

MX Medical and Intrusion Alarm

Installation and Operation Guide

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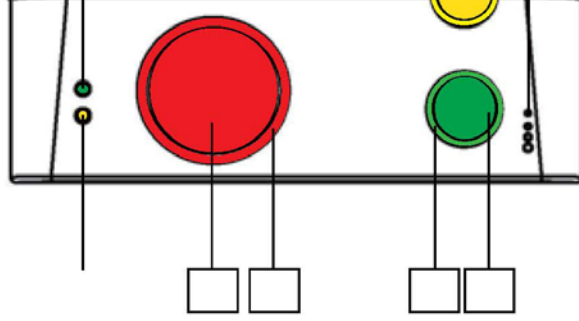
1. Introduction

1.1. The MX Medical and Intrusion Alarm Series

Climax's MX Medical and Intrusion Alarm Series marks a watershed in the evolution of medical alarm systems. One of the first of Climax's wireless medical alarms to be integrated with an intrusion alarm system, the MX Series not only provides thorough care for your loved ones at home but also protects your house and property when you are away. Incorporating various cutting-edge telecare technologies, the MX Series features a new, user-friendly three-button design that fully utilizes the flexibility and versatility of the system. The user can summon emergency help by one press on the red button and arm his house by one press on the yellow button. Events happening at home will be reported to the monitoring center via the Contact ID, Tunstall (TT New), Climax CPC Dialect or 4+2 Franklin communication protocols. Living under protection and going in and out in peace have never been easier.

MX Models

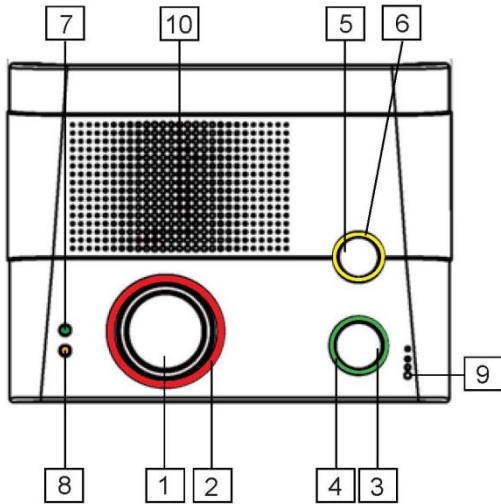
Model	Alarm communications path(s)	Compatibility with EZ-1 or EZ-2
MX-2	PSTN	EZ-1 or EZ-2
MX-3	GSM/3G	EZ-1
MX-6	Ethernet and PSTN	EZ-1 or EZ-2
MX-8	Ethernet and GSM/3G	EZ-1



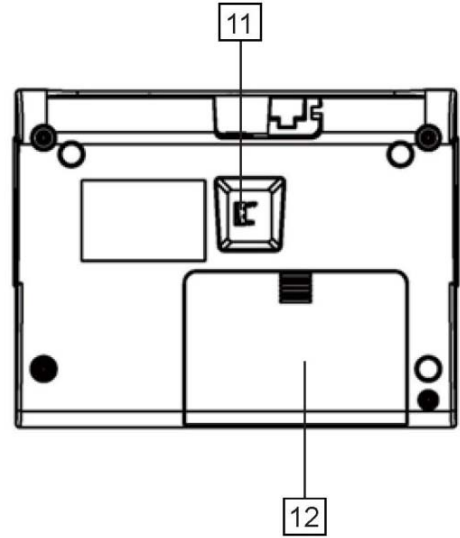
2. System Overview

2.1. Identifying the Parts

Top View

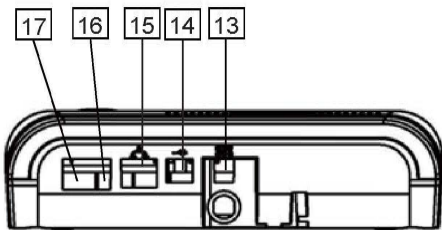


Back View

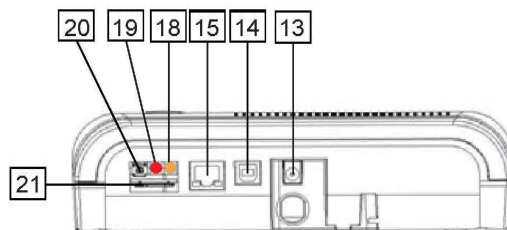


Side View

MX-2 and MX-6





MX-3 and MX-8



Control Panel Definitions

Button/LED/Component	Behavior	Function/Indication
1 Red Help Button	Pressed in idle/normal mode	To summon emergency help
	Pressed once in learning mode	To select Pendant #2
	Pressed for 3 seconds in learning mode	To delete a selected pendant
2 Red Backlight	Dimly lit	Idle/normal mode
	Blinking	<ol style="list-style-type: none"> 1. Guard time 2. Pauses during retries of alarm reporting
	Brightly illuminating	<ol style="list-style-type: none"> 1. Busy with alarm reporting 2. After an alarm report receives a callback and until the call is hung up
3 Green Reset Button	Pressed in idle/normal mode	<ol style="list-style-type: none"> 1. To reset the inactivity timer 2. For the Control Panel to report all the fault problems it is experiencing via voice prompts
	Pressed once before the Control Panel dials out for alarm reporting	To cancel the alarm reporting
	Pressed once during or at the end of a two-way communication	To terminate the two-way communication
	Pressed for 3 seconds in idle/normal mode	To make a non-emergency call
	Pressed once in learning mode	To select Pendant #1
4 Green Backlight	On	<ol style="list-style-type: none"> 1. After a non-emergency call is dialed out and until the call ends 2. Busy with status reporting 3. When two-way communication is opened after an incoming call is picked up and until the call ends
	Off	<ol style="list-style-type: none"> 1. Idle mode 2. Pauses during retries of status reporting

Button/LED/Component	Behavior	Function/Indication
4 Green Backlight	Blinking (on MX-2 and MX-6 only)	The Control Panel has a phone line fault.
5 Yellow Button can serve as: - Inactivity Button - Check-in/out Button - Away/Home Button - Non-Emergency Call Button - Security Button	Pressed once when serving as an inactivity, check-in/out or away/home button	To toggle on/off the inactivity timer
	Pressed once when serving as a security button	To arm the system
	Pressed once when serving as a non-emergency button	To make a non-emergency call
	Pressed for 3 seconds	To enter learning mode
	Pressed once in learning mode	To exit learning mode
6 Orange Backlight	Steady on	The inactivity timer is on.
	Off	The inactivity timer is off.
	Blinking	The Control Panel is in learning mode.
7 Green LED (Volume Switch)	Steady on	AC power is on.
	Blinking twice every second	AC power fails.
	Pressed once	To increase the speaker volume
8 Orange LED (Volume Switch)	Pressed once	To lower the speaker volume
	Blinking every 3 seconds	The Control Panel is low on battery or is having an overvoltage condition.
	Blinking twice every second	A device is low on battery or is tampered with.
	Off	All the conditions signified by this blinking orange LED have been removed.
9 Microphone		
10 Speaker		
11 Battery Switch	On/off	
12 EZ-1/EZ-2 Lid		
13 DC Jack	Connects to a DC 12V 2A switching power adapter.	
14 USB Port		
15 Ethernet Port	(On MX-6 and MX-8 only)	
16 Phone Jack Marked 	Connects to a phone line from the wall.	
17 Phone Jack Marked 	Connects to a telephone unit.	

Button/LED/Component	Behavior	Function/Indication
18 GPRS/GSM or 3G Fault Indicator (orange)	On	Failed registration <u><NOTE></u> ☞ Registration will fail when an AC power failure occurs.
	Off	Successful registration
19 GPRS/GSM or 3G Status Indicator (red)	Blinking	When the GPRS/GSM or 3G module operates normally
20 GPRS/GSM or 3G Reset Button	Pressed for one second	To reset GPRS/GSM or 3G
21 SIM Card Base	Insert your SIM card in this slot.	

2.2. Power Supply

- Plug the AC power adapter into the Control Panel's DC jack and connect to the mains power. Make sure that you use an adapter with the appropriate AC voltage rating to prevent component damage. An AC-DC 12V/2A switching power adapter is generally used to power the standard version of the Control Panel.
- In addition to the AC power adapter, a rechargeable battery is installed inside the Control Panel to serve as a backup in case of a power failure.
- During normal operation, the AC power adapter is used to supply power to the Control Panel and at the same time recharge the battery. It takes approximately 72 hours to fully charge the battery.
- If the battery switch is set as **OFF**, the battery will not be charged when AC power is connected and nor will it serve as a backup power source when AC power is missing. You need to switch the battery to **ON** for it to be charged when AC power is connected and serve as a backup power source when AC power is missing.

3. Installing MX

Step 1. Choose a suitable location for the Control Panel. The Control Panel requires the mains power and PSTN (MX-2 and MX-6), GSM/3G (MX-3 and MX-8) and/or Ethernet (MX-6 and MX-8) connections and should be easily accessible. It should not be placed in a damp location such as a bathroom or close to a heat source like a microwave oven, which could reduce signal strength.

Step 2. Plug the USB cable into the Control Panel's USB port and connect it to a PC for MX programming.

Step 3. Connect a PSTN line and a telephone line to the Control Panel for MX to operate via PSTN (MX-2 and MX-6 only).

Step 4. Insert a SIM card into the SIM card base on the rear side of the Control Panel for MX to operate via GPRS and GSM or 3G (MX-3 and MX-8 only).

<NOTE>

☞ It is recommended that you disable the SIM card's PIN code before you insert the SIM card into the Control Panel.

☞ The SIM card will delete its messages whenever the Control Panel is powered on.

Step 5. Plug an IP cable into the Control Panel's Ethernet port and connect to an Ethernet network for MX to operate via Ethernet (MX-6 and MX-8 only).

Step 6. Plug the AC power adaptor into the Control Panel's DC jack and connect to the mains power. The Control Panel will emit two beeps to indicate the system is now ready for further operation.

4. Programming MX

4.1.PC Programming

4.1.1. Installing USB Driver

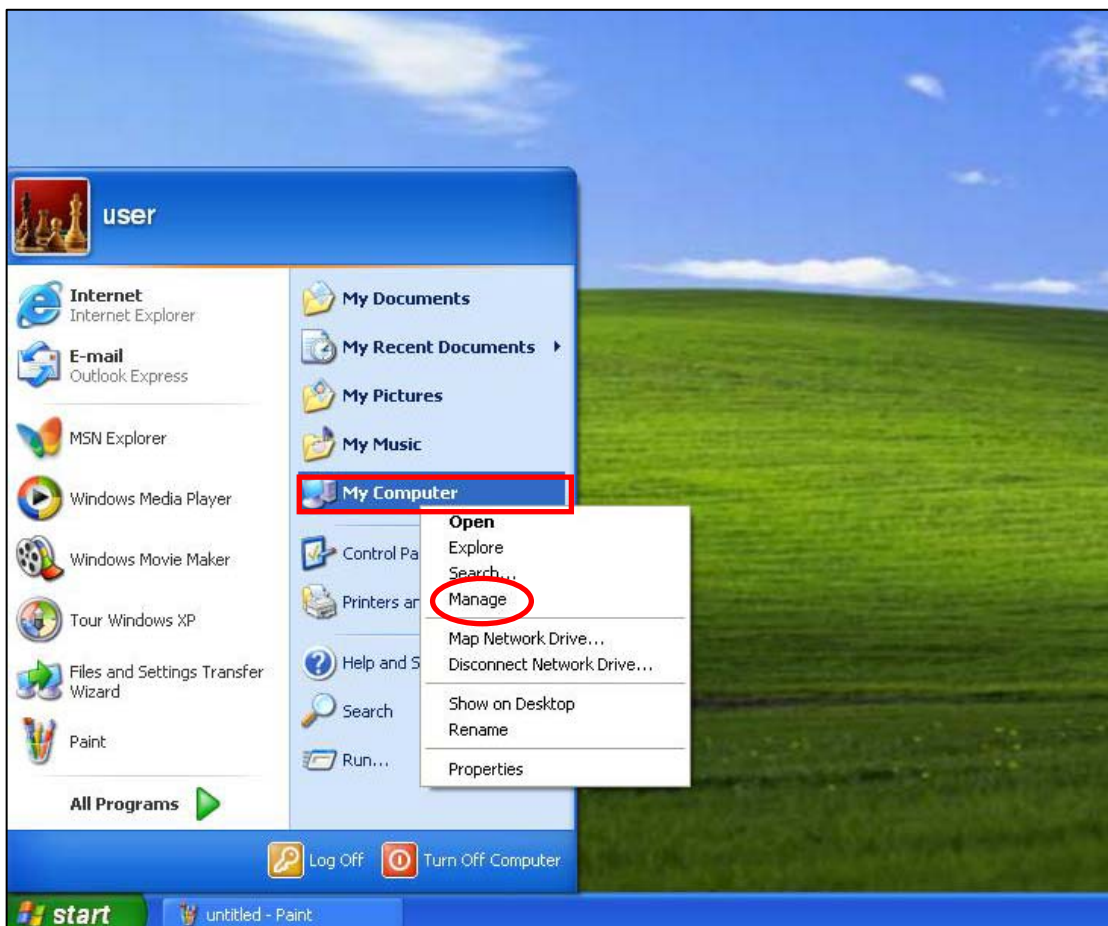
Please first install the USB Driver provided in your CD-ROM on your PC.

<NOTE>

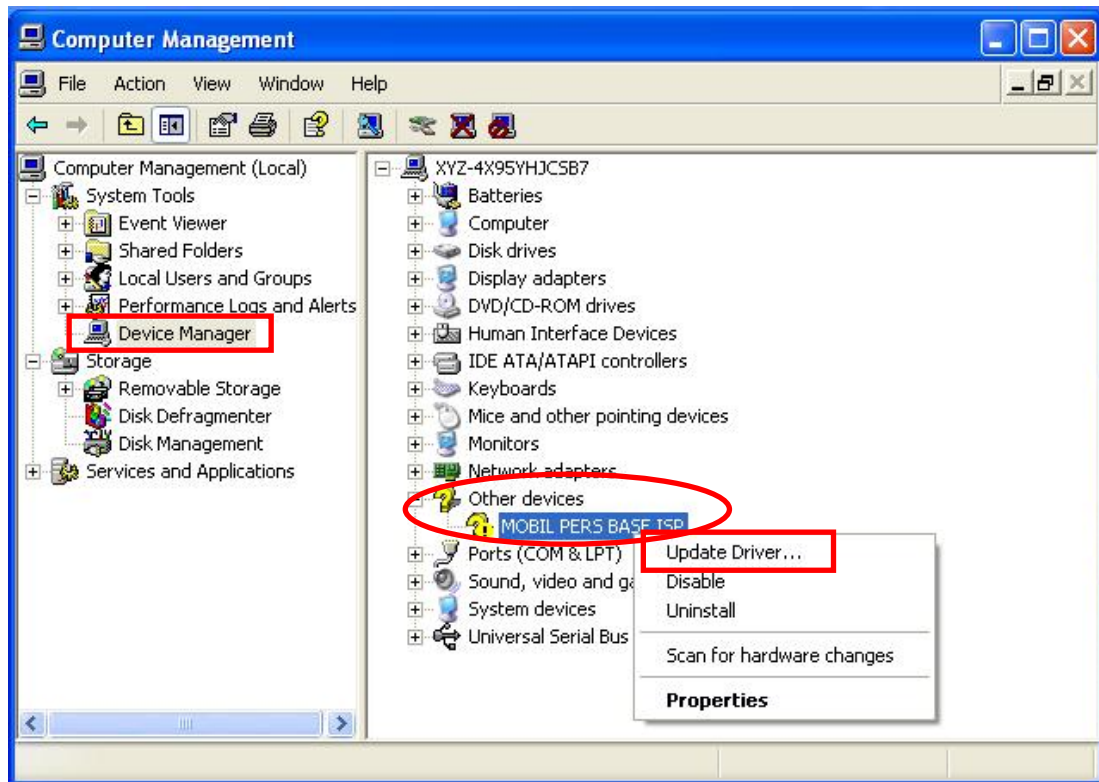
☞ It is recommended that you use Windows XP or Windows 7 operating systems.

Step 1. Plug the USB cable into the Control Panel's USB port and connect it to a PC.

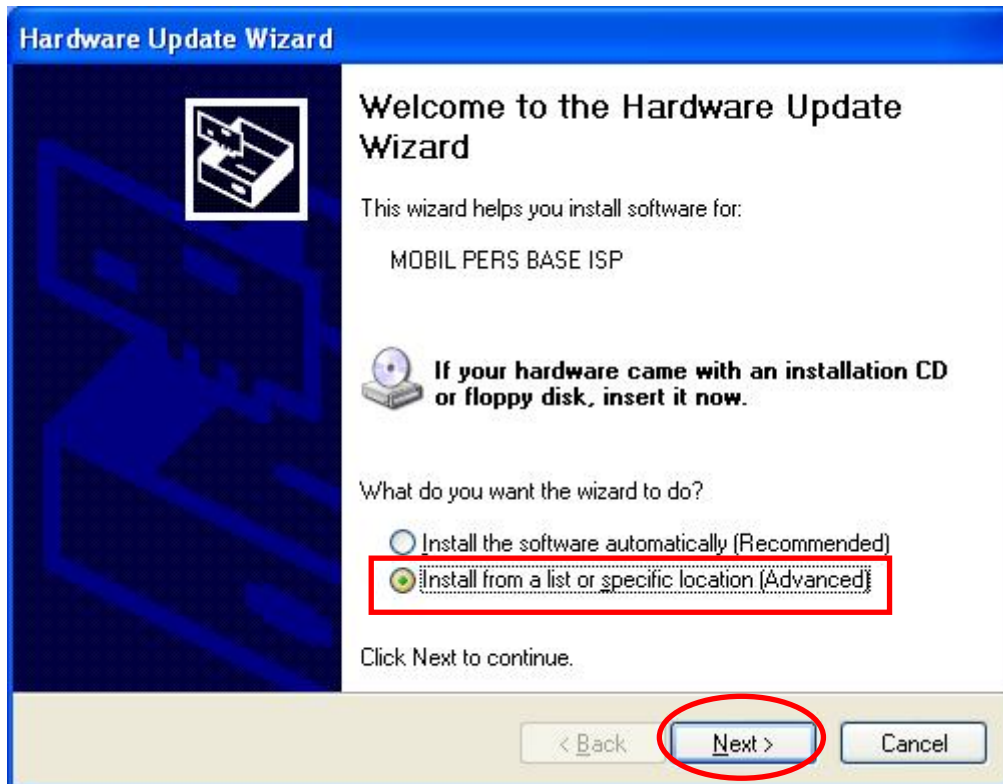
Step 2. Insert the supplied CD-ROM into your CD-ROM drive and find the "USB Driver" folder (you may copy and paste the folder to your desktop for later use). Click the "Start" button at the bottom left-hand corner of the screen and then click "My Computer" and "Manage."



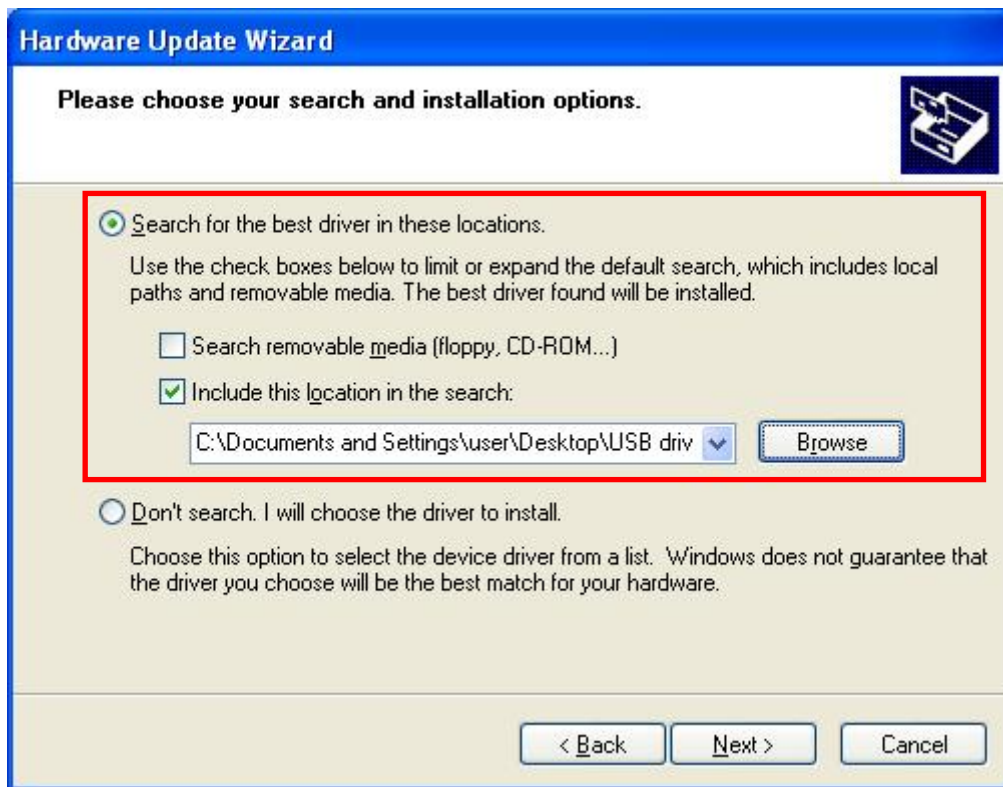
Step 3. Click on the “Device Manager” icon and find “MOBIL PERS BASE ISP” under “Other devices.” Click “Update Driver.”



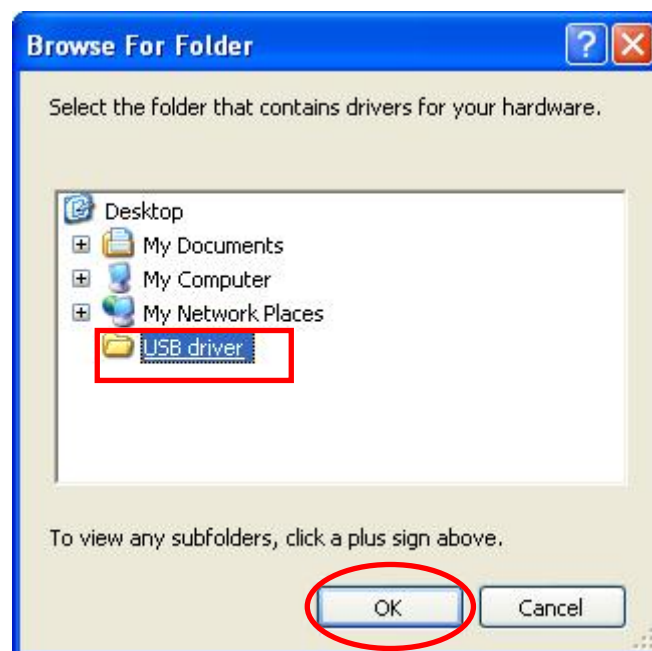
Step 4. When the Hardware Update Wizard window pops up, select “Install from a list or specific location (Advanced)” and click “Next.”



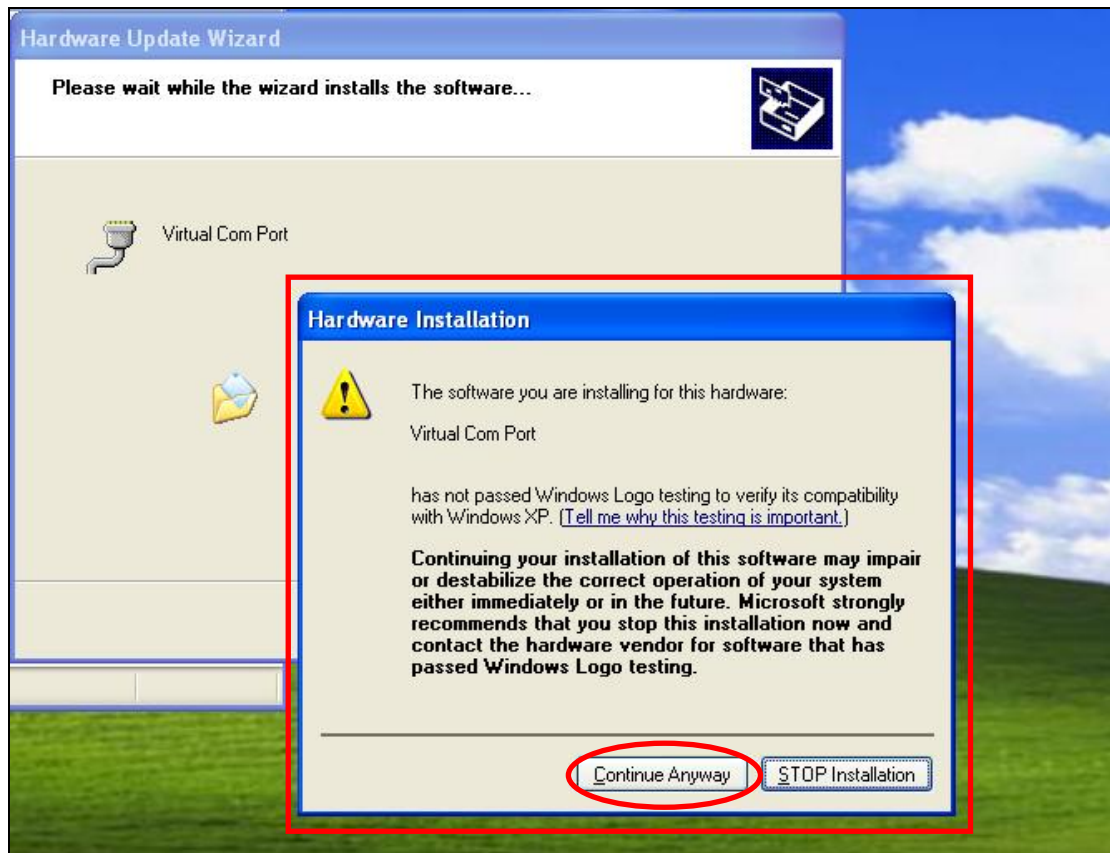
Step 5. Search for the USB Driver folder. If you have copied and pasted the USB Driver folder to your desktop, tick “Include this location in this search” and click “Browse.”



Step 6. Select the “USB Driver” and click “OK.”



Step 7. It takes a short while for your PC to install the USB Driver. If the Hardware Installation warning window pops up, please click “Continue Anyway.”

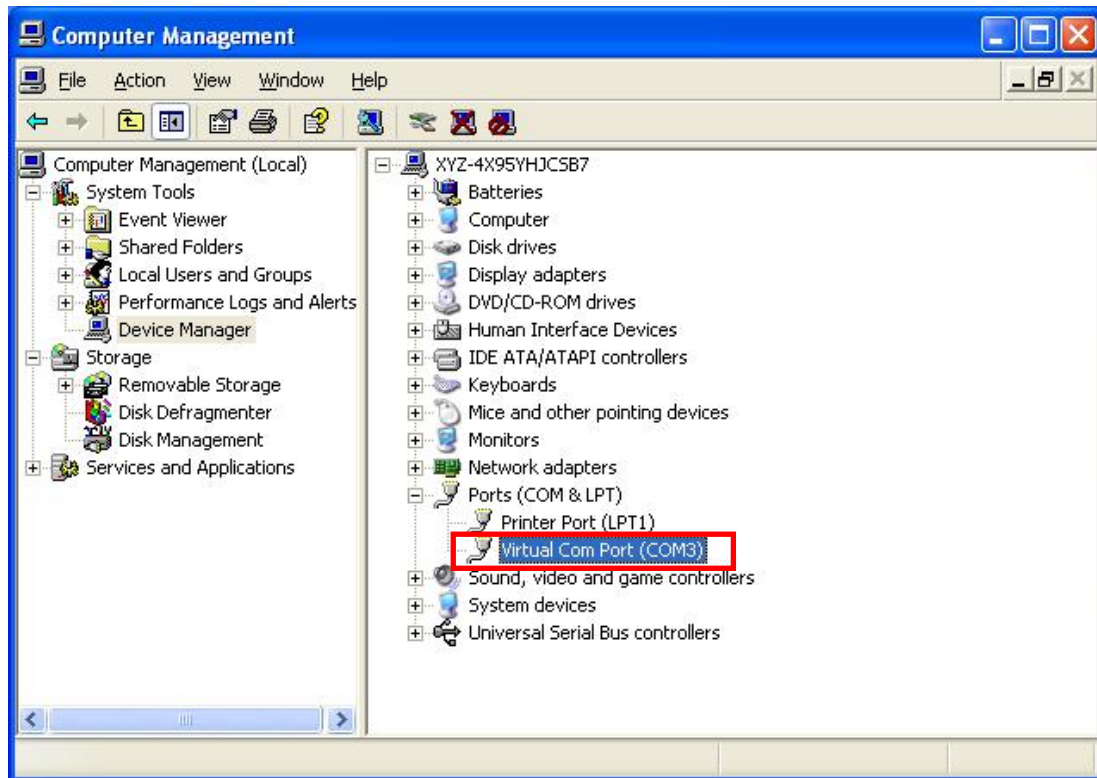


Step 8. When the installation has been completed, click “Finish” on the Hardware Update Wizard window to close the wizard.



