

CTC-1052

USER MANUAL

Installation

Programming

Operating

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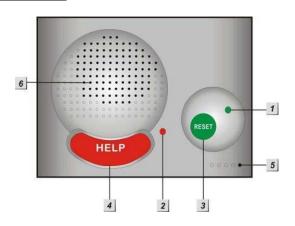
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1. Application Overview

1.1. Identifying The Parts

TOP VIEW



1. GREEN LED

- ON: AC Power is ON.
- FLASH every second: AC Power failure
- FLASH every 2 seconds: Panel or Device Low battery
- QUICK FLASH every 2 seconds: Supervision failure

2. RED LED

- ON: Off-hook / Waiting retry pause / Ready to enter Programming Mode (before entering PIN code)
- FLASH: Programming Mode
 Pendant Learning Mode

3. GREEN RESET BUTTON

- Press once in normal mode to reset mobility timer (see command 44)
- Before CTC-1052 dials out for alarm reporting, press once to cancel the alarm reporting
- During or at-the-end of conversation, press once to terminate two-way voice communication
- Press & hold for 3 sec: dial the Non-Emergency call. (See section 4.1.2.)
- Press & hold for 6 sec: enter Learning Mode
- Press & hold for 16 sec: disable mobility setting

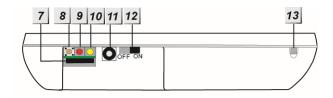
4. RED HELP BUTTON (with backlight)

- Back-lit disigned for easy access at night
- Backlight illuminates when off-hook
- Backlight flashes during the waiting period until help arrives

5. Microphone

6. Speaker

REAR VIEW



7. GPRS/3G/LTE SIM Card Base

This slot is for inserting a SIM card.

8. GPRS/3G/LTE Reset Button

Press & hold for 1 sec: GPRS/3G/LTE automatically resets

GPRS/3G/LTE Module LED Indicator (Red)

- When power is supplied to CTC-1052, the LED will light up for 5 seconds.
- One flash per second indicates 3G/LTE noraml connection.
- Continuous 5-second flashes indicate there is no 3G/LTE connection/signal.

10. GPRS/3G/LTE Fault Indicator (Yellow)

- FLASH every 5 seconds: SIM card missing
- 2 FLASHES every 5 seconds: No signal/reception
- 3 FLASHES every 5 seconds: GPRS/3G/LTE module abnormal
- 4 FLASHES every 5 seconds: SIM card PIN code error

<NOTE>

Fault indicator priorities: GPRS/3G/LTE module abnormal > SIM card missing > No signal/reception > SIM card PIN

code error

11. DC Jack

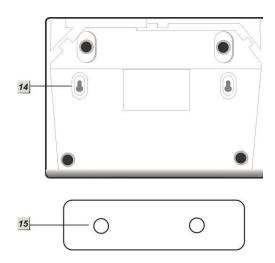
DC 12V 1A switching power connection

12. Battery Switch

13. Local Programming Telephone Unit Input

 A special telephone cord to connect CTC-1052 and your phone unit for Local Programming (optional).

BACK VIEW



14. Mounting Holes

15. Mounting Bracket

1.2. The Power Supply

- An AC power adapter is required to connect to a wall outlet. Be sure only to use an adapter with the appropriate AC voltage rating to prevent component damage. A DC 12V output and 1A switching power is generally used to power CTC-1052.
- In addition to the adapter, there is a rechargeable battery inside CTC-1052, which serves as a back-up in case of a power failure.
- During normal operation, the AC power adapter is used to supply power to CTC-1052 and at the same time recharge the battery. It takes approximately <u>72</u> hours to fully charge the battery.
- The battery can be manually disconnected by the battery switch located at the bottom.
- Battery Switch is set as OFF by factory default, the battery will not be charged when AC power is connected, nor will it serve as a back-up power source when AC power is missing. You need to switch the battery to ON after supplying AC power to CTC-1052

<NOTE>

Please make sure the battery switch is slid back to ON position (as marked) after manually disconnected the rechargable battery.

1.3. Insert GPRS/3G/LTE SIM Card

CTC-1052 Panel features built-in GPRS/3G/LTE communication facility to report to the Monitoring Station.

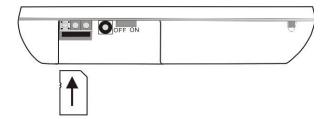
To Insert SIM card:

<NOTE>

It is recommended to disable the SIM card PIN code before inserting into the Control Panel.

