 66 * 444 * 555 * #**

To wash , dial

*** 125 + Personal Password + #**

26. SENDING PERSONAL SMS's

Provided that a CRYSTAL FCT is attached to your system and you are allowed this feature from the feature table , you can send a SMS to any mobile number. To do so, 1st you shall have to key in your message . To do so, dial

*** 127 + Message (Max 16 characters) + #**

To feed in the message , follow same steps as that for name feeding

Now to send message, dial

*** 126 + Mobile Number + #**

You can send this message on two different numbers . To send to a 2nd number , dial

*** 126 + Mobile Number + #**

Note:

- 1) You shall have to send the 2nd message within 2 minutes of sending the 1st one.
After two minutes, the message will get washed off
- 2) To use this feature, desired extn. shall have to be allowed this facility from the feature table programming

27. TALKING CLI

If a talking CLI card is installed in your system , you can have a audio replay of last five extension numbers who had called you . To hear the number of the last five caller's, dial (from Dial-Tone)

*** 790**

To have a replay of current time, dial

*** 780**

To know your Port Number \ Extension number, dial

*** 796**

You shall have an audio confirmation of your – Port Number + Extension Number

28. FND DISPLAY:

A 9 pin serial port is provided on the Guard system to which you can connect a multi colour FND display panel. In a big complex with seperate wings / security guard room, an individual FND display (Max. 16) can be provided for each security guard.

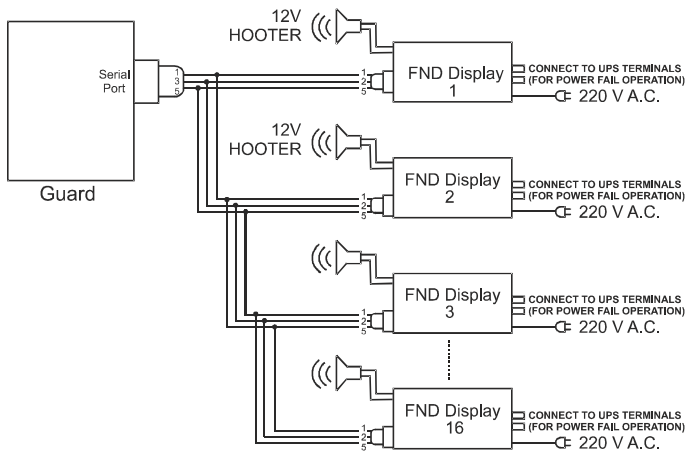
Suppose there are four wings - Wing A, Wing B, Wing C, Wing D in a big residential complex.

1. First divide the extensions into four groups as per the flat owners in each wing
2. Programme separate Security Extension's / Panic Extension's for each wing .
3. Set the Jumper in the FND display for four buildings as shown below:

Switch 1	Switch 2	Switch 3	Switch 4	Extension Group No.
OFF	OFF	OFF	OFF	1
ON	OFF	OFF	OFF	2
OFF	ON	OFF	OFF	3
ON	ON	OFF	OFF	4
OFF	OFF	ON	OFF	5
ON	OFF	ON	OFF	6
OFF	ON	ON	OFF	7
ON	ON	ON	OFF	8
OFF	OFF	OFF	ON	9

ON	OFF	OFF	ON	10
OFF	ON	OFF	ON	11
ON	ON	OFF	ON	12
OFF	OFF	ON	ON	13
ON	OFF	ON	ON	14
OFF	ON	ON	ON	15
ON	ON	ON	ON	16

Connection of the display shall be as follows



Following information shall be available on this panel

- a) **Time Display**
In idle condition , current time is displayed in Green and date in Yellow colour.
This time can be set for 12/24 hour format display
- b) **Calling extension Number display**
When any extension calls security Number the called extension number shall be displayed in Green colour with a short buzzer sound to attract the security.
- c) **Panic display**
When Panic is initiated by any extension, Panic Extension number shall be displayed in Red colour with continous buzzer sound until panic is resetted.
- d) **Last five called Number and Time Display:**
Last five-called Number's with Date / Time for any extension can be viewed on the FND Display
- e) **Watch Man Missed Time Display**
You can also view watchman-missed timings on this FND

f) Display of flexible number setting

If you desire to view the flexible number of any port, dial

715 + Port no

g) To view port number

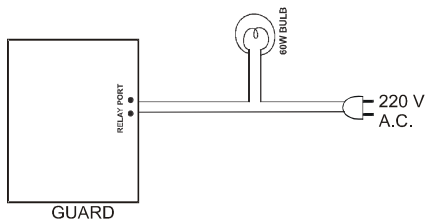
To view the port number of any flexible extension, dial

*** 716 + Flexible No.**

This display panel is also provided with a relay port to connect any hooter or siren, which shall be activated during panic condition.

29. RELAY PORT:

Two relay port is provided in the Crystal Guard system, which can be programmed to switch ON / OFF any electrical appliance. If the appliance consumes less than 0.5 Amp of current (or 100 watt power), you can drive it directly, and if it consumes more, you can drive it through an external relay / contractor.