Step 9. Please remember the COM port number of MX as shown in the “Device Manager” section. You will need the COM port number when doing PC programming.

Now that the USB Driver has been successfully installed, you can proceed with PC programming of MX.



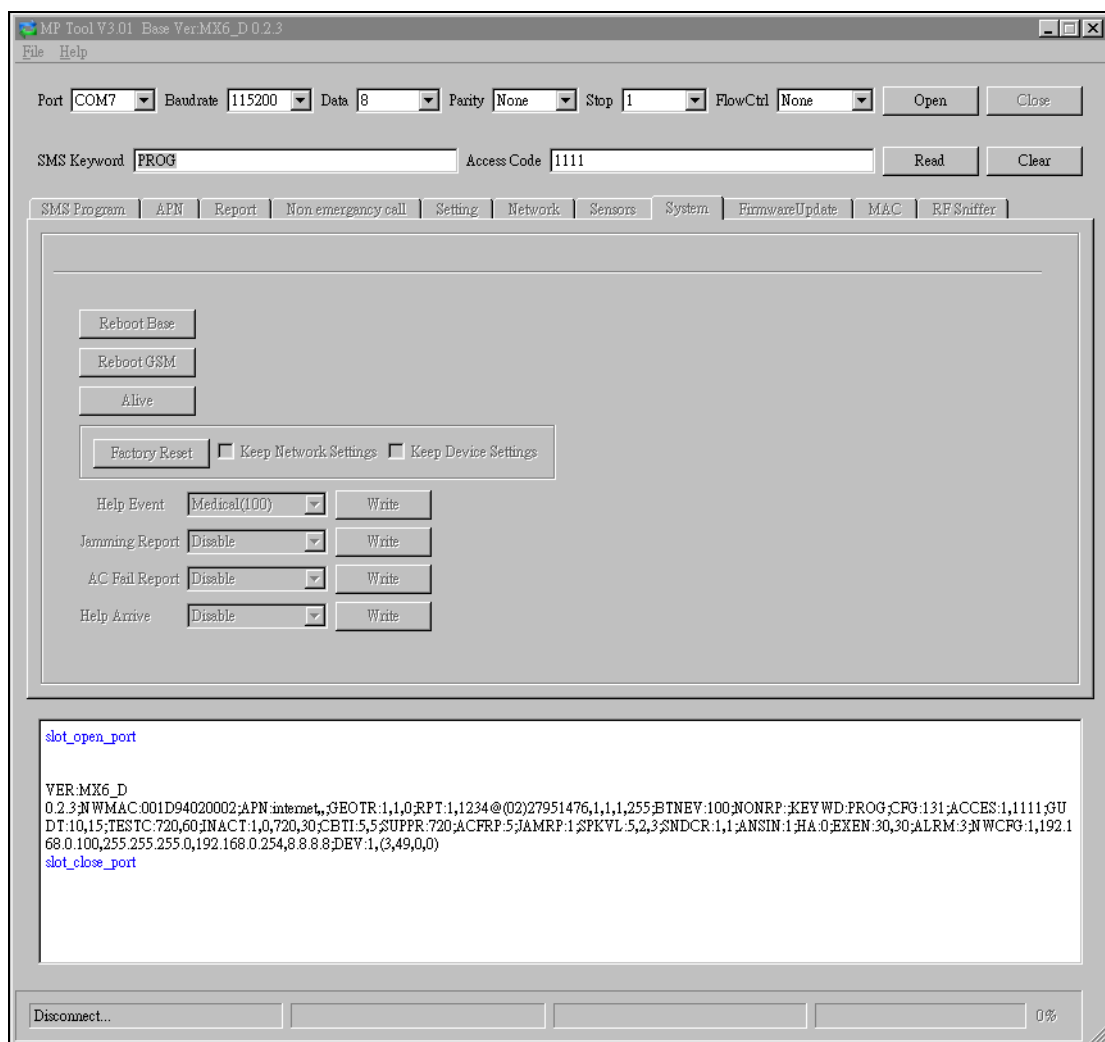
4.1.2. PC Programming Tool

You can easily configure the Control Panel via the PC Programming Tool provided in the CD-ROM.

Step 1. Find and open the “PC Programming Tool” folder in the supplied CD-ROM. Click “MPTool_x.xx.exe” to execute the programming tool.

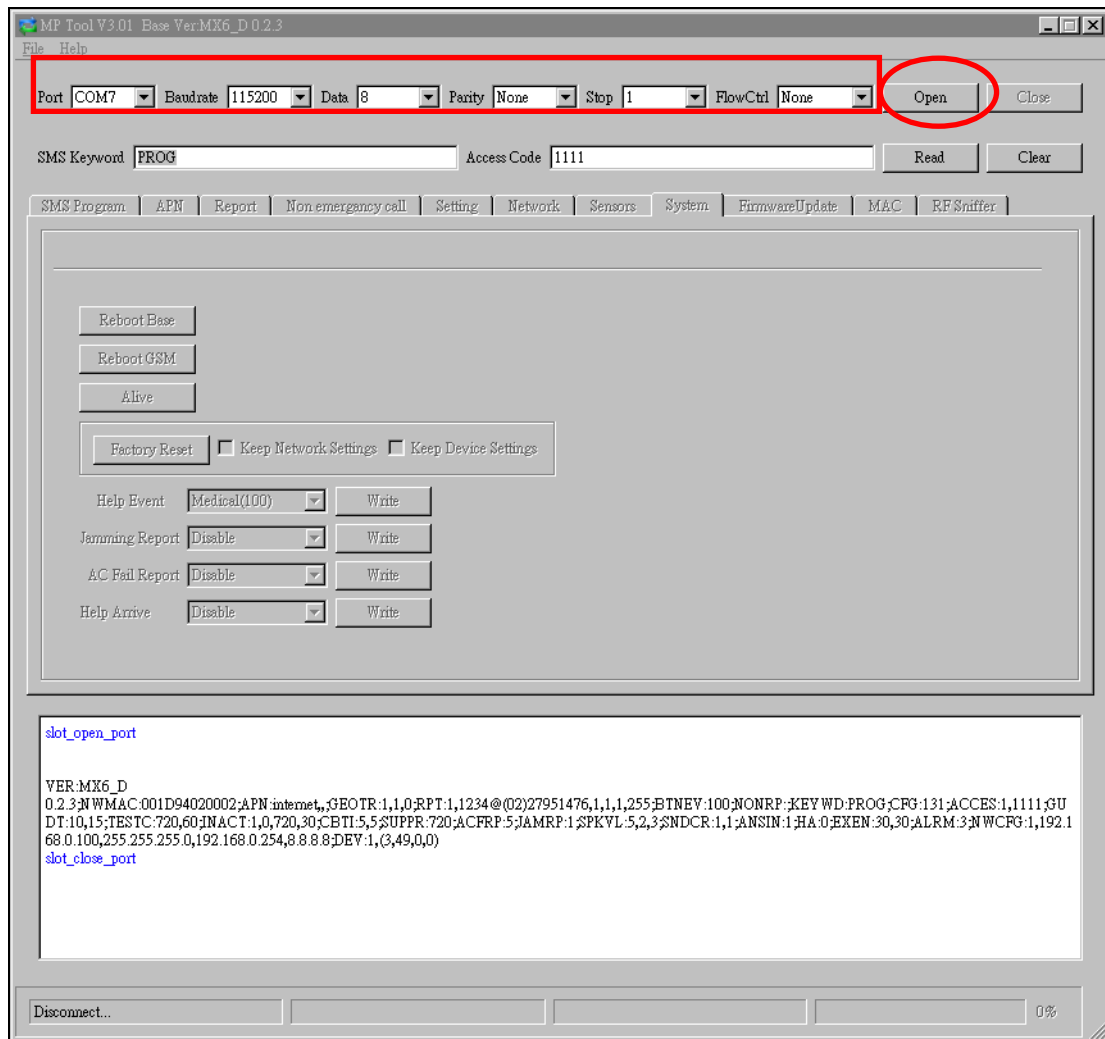


The following configuration screen will be opened.



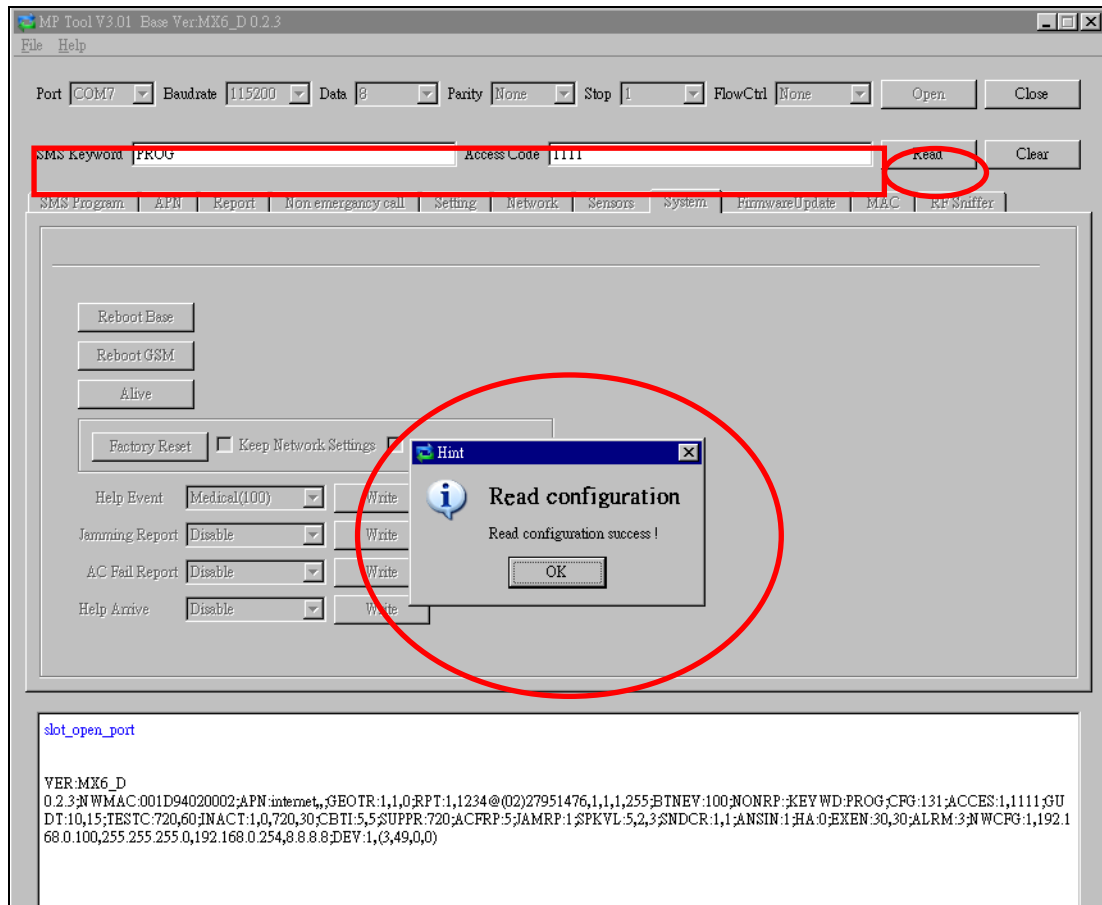
Step 2. Select the following settings in the top section of the configuration screen and click “Open.”

- Port: Select the COM port generated for MX after installing the USB Driver (the USB port connected to MX).
- Baud rate: 115200
- Data: 8
- Parity: None
- Stop: 1
- FlowCtrl: None



Step 3. Enter SMS Keyword and Access Code and click “Read.” When a pop-up window shows “Read configuration success,” the configuration page below will be opened and you can proceed with the programming of MX.

- SMS Keyword: PROG (default)
- Access Code: 1111 (default)

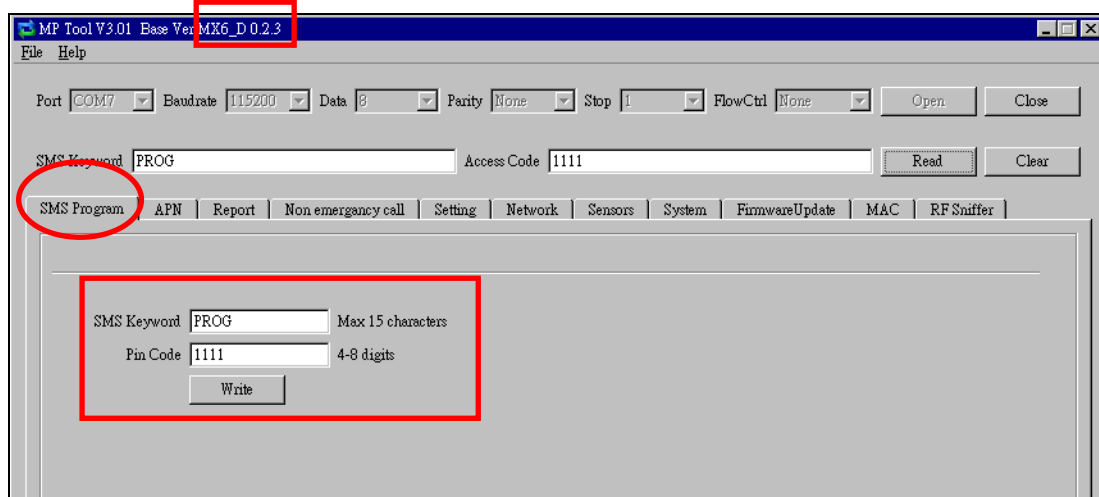


Step 4. SMS Program

Click “SMS Program” to set a SMS Keyword (15 characters max.) and a PIN Code (4-8 digits) and click “Write.” Please note that the SMS Keyword is case-sensitive.

<NOTE>

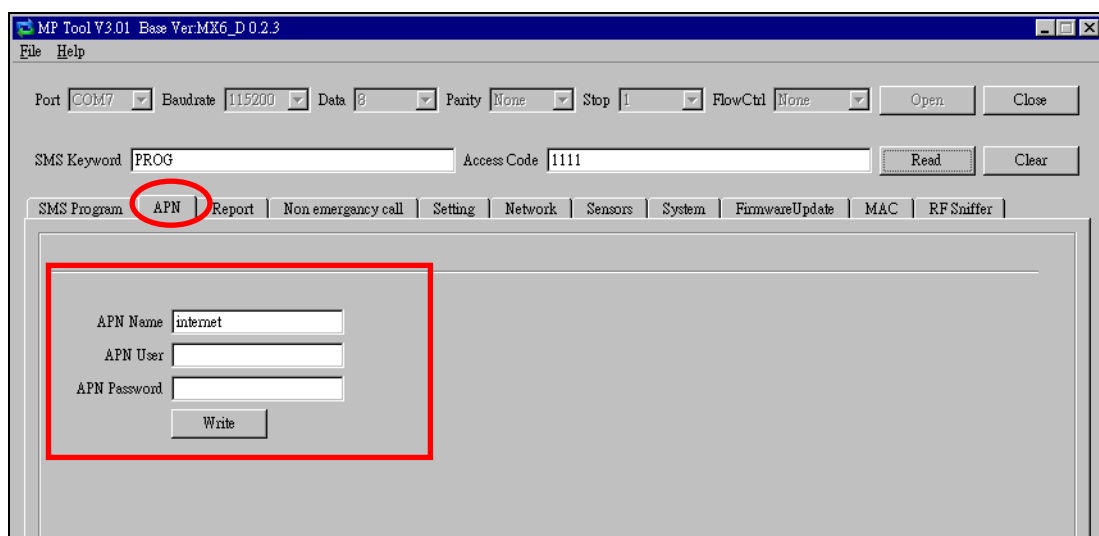
☞ The version of your MX model will be shown on the top of the screen.



Step 5. APN

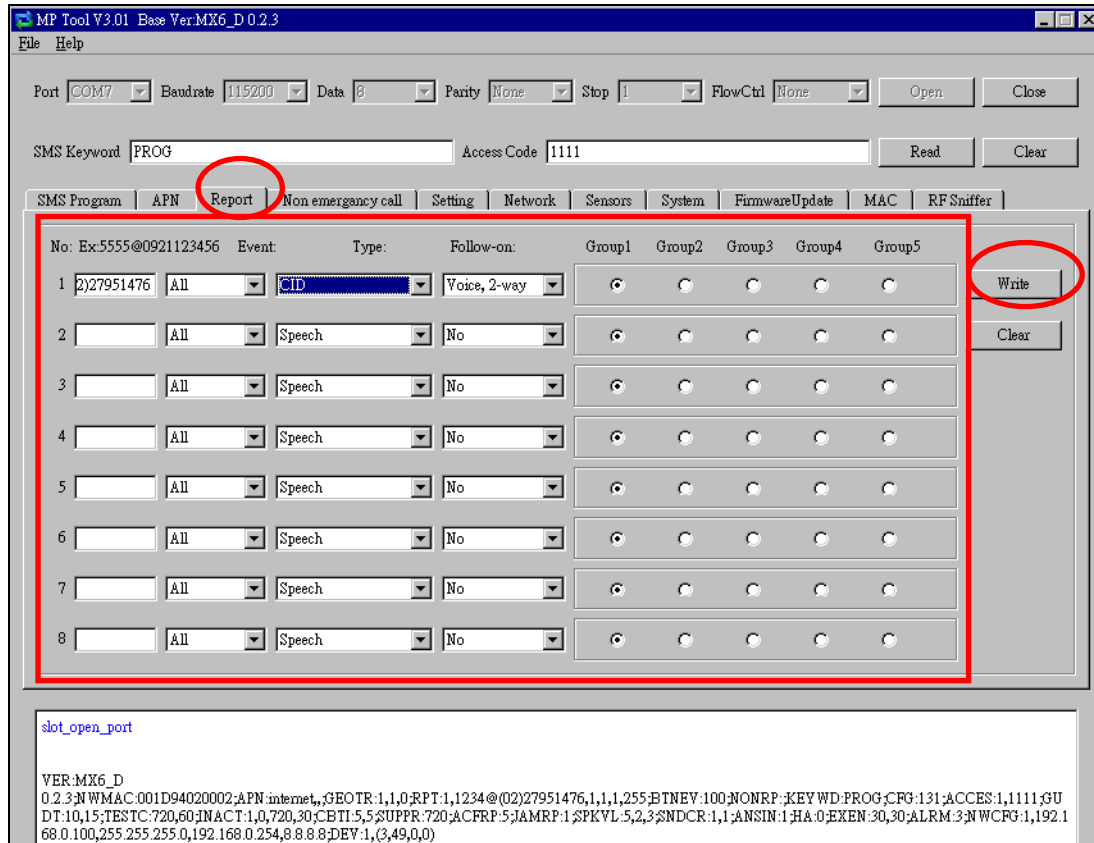
Click “APN” to set APN Name, APN User and APN Password and click “Write.”

- **Access Point Name (APN):** The name of an access point for GPRS. Please ask your SIM card service provider for your APN.
- **Username:** Offered by your SIM card service provider. Please ask your service provider for your GPRS username. If no username is required, you may skip this step.
- **Password:** Offered by your SIM card service provider. Please ask your service provider for your GPRS password. If no password is required, you may skip this step.



Step 6. Reporting

Click “Report” to program destinations of reporting, event filters (Event), reporting formats (Type), follow-on options (Follow-on) and reporting sequence (Group 1~5) for alarm reporting and status reporting. Click “Write” after you have completed the settings.



- **Destinations of reporting 1~8:** Program destinations of reporting 1~8 in the No. 1~No. 8 boxes.
- **Event:** Event filters have five options, “All,” “Medical,” “Emergency,” “Status” and “Burglar.” Event filters are used to process events according to the categories to which they belong. Please refer to “Appendix 7.1.9 Contact ID Event Codes” to check out the categories to which events are assigned.
- **Type:** Select a reporting format for each destination of reporting. The reporting formats include the following: Speech, CID, Scancom, Tunstall, Franklin, CPC 1, CPC 2, CID_IP, SIA_CID_IP, SIA_IP, SIA_CID_UDP, SIA_UDP, CSV_IP, SMS_CID, SMS_TEXT, and SMS_SIA.
- **Follow-On:** Select a follow-on option for each destination of reporting. The follow-on options include the following: No, 2-way Voice communication, Talk only, Listen-in only and Wait (for command). The follow-on options should be in conformity with the settings of their corresponding destinations of reporting.

- **Group 1~Group 5:** Groups 1~5 determine the sequence of reporting. The reporting sequence goes from Group 1 to Group 5.

The procedure and details of programming are as follows:

- 1. Programming destinations of reporting:** You can set 8 destinations of reporting. To program destination 1, please first enter its reporting number/setting in the No. 1 box and select its reporting format under “Type” as well as its follow-on option under “Follow-On.” Configure destinations 2-8 in the same manner.

The setting of each destination of reporting shall be in conformity with the destination’s reporting format under “Type.” Examples of reporting formats are as follows:

- Reporting over IP (Ethernet or GPRS) in CID_IP/SIA_IP/SIA_CID_IP/SIA_UDP/SIA_CID_UDP/CSV_IP formats: Account@server:port
example: 0001@59.124.123.66:50123
- Reporting over the phone in CID/Scancom/Tunstall/Franklin/CPC 1/CPC 2 formats: Account@phone number
Example: 0001@(02)27940559
- Speech reporting over the phone: phone number
Example: 0912345678
- Reporting over the phone in SMS_CID/SMS_TEXT/SMS_SIA formats: Account@phone number
Example: 0001@0912345678

<NOTE>

- ☞ The account number can contain 4 or 6 digits. The CMS may also determine according to its capacity how many digits the account number can contain.
- ☞ You can select the options in the “Follow-On” column (No/2-Way Voice/Talk Only/Listen Only/Wait) for digital reporting formats, including CID, Tunstall, Scancom, Franklin, CPC 1 and CPC 2 formats. Please note that the “Follow-On” settings for all the other reporting formats have to be “No.”
- ☞ If a destination of reporting contains digits in parentheses like (02)27940559, the Control Panel will not dial the digits in the parentheses when reporting via PSTN (it will only dial 27940559) but will dial the digits in the parentheses when reporting via GSM (it will dial 0227940559).
- ☞ Jamming reports can be reported via all reporting formats under “Type” except for the Scancom and Tunstall formats.

- 2. Programming event filters:** Event filters have five options: “All,” “Medical,” “Emergency,” “Status” and “Burglar.” Event filters are used to

process events according to the categories to which they belong. Please refer to “Appendix 7.1.9. Contact ID Event Codes” to check out the categories to which events are assigned.

Events are divided into four categories: medical, emergency, status and burglary. If the option “all” is selected for a destination, all events will be reported to this destination.

Examples are as follows:

- A device low on battery is a “status” event. If destinations 3 and 7 are set as “status” and destination 5 as “all” in event filters, this status event will be reported to destinations 3, 5 and 7.
- A fall sensor being inactive is a “medical” event. If destinations 1 and 6 are set as “medical” and destination 5 as “all” in event filters, this medical event will be reported to destinations 1, 5 and 6.

<NOTE>

- ☞ Events categorized as “status” do not have follow-on procedure (2-way/listen in/talk only/wait). Events categorized as “medical,” “emergency” or “burglary” will have follow-on procedure if you program follow-on modes for them. The only exception is the home/away events (the home event code is 3666 and the away event code 1666). These two events belong to the “status” category but have follow-on procedure.

3. Assigning destinations 1~8 to Groups 1~5: Reporting sequence goes from Group 1 → Group 2 → Group 3 → Group 4 → Group 5. Destinations of reporting assigned to Group 1 will be reported to first, those assigned to Group 2 reported to next, and the like.

If you want to assign destination 1 to Group 3, tick Group 3 for destination 1. Assign destinations 2-8 to the groups in the same manner.

<NOTE>

- ☞ Each group can have more than one destination of reporting. If one group has more than one destination of reporting, the reporting sequence will go through all of this group’s destinations before moving on to the next group’s destination(s).
- ☞ The reporting will go through a group’s destinations according to the numerical sequence to which the destinations are assigned. For example, when destinations 4 and 8 are assigned to Group 2, the reporting will go to destination 4 first and then destination 8.
- ☞ One complete round of reporting for the system means reporting from Group 1 → Group 2 → Group 3 → Group 4 → Group 5 and going through all the groups’ destinations. The system will keep going through the rounds of destinations until one reporting has been received successfully.

If the system has successfully reported to one destination in a group, the system will consider that it has successfully reported to this group.

Therefore, the system will skip the rest of the destinations in this group and go on reporting to the next group. For example, if destinations 2, 4 and 7 are assigned to Group 3 and the system has successfully reported to destination 2, the system will skip destinations 4 and 7 and go on reporting to Group 4.

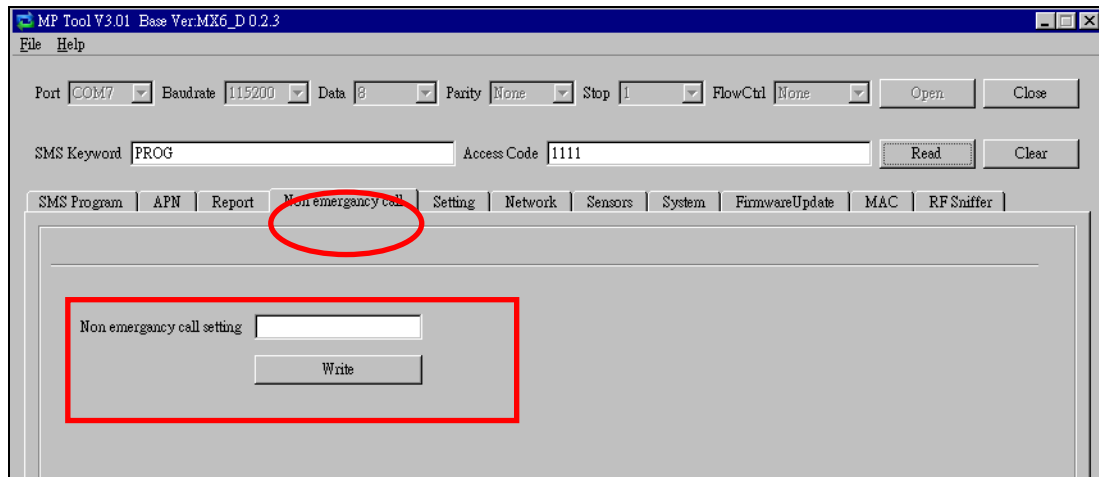
After the system has completed one round of reporting (going from Group 1 → Group 2 → Group 3 → Group 4 → Group 5) and has successfully reported to one group, it will consider that the event has been successfully reported and will stop reporting. If the successful reporting takes place in the midst of a round, the system will still report to the rest of the groups in the round before stopping reporting. For example, if the successful reporting takes place in Group 2, the system will no longer report to other destinations in Group 2 but will still go on reporting to destinations in Group 3, Group 4 and Group 5 before stopping reporting.

If the system has not successfully reported to any group, it will enter the retry cycle to repeat another round of reporting.