The GPRS/3G/LTE SIM card base is located on the rear side of the unit:

Insert the SIM card with the chip side facing up.



- Push to the furthest extend, then press on the edge of the SIM card firmly to secure it.
- SIM Card will delete its SMS message whenever the CTC-1052 is powered on.

To remove SIM card:

Press and release on the edge of SIM card, the card will spring out.

1.4. How to install the Control Panel

Locating a suitable position for the Control Panel

- The Control Panel requires main power and a constant GPRS/3G/LTE reception.
- The Control Panel should be easily accessible.
- The Control Panel should not be placed in a damp location, such as a bathroom.
- The Control Panel should not be placed close to any heat source, such as microwave ovens, which can reduce signal strength.
- The Control Panel should not be located alongside other radio transmitting devices, such as mobile phones, cordless phone, or wireless computer network (Wi-Fi) devices.
- Important: When drilling into a wall, ensure there are no hidden cables or pipes.

Mounting the Control Panel

The Control Panel can be mounted on the wall or wherever desired (e.g. on the table). Ensure the Control Panel is fitted at approximately chest height where the buttons, microphone, and speaker can be easily accessed and operated.

- Use the 2 holes of the Wall Mounting Bracket as a template, mark off the holes' positions.
- Drill 2 holes and insert the wall plugs if fixing into plaster or brick.
- Screw the base to the wall.
- Hook the Control unit onto the Wall Mounting Bracket (holding the unit with the front facing you).

1.5. Compatible with Climax's SMS Editor

CTC-1052 is compatible with Climax's SMS Editor, which is designed to facilitate SMS remote programming via a PC. This tool allows you to program the panel easily from your computer, without sending complex SMS text messages from a mobile phone.

2. Learn-in the Devices

There are two methods to learn in devices: **command learning** and **local learning**. The system can learn a total of 20 sensors.

2.1. Command Learning

Command Learning:

- 1. The user can use Commands 91-94 to learn devices into the system.
- 2. **Command 93** is designed to learn in devices for silent reporting, including WTR, Fall Sensor, or Panic Button.
- 3. **Command 93 & 94** is designed to learn in the following devices and sensors.
 - PIR Sensor ----- PIR
 - Smoke Detector ---- SD
 - Carbon Monoxide Detector---- CO
 - Fixed Panic Button ---- PB
 - Wrist Transmitter ---- WTR
 - Pendant Transmitter ---- WTR
 - Water Sensor ---- WS
 - Fall Sensor ---- FS

2.2. Local Learning

Local Learning:

The user can also use the local learning method to learn in all devices.

- 1. When the device is learnt in for the first time, voice prompt will prompt the device/sensor name and "learned."
- Within 3 minutes after exiting learning mode, the control panel will emit 1 long beep everytime it receives a test code (from any device).
- 3. Local Learning Mode cannot remove devices or sensors.

To enter Local Learning Mode:

 Press and hold the Green Reset Button of the CTC-1052. When pressed, the CTC-1052 will emit one beep sound initially, and then will emit a double beep on the 6th second.

- Release the Green Reset Button at the voice prompt "Release the Green button, Ready to learn sensor." CTC-1052 is now in learning mode and the Red LED will start flashing.
- 3. Press the (Learn) button on the device or sensor. Voice Prompt: "(Name of Sensor) learned."
- 4. If no action within 10 seconds after "Ready to learn sensor" prompt, CTC-1052 will prompt "Press sensor button." This prompt will repeat two times if no action.
- 5. If no action after second "Press sensor button" prompt, CTC-1052 will prompt "Press Green button to exit learning mode." This prompt will be repeated three times if no action continutes.
- If no action after 5 minutes, the CTC-1052 will automatically exit Local Learning Mode and return to idle mode. Voice Prompt: "We are now in Normal Operation Mode."

2.3. Learn-In Device using Device ID

- If sensor device ID is given (please consult the supplier), the users can learn the device into the Control Panel using device ID.
- User can use SMS commands or the programming tool SMS iWizard (sold separately) to learn devices using device ID.
- Please refer to the table CTC-1052 SMS
 Programming Command Table or the SMS
 iWizard operation manual on how to learn in
 devices into different zones using device ID.

3. System Configuration

3.1. Entering Programming Mode

Two CTC-1052 programming modes are available: Local Programming Mode and Remote Programming Mode.