To switch **ON** , dial

*** 165 (1st Relay)**

*** 167 (2nd Relay)**

And To switch **OFF**, dial

*** 166 (1st Relay)**

*** 168 (2nd Relay)**

And for **Click** action (momentarily ON then OFF) , dial

*** 169 (1st Relay)**

*** 160 (2nd Relay)**

further the relay port can be programmed to switch ON/OFF automatically at pre-programmed timings. Up to 10 sets of timing's can be set for the relay to switch ON/OFF. To set for auto mode, refer to programmer's section

30. PAGING:

You can define any extension as a paging port to which you can connect a Ampli-Speaker for making announcements.

To announce through this port,

Dial Extension Number (Set For Paging)

You shall get R.B.T for 3 seconds and this music shall be heard on the paging speakers so as to indicate that an announcement is going to be made. Now, you can make your announcement.

31. LAST FIVE CALLED NUMBER AND TIME DISPLAY:

With the Crystal Guard system you can easily trace out for ghost \ malicious calls. There is a buffer to store last five called number and time sequentially for each extension. Once the buffer is full (i.e., after five calls) the new call shall overwrite the first call. Now if any extension receives a malicious call, the caller can immediately be traced out For this, dial

***712+ Extension Number**

Now you can view the last five called number with called time and date on the FND Display which is set for your Housing Group . Only operator extension is allowed to dial this code.

32. AUTO REDIAL OF LAST 5 CALLED NUMBERS

If someone had tried to call your extension during your absence, you may call him back automatically. To do so dial

* 717 X

Where X = 1 for last call (be it missed or matured)
2 for 2nd last call & so on.

33. VOICE:

Crystal Guard security intercom system has a provision to connect four voice modules as follows -

- Voice Module Card 1 - For Vendor Arrival announcement
- Voice Module Card 2 - For Vendor Arrival announcement
- Voice Module Card 3 - For Chairman's message broadcast and Emergency message reporting.
- Voice Module Card 4 - For Musical Ring Back Tone

- 1) Total of eight messages can be recorded in each module
- 2) Each module has a recording capacity of 120 secs. After recording 1st message, go On-Hook immediately. If this message was of 40 secs. you shall have 80 secs left to record balance 7 messages – i.e you can either record one message of 120 secs or 2 message's in any combination of 120 secs and so on
- 3) When you record 1st message, it shall automatically wash off all lower messages . Similarly if you have 5 messages and you are re-recording 3rd message, 4th and 5th messages shall be washed off automatically and you shall have to record them again – i.e. messages which you need to change frequently , keep them in the lower most level.
- 4) For Vendor Arrival announcement, there is an option to connect either one or two voice module's. For a small system you can use one module and for a bigger system, two module's are preferable.

33.1 Record \ Replay of Message's

A) Vendor Message

To record Vendor message, dial from users password (By default - *891111)

231 + X + Y

Where X = 1 to record in the 1st Voice Module Card
2 for 2nd Voice Module Card
Y = Message Number (1 ~ 8)

To have a replay of recorder message , dial from U.Password

232 + X + Y

Where X = 1 for 1st Voice Module Card Replay
2 for 2nd Voice Module Card Replay
Y = Message Number (1 ~ 8)

B) Chairman's Message \ Emergency Reporting Message

To record, dial

231 3 + X

where X = Message Number (1 ~ 8)

For replay, dial

232 3 + X

where X = Message Number (1 ~ 8)

Out of the eight messages, to set any one for Chairman, dial from U.Password

263 + X

where X = Message Number (1 ~ 8)

Similarly , to set for Emergency message , dial

268 + X

where X = Message Number (1 ~ 8)

Note :

- 1) As Emergency Message will be fixed, keep it in level 1 and Chairman's message (which you may like to re-record occasionally) , keep in level 2 ~ 7
- 2) You can also use this feature for Holiday Greeting. If so desired, keep Emergency message in level 1 , Holiday Greeting messages in lower 2~6 levels and Chairman's message in the last level. This will ensure that whenever you re-record chairman's message , lower level messages (as this is the last level) will not get erased

C) Ring Back Tone

To record, dial

231 4 + X

where X = Message Number (1 ~ 8)

For replay, dial

232 4 + X

where X = Message Number (1 ~ 8)

Out of the eight tones, to set any one for RBT, dial from U.Password

264 + X

where X = Message Number (1 ~ 8)

To set for musical RBT , dial from M.Password

218 11 + X

where X = 1 for voice RBT
2 for normal RBT (default)

33.2 Vendor Arrival:

1. Record separate messages (maximum eight) for each occasion

Example: Message 1 = Milk Man has arrived
Message 2 = Plumber has arrived
Message 3 = Electrician has arrived
Message 4 = Fruit seller has arrived

2. Circulate this message number list to all flats.
3. If you are using two Vendor card's , programme (from Main Pasword)

218 04 X

where X = 1 for one vendor card (default mode)
2 if two cards are installed

4. When an Extension requires a particular vendor he shall set a request on his extension as follows

Dial *5 X 1

Where X=Message Number 1~8

For Example: If an extension requires Milkman he shall dial - *511.
If he requires fruit seller he shall dial - *531

An extension can set request for any number of vendor messages.