- ☞ If no reporting is successfully received after the system has gone through the first complete round, the system will take a 5-minute break before starting the second round of reporting. If there is still no reporting successfully received after the system has gone through the second round, the system will again take a 5-minute break before starting the third round of reporting. The system will never stop the reporting cycles unless one reporting has been received successfully.

Step 7. Non-Emergency Call

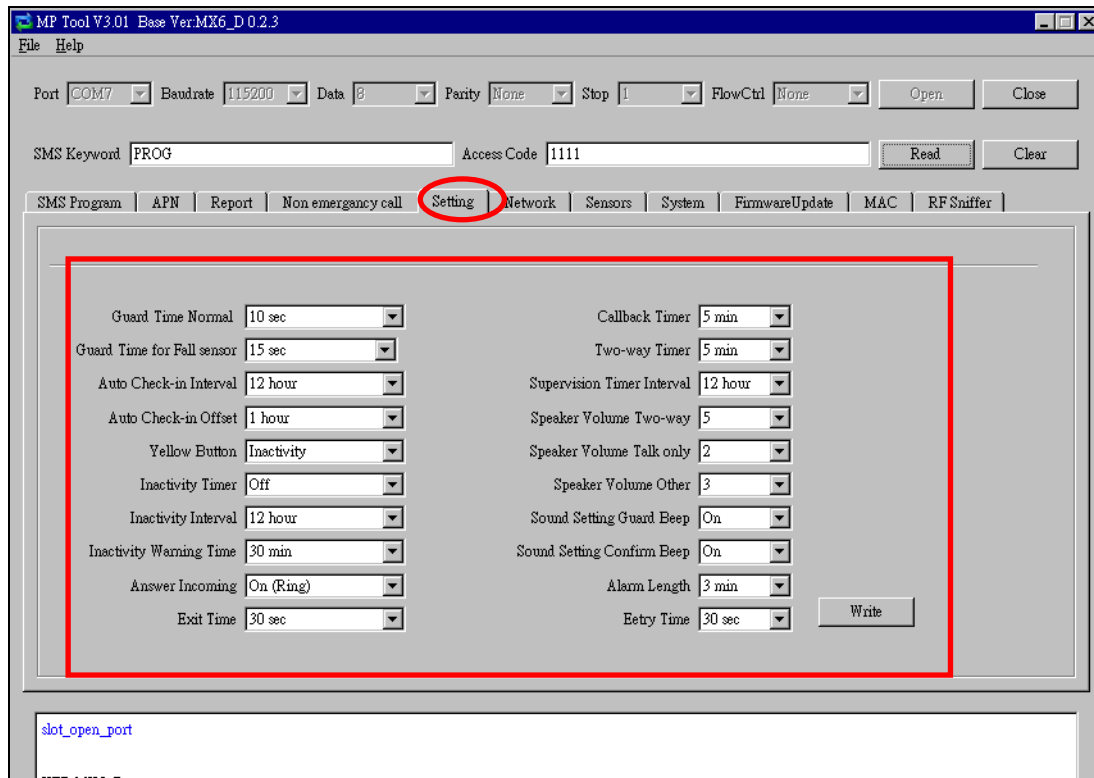
- Click “Non-Emergency Call” to program the non-emergency call number and click “Write.”
- When the Control Panel is in normal mode, you can make a non-emergency call by pressing the green reset button for 3 seconds or press the yellow button once (if the yellow button has been programmed as a non-emergency call button). The Control Panel will emit 2 beeps and automatically dial the programmed non-emergency call number for two-way communication.
- During the conversation of a non-emergency call, you can enter the following DTMF commands:
 - Enter **(1)** to talk only.
 - Enter **(2)** to open two-way voice communication.
 - Enter **(3)** to listen in only.
 - Enter **(9)** to hang up. You can also put the handset back to the base cradle to end the call.
- During the conversation of a non-emergency call, you can extend the communication by entering DTMF command **(1)**, **(2)** or **(3)**.
- At 20 and 10 seconds before the communication time expires, 1 beep will be emitted via the telephone handset to alert the user. When the communication time is up, the call will be automatically terminated.
- The communication time of non-emergency calls is conditioned by the two-way timer function.



Step 8. Setting

Click “Setting” to program “Guard Time Normal,” “Guard Time for Fall Sensor,” “Auto Check-In Interval,” “Auto Check-in Offset,” “Yellow Away/Home Button,” “Inactivity Timer,” “Inactivity Interval,” “Inactivity Warning Time,” “Callback Timer,” “Two-Way Timer,” “Supervision Timer Interval” and “Speaker Volume Two-Way,” “Speaker Volume Talk Only,” “Speaker Volume Other,” Sound Setting Guard Beep,” “Sound Setting Confirm Beep,” “Answer Incoming,” “Alarm Length,” “Exit Time” and “Entry Time.”

Click “Write” when you have completed these settings.



Details regarding the settings are as follows:

1. Guard Time Normal:

- Guard time normal is designed for any compatible sensor except for Fall Sensor (fall detection).
- A voice prompt announcing “help call in progress” will be played every 2-3 seconds during guard time to alert the user.
- If a false alarm is triggered, it can be canceled during guard time.
- An emergency alarm cannot be cancelled after guard time has expired.
- If an emergency alarm is triggered by Fall Sensor, guard time will be determined by the setting of Fall Sensor instead of the setting of guard time.

2. Guard Timer for Fall Sensor:

- You can set a guard time period for Fall Sensor. A voice prompt announcing “a fall has been detected” will be played every 2-3 seconds during Fall Sensor’s guard time.
- If a false alarm is triggered by Fall Sensor, it can be canceled within the guard time period.
- This function is used when a fall is detected.

3. Auto Check-In Interval:

- You can select the length of the interval between auto check-in reports.
- There will be no auto check-in report if you select “Disable.”
- Whenever programming mode is accessed, the Control Panel will reset the auto check-in timer.

4. Auto Check-In Offset:

- After power is supplied to the Control Panel, the system will start counting the time for a check-in report.
- The Control Panel will send a check-in report once according to the setting of offset time. Afterwards it will send reports according to the setting of auto check-in reports unless the Control Panel restarts or the offset time is reset.
- When offset time is reset in programming mode, the system will recalculate the time for a check-in report.
- Whenever programming mode is accessed, the Control Panel will reset the offset timer.

5. Yellow Button:

- You can set the yellow button on the Control Panel as an inactivity button, a check in/out button, an away/home button, a non-emergency call button or a security button.
- As an inactivity button: The user can use the inactivity button to toggle on/off the inactivity timer. When the user presses the inactivity button to toggle on/off the inactivity timer, the Control Panel does not report event codes to the CMS.
- As a check-in/out button: The user can use the check-in/out button to toggle on/off the inactivity timer. When the user presses the check-in/out button to check out and toggle off the inactivity timer, the CID event code 665 with the prefix “1” will be sent to the CMS. When the user presses the check-in/out button to check in and toggle on the inactivity timer, the CID event code 665 with the prefix “3” will be sent to the CMS.

- As an away/home button: The user can use the away/home button to toggle on/off the inactivity timer. When the user presses the away/home button to toggle off the inactivity timer before leaving home, the CID event code 666 with the prefix “1” will be reported to the CMS and two-way communication will be opened after the reporting. When the user presses the away/home button to toggle on the inactivity timer upon returning home, the CID event code 666 with the prefix “3” will be reported to the CMS and two-way communication will be opened after the reporting.
- As a non-emergency call button: The user can press this non-emergency call button to dial a preset phone number.
- As a security button: The user can press the security button to arm his house and stop the inactivity timer (when the inactivity timer is set as “on”). The user can select either of the following two methods to disarm his house and restart the inactivity timer:
 1. Press the security button once and press Wrist Pendant (WTR-) once within three seconds after the security button is pressed.
 2. Use Remote Control (RC) or Remote Keypad (KP) to disarm the house and the inactivity timer will automatically restart.

<NOTE>

- ☞ If the inactivity timer is set as “on,” the timer will stop counting when the user arms his house and goes out. The timer will start counting all over again when the user returns home and disarms the house. The orange backlight of the yellow button will be steady on no matter whether the timer is stopped or continues running.
- ☞ If the inactivity timer is set as “off,” it will remain disabled no matter whether the user arms or disarms his house. The orange backlight of the yellow button will be turned off.

6. Inactivity Timer:

- If you set the inactivity timer as “on,” the orange backlight of the yellow away/home button on the Control Panel will be steady on to indicate that the inactivity timer is on. If you set the inactivity timer as “off,” the orange backlight will be off.
- If the setting is “off,” no code will be sent to the CMS.
- When the Control Panel is in idle mode, you can toggle on/off the inactivity timer by pressing the yellow button once (if the yellow button has been programmed as an away/home button).
- If the yellow button has been programmed as a non-emergency call button or a security button, you can only enable or disable the inactivity timer via programming. However, when the yellow button is programmed as a security button and the inactivity timer has been

enabled, the user can stop the inactivity timer when arming his house and restart the inactivity timer when disarming his house.

<NOTE>

- ☞ Please set the inactivity timer as “off” if you program the yellow button as a non-emergency call button or a security button.

7. Inactivity Interval:

- This function monitors user movements and sends an inactivity report to the CMS if the user fails to reset the inactivity timer before the interval expires. This setting is for you to select the countdown period for the inactivity timer.
- The inactivity timer can be reset by pressing the reset button once on the Control Panel or by an action from any device with a button.
- When the inactivity timer expires and no reset signal is received, the Control Panel will start to play a voice prompt every five minutes to alert the user during warning time. If a reset signal is still not received after warning time expires, an inactivity alarm report will be made.
- The reporting method for an inactivity alarm is the same as that for an emergency alarm. The report will be sent based on your reporting methods after the warning time expires.

8. Inactivity Warning Time:

- Inactivity warning time is the interval between the expiry of the inactivity timer and the Control Panel's sending an inactivity alarm report to the CMS.
- The Control Panel will play a voice prompt upon the expiry of the inactivity timer. Afterwards the voice prompt will be played every 5 minutes during warning time as a reminder to the user until the expiry of warning time.
- If warning time is disabled, an inactivity alarm report will be immediately sent to the CMS upon the expiry of the inactivity timer.

9. Callback Time:

- This setting is for digital reporting methods. After reporting successfully to the CMS, the system will automatically hang up the line and start a waiting period (=callback time) to auto answer any incoming calls from the CMS.
- When the CMS calls back within callback time, the system will auto answer the call after the first ring and wait for the entry of the proper Access Code followed by the (#) key within 15 seconds.
- When the correct Access Code is received, the system will open full-duplex communication to allow the call recipient to speak to the

CMS directly. You can use DTMF commands to switch communication methods.

- The Access Code must be entered within 15 seconds, otherwise the system will disconnect the call automatically.
- Press DTMF (9) or the reset button on the Control Panel to terminate the call.
- When callback time is up, the system will automatically exit the waiting mode and return to idle mode.
- The callback function is automatically disabled during an AC power failure period.

10. Two-Way Timer:

- After the system makes a report to the CMS, it will immediately enter a two-way communication period as programmed by this setting. This will enable the user to speak directly with the CMS personnel.
- Pressing an assigned DTMF key can extend the two-way communication by another two-way period.

11. Supervision Timer Interval:

- This function is not available for Scancom and speech reporting.
- When this supervisory function is enabled, the Control Panel will be able to receive check-in signals from Wrist Pendants (WTR-), Smoke Detector, Fall Sensor and Passive Infrared Motion Detector that indicate the proper operation of the devices.
- When the supervision timer expires and no supervision signal is received from WTR-, Smoke Detector, Fall Sensor or Passive Infrared Motion Detector, a supervisory report will be made.
- The reporting method for a supervisory report is the same as that for an emergency alarm. The report will be sent based on your reporting method without guard time waiting.

12. Speaker Volume Two-Way:

- Select a preferred speaker volume level for two-way mode.

13. Speaker Volume Talk Only:

- Select a preferred speaker volume level for talk-only mode.

14. Speaker Volume Other:

- Select a preferred speaker volume level for other operations.

15. Sound Setting Guard Beep:

- Select “on” to enable beeps during guard time or “off” to disable the

beeping sound during guard time.

16. Sound Setting Confirm Beep:

- Select “on” to enable confirmation beeps during reporting or “off” to disable confirmation beeps during reporting.

17. Answering Incoming [Calls]:

- When this function is set as “on,” the Control Panel rings for incoming calls. You can answer an incoming call by pressing the red help button on the Control Panel.
- When this function is set as “off,” the Control Panel remains silent during incoming calls. Incoming calls will be directly hung up.

18. Alarm Length:

- Select the built-in siren duration when an alarm is activated.

19. Exit Time:

- Select the length of the exit time before your system enters armed mode upon your departure from home.

20. Entry Time:

- Select the length of the entry time before the system changes from armed mode to disarmed mode upon your arrival at home.

<NOTE>

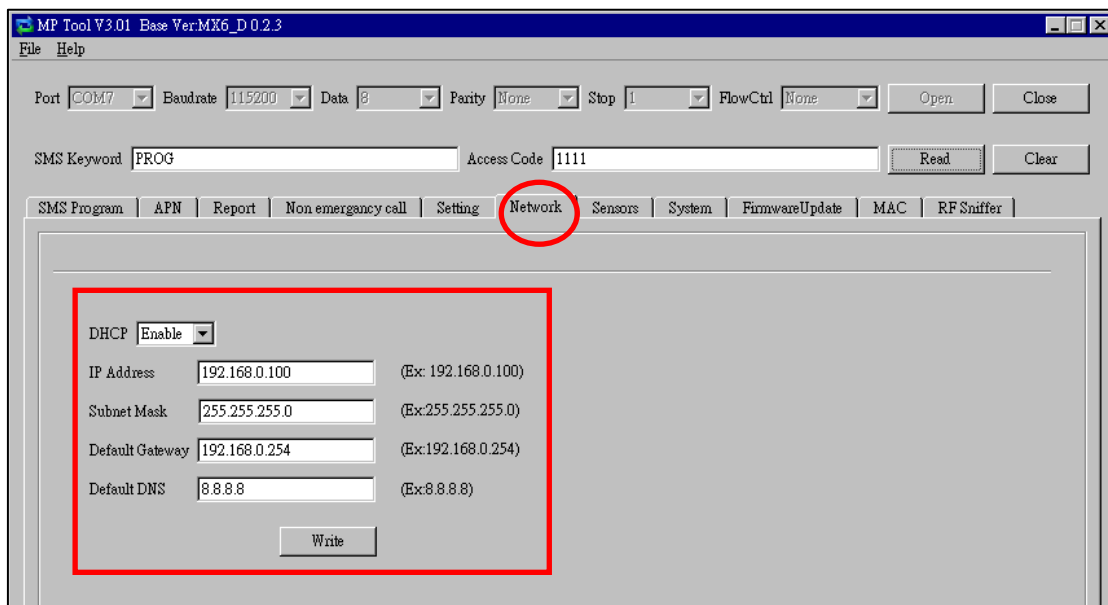
- ☞ The settings of “Alarm Length,” “Exit Time” and “Entry Time” are functional only when the yellow button on the Control Panel is programmed as a security button.

Step 9.

- Click “Network” to configure networking settings.
- Select “Enable” or “Disable” for the DHCP setting:

Enable: Select “Enable” if a DHCP server is present to enable settings to be automatically assigned from the server. If you select “Enable,” you can skip the “IP Address,” “Subnet Mask,” “Default Gateway” and “Default DNS” settings. These settings will be automatically assigned. Click “Write” directly after you have selected “Enable” for the DHCP setting.

Disable: Select “Disable” if a DHCP server is not available. If you select “Disable,” you will have to configure the following “IP Address,” “Subnet Mask,” “Default Gateway” and “Default DNS” settings. Click “Write” after you have configured these settings.



Step 10. Sensors

1. Viewing the data of sensors:

When you have learned sensors into the Control Panel via the local learning method (see **5.1. Learning in Pendant #1, Pendant #2 and Other Devices**), you can click “Sensors” and “Read” to view the zone numbers, types, battery status, tamper conditions, operating status and sound attributes of all of the sensors that have been learned in.

The screenshot shows the MP Tool V2.12 software interface. The 'Sensors' tab is selected and highlighted with a red circle. Below the tab, a table displays the following sensor data:


Zone	Type	Battery	Tamper	Status	Silent
1	WTRV	Normal	Close	Alive	No Silent
2	WTRV	Normal	Close	Alive	No Silent
3	WTR	Normal	Close	Alive	No Silent
4	WTR	Normal	Close	Alive	No Silent
5	IR	Normal	Open	Alive	No Silent
6	Fall Sensor	Normal	Close	Alive	No Silent
7	Panic Button	Normal	Close	Alive	No Silent
8	CO	Normal	Close	Alive	No Silent

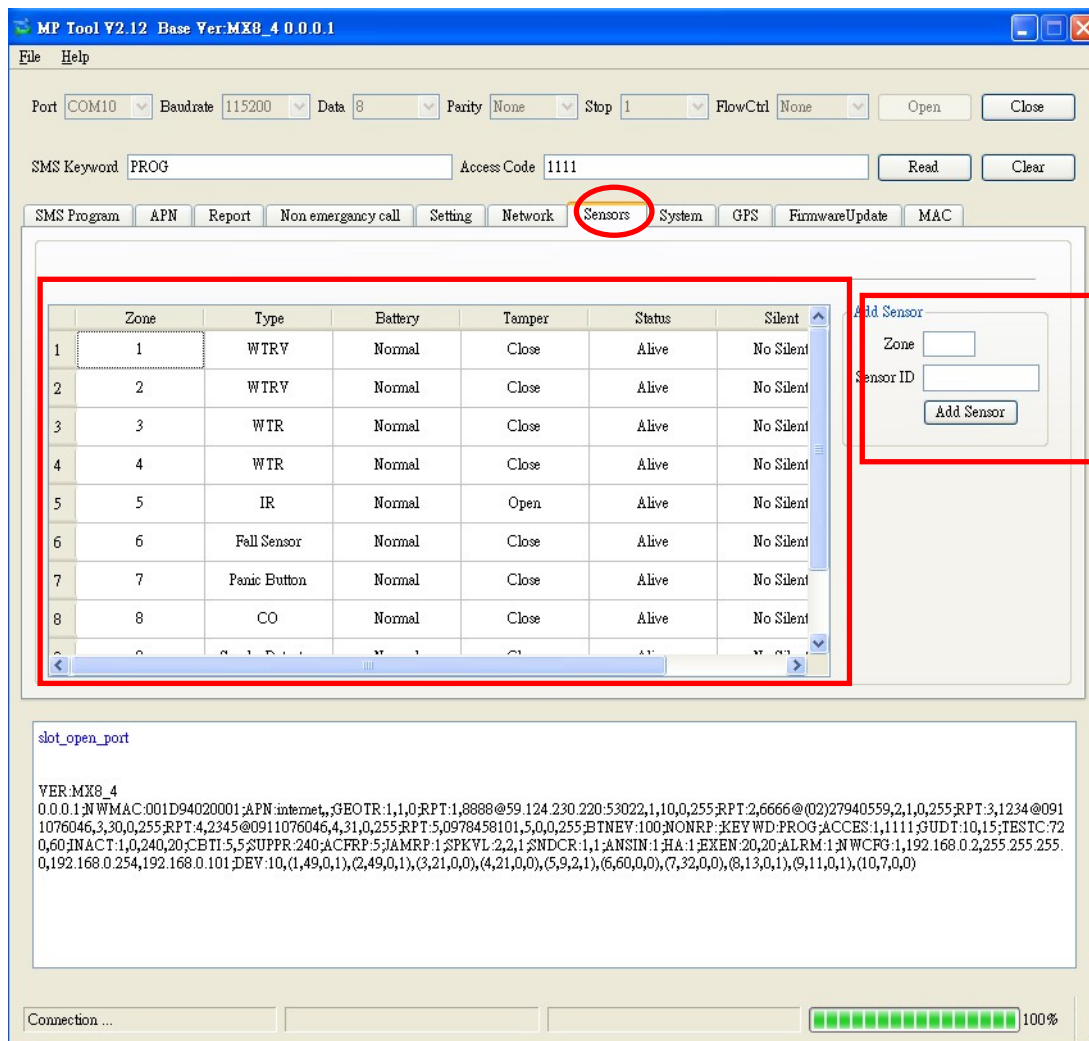
Below the table, there is an 'Add Sensor' section with input fields for 'Zone' and 'Sensor ID', and an 'Add Sensor' button. At the bottom of the window, a terminal window displays the following text:

```
slot_open_port  
  
VER:MX8_4  
0.0.0.1;N;WMAC:001D94020001;APN:internet,;3EOTR:1,1,0;RPT:1,8888@59.124.230.220;53022,1,10,0,255;RPT:2,6666@(02)27940559,2,1,0,255;RPT:3,1234@091  
1076046,3,30,0,255;RPT:4,2345@0911076046,4,31,0,255;RPT:5,0978458101,5,0,0,255;BTNEV:100;NONRP:KEYWD:PROG;ACCES:1,1111;GUDT:10,15;TESTC:72  
0,60;INACT:1,0,240,20;CBTL:5,5;SUPPR:240;ACFRP:5;JAMRP:1;SPKVL:2,2,1;SNDRCR:1,1;ANSIN:1;HA:1;EXEN:20,20;ALRM:1;NWCFG:1,192.168.0.2,255.255.255.  
0,192.168.0.254,192.168.0.101;DEV:10,(1,49,0,1),(2,49,0,1),(3,21,0,0),(4,21,0,0),(5,9,2,1),(6,60,0,0),(7,32,0,0),(8,13,0,1),(9,11,0,1),(10,7,0,0)
```

The connection status at the bottom right shows a full green bar indicating 100% connection.

2. Adding sensors:

- In addition to the local learning method, you can also use the “Add Sensor” section on the “Sensors” page to learn sensors into the Control Panel.
- Enter the zone number (Zone 1~Zone 100) to which you wish to assign a sensor and the Sensor ID, which is the barcode on the back of the sensor, and click “Add Sensor.” You can enter 1~100 in the zone number box. A sensor ID is a combination of digits 1-9 and characters A-F and can contain 10 or 14 characters (can be uppercase or lowercase characters).
- If the sensor is successfully added, this sign  will pop up on the screen. An “OK” will be shown at the bottom left-hand corner of the screen and the newly added sensor will appear on the sensor list.
- If you click “Add Sensor” and the word “Error” is shown at the bottom left-hand corner of the screen, you may check whether the Sensor ID is correct and whether the zone to which you assigned the sensor has been occupied.



MP Tool V2.12 Base Ver:MX8_4 0.0.0.1

File Help

Port COM10 Baudrate 115200 Data 8 Parity None Stop 1 FlowCtrl None Open Close

SMS Keyword PROG Access Code 1111 Read Clear

SMS Program APN Report Non emergency call Setting Network **Sensors** System GPS FirmwareUpdate MAC

Zone	Type	Battery	Tamper	Status	Silent	
1	1	WTRV	Normal	Close	Alive	No Silent
2	2	WTRV	Normal	Close	Alive	No Silent
3	3	WTR	Normal	Close	Alive	No Silent
4	4	WTR	Normal	Close	Alive	No Silent
5	5	IR	Normal	Open	Alive	No Silent
6	6	Fall Sensor	Normal	Close	Alive	No Silent
7	7	Panic Button	Normal	Close	Alive	No Silent
8	8	CO	Normal	Close	Alive	No Silent

Add Sensor


Zone

Sensor ID

Add Sensor

slot_open_port

```
VER:MX8_4
0.0.0.1;NWMAC:001D94020001;APN:internet,,3;EOTR:1,1,0;RPT:1,8888@59.124.230.220;53022,1,10,0,255;RPT:2,6666@(02)27940559,2,1,0,255;RPT:3,1234@0911076046,3,30,0,255;RPT:4,2345@0911076046,4,31,0,255;RPT:5,0978458101,5,0,0,255;BTNEV:100;NONRP:KEYWD:PROG;ACCES:1,1111;GUDT:10,15;TESTC:720,60;INACT:1,0,240,20;CBTI:5,5;SUPPR:240;ACFRP:5;JAMRP:1;SPKVL:2,2,1;SNDRCR:1,1;ANSIN:1;HA:1;EXEN:20,20;ALRM:1;NWCFCG:1,192.168.0.2,255.255.255.0,192.168.0.254,192.168.0.101;DEV:10,(1,49,0,1),(2,49,0,1),(3,21,0,0),(4,21,0,0),(5,9,2,1),(6,60,0,0),(7,32,0,0),(8,13,0,1),(9,11,0,1),(10,7,0,0)
```

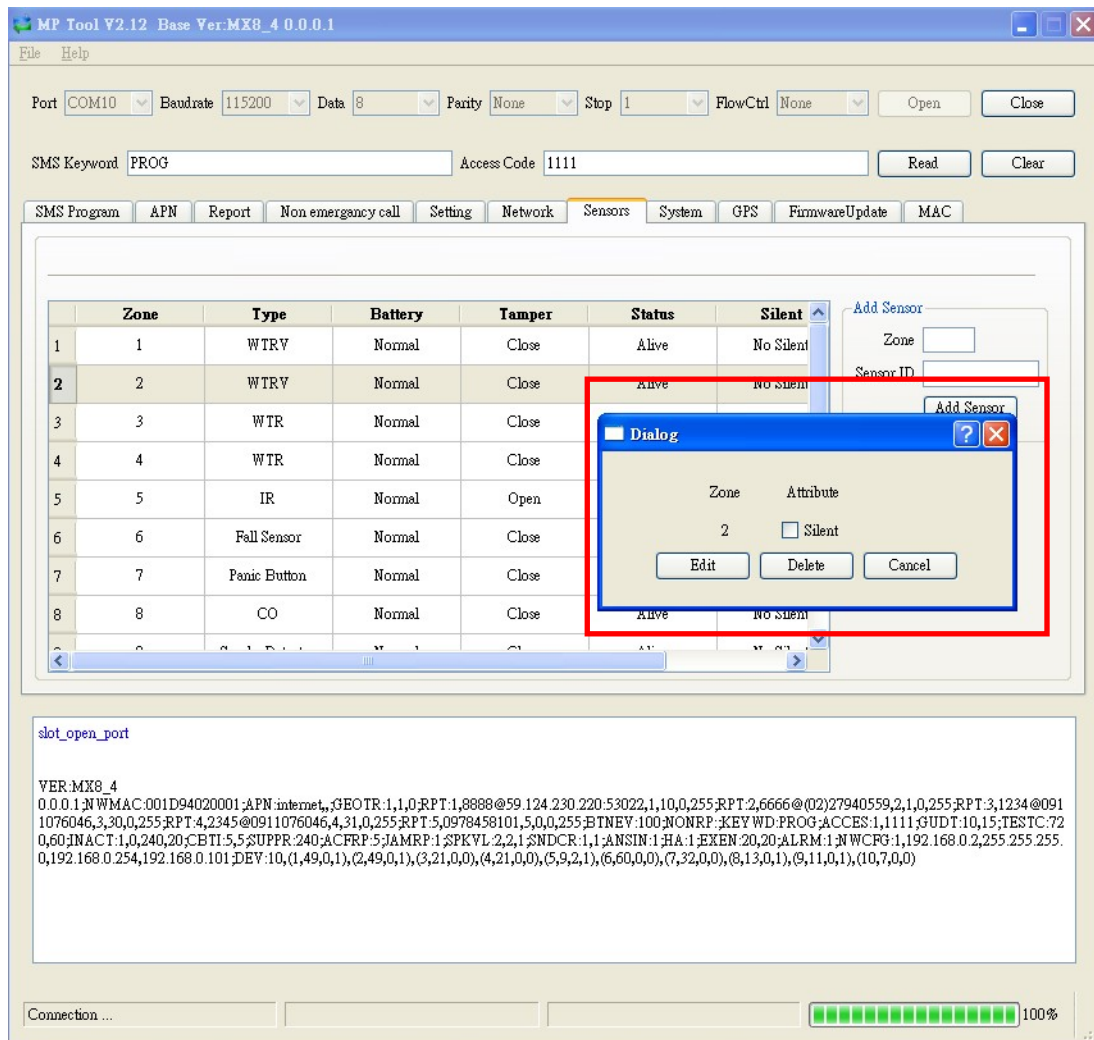
Connection ...  100%

3. Editing and removing sensors:

- Editing the sound attribute of a sensor: Click any box in the section of the sensor that you wish to configure. For example, if you wish to edit the sound attribute of the sensor in Zone 3, you can click any box in the Zone 3 section. The “Dialog” pop-up window will be shown.