<NOTE>

GPRS/3G/LTE module will be powered down when in Programming Mode. When AC Power resumes or when exits from Programming Mode, GPRS/3G/LTE module will be powered on again.

3.1.1. Local Programming Mode

From Idle mode, follow the steps below to enter Local Programming mode.

- Step 1. Plug in the telephone set into LOCAL PROGRAMMING input located on the rear side of CTC-1052.
- **Step 2.** Pick up the handset. **RED LED** lights up.
- Step 3. Enter default ACCESS CODE, <u>1111</u> followed by #.
- **Step 4.** CTC-1052 will emit 2 short beeps and the red LED starts to flash, indicating it is in **Programming Mode.**
- **Step 5.** Proceed to program system by referring to the Commands in section **3.2 Programming Your 1052**.

<NOTE>

- Local programming is prohibited when AC Power fails.
- The first digit of Access Code must be entered within 15 seconds, otherwise CTC-1052 will exit automatically.
- Failure to enter the correct Access Code within 2 minutes will cause CTC-1052 to exit the Programming mode automatically.
- To exit Programming mode, enter <u>99</u> followed by <u>#</u>, or place the handset on hook, or disconnect the Programming telephone set.

3.1.2. CTC-835 Programmer

CTC-835 is a powerful programming tool (sold separetely) that features a built-in keypad and LCD display to help you to program the medical alarm panels effeciently and conveniently. It also features **Once-for-All Uploading**, which allows you program on a computer via the supplied **Pilot** software and you can then upload all the settings to the medical alarm panel simultaneously with a single mouse click.

For detailed usages, please refer to the Operation Manual of CTC-835 Programmer.

3.1.3. Remote Programming Mode

To allow Remote Programming, there are two options for CTC-1052 to answer the incoming calls.

- (1) Auto Answering by ring count
- (2) Dial in twice (Ring Count disable)

The two options are set by Command #41. Please refer to Command 41 under section 3.2 Programming Your 1052.

3.1.3.1. Auto Answering by Ring Count

By using Command 41, you can set the number of rings for CTC-1052 to answer (**00-Rings** is set as factory default).

- **Step 1.** Dial CTC-1052 and wait for CTC-1052 to answer.
- **Step 2.** Enter 1111 (default 4-digit Access Code) followed by #, via the phone set.
- **Step 3.** CTC-1052 will respond with two quick beeps to indicate it is ready for Remote Programming. The RED LED will flash as a visual indication.
- **Step 4.** You are now in Programming Mode. Proceed to program by referring to the Command under section 3.2 Programming Your 1052.

3.1.3.2. Dial in Twice (Ring Count Disable)

As **00** is set in Command 41 by default, it means CTC-1052 is disabled to auto answer the incoming calls by ring count. If Remote programming is required, you will need to call CTC-1052 twice.

- Step 1. Dial CTC-1052 and hang up after first 2 rings, wait for another 8-20 sec then call again. CTC-1052 will answer the call on the first ring. You will enter the Remote Programming Mode after the first ring from the 2nd call.
- **Step 2.** Enter **1111** (the default 4-digit Access Code) followed by **#**, via the phone set.
- Step 3. CTC-1052 will respond with two quick beeps to indicate it is ready for Remote Programming Commands. The RED LED will flash as a visual indication.
- Step 4. You are now in **Programming Mode**. Proceed to program by referring to the Command in section **3.2 Programming Your 1052**.

<NOTE>

- The first digit of Access Code must be entered within 15 seconds; otherwise CTC-1052 will exit automatically.
- To exit Remote Programming mode, enter 99 followed by #.

3.1.4. SMS Remote Programming

CTC-1052 can be remotely programmed via SMS commands. Please refer to section **3.3 SMS Remote Programming** for usage.

3.2. Programming Your 1052

How to enter Commands?

Please make sure CTC-1052 is in Programming Mode (RED LED flashes continuously) before trying any CTC-1052 Command Functions. Please refer to section System Configuration, Entering Programming Mode.

 Follow the protocol below to command CTC-1052:

<u>cc</u>	<u>#</u>	DTMF ACK	Function Selection	<u>#</u>	DTMF ACK
1.	2.	3.	4.	5.	6.