To cancel the request for vendor arrival

Dial *5X2

Where X=Message Number 1~8

Now when an vendor arrives the security shall dial

***4X**

Where X=Message number

Example:

When the milkman arrives, security shall dial *41. As soon as he dials the code, all extension's who had set request for milkman and who are in the same Extension Group Number as that of the security, shall get a short ring sequentially one after the other. On lifting the phone, the extension shall receive milkman's arrival message.

You can also enable all extension's for a particular vendor message by a single command. To enable, dial from user password

5 X 1

Where X=Message number

And to disable, dial

5 X 2

Where X=Message number

33.3 Announcement of Chairmans \ Holiday Message:

This feature comes in useful when any common message is to be conveyed to a number of extensions, say - there is a meeting at. , or that your rent is due etc. Now whenever an extension (which has been set to receive this message) goes off hook, he shall hear the message. Alternately , on holidays you can also use this feature to announce a holiday message to all users.

To use this feature ,

1. Programme the extensions to whom you want convey this message \ greeting . To do so, dial (From User Password *891111)

251 + Extension No # + X

where X = 1 for Message

2 for normal Dial Tone

To set for a range of extension's

252 + XXXX + YYYY + Z

Where XXXX = Port number of starting extension

YYYY = Port number of last extension

Z = 1 for Message

2 for dial tone

To clear all extension's from above list, dial (from User Password)

253 + User Password

2. Select the message to be played , as explained above

3. Start play of message. To do so , dial from U.Password

27+1

To stop playing chairman's message dial

27+2

34. SECURITY EXTENSION:

In Crystal Guard System you can set any four extensions as security extensions. (Refer to programmer manual for setting of the same). Only these security extensions are allowed to use security features, which are

1. Double Check
2. Reset of panic condition of any extension.
3. Missed Watchdog Time Display

Whenever security shall call any extension, ringing pattern shall be different from that of a normal extension ring.

Further you can set a common access code (it can be of 1 digit or up to 6 digits) for all four-security extensions. On dialing this code you shall be connected in rotational manner to any one of the free security extension having same extension group number as calling extension. When security code is dialed by any extension, first time security extension 1 shall get a ring. When the code is dialed again by any extension security extension 2 will get a ring even though security extension 1 is free. In this way all the security extension will get a ring in rotational manner whenever security code is dialed. In case if any security extension is busy, next security extension will get a ring. If all the security extensions are busy you shall get a busy tone. (Refer programmer manual to set this common code.) Further if multiple extension's are set for security it can also be so programmed that all security extension's shall ring simultaneously. Any extension going off hook shall be connected to the calling extension.

35. TIMERS:

Timers are used to set timings for Dial tone, Ring tone, Double Check etc., Timer's are common for all extensions.

35.1 Inter Digit Timer (Default is 03 secs)

It is the maximum permissible delay between two dialed digits. Also if common numbering is enabled, after dialing last digit, any action will be taken after this delay

35.2 Error Tone Timer (Default is 05 secs)

It is the time for which an extension shall get error tone if any wrong digit is dialed

35.3 Dial Tone Timer (Default is 15 secs)

It is the time for which an extension shall get dial tone on going off-hook

35.4 Busy Tone Timer (Default is 6 secs)

It is the time for which an extension shall get busy tone

35.5 Ring Timer (Default is 45 secs)

It is the time for which an extension shall ring for any internal call.

35.6 Password Beep Timer (Default is 15 secs)

It is the time for which an extension shall hear programming beeps after dialing password

35.7 Transferred Call Ring Timer (Default is 30 secs)

It is the time for which an extension will ring for a blind call transfer .

35.8 Password Confirmation Tone Timer (Default is 01 secs)

It is the time for which an extension shall hear confirmation tone after any valid programming

35.9 Dial Tone Confirmation Tone Timer (Default is 01 secs)

It is the time for which an extension shall hear confirmation tone after dialing any feature code from dial tone

35.10 Security Round Robin \ Normal Ring Timer (Default is 15 secs)

It is the time for which a security extension will ring before it is transferred to next extn. on R.Robin mode . If set for normal ring , security will ring for this duration

35.11 Delay Panic Timer (Default is 30 secs)

For delay panic, in case of door-break , panic shall be initiated after this delay .

35.12 Barge-In Beep Timer (Default is 03 secs)

During Barge-In, busy extn will hear beeps for this duration

35.13 Alarm Ring Timer (Default is 25 secs)

For an alarm ring , an extension will ring for this duration

35.14 Snooze Interval Timer (Default is 5 min)

It is the delay between two alarm snooze rings.

35.15 Snooze Alarm Ring Count (Default is 3 times)

For an alarm ring in snooze mode, an extension will ring multiple times till the extn. does not respond . This count, by default is 3 times but can be changed

35.16 FSK Ring Timer (Default is 01 secs)

Some telephones require a small ring before it can sense a CLI number. This timer helps define the ring duration.