If you want the sensor in Zone 3 to be silent, tick “Silent” and “Edit.” If you don’t want the sensor to be silent, leave the box in front of “Silent” blank and tick “Edit.”

- Removing a sensor: If you want to remove the sensor in Zone 3, click “Delete” on the popup window and the sensor will be removed. All devices can be removed via PC programming.
- Click “Cancel” to close the “Dialog” popup window.



Step 11. System

When you click “System” to enter the “System” screen, you can carry out the following operations:

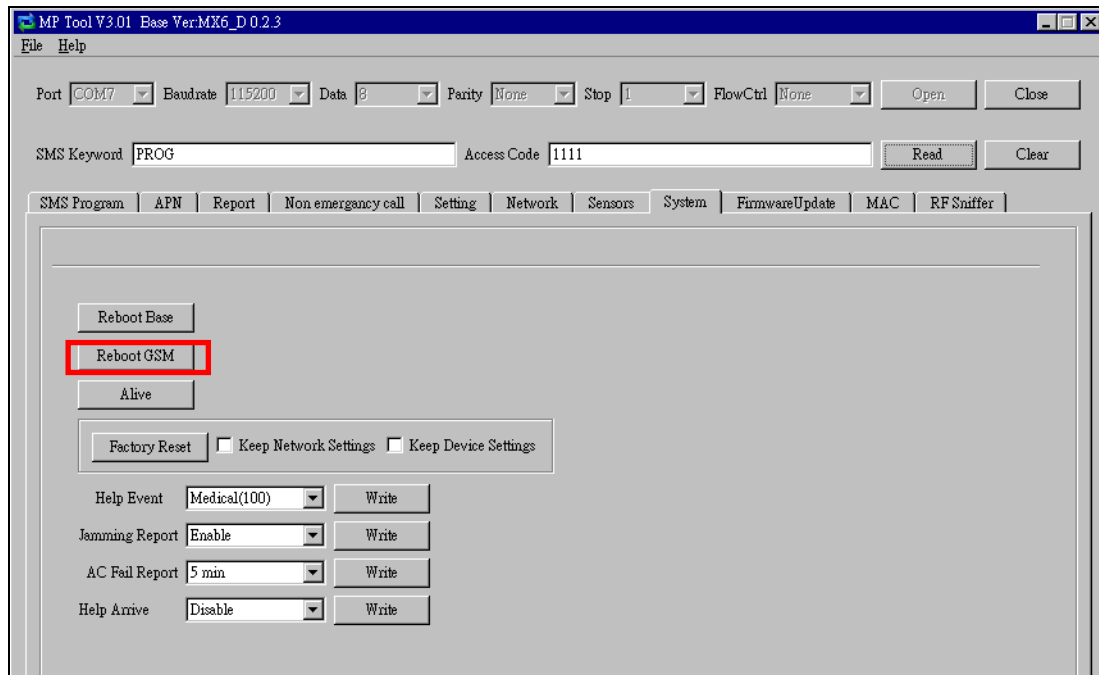
1. Rebooting the Control Panel:

- You can click “Reboot Base” to reboot the Control Panel. The Control Panel will emit 2 beeps about 2 seconds after you click the “Reboot Base” button. The following screen will be automatically closed and you will need to restart the PC Programming Tool for further operation.
- Rebooting the Control Panel will not affect the Control Panel’s programmed parameters.



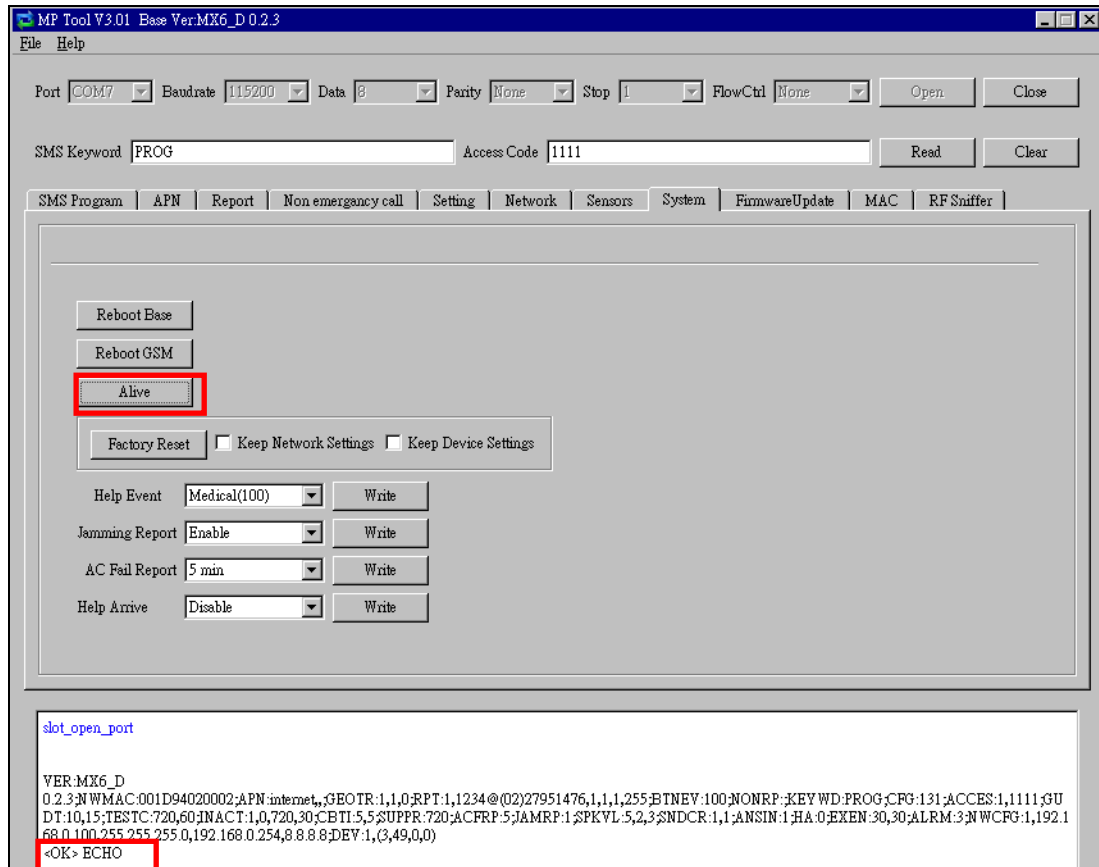
2. Rebooting GSM:

- If this command is successful, the message “<OK> RSTG” will be shown at the bottom left-hand corner of the screen.



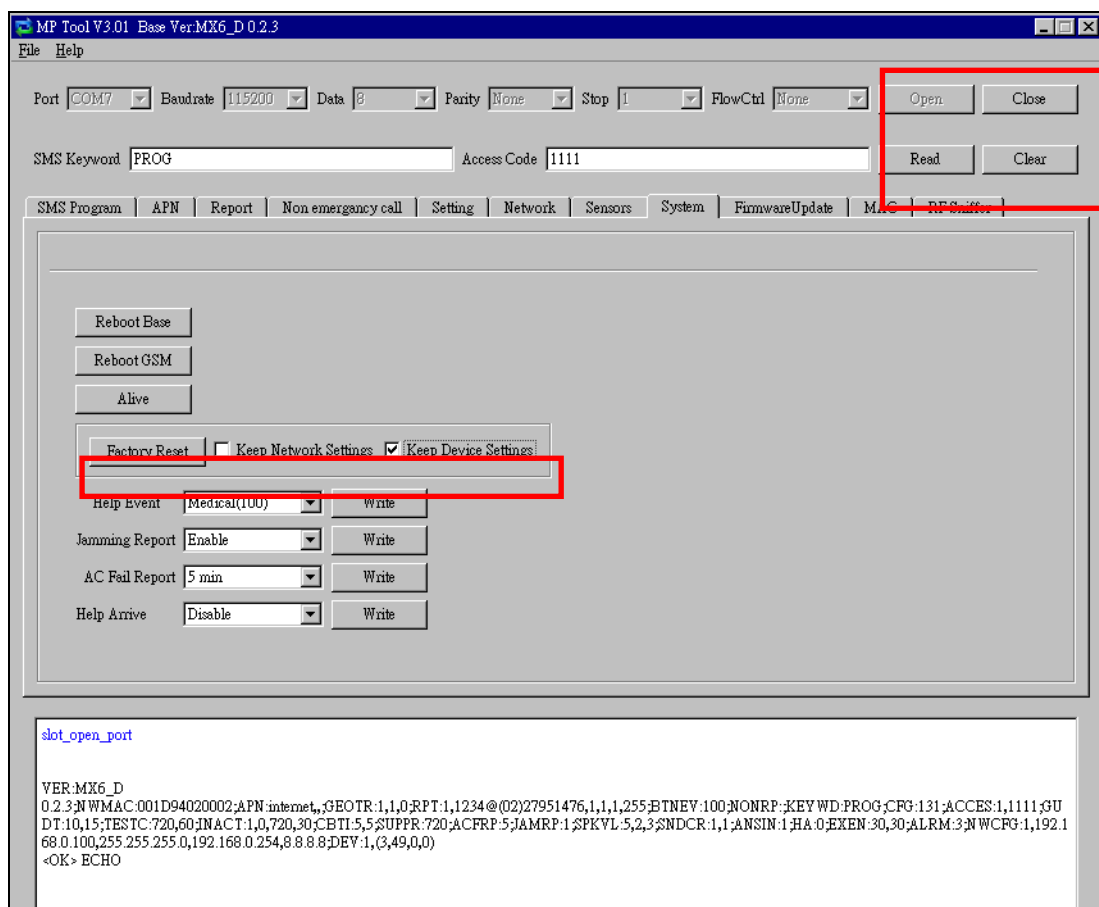
3. Checking the condition of the Control Panel:

- You can click “Alive” to check if the Control Panel can respond to your commands properly.
- If the Control Panel responds properly, the message “<OK> ECHO” will be shown at the bottom left-hand corner of the screen.



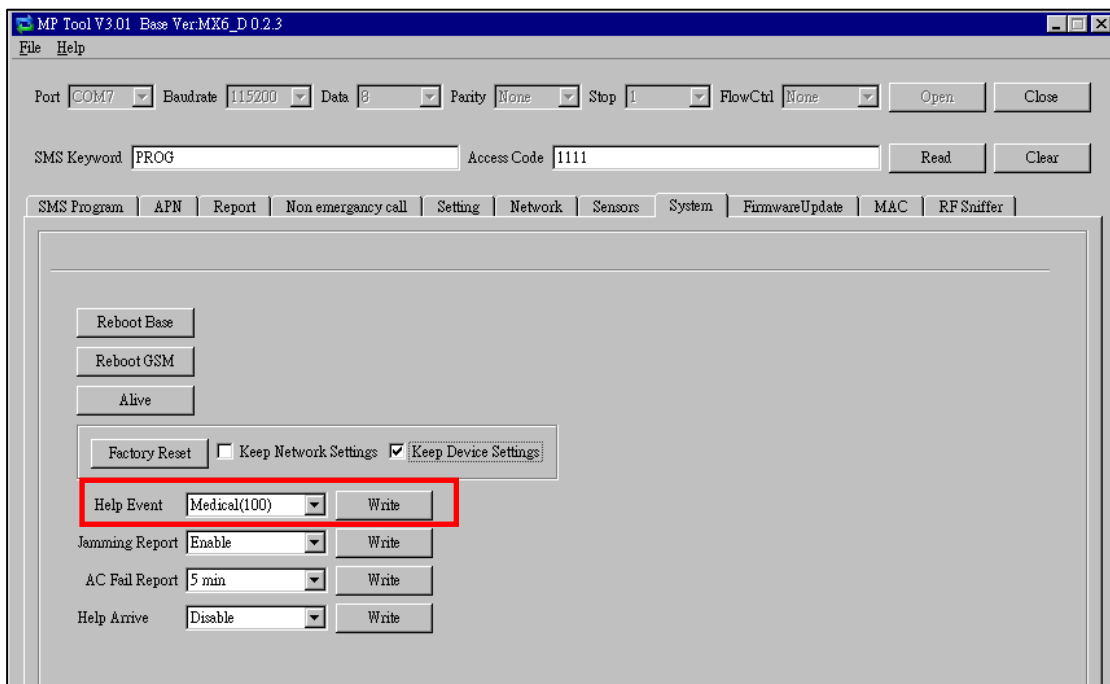
4. Restoring the system to factory settings:

- You can click “Factory Reset” to restore the system to factory settings. The system will immediately restore all programmed parameters to factory settings and the Control Panel will emit 2 beeps after you click the “Factory Reset” button.
- If you want to keep your network settings and/or device settings, please click the box(s) before these specifications before clicking “Factory Reset.” Your network settings and/or device settings will then be preserved while other programmed parameters are restored to factory defaults.
- Please do not close the configuration screen while the system is being restored to factory defaults. It will take at least 3 minutes for the system to complete this step.
- After the system has been restored to factory settings, you have two options to proceed with further operation:
 - You can close the PC Programming Tool and restart it, or
 - You can click “Clear” and then “Read” to view the renewed settings.



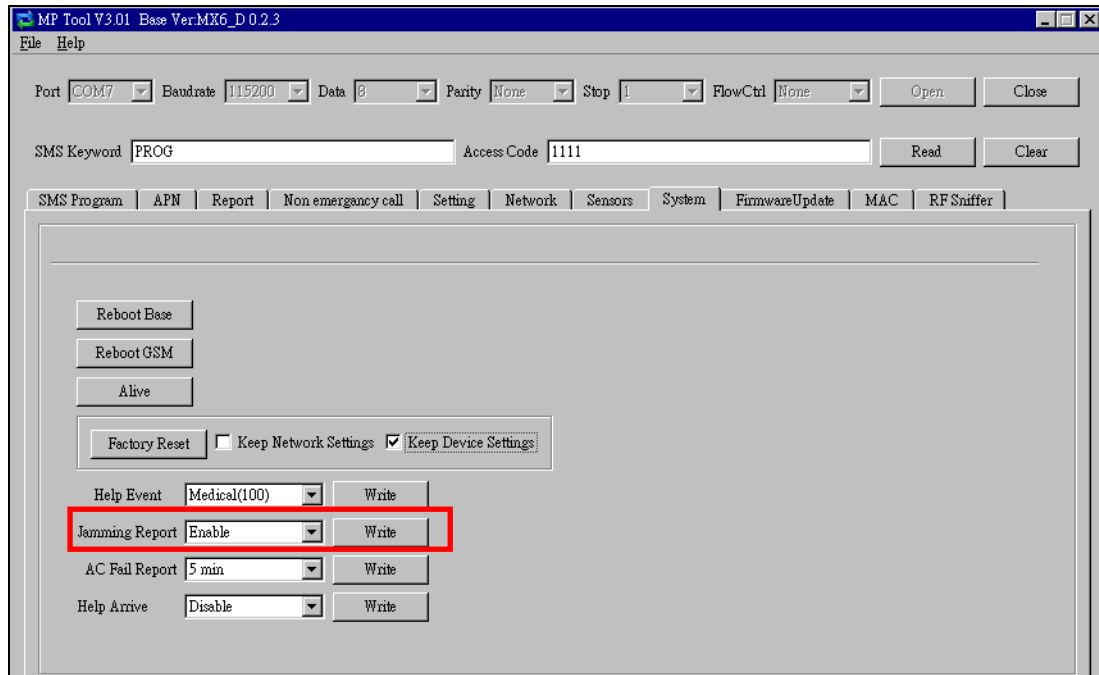
5. Selecting an event code:

- You can select the event code to be sent to the CMS when the red button of the Control Panel is pressed. Choose your preferred event code in the box after “Help Event” and click “Write.”
- There are four options for the event code:
 - 100: Medical
 - 101: Emergency
 - 130: Burglary
 - 120: Panic



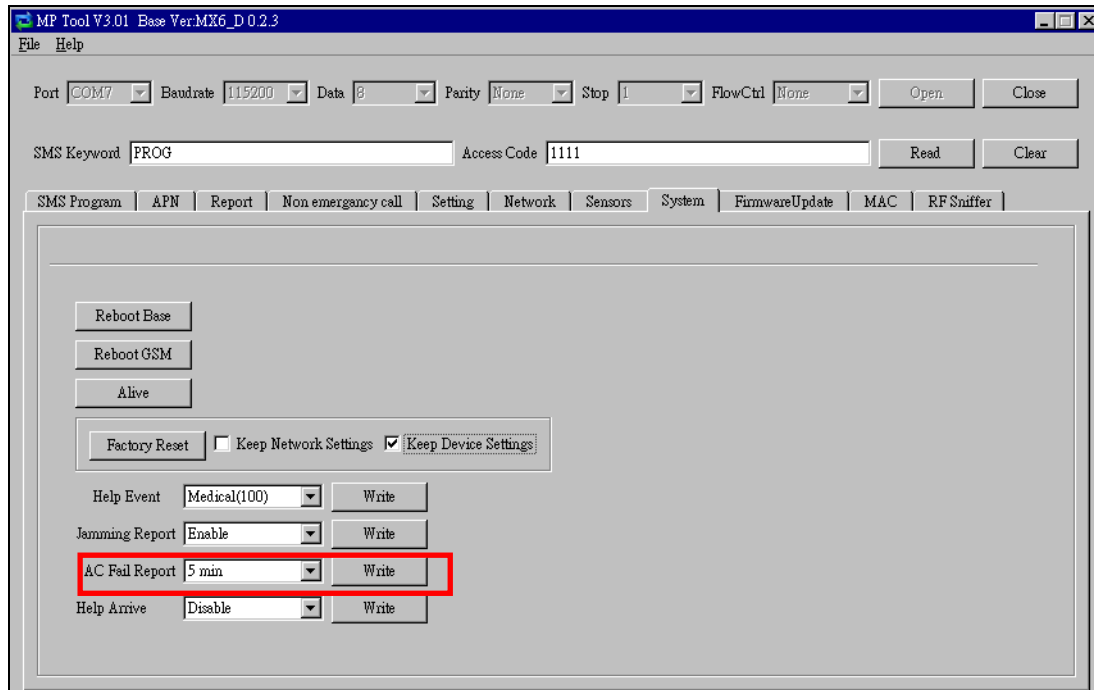
6. Jamming reports:

- You can select to enable or disable jamming reports. Select your setting in the box after “Jamming Report” and click “Write.”
- Jamming reports can only be sent in the CID format and not in the Scancom or Tunstall format.



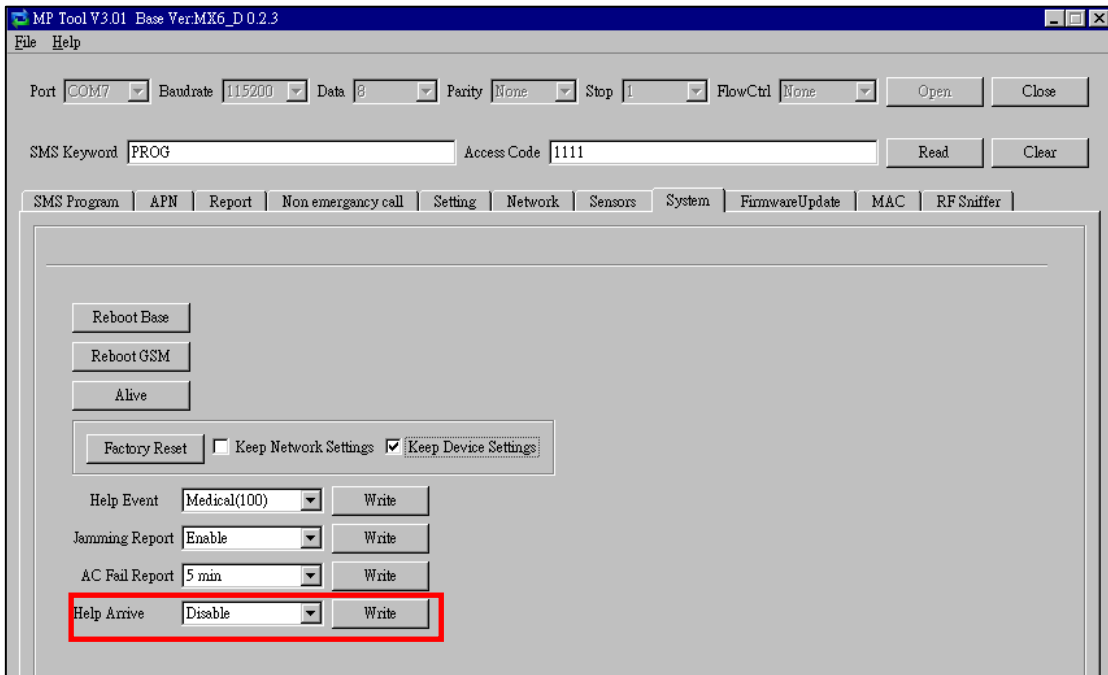
7. AC power failure reports:

- You can disable AC power failure reports or set the interval between an AC power failure and the reporting of the power failure. Select your setting in the box after “AC Fail Report” and click “Write.”



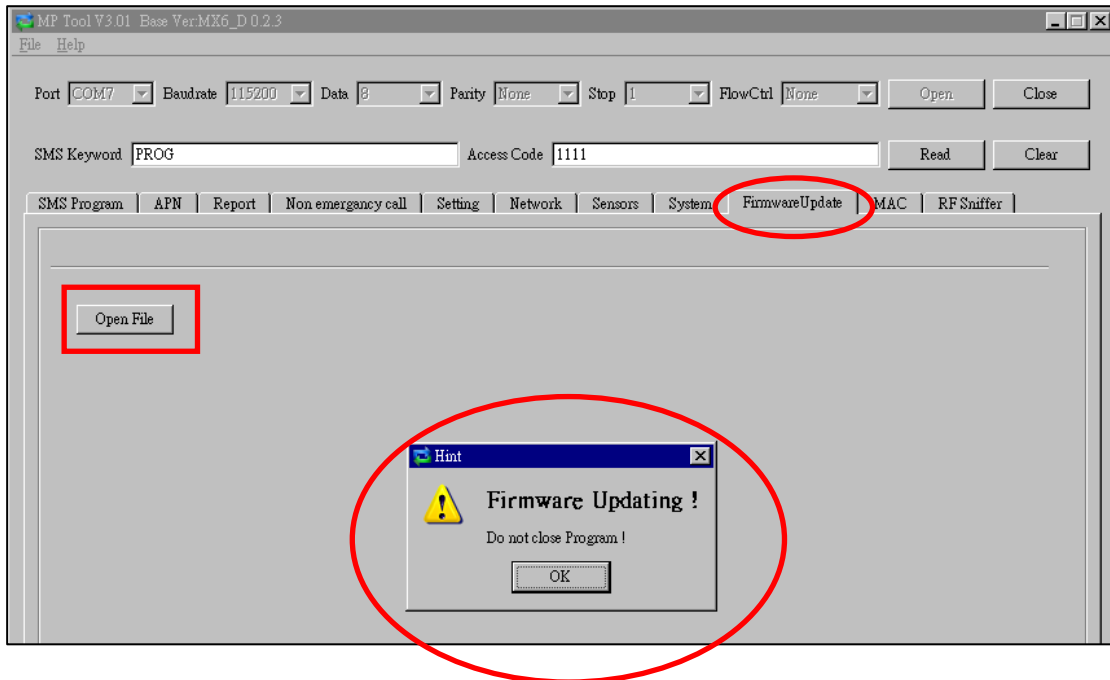
8. The help arrival function:

- You can select to enable or disable the help/nurse arrival function.

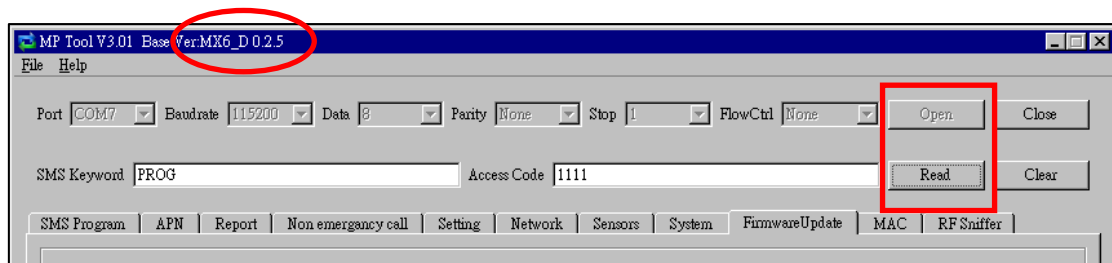
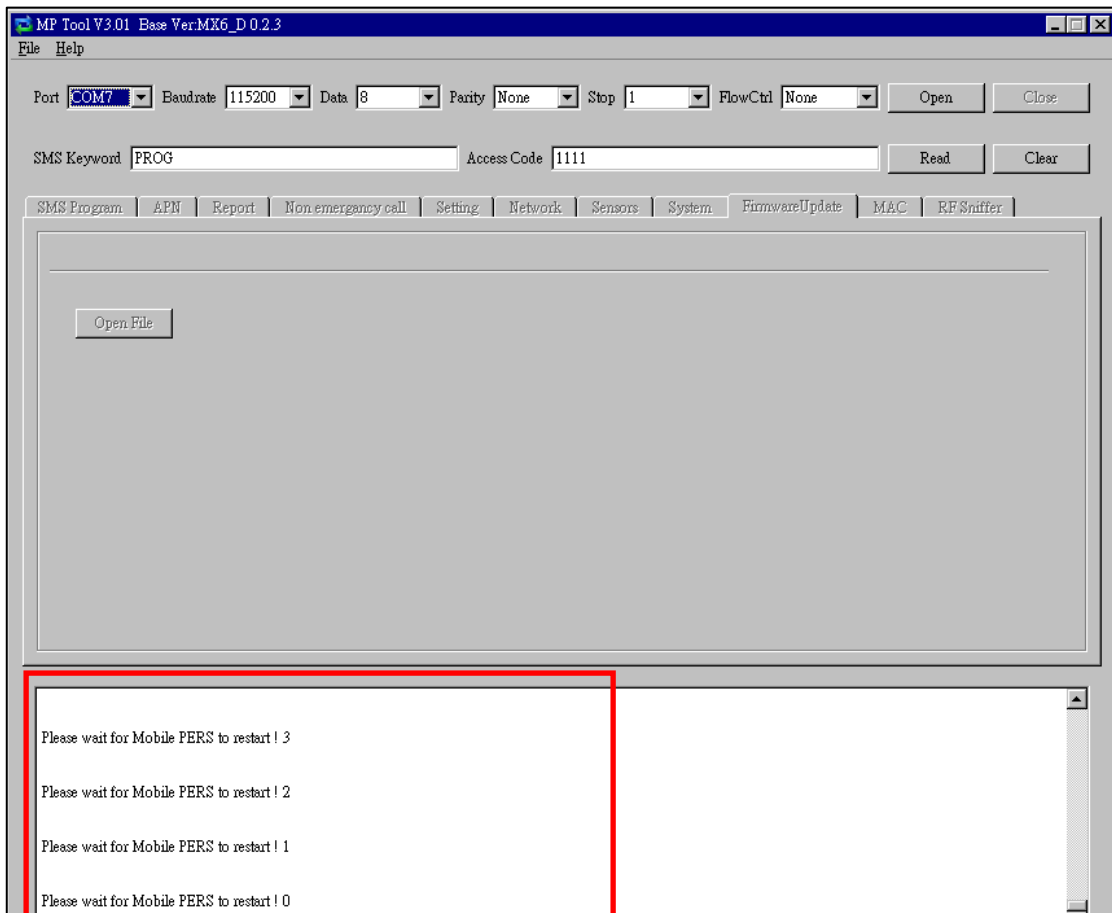


Step 12. Firmware Update

- You can update the firmware of MX by clicking on the “Firmware Update” and the “Open File” buttons. Select the provided firmware and a “Firmware Updating! Do not close program!” pop-up window will appear. Click “OK” on the pop-up window for the updating process to begin.
- The firmware update will take about 5 minutes to complete. Do not close the PC programming tool while the updating process continues.