- 1. **CC** = 2-digit DTMF Command
- 2. # = Termination of the DTMF Command
- 3. ACK = DTMF Command Acknowledgement

On CTC-1052:

Short beep: Command succeeded

Long beep: Command failed

On the programming phone set:

Short beep: Command succeeded

Long beep: Command failed

- Function Selection = According to different Command you will have different entering in this part, e.g. Tel. Number, Account number, etc.
- 5. # = Terminates Function Selection
- 6. **ACK** = Function Selection **Acknowledgement**

On CTC-1052:

Short beep: Command succeeded

Long beep: Command failed

On the programming phone set:

Short beep: Command succeeded

Long beep: Command failed

- Follow the Command Steps to program your CTC-1052:
- **Step 1.** Enter Command number (DTMF Numeric Command, ex. (**01**), (**02**)...)
- **Step 2.** Press (#) to terminate the DTMF Command.
- **Step 3.** One short beep will be heard for successful Command entry.
- **Step 4.** Enter the desired Command function number.
- **Step 5.** Enter (#) to terminate the Command Operation.
- **Step 6.** CTC-1052 will emit a short beep, indicating successful programming.

The maximum interval between key strokes is 2 minutes. Otherwise, commands will be ignored and CTC-1052 will automatically exit to Idle Mode.

 Any erroneous programming must be rectified and program again correctly.

Command 01-04

Telephone Number Programming

- Used to program the 1st 4th Tel. numbers respectively.
- To program the 1st Tel. number: enter (01) followed by (#). After one short beep, enter (telephone number) followed by (#). You can hear one beep from the telephone speaker that indicates the programming is successful.

If you hear CTC-1052 emit one beep instead, that means the programming of the 1st telephone number has failed. Please repeat the programming steps again.

 Likewise, the 2nd, 3rd or 4th Tel. numbers can be programmed using Command (02), (03) or (04) respectively.

<NOTE>

When entering the phone number, entering (*) means a 3-second pause. (e.g. Switchboard system, extension, etc.). For example, the phone number is 21111111 and extension number is 255. Enter: 21111111*255.

Up to 20 digits including (★) are allowed for each telephone number.

Delete Telephone Number:

- To delete the 1st Tel. number, enter (01) followed by (#), after one short beep, enter another (#). You can hear one beep from the telephone speaker that indicates the telephone number has been successfully deleted.
 - If you hear CTC-1052 emit one beep instead, that means you have failed to delete the telephone number. Please repeat the deleting steps again.
- Likewise, you can erase the respective 2nd, 3rd or 4th Tel. Numbers, by following the above procedure.

Command 05-06

Select Telephone Number for Alarm Reporting and Status Reporting

<IMPORTANT NOTE>

If the Tel. number is selected in Commands #5, #6 and #7, then Command #7 holds the top priority to overwrite the setting. The Tel. number selected in Command #7 will not be used for alarm and/or status reporting.

- Command (05): Select which telephone number & GPRS/IP (1-6) is/are to be used for Alarm Reporting.
- Command (06): Select which telephone number & GPRS/IP (1-6) is/are to be used for Status Reporting.
- Available Key-in options:

Tel. Number / IP Address	Function Selection Sequence
1 st Tel. #	(1)
2 nd Tel. #	(2)
3 rd Tel. #	(3)
4 th Tel. #	(4)
5 th GPRS1 #	(5)
6 th GPRS2 #	(6)

1 st & 2 nd Tel. #s	(12)
1 st & 3 rd Tel. #s	(13)
1st & 4th Tel. #s	(14)
1st Tel & 5th GPRS. #s	(15)
1st Tel & 6th GPRS. #s	(16)
2 nd & 3 rd Tel. #s	(23)
2 nd & 4 th TeI. #s	(24)
2 nd Tel & 5 th GPRS. #s	(25)
2 nd Tel & 6 th GPRS. #s	(26)
3 rd & 4 th Tel. #s	(34)
3 rd Tel & 5 th GPRS. #s	(35)
3 rd Tel & 6 th GPRS. #s	(36)
4 th Tel & 5 th GPRS. #s	(45)
4 th Tel & 6 th GPRS. #s	(46)
5 th & 6 th GPRS. #s	(56)
1 st , 2 nd & 3 rd Tel. #s	(123)
1st, 2nd & 4th Tel. #s	(124)
1 st , 3 rd & 4 th Tel. #s	(134)
2 nd , 3 rd & 4 th Tel. #s	(234)
1st, 2nd, 3rd & 4th Tel. #s	(1234)
1 st , 2 nd , 3 rd , 4 th Tel. & 5 th GPRS. #s	(12345)
1 st , 2 nd , 3 rd , 4 th Tel. 5 th & 6 th GPRS. #s	(123456)

 Factory default is set as (123456). Alarm & Status will be reported to all of 4 Telephone Numbers+2 GPRS (IP).