35.17 FND Display Hold Timer (Default is 04 secs)

If a number of extensions call security simultaneously, calling numbers shall be displayed on the FND one after another. Each number shall be displayed for this programmable duration.

35.18 FND Buzzer Timer (Default is 05 secs)

Whenever anyone calls the security, along with number display , there is a small buzzer indication. This buzzer indication duration is programmable.

35.19 Vendor Message Clear Timer (Default is 30 secs)

After Vendor arrival message has been played to all extensions, message play shall be stopped. After playing this message to the last extension , duration for which this play shall continue can be programmed as desired

35.20 Vendor Arrival Ring Timer (Default is 05 secs)

It is the time for which a vendor arrival requested extension shall keep on ringing when the desired vendor arrives at the security

35.21 Vendor Simultaneous Ring Counter (Default is 08 extensions)

When vendor arrival is initiated, how many extensions should ring simultaneously can be set by this count.

35.22 Vendor Repeat Ring Count In case of No-Reply (Default is 2 times)

In case any extension does not respond to a vendor ring, it can be so programmed that all no-reply extensions shall ring again. How many times these no-reply extensions shall be tried is programmable.

35.23 Vendor Message Play Counter (Default is 2 times)

On going off-hook on a vendor ring, vendor message is played two times. This count can be increased or decreased.

35.24 Double Check Timer (Default is 10 minutes)

When the security sets for double check feature, both extension and security shall ring after this pre-programmed time.

35.25 Lift Phone \ Paging Music Timer Double Check Timer (Default is 03 secs)

On calling a lift phone or during paging, music is heard at the called end for this duration.

36. CONNECTING EXTERNAL CO LINES:

In Crystal Guard System you can connect upto eight external CO lines to receive calls from outside, by using the Junction card. With this card first four extensions are converted to CO

ports. Only operator extension is allowed to access these CO ports. On dialing this CO access number he shall be connected to the external caller . Now he can transfer the call to any extension by using flash.

H\F Dial Extension Number

When the extension answers, announce the call and hang up . The call is transferred Alternately after dialing the extension number simply go on hook . The transferred call shall keep on ringing on this extension. When the extension goes off-hook, he shall be connected to the external caller. If the transferred extension does not respond till 30 secs the call shall be disconnected

If on transferring a call, the extension goes no-reply or is busy, then simply hook-flash again. You shall get transfer beeps again wherein you can transfer it to some other extension. Alternately if you h\f one more time you shall be connected back to the external call

36.1 Conference With Junction:

If required, you can hold a conference even with the external caller and six internal extensions. Only operator extension is allowed to initiate conference.

Once the operator extension receives external call he shall H/F and dial required extension number . Once the extension answers, announce conference and H/F and dial 2nd extension number. Go on adding required extensions by H/F and dialing the desired extension numbers.(While adding more extensions for conferencing, the already added extensions continue to get music till the conferencing feature has been activated.)

When all the desired extensions have been added

H/F & Dial *0

On dialing this, all the extensions on hold shall come in conference with the external caller. When the operator extension leaves his handset all extensions in conference shall get error tone and the junction will be cleared.

PROGRAMMING SECTION

1. INTRODUCTION:

To prevent unauthorized users from reprogramming the system, a four-digit password has been set in the system which your dealer will disclose to you. This password should be kept confidential to prevent misuse of the system. To reprogram any facility,

Dial Main password - * 89 00 00 (ie.. Star 89 00 00 from tone instrument)

You shall get acceptance beeps.

Now, you can program in required facilities .If you make any mistake while programming, simply disconnect and start again (you need not dial the password again). Once your programming is complete, to come out of programming mode, dial

0

Note :

- a) Only security extensions and those extensions which are allowed for programming feature from the feature table , shall be able to dial this main password
- b) When dialing "0" to come out of programming mode, you shall get dial tone after about 10 secs as because in this duration a complete back-up of all programmed data is made in the back-up memory.

2. CHANGING PASSWORD:

2.1 Programmers:

To Set New Main Password,

Dial Main password - * 89 00 00 (ie.. Star 89 0000 from tone instrument)

Dial 891 XXXX

Where XXXX = Any four digit code.

The New Main Password is now * 89 XXXX.

2.2 Users:

To Set New Users Password,

Dial Main password - * 89 00 00

Dial 892 XXXX

Where XXXX = any four digit code.

The New User Password is now * 89 XXXX.

Note:

1. The Default Main Password is 0000, while the Default User Password is 1111.
2. Dial "0" when all the programming is complete to come out of programming mode.
3. All programming is to be done in tone mode only.

3. CLEARING MEMORY:

To clear the entire memory & load the system with default settings - Dial Main Password * 89 00 00 (ie.. Star 89 0000 from tone instrument only)

98 + Main Password.

You shall get acceptance beeps after about 20 secs and system shall be set in default mode.

Note: With this programming, flexible numbers will not be washed off. Flexible numbering table if desired, can be cleared separately.