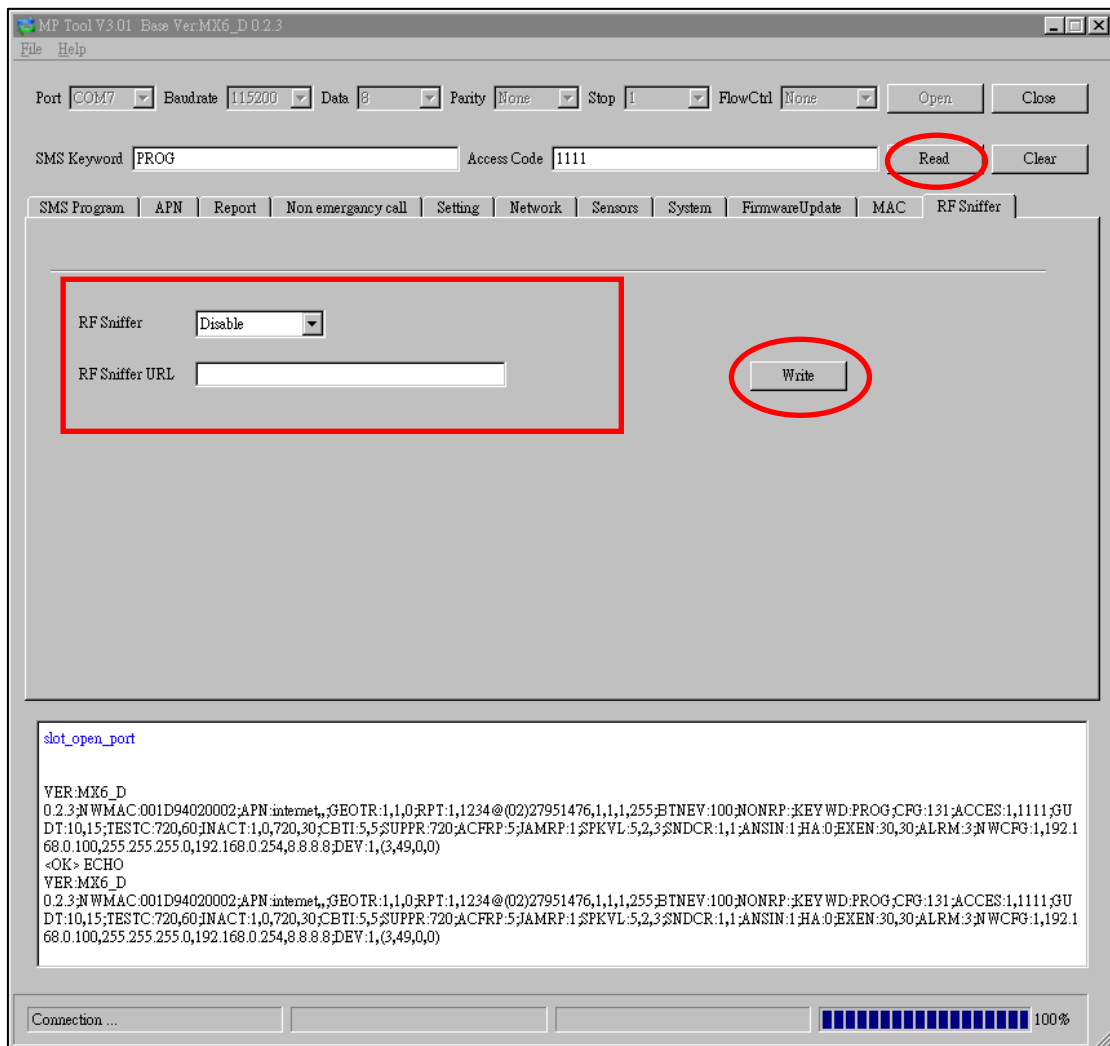


- When the firmware update is complete, a pop-up window will show “Please wait for Panel restart.” Click “OK” on the pop-up window. The countdown to the restart of the Control Panel will appear in the white space at the bottom of the page. After the countdown, the Control Panel will restart and emit 2 beeps. Do not close the PC programming tool.
- After the restart of the Control Panel, click on the “Open” and the “Read” buttons on the PC programming tool. The new firmware version will be shown on the upper left-hand corner of the page.



Step 13. RF Sniffer

- “RF Sniffer” is designed for the Control Panel to report to the monitoring center when it receives a signal from a RF device that it has not learned. If you select “Disable,” the Control Panel will not report to the monitoring center when receiving such a signal. If you select “Enable,” the Control Panel will report to the monitoring center when receiving such a signal.
- If you select “Enable,” please enter the “RF Sniffer URL” for the Control Panel to report the signal and the ID of the RF device. Please program the URL in the UDP format: Account@server:port (example: 0001@59.124.123.66:50123) Click “Write” after you complete the settings.



4.2. Web Programming

4.2.1. Installing the Finder Software

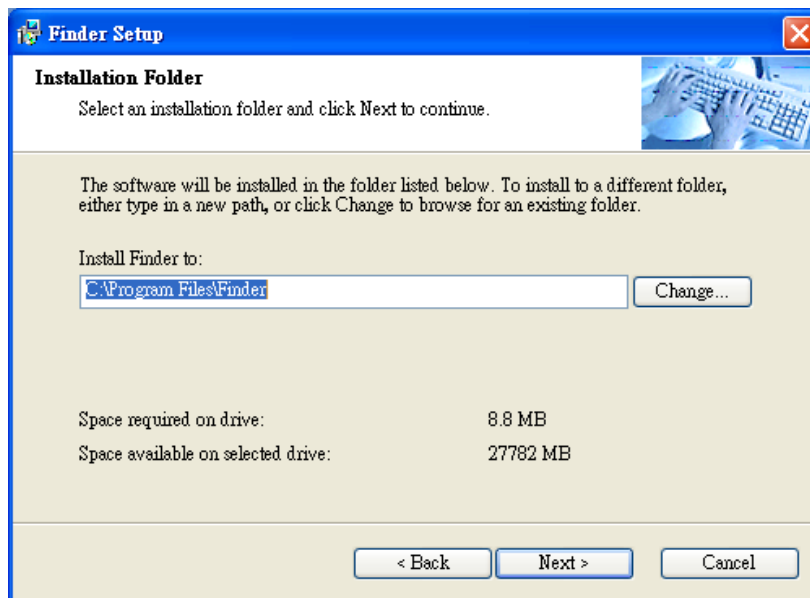
<NOTE>

- ☞ This installation is required only of the first-time user.
- ☞ Web programming is applicable to MX-6 and MX-8 only.
- ☞ Before you begin web programming, please make sure that you have plugged an IP cable into the Control Panel's Ethernet port and connected the cable to an Ethernet network for MX to operate via Ethernet.

Step 1. Insert the supplied CD-ROM into your CD-ROM drive.

Step 2. Find the “Finder” software in the CD-ROM.

Step 3. Click on “Finder” to initiate the installation.



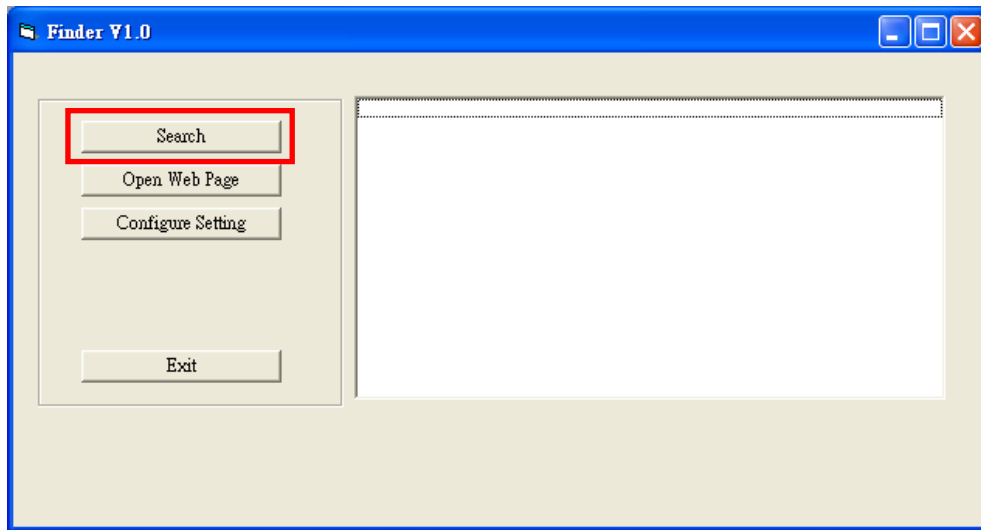
Step 4. Click on “Next” to rename the shortcut folder. If no renaming is required, please click “Next” again to get ready for the installation.

Step 5. Click on “Next” again to begin the installation. Click on “Finish” when the installation is completed.

Step 6. A new icon will be displayed on your desktop.

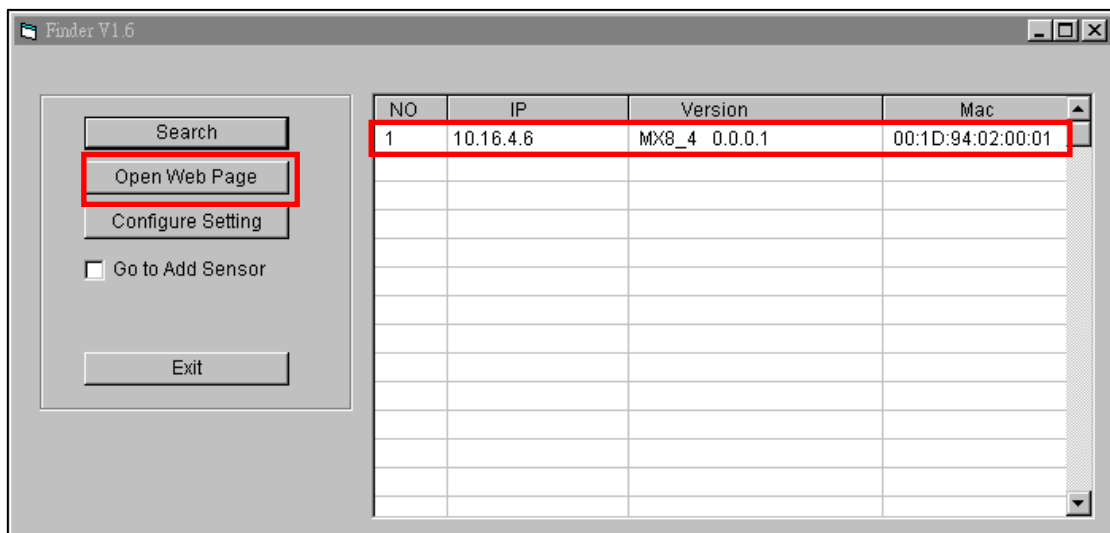


Step 7. Click “Finder.exe” to start the installation. The following screen will be displayed:



Step 8. Click on “Search” for the software to start searching for a recognized IP address within the local network service.

Step 9. You will be able to see your MX’s IP address on the list. The pop-up window will display the product version and the MAC address of your MX.



Step 10. After MX is identified, click on “Open Web Page” and enter the username “admin” and password “admin1234” to be connected to the configuration web page.

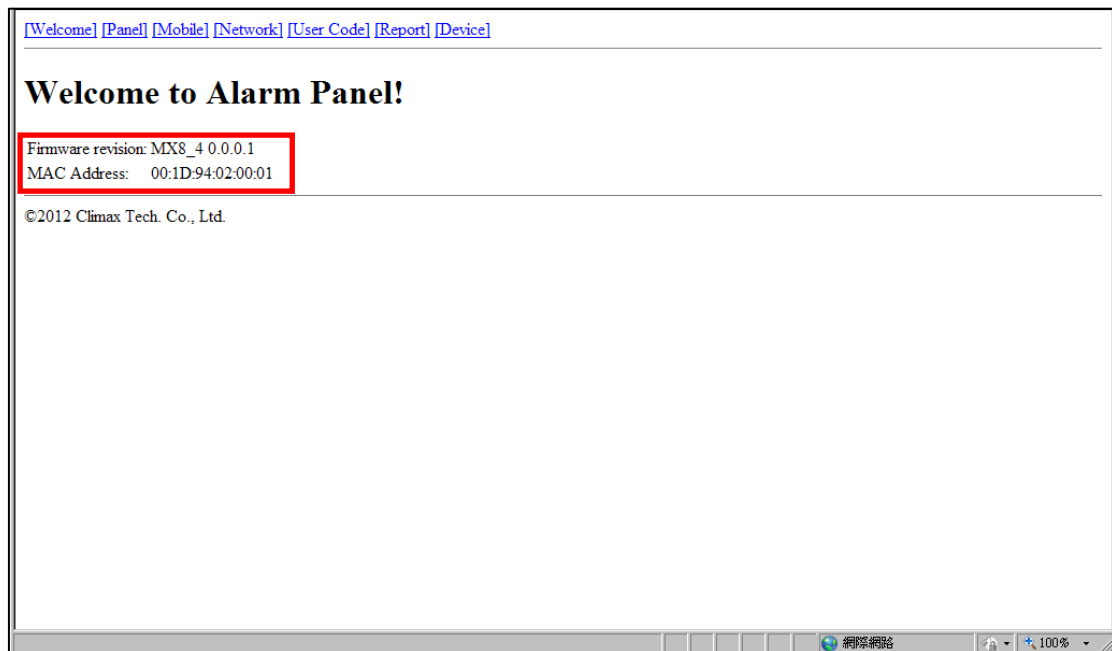
Step 11. The installation of the “Finder” software for MX is now completed.

4.2.2. Programming MX

Step 1. Getting Connected to the Welcome Page

The welcome page to which your MX is connected will show the following information:

- Firmware revision: The firmware version of the Control Panel
- MAC address: The MAC address of your MX



Step 2. Programming the Control Panel

Click on “Panel” at the top of the page to enter the “Panel Setting” page and to configure the Control Panel’s settings. Click on “Submit Query” to save your settings or click on “Reset” to return to default settings.

The screenshot shows a web interface for configuring a control panel. At the top, there is a navigation bar with links: [Welcome], [Panel], [Mobile], [Network], [User Code], [Report], [Device]. The 'Panel' link is circled in red. Below the navigation bar is the 'Panel Setting' form. The form contains various settings, each with a text input field or a dropdown menu. At the bottom of the form, there are two buttons: 'Submit Query' and 'Reset', both of which are circled in red.

Panel Setting

IDs:

Keyword:

Non-emergency:

Speaker Volume: Two-way: Talk only: Others:

AC Fail Report:

Jamming Report:

Supervision Timer:

Auto Check-in: Interval: Offset Period:

Sound Setting: Guard Beep: Confirm Beep:

Guard Time: Normal: For Fall Sensor:

Exit Time:

Entry Time:

Alarm Length:

Yellow Button:

Inactivity Timer: Interval: Warning Interval:

Help Event Code:

Two-way Timer:

Callback Timer:

Answer Incoming:

Help Arrive:

The details are as follows:

1. IDs: Please leave the boxes blank.
2. Keyword: Set a SMS keyword (15 characters max.). The default is PROG.
3. Non-emergency: Enter a non-emergency call number.
 - When the Control Panel is in normal mode, you can make a non-emergency call by pressing the green reset button for 3 seconds or press the yellow button once (if the yellow button has been programmed as a non-emergency call button). The Control Panel will emit 2 beeps and automatically dial the programmed non-emergency call number for two-way communication.
 - During the conversation of a non-emergency call, you can enter the following DTMF commands:
 - Enter (1) to talk only.
 - Enter (2) to open two-way voice communication.
 - Enter (3) to listen in only.
 - Enter (9) to hang up. You can also put the handset back to the base cradle to end the call.
 - During the conversation of a non-emergency call, you can extend the communication by entering DTMF command (1), (2) or (3).

- At 20 and 10 seconds before the communication time expires, 1 beep will be emitted via the telephone handset to alert the user. When the communication time is up, the call will be automatically terminated.
 - The communication time of non-emergency calls is conditioned by the two-way timer function.
4. Speaker Volume:
 - Two-way: Select a preferred speaker volume level for two-way mode.
 - Talk only: Select a preferred speaker volume level for talk-only mode.
 - Others: Select a preferred speaker volume level for other operations.
 5. AC Fail Report: You can disable AC power failure reports or set the interval between an AC power failure and the reporting of the power failure.
 6. Jamming Report: You can select to enable (“On”) or disable (“Off”) jamming reports. Jamming reports can be sent in the CID format but not in the Scancom or Tunstall format.
 7. Supervision Timer:
 - This function is not available for Scancom and speech reporting.
 - When this supervisory function is enabled, the Control Panel will be able to receive check-in signals from Wrist Pendants (WTR-), Smoke Detector, Fall Sensor and Passive Infrared Motion Detector that indicate the proper operation of the devices.
 - When the supervision timer expires and no supervision signal is received from WTR-, Smoke Detector, Fall Sensor or Passive Infrared Motion Detector, a supervisory report will be made.
 - The reporting method for a supervisory report is the same as that for an emergency alarm. The report will be sent based on your reporting method without guard time waiting.
 8. Auto Check-in:
 - Interval:
 - You can select the length of the interval between auto check-in reports.
 - There will be no auto check-in report if you select “Disable.”
 - Whenever programming mode is accessed, the Control Panel will reset the auto check-in timer.
 - Offset Period:
 - After power is supplied to the Control Panel, the system will start counting the time for a check-in report.
 - The Control Panel will send a

check-in report once according to the setting of the offset period. Afterwards it will send reports according to the setting of auto check-in reports unless the Control Panel restarts or the offset period is reset.

- When the offset period is reset in programming mode, the system will recalculate the time for a check-in report.
- Whenever programming mode is accessed, the Control Panel will reset the offset timer.

9. Sound Setting:

- Guard Beep: Select “on” to enable beeps during guard time or “off” to disable the beeping sound during guard time.
- Confirm Beep: Select “on” to enable confirmation beeps during reporting or “off” to disable confirmation beeps during reporting.

10. Guard Time:

- Normal:
 - Guard time normal is designed for any compatible sensor except for Fall Sensor (fall detection).
 - A voice prompt announcing “help call in progress” will be played every 2-3 seconds during guard time to alert the user.
 - If a false alarm is triggered, it can be canceled during guard time.
 - An emergency alarm cannot be cancelled after guard time has expired.
 - If an emergency alarm is triggered by Fall Sensor, guard time will be determined by the setting of Fall Sensor instead of the setting of guard time.
- For Fall Sensor:
 - You can set a guard time period for Fall Sensor. A voice prompt announcing “a fall has been detected” will be played every 2-3 seconds during Fall Sensor’s guard time.
 - If a false alarm is triggered by Fall Sensor, it can be canceled within the guard time period.
 - This function is used when a fall is detected.

11. Exit Time: Select the length of the exit time before your system enters armed mode upon your departure from home.

12. Entry Time: Select the length of the entry time before the system changes from armed mode to disarmed mode upon your arrival at home.

13. Alarm Length: Select the built-in siren duration when an alarm is activated.

<NOTE>

☞ The settings of “Exit Time,” “Entry Time” and “Alarm Length” are functional only when the yellow button on the Control Panel is programmed as a

security button.

14. Yellow Button:

- You can set the yellow button on the Control Panel as an inactivity button, a check in/out button, an away/home button, a non-emergency call button or a security button.
- As an inactivity button: The user can use the inactivity button to toggle on/off the inactivity timer. When the user presses the inactivity button to toggle on/off the inactivity timer, the Control Panel does not report event codes to the CMS.
- As a check-in/out button: The user can use the check-in/out button to toggle on/off the inactivity timer. When the user presses the check-in/out button to check out and toggle off the inactivity timer, the CID event code 665 with the prefix “1” will be sent to the CMS. When the user presses the check-in/out button to check in and toggle on the inactivity timer, the CID event code 665 with the prefix “3” will be sent to the CMS.
- As an away/home button: The user can use the away/home button to toggle on/off the inactivity timer. When the user presses the away/home button to toggle off the inactivity timer before leaving home, the CID event code 666 with the prefix “1” will be reported to the CMS and two-way communication will be opened after the reporting. When the user presses the away/home button to toggle on the inactivity timer upon returning home, the CID event code 666 with the prefix “3” will be reported to the CMS and two-way communication will be opened after the reporting.
- As a non-emergency call button: The user can press this non-emergency call button to dial a preset phone number.
- As a security button: The user can press the security button to arm his house and stop the inactivity timer (when the inactivity timer is set as “on”). The user can select either of the following two methods to disarm his house and restart the inactivity timer:
 1. Press the security button once and press Wrist Pendant (WTR-) once within three seconds after the security button is pressed.
 2. Use Remote Control (RC) or Remote Keypad (KP) to disarm the house and the inactivity timer will automatically restart.

<NOTE>

- ☞ If the inactivity timer is set as “on,” the timer will stop counting when the user arms his house and goes out. The timer will start counting all over again when the user returns home and disarms the house. The orange backlight of the yellow button will be steady on no matter whether the timer is stopped or continues running.

- ☞ If the inactivity timer is set as “off,” it will remain disabled no matter whether the user arms or disarms his house. The orange backlight of the yellow button will be turned off.

15. Inactivity Timer:

- Inactivity Timer:
 - If you set the inactivity timer as “On,” the orange backlight of the yellow button on the Control Panel will be steady on to indicate that the inactivity timer is on. If you set the inactivity timer as “Off,” the orange backlight will be off.
 - If the setting is “Off,” no code will be sent to the CMS.
 - When the Control Panel is in idle mode, you can toggle on/off the inactivity timer by pressing the yellow button once if the yellow button has been programmed as an inactivity button, a check-in/out button or an away/home button.
 - If the yellow button has been programmed as a non-emergency call button or a security button, you can only enable or disable the inactivity timer via programming. However, when the yellow button is programmed as a security button and the inactivity timer has been enabled, the user can stop the inactivity timer when arming his house and restart the inactivity timer when disarming his house.

<NOTE>

- ☞ Please set the inactivity timer as “off” if you program the yellow button as a non-emergency call button or a security button.

- Interval:
 - This function monitors user movements and sends an inactivity report to the CMS if the user fails to reset the inactivity timer before the interval expires. This setting is for you to select the countdown period for the inactivity timer.
 - The inactivity timer can be reset by pressing the reset button once on the Control Panel or by an action from any device with a button.
 - When the inactivity timer expires and no reset signal is received, the Control Panel will start to play a voice prompt every five minutes to alert the user during warning time. If a reset signal is still not received after warning time expires, an inactivity alarm report will be made.
 - The reporting method for an inactivity alarm is the same as that for an emergency alarm. The report will be sent based on your reporting methods after the warning time expires.
- Warning Interval:
 - The warning interval is the interval between the expiry of the inactivity timer and the Control Panel’s sending an inactivity alarm report to the CMS.

- The Control Panel will play a voice prompt upon the expiry of the inactivity timer. Afterwards the voice prompt will be played every 5 minutes during the warning interval as a reminder to the user until the expiry of warning time.
- If the warning interval is disabled, an inactivity alarm report will be immediately sent to the CMS upon the expiry of the inactivity timer.

16. Help Event Code:

- You can select the event code to be sent to the CMS when the red button of the Control Panel is pressed.
- There are four options for the event code:
 - Medical (100)
 - Emergency (101)
 - Burglary (130)
 - Panic (120)

17. Two-way Timer:

- After the system makes a report to the CMS, it will immediately enter a two-way communication period as programmed by this setting. This will enable the user to speak directly with CMS personnel.
- Pressing an assigned DTMF key can extend the two-way communication by another two-way period.

18. Callback Timer:

- This setting is for digital reporting methods. After reporting successfully to the CMS, the system will automatically hang up the line and start a waiting period (=callback time) to auto answer any incoming calls from the CMS.
- When the CMS calls back within callback time, the system will auto answer the call after the first ring and wait for the entry of the proper Access Code followed by the (#) key within 15 seconds.
- When the correct Access Code is received, the system will open full-duplex communication to allow the call recipient to speak to the CMS directly. You can use DTMF commands to switch communication methods.
- The Access Code must be entered within 15 seconds, otherwise the system will disconnect the call automatically.
- Press DTMF (9) or the reset button on the Control Panel to terminate the call.
- When callback time is up, the system will automatically exit the waiting mode and return to idle mode.
- The callback function is automatically disabled during an AC power

failure period.

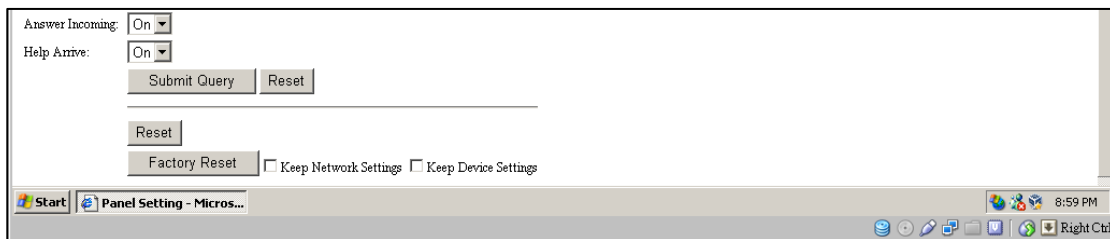
19. Answering Incoming [Calls]:

- When this function is set as “On,” the Control Panel rings for incoming calls. You can answer an incoming call by pressing the red help button on the Control Panel.
- When this function is set as “Off,” the Control Panel remains silent during incoming calls. Incoming calls will be directly hung up.

20. Help Arrive: Select “On” to enable the help/nurse arrival function or “Off” to disable the help/nurse arrival function.

21. Reset:

- You can click on the “Reset” button at the bottom of the page (shown in the picture below) to reboot the Control Panel. The Control Panel will emit 2 beeps about 2 seconds after you click the “Reset” button.
- Rebooting the Control Panel will not affect the Control Panel’s programmed parameters.

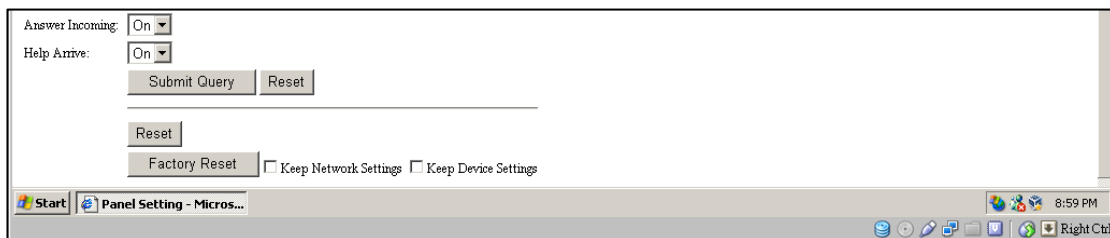


<NOTE>

☞ Please click on the “Reset” button as marked below to reboot the Control Panel. The “Reset” button next to the “Submit Query” button is used to restore settings on this page to default values.

22. Factory Reset:

- You can click on “Factory Reset” to restore the system to factory settings. The system will immediately restore all programmed parameters to factory settings and the Control Panel will emit 2 beeps after you click the “Factory Reset” button.



- If you want to keep your network settings and/or device settings, please click the box(s) before these specifications before clicking “Factory Reset.” Your network settings and/or device settings will then be preserved while other programmed parameters are restored to factory

defaults.

[Welcome] [Panel] [Mobile] [Network] [User Code] [Report] [Device]

Updated successfully.

Panel Setting

IDs:

Keyword:

Non-emergency:

Speaker Volume: Two-way: Talk only: Others:

AC Fail Report:

Jamming Report:

Supervision Timer:

Auto Check-in: Interval: Offset Period:

Sound Setting: Guard Beep: Confirm Beep:

Guard Time: Normal: For Fall Sensor:

Exit Time:

Entry Time:

Alarm Length:

Yellow Button:

Inactivity Timer: Interval: Warning Interval:

Help Event Code:

Two-way Timer:

Callback Timer:

Answer Incoming:

Start Panel Setting - Micros... 8:58 PM Right Ctl

<NOTE>

- ☞ After you click on “Submit Query” to save the settings, these words “Updated successfully” will be shown at the top the page to confirm that the Control Panel’s settings have been successfully updated.