<NOTE>

- The Tel. number selected in Command #7 will not be used for alarm and/or status reporting, even if it is selected in command #5 and/or #6.
- When multiple Tel. numbers are selected, CTC-1052 will always dial in respective programmed order.
- The latest Command (**05-06**) setting(s) will overwrite any previously enter setting(s).
- When CTC-1052 reports, GPRS has the highest priority.

Command 10-14

Account Number Programming

- Commands (10-14) are used to set the account number for the telephone numbers used for Digital Reporting.
- Command (10): Set the <u>same</u> account number for <u>all</u> telephone numbers. and 5th & 6th GPRS. #s
- Command (11-14): Set the account numbers for the 1st-4th Tel. numbers used for Digital Reporting respectively.
- In (Function Selection) key in 4 or 6 or 8 digit Account Number.

Command 20-24

Reporting Method

- Commands (20-24) are used to program the Alarm reporting method for each Tel. Number.
- Command (20): Program the same Alarm Reporting Method for all 4 Tel. Numbers.
- Command (21-24): Program the alarm reporting method for the 1st-4th Tel. Numbers respectively.
- Available Options:

Method	Function Selection	
Digital	(0)	Contact ID
Digital Reporting	(1)	Scancom
<u>Method</u>	(2)	Tunstall
Speech Method	(3)	Open Two-way communication
SMS Reporting Method	(4)	SMS (CID)

• (0), Contact ID, is set as factory default for all 4 telephone Numbers.

<NOTE>

- The latest Command (20-24) setting(s) will overwrite any previously entered setting(s).
- If any of Digital Reporting Methods is selected:

Once alarm or emergency data is successfully transmitted, CTC-1052 will automatically enter specific Follow-On and/or Call Back Mode as specified by Command (38).

If Speech Method is selected:

After the dialing for alarm/emergency trigger is successful, CTC-1052 opens a two-way voice communication between the Call Recipient and CTC-1052 for 1-10 minutes (set by Command #46).

If the Call Recipient needs more talk time, they can press any keys except 9

or 0 on their phone set to reset to the original communication duration (set by Command #46).

To terminate the call, press (9) or RESET BUTTON on CTC-1052.

During the <u>Speech</u> period, CTC-1052 will emit two beeps via the telephone handset to alert the call recipient the remaining time of 20 & 10 secs.

- Speech Reporting made under Silent Mode (set by Command #35) will automatically be switched to Listen-in, but call recipient can press DTMF keys to open two-way communication or change modes.
- If any of SMS Reporting Methods is selected:

CID sent over SMS is a backup path when alarm can't go through in digital reporting method. Once alarm or emergency data is successfully transmitted, the CTC-1052 will automatically send out a SMS (CID) Message.

Command 31

Ringer Enable for Incoming Calls

 CTC-1052 can be programmed to emit a ring tone as an audio alert, or silent for incoming calls.

Function Selection	Result
(0)	OFF (Ring Tone Disable)
(1)	ON (Ring Tone Enable)

- Factory Default is set as (0), OFF.
- If the function is set to ON, you can answer the incoming call by pressing the Active button of WTR, PB, or Fall Sensor, or the Red Help Button on CTC-1052.
- The time-out period for the incoming call is 30 minutes.
- To terminate the incoming call, either press the Active button of WTR, PB, or Fall Sensor, or press the Green Reset Button on CTC-1052.
- During the AC Power failure period, Ring Tone is automatically disabled.

Audible Fault Alert

 CTC-1052 can be programmed to emit Fault Alert Beeps every 30 seconds from AC Failure.

Function Selection	Result
(0)	OFF (No Warning Beep)
(1)	ON (With Warning Beep)

Factory Default is set as (0), OFF.