In case of any system malfunction, to wash only the user memory without affecting the main programmed data, dial

96 + Main Password

To revert back only the timer's to default values , dial

97 + Main Password

To clear following user feature's of a particular extension – Alarm \ Hotline \ Call Forward \ D.N.D. , dial

87 + Extension Number

In case one forgets the Main Password, then proceed as follows:

- Switch OFF the system.
- Insert jumper cap on the two pin jumper (near Memory Back-up Card)
- Switch on the system.
- Wait for Dial Tone.
- Switch off the system.
- Remove the jumper cap.
- Switch ON the system again.

After this operation, password shall revert back to original * 890000.

4. SETTING DATE/TIME:

To set Time / Date, dial from Main Password,

82 + DD - MM - YY - DAY - HR - MN

Where DD = Date

MM = Month

YY = Year

DAY = 1 - for Sunday, 2 - for Monday

HRMN = Time in 24 hour format

5. FLEXIBLE NUMBERING:

To change any extension number, dial

371 + YYYY + ZZZZZZ

Where YYYY = Port Number

0001 for 2001 (If 1st digit is 2, replace it by 0)

0999 for 2999

1000 for 3000 (If 1st digit is 3, replace it by 1)

1999 for 3999

2000 for 4000 (If 1st digit is 4, replace it by 2)

2047 for 4047

ZZZZZZ = Any six digit number.

If the new number is of 1 ~ 5 digits only, dial #

For Example: To set extension 2010 as 45, dial

371+ 0010 + 45 #

To set extension 3966 as 5678 , dial

371 + 1966 + 5678 #

To set for a range of extensions , dial

372 + XXXX + YYYY + ZZZZZZ

Where XXXX = Port number of starting extension

YYYY = Port number of last extension

ZZZZZZ = 6 digit number of 1st extension (balance will filled in serially)

For Example : To set 1st 372 extensions as 301 , 302 672 , dial

372 + 0001 + 0372 + 301#

Note: During any range programming, you shall get acceptance beep after about 10 secs

To wash a range of extension numbers, dial

372 + XXXX + YYYY + ##

To wash only one port – programme same port number in XXXX & YYYY

To wash all ports , dial

373 + Password + Reverse Password

5.1 Common Numbering

If desired, you can also set common starting digits such as 3 , 33 , 333 , 33301 etc . To enable this, dial

21800 X

where x = 1 for common digit numbering enabled
2 for disabled (default)

When common numbering is enabled , when you dial any extension number , system shall wait for a programmed time-out (by default it is 3 secs) before taking any action . To change this wait time, dial

217 00 XX

where XX = delay in secs

6. FEATURE GROUP:

Following features are available in Crystal Guard EPAX system:

Feature Name	Feature Number
Internal dialing	01
Auto call back	02
Call pick up	03
Call forward / Do not disturb	04
Hotline	05
Paging	06
Relay port access	07
Conferencing	08
Alarms	09
Barge - in	10
Monitor	11

* 100	12
Programming	13
Personal SMS	14

Following 10 combinations of features are possible:

Feature No.	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Group 0	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
Group 1	Y	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
Group 2	Y	Y	N	N	Y	N	N	N	N	N	N	N	N	N	N	N
Group 3	Y	Y	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
Group 4	Y	Y	Y	Y	Y	N	Y	N	Y	N	N	Y	N	N	N	N
Group 5	Y	Y	Y	Y	Y	N	Y	N	Y	N	N	Y	N	N	N	N
Group 6	Y	Y	Y	Y	Y	N	N	N	Y	N	N	Y	N	N	N	N
Group 7	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	N	N
Group 8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Group 9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

You can however change the combinations of these features of any group . To do so, dial

321 + Group No. (0 ~ 9) + XXXXXX..... sixteen times
 where X = 1 if that feature is to be Y
 2 if that feature is to be N

To set for default table, dial

322 + P.W. + Reverse P.W.

To allot a particular group to any extension, dial

311 + Extension Number # + Group Number (0~9)

To allot a particular group to a range of extensions, dial

312 + XXXX + YYYY + Z
 Where XXXX = Port number of starting extension
 YYYY = Port number of last extension
 Z = Group Number (0 ~ 9)

To set for default mode (Group 4 for all extensions) , dial

313 + P.W. + Reverse P.W.

7. CALL PICKUP GROUP:

To make a call pickup group, dial

301 + Extension No # + Group No (1to 9)

To set for a range of extensions in one group , dial

302 + XXXX + YYYY + Z

Where XXXX = Port number of starting extension

YYYY = Port number of last extension

Z = Group Number (1 ~ 9)

You can set any number of extension's in one group

To set all extensions in default mode (0 Group), dial

303 + P.W. + Reverse P.W.

8. PANIC SETTINGS

8.1 Setting Of Panic Ring Extensions

In case of panic from any extension upto four extensions can be programmed to ring simultaneously.

If extensions are divided into groups , then these panic extensions can be different for each group. To Set Panic Ring extension's , dial

111 + Housing Group Number + Extension 1# + Extension 2# + Extension 3# + Extension 4#

Where Extension 1 to Extension 4 = Any four-extension nos

Housing Group Number = Group 01~32

If only one or two extension numbers are required, then repeat that extension number.