[Welcome](#) | [Panel](#) | [Mobile](#) | [Network](#) | [User Code](#) | [Report](#) | [Device](#)

Mobile Setting

GPRS APN: User: Password:

GPS Location: Cell Locate: Tracker Period:

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Step 3. APN

Click on “Mobile” at the top of the page. Configure GPRS settings and click on “Submit Query” to save your settings. Click on “Reset” if you want to restore the settings to default values.

The details are as follows:

1. GPRS settings:

- **Access Point Name (APN):** The name of an access point for GPRS. Please ask your SIM card service provider for your APN.
- **Username:** Offered by your SIM card service provider. Please ask your service provider for your GPRS username. If no username is required, you may skip this step.
- **Password:** Offered by your SIM card service provider. Please ask your service provider for your GPRS password. If no password is required, you may skip this step.

2. GPS Location: Please skip this setting.

3. Cell Locate: Please skip this setting.

4. Tracker Period: Please skip this setting.

5. Reset GSM: If this command is successful, the words “Updated successfully” will be shown at the top of the page.

Step 4. Network Settings

- Select “On” or “Off” for the DHCP setting.
- DHCP “On”: Select “On” if a DHCP server is present to enable settings to be automatically assigned from the server. If you select “On,” you can skip the “IP Address,” “Subnet Mask,” “Default Gateway” and “Default DNS” settings. These settings will be automatically assigned. Click “Submit Query” directly after you have selected “On” for the DHCP setting.
- DHCP “Off”: Select “Off” if a DHCP server is not available. If you select “Off,” you will have to configure the following “IP Address,” “Subnet Mask,” “Default Gateway” and “Default DNS” settings. Click “Submit Query” after you have configured these settings.
- SNTP and Interval: This link will automatically correct and update the

[Welcome] [Panel] [Mobile] [Network] [User Code] [Report] [Device]

Network Setting

DHCP:

IP Address:

Subnet Mask:

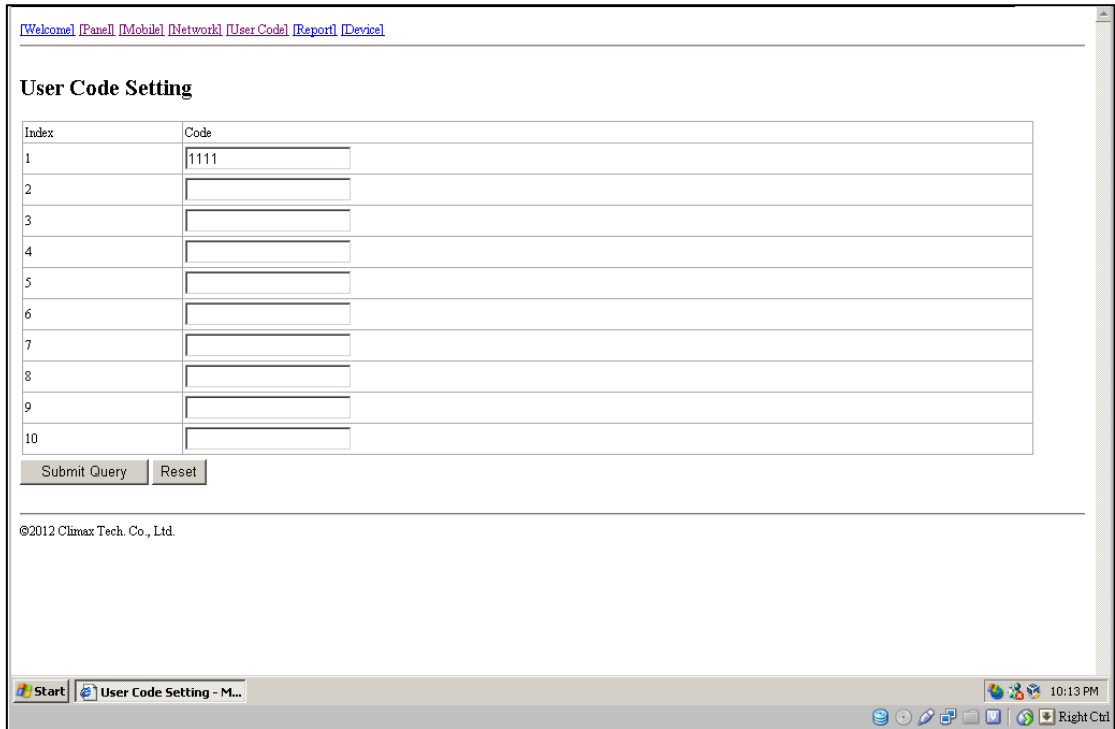
Default Gateway:

Default DNS:

SNTP: Interval:

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real-time system in your Control Panel and enable the Control Panel to keep track of the current time. The updates will take place periodically according to the “Interval” setting. It is recommended that you do not change the website setting of SNTP unless you know a website that can enable your Control Panel to keep track of your current local time.



Step 5. User Code (Access Code)

Program user code(s) on this page and click on “Submit Query” to save your setting(s). The default is 1111.

[Welcome](#) | [Panel](#) | [Mobile](#) | [Network](#) | [User Code](#) | [Report](#) | [Device](#)

Report Setting

Index	To	Event	Type	Option	Group
1	0006@59.124.230.221:530	All	SIA Over IP	No	1
2		All	Speech	No	1
3		All	Speech	No	1
4		All	Speech	No	1
5		All	Speech	No	1
6		All	Speech	No	1
7		All	Speech	No	1
8		All	Speech	No	1

Submit Query Reset

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Start Report Setting - Micr... 10:14 PM Right Ctrl

Step 6. Report Settings

Click “Report” to program destinations of reporting, event filters (Event), reporting formats (Type), follow-on options (Option) and reporting sequence (Group 1~5) for alarm reporting and status reporting. Click on “Submit Query” after you have completed the settings.

- **Destinations of reporting 1~8:** Program destinations of reporting 1~8 in the No. 1~No. 8 boxes.
- **Event:** Event filters have five options, “medical,” “emergency,” “status,” “burglary” and “all.” Event filters are used to process events according to the categories to which they belong. Please refer to “Appendix 7.1.9 Contact ID Event Codes” to check out the categories to which events are assigned.
- **Type:** Select a reporting format for each destination of reporting. The reporting formats include the following: speech, CID, Scancor, Tunstall, Franklin, CPC 1, CPC 2, CID_IP, SIA_IP, SIA_CID_IP, SIA_UDP, SIA_CID_UDP, CSV_IP, SMS_CID, SMS_TEXT, and SMS_SIA.
- **Follow-On:** Select a follow-on option for each destination of reporting.

The follow-on options include the following: No, 2-way voice communication, talk only, listen-in only and wait (for command). The follow-on options should be in conformity with the settings of their corresponding destinations of reporting.

- **Group 1~Group 5:** Groups 1~5 determine the sequence of reporting. The reporting sequence goes from Group 1 to Group 5.

The procedure and details of programming are as follows:

- 4. Programming destinations of reporting:** You can set 8 destinations of reporting. To program destination 1, please first enter its reporting number/setting in the No. 1 box and select its reporting format under "Type" as well as its follow-on option under "Follow-On." Configure destinations 2-8 in the same manner.

The setting of each destination of reporting shall be in conformity with the destination's reporting format under "Type." Examples of reporting formats are as follows:

- Reporting over IP (Ethernet or GPRS) in CID_IP/SIA_IP/SIA_CID_IP/SIA_UDP/SIA_CID_UDP/CSV_IP formats: Account@server:port (example: 0001@59.124.123.66:50123)
- Reporting over the phone in CID/Scancom/Tunstall/Franklin/CPC 1/CPC 2 formats: Account@phone number (example: 0001@0912345678)
- Speech reporting over the phone or reporting over the phone in SMS_CID/SMS_TEXT/SMS_SIA formats: phone number (example: 0912345678)

<NOTE>

- ☞ The account number can contain 4 or 6 digits. The CMS may also determine according to its capacity how many digits the account number can contain.
- ☞ You can select the options in the "Follow-On" column (No/2-Way Voice/Talk Only/Listen Only/Wait) for digital reporting formats, including CID, Tunstall, Scancom, Franklin, CPC 1 and CPC 2 formats. Please note that the "Follow-On" settings for all the other reporting formats have to be "No."
- ☞ If a destination of reporting contains digits in parentheses like (02)27940559, the Control Panel will not dial the digits in the parentheses when reporting via PSTN (it will only dial 27940559) but will dial the digits in the parentheses when reporting via GSM (it will dial 0227940559).
- ☞ Jamming reports can be reported via all reporting formats under "Type" except for the Scancom and Tunstall formats.

- 5. Programming event filters:** Event filters have five options: "medical," "emergency," "status," "burglary" and "all." Event filters are used to process

events according to the categories to which they belong. Please refer to "Appendix 7.1.9. Contact ID Event Codes" to check out the categories to which events are assigned.

Events are divided into four categories: medical, emergency, status and burglary. If the option "all" is selected for a destination, all events will be reported to this destination.

Examples are as follows:

- A device low on battery is a "status" event. If destinations 3 and 7 are set as "status" and destination 5 as "all" in event filters, this status event will be reported to destinations 3, 5 and 7.
- A fall sensor being inactive is a "medical" event. If destinations 1 and 6 are set as "medical" and destination 5 as "all" in event filters, this medical event will be reported to destinations 1, 5 and 6.

<NOTE>

- ☞ Events categorized as "status" do not have follow-on procedure (2-way/listen in/talk only/wait). Events categorized as "medical," "emergency" or "burglary" will have follow-on procedure if you program follow-on modes for them. The only exception is the home/away events (the home event code is 3666 and the away event code 1666). These two events belong to the "status" category but have follow-on procedure.

6. Assigning destinations 1~8 to Groups 1~5: Reporting sequence goes from Group 1 → Group 2 → Group 3 → Group 4 → Group 5. Destinations of reporting assigned to Group 1 will be reported to first, those assigned to Group 2 reported to next, and the like.

If you want to assign destination 1 to Group 3, tick Group 3 for destination 1. Assign destinations 2-8 to the groups in the same manner.

<NOTE>

- ☞ Each group can have more than one destination of reporting. If one group has more than one destination of reporting, the reporting sequence will go through all of this group's destinations before moving on to the next group's destination(s).
- ☞ The reporting will go through a group's destinations according to the numerical sequence to which the destinations are assigned. For example, when destinations 4 and 8 are assigned to Group 2, the reporting will go to destination 4 first and then destination 8.
- ☞ One complete round of reporting for the system means reporting from Group 1 → Group 2 → Group 3 → Group 4 → Group 5 and going through all the groups' destinations. The system will keep going through the rounds of destinations until one reporting has been received successfully.

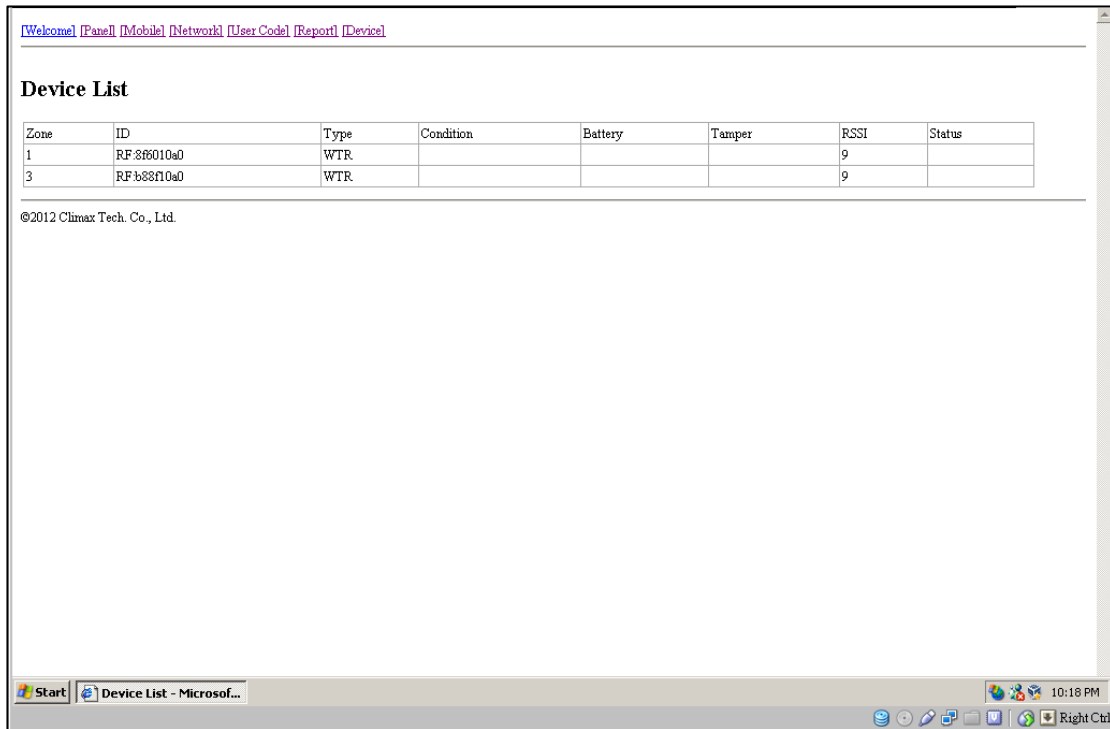
If the system has successfully reported to one destination in a group, the system will consider that it has successfully reported to this group.

Therefore, the system will skip the rest of the destinations in this group and go on reporting to the next group. For example, if destinations 2, 4 and 7 are assigned to Group 3 and the system has successfully reported to destination 2, the system will skip destinations 4 and 7 and go on reporting to Group 4.

After the system has completed one round of reporting (going from Group 1 → Group 2 → Group 3 → Group 4 → Group 5) and has successfully reported to one group, it will consider that the event has been successfully reported and will stop reporting. If the successful reporting takes place in the midst of a round, the system will still report to the rest of the groups in the round before stopping reporting. For example, if the successful reporting takes place in Group 2, the system will no longer report to other destinations in Group 2 but will still go on reporting to destinations in Group 3, Group 4 and Group 5 before stopping reporting.

If the system has not successfully reported to any group, it will enter the retry cycle to repeat another round of reporting.

- ☞ If no reporting is successfully received after the system has gone through the first complete round, the system will take a 5-minute break before starting the second round of reporting. If there is still no reporting successfully received after the system has gone through the second round, the system will again take a 5-minute break before starting the third round of reporting. The system will never stop the reporting cycles unless one reporting has been received successfully.



Step 7. Device List

The page of device list is only for you to view device status. You can learn in or remove devices via local commands or use the PC Programming Tool to learn in, remove or edit devices.

Step 8. RF Sniffer

- “RF Sniffer” is designed for the Control Panel to report to the monitoring center when it receives a signal from a RF device that it has not learned. If

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RF Sniffer Setting

Sniffer:

Sniffer UDP Report:

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you select “Off,” the Control Panel will not report to the monitoring center when receiving such a signal. If you select “On,” the Control Panel will report to the monitoring center when receiving such a signal.

- If you select “On,” please enter the “RF Sniffer URL” for the Control Panel to report the signal and the ID of the RF device. Please program the URL in the UDP format: Account@server:port (example: 0001@59.124.123.66:50123) Click “Submit Query” after you complete the settings.



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Firmware Upgrade

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OK, please wait for reboot and don't power off the panel.

Firmware Upgrade

Step 9. Firmware Update

- You can update the firmware of MX by clicking on “Firmware” and “Browse.” Select the provided firmware and click “Submit” for the updating process to begin. The firmware update will take a few minutes.
- When the updating process is finished, the upper left-hand corner of the page will show “OK, please wait for reboot and don't power off the panel.” The Control Panel will restart and emit 2 beeps. The firmware update is complete.



4.3.SMS Programming

You can do SMS remote programming via a mobile phone or SMS iWizard.

SMS Remote Programming via a Mobile Phone

<NOTE>

☞ Please change the language setting of your mobile phone to English before you proceed with SMS remote programming.

Step 1. Enter the SMS screen on your mobile phone or smartphone.

Step 2. Enter the programming command (see the SMS remote programming commands tables below).

Step 3. Enter a colon (:).

Step 4. Enter SMS Keyword (default is **PROG**).

Step 5. Enter a comma (,).

Step 6. Enter the Access Code (default is **1111**).

Step 7. Enter a comma (,).

Step 8. Enter the parameter(s).

Step 9. The composition of the command is completed. You can send the command to the MX system now.

Example: To set 720 minutes for the supervision timer, you can send the following command:

SUPPR:PROG,1111,720		
SUPPR	=	Programming command
:	=	Colon
PROG	=	SMS Keyword

,	=	Comma
1111	=	Access Code
,	=	Comma
720	=	Programmed parameter

<NOTE>

☞ You can compose multiple commands in one SMS text message by using “,” to separate each command.

SMS Remote Programming Commands Table

Item	Command	Example & Usage	Default
GPRS APN, username & password	APN	APN:PROG,1111,internet,, To set GPRS APN, username and password (31 characters max. for APN, 31 characters max. for username, 31 characters max. for password)	APN: Internet Username and password: empty
Report settings	RPT	RPT:PROG,1111,1,0933111222,1,0,1,1 To configure report settings (index number, report destination, group, type, follow-on option and event filter) Index number: 1~8 Report destination: Depending on the reporting format Group: 1~5 Type: 0 = Speech, 1 = CID, 2 = Scancom, 3 = Tunstall, 4 = Franklin, 5 = CPC1, 6 = CPC2, 10 = CID_IP, 11 = CID_SIA_IP, 12 = SIA_IP, 13 = SIA_CID_UDP, 14 = SIA_UDP, 16 = CSV_IP, 30 = SMS_CID, 31 = SMS_TEXT, 33 = SMS_SIA Follow-on option: 0 = No, 1 = Voice, 2 = Talk only, 3 = Listen in only, 4 = Wait for command Event filter: 255 = all, 1 = status, 2 = medical, 4 = emergency, 8 = burglary	No report destination
Checking the Control Panel	ECHO	ECHO:PROG,1111 To check whether the Control Panel can respond properly	--
Rebooting the Control Panel	RESET	RESET:PROG,1111 To reboot the Control Panel	--
Keyword setting	KEYWD	KEYWD:PROG,1111,IPOG To set the keyword 15 characters max. for the keyword	PROG
Non-emergency call settings	NONRP	NONRP:PROG,1111,0912345678 To program the non-emergency call number 15 digits max. for the phone number	--
Access Code	ACCES	ACCES:PROG,1111,1,1234	1111 for user 1

		To set the Access Code (index number, code) 8 digits max. for the Access Code	
Guard time settings	GUDT	GUDT:PROG,1111,10,15 To set the length of guard time periods (system: 0~180 seconds, fall sensor: 0~180 seconds)	10, 15
Auto check-in reports	TESTC	TESTC:PROG,1111,720,60 To configure the settings of auto check-in reports (interval: 0~21600 minutes, offset time: 0~1440 minutes)	720, 60
Item	Command	Example & Usage	Default
Inactivity timer	INACT	INACT:PROG,1111,1,0,720,30 To configure settings of the inactivity timer (function type of the yellow button, on or off, interval: 0~1440 minutes, warning time: 0~60 minutes) Button function type: 1 = away/home button, 2 = non-emergency call button On = 1, off = 0	1, 0, 720, 30
Callback time	CBTI	CBTI:PROG,1111,5,-1 To set callback time (duration: 0~1400 minutes, two-way time: 1~60 minutes or -1 = no limits)	5, 5
Supervision	SUPPR	SUPPR:PROG,1111,720 To set the supervision timer (0~10080 minutes)	720
Speaker volume levels	SPKVL	SPKVL:PROG,1111,3,3,3 To set speaker volume levels (two-way: 1~5, talk only: 1~5, others: 1~5)	2, 2, 3
Factory reset	FTSET	FTSET:PROG,1111,0,0 To execute a factory reset (to keep or not to keep NET configurations, to keep or not to keep all devices and their programmed attributes) To keep NET configurations = 1; not to keep NET configurations = 0 To keep all devices and their programmed attributes = 1; not to keep all devices and their programmed attributes = 0	--
To set the CID event code for the red help buttons	BTNEV	BTNEV:PROG,1111,100 To set the CID event code sent when the Control Panel's red help button is pressed. 100 = medical event 101 = personal emergency 120 = panic report 130 = burglary	100
To enable/disable voice prompts during guard time and confirmation beeps	SNDCR	SNDCR:PROG,1111,1,1 To enable/disable voice prompts during guard time and confirmation beeps 1 = enable 0 = disable	1, 1

RF jamming reports	JAMRP	JAMRP:PROG,1111,1 To enable/disable RF jamming reports 1 = enable 0 = disable	1
AC power failure reports	ACFRP	ACFRP:PROG,1111,5 To disable AC power failure reports or to set the interval between an AC power failure and the reporting of the power failure 0 = disable 1-60 = 1~60 minutes	5

Item	Command	Example & Usage	Default
Answering incoming calls	ANSIN	ANSIN:PROG.1111.1 To allow or disallow incoming calls to be answered by pressing the Control Panel's red help button or a pendant button (1 = allow, 0 = disallow)	1
Network configuration	NWCFG	NWCFG:PROG,1111,1,192.168.0.1,255.255.255.0,192.168.0.254,192.168.0.101 To modify the local network configuration DHCP: 0 = disabled (using static IP), 1 = enabled IP, subnet mask, gateway, DNS address for static IP	1,192.168.0.1,255.255.255.0,192.168.0.254,192.168.0.101

SMS Remote Programming via SMS iWizard

MX is compatible with Climax's SMS iWizard, which is designed to facilitate SMS remote programming via a PC. This tool allows you to conveniently program MX from your PC without sending SMS text messages from a mobile phone.

5. Device Management

You can use the local learning method to learn 100 devices into the Control Panel. Up to 4 DECT devices (DECT devices include WTRVS, CP-23 and CTC-808RV) can be learned into the Control Panel. Devices that can be learned into the Control Panel include the following:

- Door Contact: DC
- Remote Control: RC
- Remote Keypad: KP
- Water Sensor: WS
- Panic Button: PB
- Wrist Transmitter and Pendant Transmitter: WTR
- Passive Infrared Motion Detector: IR
- Smoke Detector: SD
- Gas Detector: GAS
- Carbon Monoxide Detector: CO
- Heat Detector: HD
- Glass Break Detector: GLS
- Fall Sensor: FALL
- Talking Pendant: WTRVS
- Call Point: CP-23
- Voice Satellite: CTC-808RV

<NOTE>

- ☞ Door Contact (DC): The device attribute of DC is set as “entry.” If DC is triggered when the system is in armed mode, the Control Panel will start an entry period to give the user enough time to disarm the system. If the system is not successfully disarmed during the entry time, the Control Panel will start an alarm upon the expiry of the entry time and report CID code 130 to the CMS.
- ☞ Remote Control (RC): The device attribute of RC is set as “personal attack.” When the panic button on RC is pressed for three seconds, the Control Panel will report CID code 120 to the CMS.
- ☞ Remote Keypad (KP):

- The device attribute of KP is set as “personal attack” when the dual-key function “1” + “3” is enabled. When the keys “1” and “3” are pressed on KP at the same time, the Control Panel will report CID code 120 to the CMS.
 - The device attribute of KP is set as “fire” when the dual-key function “4” + “6” is enabled. When the keys “4” and “6” are pressed on KP at the same time, the Control Panel will report CID code 110 to the CMS.
 - The device attribute of KP is set as “medical” when the dual-key function “7” + “9” is enabled. When the keys “7” and “9” are pressed on KP at the same time, the Control Panel will report CID code 100 to the CMS.
- ☞ Passive Infrared Motion Detector (IR): The device attribute of IR is set as “entry.” If IR is triggered when the system is in armed mode, the Control Panel will start an entry period to give the user enough time to disarm the system. If the system is not successfully disarmed during the entry time, the Control Panel will start an alarm upon the expiry of the entry time and report CID code 130 to the CMS.
- ☞ Fall Sensor (FALL): The device attribute of Fall Sensor is “fall.” When a fall is detected, the Control Panel will report CID event codes 120 and 102 to the CMS.

5.1.Learning in Pendant #1, Pendant #2 and Other Devices

5.1.1. Learning in Pendant #1

For Wrist Transmitter (WTR- Series) and Fall Sensor

- Step 1.** When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.
- Step 2.** The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps, which indicate the Control Panel is now in learning mode. The orange backlight begins to blink.
- Step 3.** Press the green reset button once. The Control Panel will emit 1 beep.
- Step 4.** Press the button of Pendant #1 until the Control Panel emits 2 beeps to indicate Pendant #1 has been learned into Zone 1.
- Step 5.** Press the yellow button on the Control Panel once to exit learning mode.

<NOTE>

- ☞ If the Control Panel emits 3 beeps, that means a sensor has been previously assigned to Zone 1.

For Talking Pendant (WTRVS) or Call Point (CP-23)


- Step 1.** When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.
- Step 2.** The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps, which indicate the Control Panel is now in learning mode. The orange backlight begins to blink.
- Step 3.** Press the green reset button once. The Control Panel will emit 1 beep.
- Step 4.** Press and hold the WTRVS/CP-23 button for 8 seconds until you hear a long beep. The red LED of WTRVS/CP-23 is turned on. WTRVS/CP-23 is now in learning mode. Now the LED of WTRVS/CP-23 turns from red to green. The green LED blinks. The Control Panel will emit two quick beeps. WTRVS/CP-23 will emit one beep about 5 seconds later and its green LED will be turned on and then go off instantly. WTRVS/CP-23 has been successfully learned in.

<NOTE>

-  You cannot learn in the same WTRVS/CP-23 twice.

- Step 5.** Check if WTRVS/CP-23 has been learned in successfully. Press the WTRVS/CP-23 button and you will hear continuous beeps from WTRVS/CP-23.
- Step 6.** When WTRVS/CP-23 beeps, the Control Panel will respond with a long beep to indicate that WTRVS/CP-23 is within the operation range.
- Step 7.** Press the yellow button on the Control Panel once to exit learning mode.

<IMPORTANT NOTE>

-  Do not learn in the same device twice and do not learn in another device when a device has been learned in previously. If you want to learn in a device, please make sure that the previously learned device has been removed first.

For Voice Satellite (CTC-808RV)

- Step 1.** When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.
- Step 2.** The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps, which indicate the Control Panel is now in learning mode. The orange backlight begins to blink.
- Step 3.** Press the green reset button once. The Control Panel will emit 1 beep.

Step 4. Press and hold CTC-808RV's learning button for 5 seconds until you hear 2 beeps. Release the button and CTC-808RV will emit one short beep to indicate it is now in learning mode. The green LED of CTC-808RV is turned on.

Step 5. When CTC-808RV is successfully learned in, both the Control Panel and CTC-808RV will emit two beeps to indicate the successful learning. The green LED on CTC-808RV will be turned off.

<NOTE>

☞ If you do not hear the two beeps and if CTC-808RV emits one short beep and its green LED is off and red LED steady on, that means the learning process has failed. Please repeat the learning steps again.

Step 6. Check if CTC-808RV has been learned in successfully. Press the HELP button on CTC-808RV and you will hear continuous beeps from CTC-808RV.

Step 7. When CTC-808RV beeps, the Control Panel will respond with one long beep to indicate that CTC-808RV is within the operation range.

Step 8. Press the yellow button on the Control Panel once to exit learning mode.

<IMPORTANT NOTE>

☞ Do not learn in the same device twice and do not learn in another device when a device has been learned in previously. If you want to learn in a device, please make sure that the previously learned device has been removed first.

5.1.2. Learning in Pendant #2

For Wrist Transmitter (WTR- Series) and Fall Sensor

Step 1. When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.

Step 2. The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps, which indicate the Control Panel is now in learning mode. The orange backlight begins to blink.