To set for a range of groups, dial

112 + XX + YY + Extension 1# + Extension 2# + Extension 3# + Extension 4#

Where XX = 1st Housing Grp

YY = Last Housing Grp

To set for default mode (1st four extensions i.e. 2001 ~ 2004 , for all 32 groups) , dial

113 + P.W. + Reverse P.W.

8.2 Enable / Disable Panic

To Enable / Disable any extension for panic feature, dial

101 + Extension No.# + X

Where X = 1 To Enable feature.
2 To Disable feature.
3 for Delay Panic

To set for a range of extensions, dial

102 + XXXX + YYYY + Z

Where XXXX = Port number of starting extension
YYYY = Port number of last extension
Z = 1 , 2 or 3

To set for default mode (panic disabled for all extensions), dial

103 + P.W. + Reverse P.W.

8.3 Display Options

In case of panic from any extension you can have two options – one is that the panic extension number & hooter indication will be displayed on all display units connected to the system or the 2nd option is that it will be displayed only on the display unit of the housing group of the panic extension . To set for any of these options, dial

218 02 X

where X = 1 for Display on all units
2 for only of same housing group (Default)

8.4 Self Extension Ring On Panic

To set for self ring on panic , dial

218 13 X

where X = 1 for self ring ON
2 for self ring OFF (Default)

8.5 Delay Panic Reset Timer

To set delay panic, reset delay timer , dial

217 11 XX

Where XX = Delay in seconds (default 30 secs)

8.6 Feeding Panic Message

To key in the panic message, dial

127 + XX + Message (16 characters) + #
where XX = Message number (01 ~ 10)

To select any one of these messages, dial

217 27 XX
where XX = Message number 01 ~ 10 (Default is 01)

8.7 You can To Set Master Number For Panic SMS

You can set one master number for each housing group . To set this master number, dial

126 + XX + Mobile Number + #
where XX + Housing Group Number

9. CLEARING ALL PERSONAL MOBILE NUMBERS

To wash all personal mobile numbers, dial

375 + Password + R.Password

10. CLEARING PERSONAL PASSWORD

If any user forgets his personal password, to reset it to 1111, dial

88 + Extension Number

11. SECURITY EXTENSION :

Certain features (such as reset of panic) can be availed only by the security extensions. Up to four extensions can be set as a security extension for each group.

To program, dial

**131 + Housing Group (01 ~ 32) + Extension 1# + Extension 2# +
Extension 3# + Extension 4#**

Where Extension 1 to Extension 4 = any four extension numbers

To set for a range of housing groups , dial

**132 + XX + YY + Extension 1# + Extension 2# + Extension 3# +
Extension 4#**

where XX = 1st housing group

YY = last housing group

Example : To set extension 2001 , 2002 , 2003 as security extensions for housing group 01,02, 03 & 04 dial

132 01 04 2001 2003 2003 2003

To set for default (1st four extensions for all 32 groups) dial

133 + password + reverse password

Note :

- 1) If only one or two extension numbers are required, then repeat that extension number.
- 2) In default security Extension Number shall be 2001
- 3) All 4 extension's should be in the same group
- 4) Prior to this programming divide the extension's in groups

12. SIMULTANEOUS RING ON SECURITY EXTENSION:

To set for desired ring pattern for security extensions, dial

218 01 1 (For normal ring) - Default

218 01 2 (For Rotational Ring)

218 01 3 (For Simultaneous ring)

13. SECURITY ACCESS CODE:

You can set a common security access code

371 2048 YYYYYY

Where YYYYYY = Any six digit number

If the Security code is to be of 1~5 digits only, dial #

For Example: To set security access code as 9, dial

371 + 2048 + 9 #

14. 12/24 HOUR FORMAT TIME DISPLAY FOR FND:

Dial

218 05 1 (for 12 hour format display)
218 05 2 (for 24 hour format display) - Default

15. AUTO RELAY ON/OFF

Up to 10 sets of timings can be programmed for the relay to switch on/off automatically. To set, dial

851 HR MM SS (ON) HR MM SS (OFF) (1st Relay)
853 HR MM SS (ON) HR MM SS (OFF) (2nd Relay)

If timings are less than ten , go On-Hook after feeding last time

For example : To set ON/OFF timings for 1st relay as follows

ON	OFF
8.00 AM	8.40 AM
10.00 AM	1.00 PM
3.00 PM	3.30 PM

Dial **851 080000 084000**
100000 130000
150000 153000
Go On-Hook

For programming a new set of timing you shall have to erase the old table. To do dial ,

852 + P.W. + Reverse P.W. (1st Relay)
854 + P.W. + Reverse P.W. (2ndRelay)

To set for the auto \ manual mode dial

21806 1 (1st Relay Auto)
21806 2 (1st Relay Manual) - Default mode
21810 1 (2nd Relay Auto)
21810 2 (2nd Relay Manual) - Default mode

16. SETTING OF WATCH DOG FOR WATCH MAN RING TIMING :

One can program a set of 10 timings for the security extension to ring at that timing. If there are more than one extension groups, then the security extension of each group can be programmed for separate independent timings To program, dial

201 + Housing Group Number+ HH MM + HH MM ++ HH MM (Upto 10 Timings)

Where HH MM = Time in hour / min in 24 hour format.

Group Number = 01~32

If timings are less than ten , go On-Hook after feeding in the last time

Example: To set timings as 6.30 pm / 8.00 pm / 9.45pm/ 11.50 pm / 3.00 am / 4.00 am / 7.00 am, for group 1 , dial

201 +01+ 1830 - 2000 - 2145 - 2350 - 0300 - 0400 – 0700 – Go On-Hook

To set same timings for a range of groups , dial

202 + XX + YY + HH MM + HH MM ++ HH MM (Upto 10 Timings)

Where XX = 1st group

YY = Last group

To wash timings of a particular group , dial

203 + Group No.

To wash timings of all groups (Default mode) , dial

204 + P.W. + Reverse P.W.

If anytime you want to disable the feature , dial

218 03 2

To enable again , dial

218 03 1

17. FLASH TIMING:

You can set your extension flash timing by dialing

Dial 361 + Extension Number # + X

Where X = 1 ~ 9

For Example: To set Flash timing of 400 ms for extension 2001

Dial 361 + 2001# + 4

To set a common flash timing for a range of extension's , dial

362 + XXXX + YYYY + Z

Where XXXX = Port number of starting extension

YYYY = Port number of last extension

Z = Flash timing

In default flash timing for all extension is 300 ms

After this programming , exit from programming mode , switch system OFF and then power ON

18. HOUSING GROUPING:

You can divide the extensions in groups (max 32).For this , dial

121 + XXXX + YYYY + ZZ

Where XXXX = Port number of starting extension

YYYY = Port number of last extension

ZZ = Housing Group (01 ~ 32)

All extension's from this 1st port number to the last port will be set in this Housing Group.

Example: To set extensions 2001 to 2024 in group 1
2025 to 2110 in group 2
2111 to 2166 in group 3
2167 to 2256 in group 4

Dial 121 0001 0024 01 (to set 2001 to 2024 in group 1)

121 0025 0110 02 (to set 2025 to 2110 in group 2)

121 0111 0166 03 (to set 2111 to 2166 in group 3)

121 0167 0256 04 (to set 2167 to 2256 in group 4)

To Program a Particular extension in a particular Housing Group , dial

Dial 120 + Extension Number # + H. Grp Number

Example: To set 2002 in Extension Group number 2 , dial

120 + 2002# + 02

T0 set for default mode (all extensions in group 01) , dial

122 + P.W. + Reverse P.W.

19. SPEECH GROUP

To program an extension in a particular speech group, dial

123 + Extension Number # + Speech Group (01 ~ 32)

To programme a range of extensions, dial

124 + XXXX + YYYY + ZZ

Where XXXX = Port number of starting extension

YYYY = Port number of last extension

ZZ = Speech Group

To set for Default mode (all extensions in group 01) , dial

125 + P.W. + Reverse P.W.

20. LIFT PHONE

Upto 32 extensions can be set as Lift-Phone's. To do so, dial

274 + Extension Number # + X

where X = 1 for Lift Phone

2 for normal extension

Note : An extension set for lift phone will be able to dial only security access code or can be set for hotline mode

21. CALLER ID

To enable Caller ID, dial

218 09 X

where X = 1 for Caller ID enabled (default)

2 for disabled

Now dial

271 + Extension Number # + X

where X = 1 for Caller ID enabled
2 for disabled (default)

To enable for a range of extensions, dial

272 + XXXX + YYYYY + Z

Where XXXX = Port number of starting extension
YYYY = Port number of last extension
Z = 1 for enable \ 2 for disable

22. DELETING ALL EXTENSION NAMES

To delete personal names of all extensions , dial

374 + P.W. + Reverse P.W.

23. RINGING PATTERN

Ringling pattern for a normal intercom call \ security call can be changed . To change this for security call, dial

21725 XX

Where XX = 01~09 (Default is 07)

To change ringing pattern for an intercom to intercom call, dial

21726 XX

Where XX = 01~09 (Default is 03)

24. TONES

If desired – Dial Tone / Ring Back Tone , can also be changed slightly . To do so, dial

21722 XX

Where XX = 01~99 (Default is 22)

24. JUMBO KIT

Normally Guard system has 16 speech links. However if the optional Jumbo Kit is installed on all line-cards, you can have 32 speech links. To program for 32 links, dial

21807 X

Where X = 1 for 32 links (Jumbo Kit Installed)
2 for 16 links (Default)

25. TRUNK PORT

Any extension can be defined as a trunk port . To do so, dial

275 + Extension Number # + X

Where X = 1 for Trunk Port
2 for Normal extension

26. TIMERS:**26.1 Inter Digit Timer:**

It is the maximum permissible delay between two dialed digits. Also if common numbering is enabled , after dialing last digit , any action will be taken after this delay. To change this timer, dial

21700 XX

Where XX = 01 ~ 99 (Default is 03 sec)

26.2 Error Tone Timer

It is the time for which an extension shall get error tone if any wrong digit is dialed. To change this timer, dial