Step 3. Press the red help button once. The Control Panel will emit 1 beep.

Step 4. Press the button of Pendant #2 until the Control Panel emits 2 beeps to indicate Pendant #2 has been learned into Zone 2.

Step 5. Press the yellow button on the Control Panel once to exit learning mode.

<NOTE>

- ☞ If the Control Panel emits 3 beeps, that means a sensor has been previously assigned to Zone 2.

For Talking Pendant (WTRVS) or Call Point (CP-23)

- Step 1.** When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.
- Step 2.** The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps, which indicate the Control Panel is now in learning mode. The orange backlight begins to blink.
- Step 3.** Press the red help button once. The Control Panel will emit 1 beep.
- Step 4.** Press and hold the WTRVS/CP-23 button for 8 seconds until you hear a long beep. The red LED of WTRVS/CP-23 is turned on. WTRVS/CP-23 is now in learning mode. Now the LED of WTRVS/CP-23 turns from red to green. The green LED blinks. The Control Panel will emit two quick beeps. WTRVS/CP-23 will emit one beep about 5 seconds later and its green LED will be turned on and then go off instantly. WTRVS/CP-23 has been successfully learned in.

<NOTE>

- ☞ You cannot learn in the same WTRVS/CP-23 twice.

- Step 5.** Check if WTRVS/CP-23 has been learned in successfully. Press the WTRVS/CP-23 button and you will hear continuous beeps from WTRVS/CP-23.
- Step 6.** When WTRVS/CP-23 beeps, the Control Panel will respond with a long beep to indicate that WTRVS/CP-23 is within the operation range.
- Step 7.** Press the yellow button on the Control Panel once to exit learning mode.

<IMPORTANT NOTE>

- ☞ Do not learn in the same device twice and do not learn in another device when a device has been learned in previously. If you want to learn in a device, please make sure that the previously learned device has been removed first.

For Voice Satellite (CTC-808RV)

- Step 1.** When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.
- Step 2.** The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps, which indicate the Control Panel is now in learning mode. The orange backlight begins

to blink.

Step 3. Press the red help button once. The Control Panel will emit 1 beep.

Step 4. Press and hold CTC-808RV's learning button for 5 seconds until you hear 2 beeps. Release the button and CTC-808RV will emit one short beep to indicate it is now in learning mode. The green LED of CTC-808RV is turned on.

Step 5. When CTC-808RV is successfully learned in, both the Control Panel and CTC-808RV will emit two beeps to indicate the successful learning. The green LED on CTC-808RV will be turned off.

<NOTE>

☞ If you do not hear the two beeps and if CTC-808RV emits one short beep and its green LED is off and red LED steady on, that means the learning process has failed. Please repeat the learning steps again.

Step 6. Check if CTC-808RV has been learned in successfully. Press the HELP button on CTC-808RV and you will hear continuous beeps from CTC-808RV.

Step 7. When CTC-808RV beeps, the Control Panel will respond with one long beep to indicate that CTC-808RV is within the operation range.

Step 8. Press the yellow button on the Control Panel once to exit learning mode.

<IMPORTANT NOTE>

☞ Do not learn in the same device twice and do not learn in another device when a device has been learned in previously. If you want to learn in a device, please make sure that the previously learned device has been removed first.

5.1.3. Learning in Other Devices

Step 1. When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.

Step 2. The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps, which indicate the Control Panel is now in learning mode. The orange backlight begins to blink.

Step 3. Press the button of a device until the Control Panel emits 2 beeps to indicate the device has been learned in. Please repeat this procedure to learn in the rest of your devices. These devices will be automatically assigned to Zone 3~Zone 100 by sequence.

<NOTE>

- ☞ The green reset button on the Control Panel assigns a pendant to Zone 1 and the red help button a pendant to Zone 2. If the green reset button or the red help button is not pressed, devices will be automatically assigned to Zone 3~Zone 100 by sequence.

Step 4. After you have learned in all the devices, press the yellow button once to exit learning mode (1 beep will be emitted), or the Control Panel will exit learning mode automatically after 5 minutes of inactivity. The orange backlight will stop blinking upon the Control Panel exiting learning mode.

<NOTE>

- ☞ Please refer to **6.1.5. Walk Test (Range Test)** if you want to test the operational ranges of your devices.
- ☞ You cannot learn in the same device twice. The Control Panel will emit 1 long beep to remind you that the device has been learned in previously.

5.2. Removing Pendant #1, Pendant #2 and Other Devices

All devices (those assigned to Zone 3~Zone 100) can be removed via PC programming but only Pendant #1 and Pendant #2 can be removed by the local removing method. Please refer to **Step 10. Sensors** of **4.1.2. PC Programming Tool** for details of how to delete devices via PC programming.

Removing Pendant #1 and Pendant #2 via the local removing method:

- Step 1.** When the Control Panel is in idle mode, press and hold the yellow button for 3 seconds to enter learning mode.
- Step 2.** The Control Panel will emit 1 beep once the yellow button is pressed. Release the yellow button when you hear 2 beeps that indicate the Control Panel is now in learning mode. The orange backlight begins to blink.
- Step 3.** Press the green reset button once to select Pendant #1. The Control Panel will emit 1 beep when the green reset button is pressed.
- Step 4.** Press the red help button of the Control Panel for 3 seconds to delete Pendant #1. The Control Panel will emit 1 beep once the red help button is pressed. Release the red help button when you hear 2 beeps that indicate Pendant #1 has been removed.
- Step 5.** Press the red help button once to select Pendant #2. The Control Panel will emit 1 beep when the red help button is pressed.
- Step 6.** Press the red help button of the Control Panel for 3 seconds to delete Pendant #2. The Control Panel will emit 1 beep once the red help button is pressed. Release the red help button when you hear 2 beeps that indicate Pendant #2 has been removed.

6. Operation

6.1. Control Panel

6.1.1. Idle Mode

When the Control Panel is in idle mode, it is ready to execute the following functions.

6.1.1.1. Answering Incoming Calls

- The Control Panel emits cycles of 2 quick beeps for an incoming call.
- The user can answer the call by pressing the red help button on the Control Panel.
- The user can also answer the call remotely by pressing the button on WTRVS (Talking Pendant)/CP-23 (Call Point) or by pressing the emergency button on CTC-808RV (Voice Satellite).
- Once the Control Panel has answered the call, it will open two-way voice communication. You can use the volume switches on the Control Panel to adjust the speaker volume level.

<NOTE>

☞ Press a DTMF key for over 1 second during the two-way communication to enable a designed shortcut function.

- Enter **(1)** to talk only.
- Enter **(2)** to open two-way voice communication.
- Enter **(3)** to listen in only.
- Enter **(9)** to hang up. You can also put the handset back to the base cradle to end the call.
- Press **(6)** or **(4)** to increase or decrease the speaker volume level in two-way communication mode.
- Press any DTMF key except for the designed hang-up key **(9)** to add

another preset communication period. Communication periods are conditioned by the two-way timer function.

- When a DTMF key is pressed, its designed shortcut function will be executed and the communication time extended simultaneously.

If the speaker volume level is adjusted in two-way communication mode, the adjusted value will be kept for the next usage.

- ☞ You can also press the green reset button on the Control Panel, the button on WTRVS/CP-23 or the cancel button on CTC-808RV to hang up.
- ☞ Five minutes are allowed for each call (factory default is 5 minutes). The calls are extensible.
- ☞ At 20 and 10 seconds before the communication time expires, 1 beep will be emitted via the telephone handset to alert the user.

6.1.1.2. Non-Emergency Calls

Making a non-emergency call from the Control Panel

Step 1. Press the yellow button once or press the green reset button for 3 seconds when the Control Panel is in idle mode. One short beep will be emitted and the Control Panel will dial the programmed non-emergency call number.

<NOTE>

- ☞ The yellow button can be used as a non-emergency call button only after it has been programmed as a non-emergency call button.

Step 2. If the call is successful, the Control Panel will open two-way communication between the call recipient and the Control Panel. The factory default of the communication time is 5 minutes. The communication time is conditioned by the two-way timer function. The green backlight illuminates during the conversation.

<NOTE>

- ☞ Press a DTMF key for over 1 second during the two-way communication to enable a designed shortcut function.
 - Enter **(1)** to talk only.
 - Enter **(2)** to open two-way voice communication.
 - Enter **(3)** to listen in only.
 - Press any DTMF key except for the designed hang-up key **(9)** to add another preset communication period. Communication periods are conditioned by the two-way timer function.
 - When a DTMF key is pressed, its designed shortcut function will be executed and the communication time extended simultaneously.
- ☞ At 20 and 10 seconds before the communication time expires, 1 beep will

be emitted via the telephone handset to alert the user.

Step 3. Press DTMF (9) or the non-emergency call button to terminate the call. The green backlight dims and the Control Panel returns to idle mode.

Making a non-emergency call from CTC-808RV

Step 1. Press the cancel button on CTC-808RV for 5 seconds. CTC-808RV will emit a short beep.

Step 2. The Control Panel will dial the programmed non-emergency number. The dialing tone can be heard on CTC-808RV.

Step 3. When the call is put through, CTC-808RV will open two-way voice communication for the duration set by the Control Panel. The green LED on CTC-808RV will turn steady on during the communication.

<NOTE>

☞ Press a DTMF key for over 1 second during the two-way communication to enable a designed shortcut function.

- Enter (1) to talk only.
- Enter (2) to open two-way voice communication.
- Enter (3) to listen in only.
- Press any DTMF key except for the designed hang-up key (9) to add another preset communication period. Communication periods are conditioned by the two-way timer function.
- When a DTMF key is pressed, its designed shortcut function will be executed and the communication time extended simultaneously.

☞ At 20 and 10 seconds before the communication time expires, 1 beep will be emitted via the telephone handset to alert the user.

Step 4. Press the cancel button on CTC-808RV, DTMF (9) or the non-emergency call button on the Control Panel to terminate the call. The green LED on CTC-808RV will be turned off when the communication ends.

6.1.1.3. AC Power Checkup

- If an AC power failure is detected to have lasted for 10 seconds or longer, the green LED starts to blink as a visual warning to the user. 3G modules will then be powered off, so SMS remote programming will become unavailable. 3G modules will be powered on only during times of reporting. An AC power failure report will be sent to all reporting numbers except for the phone numbers programmed for speech reporting.
- When AC power is restored, the green LED will be steady on again.
- If an AC power failure has lasted for 5 minutes, the Control Panel will send

an AC failure report to the CMS.

<NOTE>

- ☞ The interval between an AC power failure and the Control Panel's sending the AC failure report (factory default is 5 minutes) is programmed as explained in **Step 10. System of 4.2. PC Programming Tool**.
- After AC power has been restored for more than 5 minutes, the Control Panel will send an AC power restored report to the CMS.

6.1.1.4. Control Panel Low on Battery

- When a low battery condition has lasted 4-6 minutes, the Control Panel will report to the CMS and the green LED blinks every 2 seconds. The report will be sent to all reporting numbers except for the phone numbers programmed for speech reporting.
- After the battery voltage is restored and has lasted 5 minutes, the Control Panel will send a battery power restored report to the CMS and the green LED will be steady on again.

6.1.1.5. Control Panel's Battery Disconnected

- The Control Panel detects battery absence in the following situations:
 - Battery switched off
 - Battery not connected
 - Battery failure
- When battery disconnection has lasted 30 minutes, the Control Panel will report to the CMS and the green LED blinks slowly.
- After the battery is restored and the restoration has lasted 30 minutes, the Control Panel will send a battery restored report to the CMS and the green LED will be steady on again.

6.1.1.6. Devices Low on Battery

- When a device is low on battery, the Control Panel's green LED blinks every 2 seconds (please refer to the figure on page 4 and the chart on page 6).
- After the faulty battery is replaced, the Control Panel will instantly send a battery restored report to the CMS regarding the particular device.
- If multiple sensors are running low on battery, the green LED won't stop blinking until all the sensors' low battery status has been cleared.

6.1.1.7. Automatic Check-In Reports

- When the Control Panel is programmed to send auto check-in reports, it will dispatch the reports to the CMS accordingly.
- After the Control Panel is powered on, the first auto check-in report it sends will be conditioned by the setting of the offset timer. Afterwards auto check-in reports will be sent according to the setting of the auto check-in timer.
- The auto check-in timer will be reset whenever programmed mode is entered.

<NOTE>

- ☞ If the setting of the offset timer or the auto check-in timer is changed, the next auto check-in report will be sent according to the setting of the offset timer. Afterwards auto check-in reports will be sent according to the setting of the auto check-in timer.

6.1.1.8. Inactivity Timer

- When the inactivity timer is enabled (the orange backlight of the yellow button will be on), its countdown period starts immediately after the Control Panel is powered on or when the Control Panel exits programming mode.
- When the inactivity timer is not reset, the Control Panel will send an inactivity timer expired report to the CMS after warning time expires.
- The inactivity timer can be reset by pressing the reset button once on the Control Panel, by an action from any device with a button or by an action from Passive Infrared Motion Detector.
- You can disable the inactivity timer by programming it as “off.” The orange backlight will be off.
- When the inactivity timer is enabled and toggled on by pressing the yellow button, the orange backlight will be on. When the inactivity timer is enabled and toggled off by pressing the yellow button, the orange backlight will be off.
- When the yellow button is programmed as a security button, the user can press the security button to arm his house and stop the inactivity timer (when the inactivity timer is set as “on”). The user can select either of the following two methods to disarm his house and restart the inactivity timer:
 1. Press the security button once and press Wrist Pendant (WTR-) once within three seconds after the security button is pressed.
 2. Use Remote Control (RC) or Remote Keypad (KP) to disarm the house

and the inactivity timer will automatically restart.

<NOTE>

- ☞ If the inactivity timer is set as “on,” the timer will stop counting when the user arms his house and goes out. The timer will start counting all over again when the user returns home and disarms the house. The orange backlight of the yellow button will be steady on no matter whether the timer is stopped or continues running.
- ☞ If the inactivity timer is set as “off,” it will remain disabled no matter whether the user arms or disarms his house. The orange backlight of the yellow button will be turned off.
- When the yellow button is programmed as a non-emergency call button, the inactivity timer can still be running. In this case you will have to disable or enable the inactivity timer via programming, for you cannot toggle on/off the inactivity timer by pressing the yellow button.

<NOTE>

- ☞ If no movement is detected during the preset inactivity time, the Control Panel will send CID event code 641 with a fixed zone number regardless of the zones the triggered motion detectors occupy.

- The user can turn on/off the inactivity timer when the yellow button is programmed as an inactivity button, a check-in/out button or an away/home button. If the inactivity timer is set as “on” and the yellow button is programmed as a security button, the user can stop the inactivity timer when arming his house and restart the inactivity timer when disarming his house. Comparison of the Control Panel’s behavior in these three different settings is shown in the chart below:

Button type	The event code reported when the yellow button is pressed	Behavior of the orange backlight of the yellow button	Confirmation beeps	The backlight that shows the Control Panel is reporting
Inactivity button	None	On: Inactivity timer on Off: Inactivity timer off	None	None
Check-in/out button	Check-in: 3665 Check-out: 1665	Check-in: On (Inactivity timer on) Check-out: Off (Inactivity timer off)	None (status reporting)	The orange backlight of the yellow button is on when the Control Panel is reporting. The orange backlight goes off when the reporting ends.
Away/home button	Away: 1666 Home: 3666	Away: Off (Inactivity timer off)	Beeps during alarm reporting	The red backlight of the red button is on when the

		Home: On (Inactivity timer on)		Control Panel is reporting. The red backlight goes off when the reporting ends.
Security button	None	On: Inactivity timer on Off: Inactivity timer off	Please refer to section 6.2.3.	None

6.1.2. Alarm Activation

Alarm triggered by the Control Panel, WTRVS/CP-23 or CTC-808RV

Alarm triggered by the Control Panel

- When an alarm is triggered, the Control Panel will enter guard time. Both the orange backlight and the red backlight will turn steady on. A voice prompt announcing “help call in progress” will be played every 2-3 seconds during guard time to alert the user.
- You can cancel the alarm reporting by pressing the reset button on the Control Panel during guard time. The Control Panel will return to idle mode.
- You cannot cancel the alarm reporting by pressing the reset button on the Control Panel after guard time has expired.
- After guard time expires, the Control Panel will summon help based on the programmed reporting methods. Beeps (about one beep per second) will continue to be heard after the Control Panel dials out to inform you that the call is in progress (no matter which reporting method is adopted).
- Confirmation beeps stop after 2-3 minutes.

<NOTE>

- ☞ When an alarm is triggered by any device other than WTRVS/CP-23 and CTC-808RV, two-way communication will be established between the CMS and the Control Panel. If an alarm is triggered by WTRVS/CP-23 or CTC-808RV, two-way communication will be established between the CMS, WTRVS/CP-23 and/or CTC-808RV.
- ☞ If an alarm is triggered by a DECT device (WTRVS/CP-23/CTC-808RV), the Base Station’s DECT function will not be shut down when two-way voice communication is conducted via PSTN or GSM/3G.
- ☞ If an alarm is triggered by the Base Station, the Base Station’s DECT function will be shut down when two-way voice communication is

conducted via PSTN.

Alarm triggered by Talking Pendant (WTRVS) or Call Point (CP-23)

- Press the button on WTRVS/CP-23 to trigger an alarm. WTRVS/CP-23 will emit confirmation beeps until it receives a DTMF command. The reception of a DTMF command indicates that the connection has been set up successfully.
- If an alarm is triggered by WTRVS/CP-23, you can cancel the alarm by pressing the WTRVS/CP-23 button for 8 seconds during guard time.
- When WTRVS/CP-23 is triggered, the Control Panel's orange backlight and red backlight will turn steady on. The backlights will be turned off when the connection ends.
- When an alarm is triggered by WTRVS/CP-23, two-way communication will be established between the CMS, the WTRVS/CP-23 and all CTC-808RVs in the system. In other words, an alarm triggered by WTRVS/CP-23 will open two-way communication for all CTC-808RVs in the system.
- If an alarm report is successfully sent to the CMS but the WTRVS/CP-23 receives no DTMF command, the connection will end after 30 minutes and the WTRVS/CP-23 will stop beeping.
- When a report to the CMS fails, WTRVS/CP-23 will keep beeping until it receives a DTMF command or until the 30-minute connection time terminates.

Alarm triggered by Voice Satellite (CTC-808RV)

- When the user presses the emergency button on CTC-808RV, an emergency report will be sent to the CMS and two-way communication will be established for all CTC-808RVs in the system for 5 minutes. CTC-808RV's green LED will turn steady on during the communication.
- If a report to the CMS fails or if an alarm report is sent to the CMS successfully but CTC-808RV receives no DTMF command, the connection will end after 30 minutes.
- CTC-808RV's communication function is temporarily suspended when the Control Panel is engaged in two-way communication.

GPRS Reporting Method

- Access Point Name, Username and Password need to be set via SMS remote programming before GPRS reporting is activated.

- **Access Point Name (APN):** The name of an access point for GPRS. Please ask your SIM card service provider for your APN.
- **Username:** Offered by your SIM card service provider. Please ask your service provider for your GPRS username. If no username is required, you may skip this step.
- **Password:** Offered by your SIM card service provider. Please ask your service provider for your GPRS password. If no password is required, you may skip this step.

Digital Reporting Method

Callback Operation

- After the alarm reporting has been successfully received by the CMS, the Control Panel will follow your programmed choice to enter follow-on and/or callback mode.

<NOTE>

- ☞ If a trigger takes place on the Control Panel's side, the Control Panel will enter callback mode once a call to a group is received successfully (the callback time will be renewed with every successful call to a group).
- If your choice is callback or follow-on & callback after alarm reporting, the Control Panel will wait 5 minutes for CMS personnel to call back after reporting (this waiting period is conditioned by the callback timer and its default is 5 minutes).
- When the CMS calls back within the 5-minute period (this waiting period is conditioned by the callback timer and its default is 5 minutes), the Control Panel will auto answer the call after 2 beeps and wait for the entry of the proper Access Code (default is **1111**) followed by the (**#**) key in 15 seconds. Please enter the Access Code at the normal operational speed.
- Upon reception of the correct Access Code, the Control Panel will open full-duplex communication to allow the call recipient to speak to the Control Panel. You can use the following DTMF commands to switch between speech modes:
 - Enter **(1)** to talk only.
 - Enter **(2)** to open two-way voice communication.
 - Enter **(3)** to listen in only.
 - Enter **(9)** to hang up. You can also put the handset back to the base cradle to end the call.
 - Press **(6)** or **(4)** to increase or decrease the speaker volume level in two-way communication mode. You can also press the volume switches on the Control Panel to adjust the speaker volume level.
 - Press any DTMF key except for the designed hang-up key **(9)** to add another preset communication period. When a DTMF key is pressed,

its designed shortcut function will be executed and the communication time extended simultaneously.

<NOTE>

- ☞ If you wish to enable a designed shortcut function, please press the DTMF key for over 1 second to enable the function.

When your programmed choice is follow-on or follow-on & callback, what follows will be two-way voice communication, listen-in, or waiting for commands depending on your setting.

Follow-On Operation

During the follow-on period, the CMS can remotely control the Control Panel by the following DTMF commands:

1. Contact ID format:

- Enter **(1)** to talk only.
- Enter **(2)** to open two-way voice communication.
- Enter **(3)** to listen in only.
- Enter **(9)** to hang up. You can also put the handset back to the base cradle to end the call.
- Press **(6)** or **(4)** to increase or decrease the speaker volume level in two-way communication mode. You can also press the volume switches on the Control Panel to adjust the speaker volume level.
- Press any DTMF key except for the designed hang-up key **(9)** to add another preset communication period. When a DTMF key is pressed, its designed shortcut function will be executed and the communication time extended simultaneously.

<NOTE>

- ☞ If you wish to enable a designed shortcut function, please press the DTMF key for over 1 second to enable the function.

- ☞ The adjusted volume level will be kept for the next usage.

2. Scancom format:

- Enter **(1)** to listen in only.
- Enter **(2)** to talk only.
- Enter **(3)** to open two-way voice communication.
- Enter **(5)** to hang up. You can also put the handset back to the base cradle

to end the call.

- Enter (*) to toggle.
- Press (6) or (4) to increase or decrease the speaker volume level in two-way communication mode. You can also press the volume switches on the Control Panel to adjust the speaker volume level.
- Press any DTMF key except for the designed hang-up key (5) to add another preset communication period. When a DTMF key is pressed, its designed shortcut function will be executed and the communication time extended simultaneously.

<NOTE>

- ☞ If you wish to enable a designed shortcut function, please press the DTMF key for over 1 second to enable the function.
- ☞ The adjusted volume level will be kept for the next usage.

3. Tunstall format:

- Enter (C) to talk only.
- Enter (*) to listen in only.
- Enter (3) to open two-way voice communication.
- Enter (#) to hang up. You can also put the handset back to the base cradle to end the call.
- Press (6) or (4) to increase or decrease the speaker volume level in two-way communication mode. You can also press the volume switches on the Control Panel to adjust the speaker volume level.
- Press any DTMF key except for the designed hang-up key (#) to add another preset communication period. When a DTMF key is pressed, its designed shortcut function will be executed and the communication time extended simultaneously.

<NOTE>

- ☞ If you wish to enable a designed shortcut function, please press the DTMF key for over 1 second to enable the function.
- ☞ The adjusted volume level will be kept for the next usage.

4. Franklin format:

- Enter (2) to open two-way voice communication.
- Enter (1) to talk only.

- Enter **(3)** to listen in only.
- Enter **(9)** to hang up. You can also put the handset back to the base cradle to end the call.
- Press **(6)** or **(4)** to increase or decrease the speaker volume level in two-way communication mode. You can also press the volume switches on the Control Panel to adjust the speaker volume level.
- Press any DTMF key except for the designed hang-up key **(9)** to add another preset communication period. When a DTMF key is pressed, its designed shortcut function will be executed and the communication time extended simultaneously.

<NOTE>

- ☞ If you wish to enable a designed shortcut function, please press the DTMF key for over 1 second to enable the function.
- ☞ The adjusted volume level will be kept for the next usage.

5. CPC format:

- Send code **(C0603BD)** to open two-way communication.
- Send code **(C0605BD)** or **(C0606BD)** to increase or decrease the speaker volume level.
- Send code **(C0601BD)** to hang up or put the handset back to the base cradle to end the all.

Help/Nurse Arrival

There are five scenarios for the function of help/nurse arrival.

<NOTE>

- ☞ After help/nurse arrival mode is activated, any reporting in help/nurse arrival mode will prompt the Control Panel to open two-way voice communication with destinations that are categorized as “medical” and whose “Type” and “Option” are set as “Speech” and “No” or as “CID” and “Voice.” Please refer to “Step 6. Reporting” of “4.2. PC Programming Tool” for details about these reporting settings.

- **Scenario 1:**

Step 1. The user presses the red help button on the Control Panel or a device to summon help. The Control Panel sends CID code 100, 101 or 120 to the CMS depending on which device triggered the alarm.

Step 2. The nurse arrives and presses the green reset button on the Control Panel once to signal that help has arrived. The Control Panel sends

CID code 1-661 to the CMS.

Step 3. After the nurse has helped the user and completed his/her job, he/she presses the green reset button on the Control Panel again to signal that his/her job has been completed. The Control Panel sends CID code 3-661 to the CMS.

Scenario 2:

Step 1. The user presses the red help button on the Control Panel or a device to summon help. The Control Panel sends CID code 100, 101 or 120 to the CMS depending on which device triggered the alarm.

Step 2. The nurse arrives and presses the green reset button on the Control Panel once to signal that help has arrived. The Control Panel sends CID code 1-661 to the CMS.

Step 3. The nurse needs more help and presses the red help button on the Control Panel to summon help. The Control Panel sends CID code 1-662 to the CMS.

Step 4. After the nurse's job is completed, he/she should press the green reset button on the Control Panel again to signal that his/her job has been completed. The Control Panel sends CID code 3-661 to the CMS.

Scenario 3:

Step 1. The user presses the red help button on the Control Panel or a device to summon help. The Control Panel sends CID code 100, 101 or 120 to the CMS depending on which device triggered the alarm.

Step 2. The nurse arrives and presses the green reset button on the Control Panel once to signal that help has arrived. The Control Panel sends CID code 1-661 to the CMS.

Step 3. If the green reset button on the Control Panel is not pressed again within 15 minutes to end nurse arrival mode, the Control Panel will keep resending CID code 1-661 to the CMS every 15 minutes for an hour. After four retries of sending CID code 1-661, the Control Panel will return to idle mode.

● **Scenario 4:**

Step 1. The user presses the red help button on the Control Panel or a device to summon help. The Control Panel sends CID code 100, 101 or 120 to the CMS depending on which device triggered the alarm.

Step 2. The nurse arrives and presses the green reset button on the Control Panel once to signal that help has arrived. The Control Panel sends CID code 1-661 to the CMS.

Step 3. The nurse finds that the user actually has no problem, so he/she gives the green reset button two quick presses to signal that the case is closed. The Control Panel sends CID code 663 to the CMS.

<NOTE>

☞ Pressing the green reset button on the Control Panel anytime during nurse arrival mode will terminate nurse arrival mode. The Control Panel will send CID code 1-663 to the CMS.

● **Scenario 5:**

Step 1. The user presses the red help button on the Control Panel or a device to summon help. The Control Panel sends CID code 100, 101 or 120 to the CMS depending on which device triggered the alarm.

Step 2. The green reset button on the Control Panel has not been pressed to signal that help has arrived with the 15 minutes after the red help button is pressed to summon help. The Control Panel will keep sending CID code 100, 101 or 120 (depending on which device triggered the alarm) to the CMS every 15 minutes for an hour to signal that no help has arrived. After four retries of sending the CID code 100, 101 or 120, the Control Panel will return to idle mode.

Speech Reporting Method

- If the speech reporting method is selected, the Control Panel will after dialing open two-way voice communication between the call recipient and the Control Panel for 5 minutes. This communication period is conditioned by the two-way timer.
- If an alarm is triggered by WTRVS/CP-23, two-way communication will be established between the CMS, the WTRVS/CP-23 and all CTC-808RVs in the system after the WTRVS/CP-23 receives the acknowledging DTMF command, (2), from the CMS.
- If an alarm is triggered by CTC-808RV, two-way communication will be established between the CMS and all CTC-808RVs in the system after CTC-808RV receives the acknowledging DTMF command, (2), from the CMS.