21701 XX

Where XX = 01 ~ 99 (Default is 05 sec)

26.3 Dial Tone Timer

It is the time for which an extension shall get dial tone on going off-hook. To change this timer, dial

21702 XX

Where XX = 01 ~ 99 (Default is 15 sec)

26.4 Busy Tone Timer

It is the time for which an extension shall get busy tone. To change this timer, dial

21703 XX

Where XX = 01 ~ 99 (Default is 06 sec)

26.5 Ring Timer:

It is the time for which an extension shall ring for any internal call. To change this timer, dial

21704 XX

Where XX = 01 ~ 99 (Default is 45 sec)

26.6 Password Beep Timer:

It is the time for which an extension shall hear programming beeps after dialing password. To change this timer, dial

21705 XX

Where XX = 01 ~ 99 (Default is 15 sec)

26.7 Transferred Call Ring Timer

It is the time for which an extension will ring for a blind call transfer. To change this timer, dial

21707 XX

Where XX = 01 ~ 99 (Default is 30 sec)

26.8 Password Confirmation Tone Timer:

It is the time for which an extension shall hear confirmation tone after any valid programming. To change this timer, dial

21708 XX

Where XX = 01 ~ 99 (Default is 01 sec)

26.9 Dial Tone Confirmation Tone Timer:

It is the time for which an extension shall hear confirmation tone after dialing any feature code from dial tone. To change this timer, dial

21709 XX

Where XX = 01 ~ 99 (Default is 01 sec)

26.10 Round Robin Ring Timer:

It is the time for which a security extension will ring before it is transferred to next extension on R.Robin mode. To change this timer, dial

21710 XX

Where XX = 01 ~ 99 (Default is 15 sec)

26.11 Delay Panic Timer:

For delay panic, in case of door-break , panic shall be initiated after this delay. To change this timer, dial

21711 XX

Where XX = 01 ~ 99 (Default is 30 sec)

26.12 Barge-In Beep Timer:

During Barge-In, busy extn will hear beeps for this duration. To change this timer, dial

21713 XX

Where XX = 01 ~ 99 (Default is 03 sec)

26.13 Alarm Ring Timer:

For an alarm ring , an extension will ring for this duration. To change this timer, dial

21716 XX

Where XX = 01~99 (Default is 25 sec.)

26.14 Snooze Interval Timer:

It is the delay between two alarm snooze rings. To change this timer, dial

21717 XX

Where XX = 00 ~ 99 (Default is 5min)

26.15 Snooze Alarm Ring Count:

For an alarm ring in snooze mode, an extension will multiple times till the extn. does not respond. To change this ring count , dial

21718 XX

Where XX = 01~99 (Default is 3 times)

26.16 FSK Ring Timer:

Some telephones require a small ring before it can sense a CLI number. To generate this ring, dial

21719 XX

Where XX = 01~99 (Default is 01 sec.)

26.17 FND Display Hold Timer:

If a number of extensions call security simultaneously, calling numbers shall be displayed one after another. Each number shall be displayed for a programmable duration. To change this duration, dial

21723 XX

Where XX = 01~99 (Default is 04 sec.)

26.18 FND Buzzer Timer

Whenever anyone calls the security, along with number display , there is a small buzzer indication. This buzzer indication duration is programmable. To change this duration, dial

21724 XX

Where XX = 01~99 (Default is 05 sec.)

26.19 Vendor Message Clear Timer

After Vendor arrival message has been played to all extensions, message play shall be stopped. After playing this message to the last extension , duration for which this play shall continue can be programmed as desired. To change this duration, dial

21732 XX

Where XX = 01~99 (Default is 30 sec.)

26.20 Vendor Arrival Ring Timer:

It is the time for which a vendor arrival requested extension shall keep on ringing when the desired vendor arrives at the security. To change this duration, dial

21733 XX

Where XX = 01~99 (Default is 05 sec.)

26.21 Vendor Simultaneous Ring Counter:

When vendor arrival is initiated, normally 8 extensions ring simultaneously . To change this count , dial

21734 XX

Where XX = 01~08 (Default is 08 extns.)

26.22 Vendor Repeat Ring Timer In case of No-Reply:

In case any extension does not respond to a vendor ring, it can be so programmed that all no-reply extensions shall ring again. How many times these no-reply extensions shall be tried is programmable. To change this no-reply ring attempt, dial

21735 XX

Where XX = 01~04 (Default is 02 times)

26.23 Vendor Message Play Counter:

On going off-hook on a vendor ring, vendor message is played two times. This count can be increased or decreased. To change this count, dial

21736 XX

Where XX = 01~09 (Default is 02 times.)

26.24 Double Check Timer:

When the security sets for double check feature, both extension and security shall ring after a preprogrammed time. This time can be programmed as per ones requirement. To change this time, dial

21737 XX

Where XX = 01~99 (Default is 10 minutes.)

26.25 Lift Phone \ Paging Music Timer Double Check Timer:

On calling a lift phone or during paging, music is heard at the called end for 3 secs. To change this duration, dial

21738 XX

Where XX = 01~99 (Default is 03 secs.)

*****XXXXX*****