<NOTE>

☞ CTC-808RV's communication function is temporarily suspended when the Control Panel is engaged in two-way communication.

- At 20 and 10 seconds before the communication time expires, the Control Panel will emit 1 beep via the telephone handset to alert the user.
- If the call recipient needs more talk time, he can press any key except for (9) to add another 5 minutes.
- To terminate the call, you can:
 - Press DTMF key (9).
 - Press the reset button on the Control Panel.

- Press the WTRVS/CP-23 button for 8 seconds.
- Press the cancel button on CTC-808RV for 8 seconds.
- If no DTMF command is pressed during the speech period, the call will automatically hang up and be recorded as an unsuccessful one. Each phone number will be retried up to a maximum of 3 times accordingly.

Call Sequence

- Reporting sequence goes from Group 1 → Group 2 → Group 3 → Group 4 → Group 5. Destinations of reporting assigned to Group 1 will be reported to first, those assigned to Group 2 reported to next, and the like.
- If one group has more than one destination of reporting, the reporting sequence will go through all of this group's destinations before moving on to the next group's destination(s).
- The reporting will go through a group's destinations according to the numerical sequence to which the destinations are assigned. For example, when destinations 4 and 8 are assigned to Group 2, the reporting will go to destination 4 first and then destination 8.
- One complete round of reporting for the system means reporting from Group 1 → Group 2 → Group 3 → Group 4 → Group 5 and going through all the groups' destinations. The system will keep going through the rounds of destinations until one reporting has been received successfully.

If the system has successfully reported to one destination in a group, the system will consider that it has successfully reported to this group. Therefore, the system will skip the rest of the destinations in this group and go on reporting to the next group. For example, if destinations 2, 4 and 7 are assigned to Group 3 and the system has successfully reported to destination 2, the system will skip destinations 4 and 7 and go on reporting to Group 4.

After the system has completed one round of reporting (going from Group 1 → Group 2 → Group 3 → Group 4 → Group 5) and has successfully reported to one group, it will consider that the event has been successfully reported and will stop reporting. If the successful reporting takes place in the midst of a round, the system will still report to the rest of the groups in the round before stopping reporting. For example, if the successful reporting takes place in Group 2, the system will no longer report to other destinations in Group 2 but will still go on reporting to destinations in Group 3, Group 4 and Group 5 before stopping reporting.

If the system has not successfully reported to any group, it will enter the retry cycle to repeat another round of reporting.

- If no reporting is successfully received after the system has gone through the first complete round, the system will take a 5-minute break before starting the second round of reporting. If there is still no reporting

successfully received after the system has gone through the second round, the system will again take a 5-minute break before starting the third round of reporting. The system will never stop the reporting cycles unless one reporting has been received successfully.

Retry Method

Retry cycle: Each phone number can be retried up to 3 times in one round. During the retry period, the red backlight will be steady on.

- If one GPRS or SMS reporting fails during the retry cycle, the Control Panel will make a 10-second pause before starting another reporting. If any reporting other than GPRS or SMS reporting fails during the retry cycle, the Control Panel will make a 1-minute pause before starting another reporting. This cycle will repeat until one reporting has been answered successfully.
- When one full round's numbers (all numbers under Group 1 to Group 5) have all failed, the Control Panel will make a 5-minute pause before starting another retry cycle.

6.1.3. Arming/Disarming the System

- The Control Panel's security functions are activated only when the Control Panel's yellow button is programmed as a security button.
- When the Control Panel's yellow button is programmed as a security button, you can arm/disarm your system following the procedures below:
 - **Arming the system:** You can arm the system by using Remote Control (RC), Keypad (KP) or Tag Reader (TG-7) or by pressing the yellow button on the Control Panel. The Control Panel will start the exit time countdown and emit beeps during the countdown. During the last 10 seconds of the exit time, the Control Panel will emit two quick beeps every second to urge you to leave the house as soon as possible. After the exit time expires, the Control Panel will emit a long beep to signal that the system has entered armed mode.
 - **Forced arming:** When you press the Control Panel's yellow button to arm the system and the Control Panel emits four beeps, the beeps signify the presence of device fault(s). In this case the Control Panel will not immediately start the exit time countdown. If you want the Control Panel to start the exit time countdown immediately, please press the yellow button again and the Control Panel will enter exit time.
 - **Disarming the system:** You can use Remote Control (RC), Keypad (KP) or Tag Reader (TG-7) to disarm the system. You can also disarm the system by pressing the yellow button on the Control Panel and then pressing Wrist Transmitter and Pendant Transmitter (WTR)

button within 3 seconds after the yellow button is pressed. The Control Panel will emit two beeps to signal that it has entered disarmed mode.

<NOTE>

- ☞ Remote Control (RC), Keypad (KP) or Tag Reader (TG-7) is required to disarm the system. If you do not any of these devices, please make sure that you have Wrist Transmitter/Pendant Transmitter (WTR) for you to disarm the system.
- ☞ If Door Contact (DC), Passive Infrared Motion Detector (IR) or Outdoor Passive Infrared Motion Detector (EIR) is triggered when the system is in armed mode, the system will start to count down the entry time and emit beeps during the entry time. If the user does not disarm the system during the entry time by using Remote Control (RC), Keypad (KP) or Tag Reader (TG-7) or by pressing the yellow button on the Control Panel and then WTR within three seconds, the Control Panel will start an alarm upon the expiry of the entry time and report CID code 130 to the CMS.
- ☞ Alarm table: The following table shows how alarms are triggered in different system modes according to device attributes (please refer to Chapter 5. Device Management for the attributes of different devices).

Device attribute	How the Control Panel responds according to the system mode and the attribute of a device that triggers an alarm			
	Armed mode	Exit time in armed mode	Entry time in armed mode	Disarmed mode
Personal attack	Reports an instant alarm	Reports an instant alarm	Reports an instant alarm	Reports an instant alarm
Fire	Reports a fire alarm	Reports a fire alarm	Reports a fire alarm	Reports a fire alarm
Medical	Reports an emergency alarm	Reports an emergency alarm	Reports an emergency alarm	Reports an emergency alarm
Entry	Starts entry time	No response	No response	No response
Fall	Reports an instant alarm	Reports an instant alarm	Reports an instant alarm	Reports an instant alarm

6.1.4. Voice Prompts

The Control Panel plays voice prompts on important occasions to report its condition or remind you to take a specific action. Information on voice prompts is provided in the chart below.

The Control Panel's Voice Prompts

No	Voice Prompt	Condition
1	Emergency call was pressed.	Played once after the red help button on the Control Panel is pressed
2	Help call in progress	Played once every 2-3 seconds during guard time
3	Help call cancelled	Played twice when the green reset button is pressed during guard time
4	Alarm received. Please stand by.	Played once upon kiss-off
5	Telephone line problem. Check telephone connection.	Played twice when there is a telephone line problem
6	Telephone line restored	Played once when a telephone line problem is fixed.
7	Line problem. Check line connection.	Played twice when there is a line problem
8	Line connection restored	Played once when the Ethernet connection is restored
9	Power failure. Check power cord.	Played twice when a power failure takes place
10	Power restored	Played once when power is

		restored
11	Inactivity timer expiring. Please reset.	Played upon the expiry of the inactivity timer and once every 5 minutes afterwards for 6 times (over a 30-minute period). After the 30 minutes, the Control Panel will start reporting (this warning period is conditioned by the inactivity warning timer and its default is 30 minutes).
12	A fall has been detected.	Played every 2-3 seconds during the guard time of a fall sensor
13	Fall detection has restored. Cancelling help call.	Played after the reception of a fall sensor's cancel code

<NOTE>

☞ When the green reset button is pressed, the Control Panel will report all the fault problems it is experiencing via voice prompts.

6.1.5. Walk Test (Range Test)

Set the Control Panel in learning mode to test the operational ranges of devices.

Step 1. Press and hold the yellow button for 6 seconds when the Control Panel is in idle mode.

Step 2. Release the yellow button after you hear double beeps. Afterwards a short beep will be emitted to indicate the Control Panel is now in learning mode. The orange backlight begins to blink.

Step 3. Move the device to a desirable location in the house and press the test button to observe the device's operational range.

Step 4. If the Control Panel responds with a long beep, it means the device is within the operational range.

Step 5. Press the yellow button once to exit learning mode, or the Control Panel will exit learning mode automatically after 5 minutes of inactivity.

6.1.6. Factory Reset

The Control Panel will clear all programmed parameters when the following steps are taken.

Step 1. Unplug the power cord from the DC jack.

Step 2. Use a pen or screwdriver to slide the battery switch to the off position.

Step 3. Plug the power cord into the DC jack while pressing both the help and the reset buttons until one long beep is emitted to indicate the factory reset has been successfully executed.

Step 4. Release both buttons.

Step 5. Slide the battery switch back to the on position.

<NOTE>

☞ Once a factory reset is executed, all programmed data will return to their default values and all learned-in devices will be removed. You will have to do the programming and learn the devices in one by one again.

7. Appendix

7.1. Contact ID Communications Protocol and Format

MX can communicate with the CMS receiver using the Contact ID protocol. The MX-to-receiver communication section is composed of three basic elements: the handshake tone sequence, message blocks, and acknowledgements. The handshake tone sequence consists of a pair of single-frequency tones sequenced in time. The message blocks consist of a series of DTMF tone bursts separated by spaces. The acknowledgement tone is a single tone burst.

7.1.1. Handshake Tones

The handshake tone sequence is produced by the receiver. The purpose is to signal MX that the communication channel is ready.

7.1.2. Placement

The handshake tone sequence is emitted by the receiver after going off-hook and delaying an interval of at least 0.5 seconds but typically no greater than 2.0 seconds. This time allows the phone network connection to settle before the communication process begins.

7.1.3. Composition

The handshake tone sequence shall consist of:

- A burst of 1400 Hz. $\pm 3\%$ tone with a duration of 100 msec. $\pm 5\%$
- A pause of 100 msec. $\pm 5\%$
- A burst of 2300 Hz. $\pm 3\%$ tone with a duration of 100 msec. $\pm 5\%$

7.1.4. Message Blocks

A message block is sent by MX. Each message block contains sufficient information to report an event in the system.

7.1.5. Placement

The first message block is sent beginning 250 msec. (250 min., 300 max.) after the end of either the handshake tone sequence or after a kiss off (acknowledgement) tone. The delay is timed from the end of the tone.

7.1.6. Message Composition

The form of the message is:

ACCT MT QXYZ GG CCC

Where:

ACCT = 4 Digit Account number (0-9, B-F)

MT = Message Type. This 2-digit sequence is used to identify the Contact ID message to the receiver. It may be transmitted as either 18 (preferred) or 98 (optional). New receiver implementations shall accept either an 18 or a 98. Note that some older receivers may not accept 98.

Q = Event qualifier, which gives specific event information:

1 = New Event or Opening

3 = New Restore or Closing

6 = Previously reported condition still present (Status report)

XYZ = Event code (3 Hex digits 0-9, B-F)

GG= Group or Partition number (2 Hex digits 0-9, B-F). Use 00 to indicate that no specific group or partition information applies.

CCC = Zone number (Event reports) or User # (Open/Close reports) (3 Hex digits 0-9, B-F). Use 000 to indicate that no specific zone or user information applies.

S = 1 Digit Hex checksum calculated such that:

$(\text{Sum of all message digits} + S) \text{ MOD } 15 = 0$

Note: A '0' shall be transmitted as a 10 and valued as a 10 for checksum purposes even though it is displayed and printed as '0.' It uses the same tone pair as the '0' (OPER) key on a standard telephone.

7.1.7. Data Tones

The message is sent using standard DTMF tones.

The timing of the tones shall be as follows:

Burst ON time – 50 msec. (50 min., 60 max.)

Burst OFF time – 50 msec. (50 min., 60 max.)

7.1.8. Kiss off (Acknowledgement) Tones

The kiss off tone from the receiver is used to tell MX that the message has been received successfully. The frequency of the tone is 1400 Hz. \pm 3%. MX detects a minimum of 400 msec. of tone before considering the kiss off to be valid.

7.1.9. Contact ID Event Codes

<NOTE>

☞ The category to which each event belongs is shown in the brackets following every event description. The event filter (please refer to Step 6. Reporting in 4.2. PC Programming Tool for details about the event filter) will process events according to the categories to which events are assigned.

For example, in the case of “100 – Control Panel Emergency (medical),” “medical” means the category to which the event “Control Panel Emergency” is assigned.

- **100 – Control Panel Emergency (medical)**
 - ◆ When the red help button on the Control Panel is pressed.
- **101 - Personal Emergency (medical)**
 - ◆ When Wrist Transmitter/Emergency Pendant (WTR) or Fall Sensor is pressed.
 - ◆ When WTRVS, CP-23 or CTC-808RV is pressed.
- **102 – Inactivity (emergency)**
 - ◆ An inactivity code will be sent to the CMS if there is no movement during guard time after fall detection.
- **111 - Smoke Emergency (emergency)**
 - ◆ When Smoke Detector (SD) is triggered.
 - ◆ When the test button of Smoke Detector (SD) is pressed.
- **114 – Heat Emergency (emergency)**
 - ◆ When Heat Detector (HD) is triggered.
- **120 - Fall Emergency (medical)**
 - ◆ When Fall Sensor is triggered.
- **130 – Burglary (burglary)**
 - ◆ (Defined by the installer/user)
- **147 - Supervisory Failure – Sensor (status)**

- ◆ When the Control Panel is unable to receive a signal transmitted from a sensor for a period preset by the supervision timer.
- **151 – Gas Emergency (emergency)**
 - ◆ When Gas Detector is triggered.
- **154 - Water Emergency (emergency)**
 - ◆ When Water Sensor (WS) is triggered.
- **158 – High Temperature Detected (emergency)**
 - ◆ When Temperature Sensor (TS) detects a preset high temperature level.
- **159 – Low Temperature Detected (emergency)**
 - ◆ When Temperature Sensor (TS) detects a preset low temperature level.
- **162 - Carbon Monoxide Emergency (emergency)**
 - ◆ When Carbon Monoxide Detector (CO) is triggered.
 - ◆ When the test button of Carbon Monoxide Detector (CO) is pressed.
- **301 – AC Power Failure in the Control Panel (status)**
 - ◆ When the Control Panel’s AC power fails for more than 10 seconds, the green LED blinks every second.
- **302 - Control Panel Low on Battery (status)**
 - ◆ When the Control Panel is low on battery, the green LED blinks every 2 seconds.
- **311 - Control Panel’s Battery Disconnected (status)**
 - ◆ When the Control Panel’s battery is not connected, the green LED blinks every 2 seconds.
- **344 – Jamming Detected (status)**
 - ◆ When the Control Panel detects a jamming condition.
- **383 - IR Tamper Open (status)**
 - ◆ When an IR tamper is opened.
- **384 - All Devices Low on Battery (status)**
 - ◆ When all devices are low on battery, the green LED blinks every 2 seconds.
- **602 - Auto Check-In Report (status)**
 - ◆ When the Control Panel makes an auto check-in report to the CMS.
- **606 - Follow-On Operation**
 - ◆ When the Control Panel receives a kiss-off from the CMS to open the speech channel.
- **641 – Inactivity (status)**

- ◆ When the Control Panel makes an inactivity timer expired report.

<NOTE>

☞ This event code will be sent with fixed zone number **072**.

- **661 – Nurse or Help Has Arrived/Nurse’s Job Completed (medical)**
 - ◆ When the green reset button on the Control Panel is pressed to signal that a nurse or help has arrived (1-661).
 - ◆ When the green reset button on the Control Panel is pressed to signal that the nurse’s job has been completed (3-661).
- **662 – Help Still Needed (medical)**
 - ◆ When the red help button on the Control Panel is pressed to signal that help is still needed.
- **663 – Case Closed by the Nurse (medical)**
 - ◆ When the green reset button on the Control Panel is pressed twice quickly to signal that the nurse closes the emergency case because the user actually has no problem.
- **665 – User Check-in/Check-out (status)**
 - ◆ When the user presses the yellow button (programmed as a check-in/out button) on the Control Panel to check in or check out.
- **666 – Away/Home (status)**
 - ◆ When the user presses the yellow button (programmed as an away/home button) on the Control Panel upon leaving home or returning home. Two-way communication will be opened between the Control Panel and the CMS after this event code is reported to the CMS.

7.2. SIA Digital Communication Standard

Please refer to the document “SIA Digital Communication Standard – Internet Protocol Event Reporting (ANSI/SIA DC-09-2012A)” published by the Security Industry Association for details. An example of an event reported in the SIA/CID format is as follows:

```
<0A><61><A4>004D"ADM-CID"0033L0#9999[#9999|1100 00
000][X121E35.057831][Y25N03.900375][P2772]<0D>
```

Where:

- “ADM-CID” means that the content of this message is in the CID format.
- 0033 for <seq>
- L0 for <Lpref>
- #9999[#9999|1100 00 000]

9999 = account number

1100 00 000 = CID data (QXYZGGCCCC)

- [X...] and [Y...] are location data.
- [P...] stands for the margin of error of cell location.

7.3. Scancom Event Codes

- **51555517 - Control Panel Emergency/Pendant #1 Emergency/Fall Emergency/WTR Emergency/PB Emergency (when two-way mode is set for follow-on operation)**
 - ◆ When the red help button on the Control Panel is pressed.
 - ◆ When Pendant #1 is pressed or triggered.
 - ◆ When Fall Sensor is pressed or triggered.
 - ◆ When WTR (Pendant #1) or PB is pressed.
- **51555557 - Control Panel Emergency/Pendant #1 Emergency/WS Emergency/Fall Emergency/WTR Emergency/PB Emergency (when two-way mode is not set for follow-on operation)**
 - ◆ When the red help button on the Control Panel is pressed.
 - ◆ When Pendant #1 is pressed or triggered.
 - ◆ When Water Sensor is triggered.
 - ◆ When Fall Sensor is pressed or triggered.
 - ◆ When WTR (Pendant #1) or PB is pressed.
- **55515517 - Pendant #2 Emergency**
 - ◆ When Pendant #2 is pressed or triggered.
- **51555518 - Pendant #1 Emergency (Low Battery)**
 - ◆ When Pendant #1 is pressed or triggered when low on battery.
- **55515518 - Pendant #2 Emergency (Low Battery)**
 - ◆ When Pendant #2 is pressed or triggered when low on battery.
- **55155517 - Inactivity**
 - ◆ When the Control Panel makes an inactivity timer expired report.
 - ◆ An inactivity code will be sent to the CMS if there is no movement during guard time after fall detection.
- **55555558 - Control Panel's Battery Voltage Too High/Control Panel Low on Battery/Control Panel's Battery Disconnected**
 - ◆ When the Control Panel's battery voltage is too high.
 - ◆ When the Control Panel is low on battery.
 - ◆ When the Control Panel's battery is not connected, the green LED blinks every 2 seconds.
- **555551557 - AC Power Failure in the Control Panel**

- ◆ When the Control Panel's AC power fails for more than 10 seconds, the green LED blinks every second.
- **555553557 - AC Power Restored/Control Panel's Low Battery Status Cleared/Control Panel's Battery Disconnected Status Cleared**
 - ◆ When AC power is restored to the Control Panel.
 - ◆ When the Control Panel's low battery status is cleared.
 - ◆ When the Control Panel's battery disconnected status is cleared.
- **515555559 - WTR Supervision Failure**
 - ◆ When the Control Panel is unable to receive a signal transmitted from a sensor for a period preset by the supervision timer.
- **555555559 - Auto Check-In Report**
 - ◆ When the Control Panel makes an auto check-in report to the CMS.
- **535555557 – WTR's Supervision Failure Status Cleared/WS' Emergency Status Cleared**
 - ◆ When WTR's supervision failure status is cleared.
 - ◆ When WS' emergency status is cleared.
- **555555558 - Device Low on Battery**
 - ◆ When a device is low on battery, the green LED blinks every 2 seconds.
- **555555557 - Device's Low Battery Status Cleared**
 - ◆ When a device's low battery status is cleared.
- **155555517 – SD, CO or HD Emergency**
 - ◆ When Smoke Detector (SD) is triggered or its test button pressed.
 - ◆ When Carbon Monoxide Detector (CO) is triggered or its test button pressed.
 - ◆ When Heat Detector (HD) is triggered or its test button pressed.

7.4. Tunstall TTNEW Event Codes

- **D#1011 - AC Power Restored to the Control Panel**
 - ◆ When AC power is restored to the Control Panel.
- **D#1012 - Auto Check-In Report**
 - ◆ When the Control Panel makes an auto check-in report to the CMS.
- **D#1013 - Supervisory Failure - Sensor**
 - ◆ When the Control Panel is unable to receive a signal transmitted from a sensor for a period preset by the supervision timer.
- **D#1014 - Device Low on Battery**
 - ◆ When a device is low on battery, the green LED blinks every 2

seconds.

- **D#1015 – Inactivity**
 - ◆ When the Control Panel makes an inactivity timer expired report.
 - ◆ An inactivity code will be sent to the CMS if there is no movement during guard time after fall detection.
- **D#1016 - Personal Emergency or Fall Emergency**
 - ◆ When Wrist Transmitter/Emergency Pendant (WTR) or Fall Sensor is pressed.
 - ◆ When WTRVS, CP-23 or CTC-808RV is pressed.
 - ◆ When Fall Sensor is triggered
- **D#1017 - Control Panel Emergency**
 - ◆ When the red help button on the Control Panel button is pressed.
 - ◆ When Water Sensor is triggered.
- **D#1018 - Smoke Emergency**
 - ◆ When Smoke Detector (SD) is triggered or its test button pressed.
 - ◆ When Carbon Monoxide Detector (CO) is triggered or its test button pressed.
- **D#1019 - AC Power Failure in the Control Panel**
 - ◆ When AC power fails for more than 10 seconds, the green LED blinks every second.
- **D#1019 – Control Panel Low on Battery/Control Panel’s Battery Disconnected**
 - ◆ When the Control Panel is low on battery, the green LED blinks every 2 seconds.
 - ◆ When the Control Panel’s battery is disconnected, the green LED blinks every 2 seconds.

7.5.Climax CPC Dialect Event Codes

- **55 – Control Panel Emergency**
 - ◆ When the red help button on the Control Panel is pressed.
 - ◆ When Pendant #1 is pressed.
 - ◆ When Fall Sensor is triggered or pressed.
- **54 - WTR Emergency**
 - ◆ When WTR or Fall Sensor is pressed.
- **29 - SD Emergency**
 - ◆ When Smoke Detector (SD) is triggered.
- **58 - Fall Emergency**

- ◆ When Fall Sensor is triggered.
- **14 - Inactivity**
 - ◆ An inactivity code will be sent to the CMS if there is no movement during guard time after fall detection.
- **21 - WTR Supervision Failure**
 - ◆ When the Control Panel is unable to receive a signal transmitted from a sensor for a period preset by the supervision timer.
- **19 - AC Power Failure in the Control Panel**
 - ◆ When AC power fails for more than 10 seconds, the green LED blinks every second.
- **20 - AC Power Restored**
 - ◆ When AC power is restored to the Control Panel.
- **42 - Control Panel Low on Battery/Control Panel's Battery Disconnected**
 - ◆ When the Control Panel is low on battery, the green LED blinks every 2 seconds.
 - ◆ When the Control Panel's battery is disconnected, the green LED blinks every 2 seconds.
- **18 - Control Panel's Low Battery Status Cleared/Control Panel's Battery Disconnected Status Cleared**
 - ◆ When the Control Panel's low battery status is cleared.
 - ◆ When Control Panel's battery disconnected status is cleared.
- **11 - Device Low on Battery (Except for WTR)**
 - ◆ When any device (except for WTR) is low on battery, the green LED blinks every 2 seconds.
- **16 - WTR Low on Battery**
 - ◆ When WTR is low on battery, the green LED blinks every 2 seconds.
- **26 - Auto Check-In Report**
 - ◆ When the Control Panel makes an auto check-in report.
- **39 - CO Emergency**
 - ◆ When Carbon Monoxide Detector (CO) is triggered.
- **38 - WS Emergency**
 - ◆ When Water Sensor (WS) is triggered.
- **14 - Inactivity**
 - ◆ When the Control Panel makes an inactivity timer expired report.
- **30 - Door Opened**
 - ◆ When Door Contact (DC) is triggered.

- **32 - RF Jam Detection**
 - ◆ When the Control Panel's RF signal is interfered.

7.6. Franklin Event Codes

<NOTE>

- ☞ The Franklin reporting format is "4 + 2," 4 standing for "account number" and 2 for "trigger code (1 digit) + zone number (1 digit)." The showing of the zone number adopts the hexadecimal notational system. The digits used to represent numbers using hexadecimal notation are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, and F. Therefore, the zone number of the 10th device will be shown as "A." Below is an example:

Zone number	Digit representing the zone number
Zone No. 1	1
Zone No. 2	2
Zone No. 3	3
Zone No. 4	4
Zone No. 5	5
Zone No. 6	6
Zone No. 7	7
Zone No. 8	8
Zone No. 9	9
Zone No. 10	A
Zone No. 11	B
Zone No. 12	C
Zone No. 13	D
Zone No. 14	E
Zone No. 15	F
Zone No. 16	0
Zone No. 17	1
...	...

("X" below represents the zone number of a device)

- **10 - Medical Help Needed**
 - ◆ When the red help button on the Control Panel is pressed.
- **1X - Personal Emergency**
 - ◆ When Fall Sensor, Wrist Transmitter (WTR) or Emergency Pendant is pressed.

- **2X - Help Needed Due to Detected Fire, Smoke, Gas, Carbon Monoxide or Water Leakage**
 - ◆ When fire, smoke, gas, carbon monoxide or water leakage is detected, SD, CO and WS will be triggered.
- **4X - Crisis of Fire, Smoke, Gas, Carbon Monoxide or Water Leakage is relieved.**
 - ◆ When a crisis of fire, smoke, gas, carbon monoxide or water leakage is relieved.
- **61 - AC Failure**
 - ◆ When the Control Panel's AC power fails, the green LED blinks twice every second.
- **62 - AC Power Restored**
 - ◆ When AC power is restored to the Control Panel.
- **64 - Control Panel Low on Battery**
 - ◆ When the Control Panel is low on battery, the green LED blinks every 2 seconds.
- **65 - Control Panel's Low Battery Status Cleared**
 - ◆ When the Control Panel's low battery status is cleared.
- **71 - Inactivity**
 - ◆ When the Control Panel makes an inactivity timer expired report.
- **72 - No WTR Learnt in**
 - ◆ When the Control Panel has no WTR learnt in.
- **8X - Fall Emergency**
 - ◆ When Fall Sensor is triggered.
- **91 - Auto Check-in Report**
 - ◆ When the Control Panel makes an auto check-in report to the CMS.
- **BX - Low Battery (IR/SD/WTR/CO/WS)**
 - ◆ When Passive Infrared Motion Detection (IR), Smoke Detector (SD), Wrist Transmitter (WTR), Carbon Monoxide Detector (CO) or Water Sensor (WS) is low on battery, the green LED blinks every 2 seconds.
- **CX - Low Battery Status Cleared (IR/SD/WTR/CO/WS)**
 - ◆ When the low battery status of Passive Infrared Motion Detection (IR), Smoke Detector (SD), Wrist Transmitter (WTR), Carbon Monoxide Detector (CO) or Water Sensor (WS) is cleared.
- **DX - Fall Inactivity**
 - ◆ An inactivity code will be sent to the CMS if there is no movement during guard time after fall detection.
- **EX - Sensor Supervision Failure**

- ◆ When the Control Panel is unable to receive a signal transmitted from a sensor for a period preset by the supervision timer.
- **FX – Sensor’s Supervision Failure Status Cleared**
 - ◆ When a sensor’s supervision failure status is cleared.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15, 22 & 24 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- . Reorient or relocate the receiving antenna.
- . Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- . Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15, 22 & 24 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.