Command 33

Help Arrived Signaling

<u>This function is available for Digital reporting, SMS reporting and GPRS reporting methods.</u>

- It is used for the Monitoring Center personnel to confirm if the help has arrived for the user or not.
- This function will be activated after successfully reported from the following situations:
 - ◆ Pressing the **Red Help Button** on CTC-1052.
 - Pressing the Active button on WTR, PB or Fall Sensor is pressed.
 - ◆ A fall detection.
- If Help Arrived Signaling is set to ON, once the Alarm Reporting is completed, the Red Help Button will start to flash as the panel enters Help Arrived Mode.
- If Help Arrived Signaling is set to OFF, CTC-1052 will return to idle mode when Alarm Reporting is completed.

Function Selection	Result
(0)	<u>OFF</u> (Disable)
(1)	<u>ON</u> (Enable)

Factory Default is set as (0), OFF.

<NOTE>

- If the **Green Reset Button** is not pressed within the period set by Command 67 (Help Arrived Timer), CTC-1052 will send the alarm report to summon help again and inform the Monitoring Center that no help has arrived within the period set by the Help Arrived Timer.
- Command 33 (Help Arrived Signaling) has to be set as **ON** for Command 67 (Help Arrived Timer) to be activated.
- If help has not arrived after sending the alarm report for 4 times, CTC-1052 will dial the telephone number set by Command **75** and open two-way communication when the call is answered.

Command 34

Emergency Button Enable

The Red Help Button can be enabled or disabled to send an Emergency alarm report:

Function Selection	Result
(0)	<u>OFF</u> (Disable)
(1)	<u>ON</u> (Enable)

- Factory Default is set as (1), ON.
- **OFF**: Pressing the **Red Help Button** is unable to send an emergency alarm.
- ON: Pressing the Red Help Button will activate the panel send an emergency alarm.

Silent Mode

 CTC-1052 can be selected to operate in Silent Mode. This will mute all normal operation warning beeps, guard time tone and key tone.

<NOTE>

- Speech Reporting made under Silent Mode will automatically be switched to Listen-in, but call recipient can press DTMF keys to open two-way communication or change modes.
- If Command #31 is set as Enable, CTC-1052 will emit ring tone for incoming calls even in silent mode.
- Silent mode will not mute the long beep emitted during walk test.

Function Selection	Result
(0)	ON (Silent)
(1)	<u>OFF (</u> Normal)

• Factory Default is set as (1), OFF.

Command 37

AC Fault Report

 The CTC-1052 can be programmed to send a Fault Report when an AC power failure is detected.

Function Selection	Result
(0)	OFF (Send No Report)
(1)	<u>ON</u> (Send Report)

Factory Default is set as (1), ON.

<NOTE>

Reporting will only be made after detecting AC Fault condition continuously for one hour.

Command 38

Follow-On & Call-Back Function

 The Command is available for Digital Reporting Methods (when Command #20 -#24 is set as (0), (1) or (2))

Function Selection	Result	
(0)	Follow-On	
(1)	<u>Call-Back</u>	
(2)	Follow-On & Call-Back	

- Factory Default is as (0), Follow-On.
- When this function is programmed as (0), after a successful reporting to the Monitoring Center, CTC-1052 will automatically enter the Follow-On mode as specified by Command (45).
- When this function is programmed as (1), after a successful reporting to the Monitoring Center, CTC-1052 will automatically hang up the line and start a 5minute waiting period to auto answer any incoming phone calls from the Monitoring Center.
- When this function is programmed as (2), after a successful reporting to the Monitoring Center, CTC-1052 will automatically enter the Follow-On mode as specified by Command (45).

Once Follow-On Mode is terminated, CTC-1052 will automatically start a 5-minute waiting period to auto answer any incoming phone calls from the Monitoring Center.

When the Monitoring Center calls back within the 5-minute period (when call back function is enabled), CTC-1052 will autoanswer the call after the 1st-2nd ring and waits for Access Code (default is 1111) and the (#) key entry within 15 seconds.

When the correct Access Code is received, CTC-1052 will then open a Full-Duplex Communication to allow the Call Recipient to speak to CTC-1052 directly.

You can use DTMF command to switch the communicating method. Please refer to section *4.2. Alarm Activation*.

<NOTE>

The Access Code must be entered

- within 15 seconds. Otherwise, CTC-1052 will disconnect the call automatically.
- To terminate the call, press DTMF (9), (0) or Green Reset Button on CTC-1052.
- If the 5-minute waiting period is up, CTC-1052 will automatically exit this waiting mode and return to idle mode.

Set Access Code

- The Access Code is used to enter Programming Menu (locally or remotely), and the Call-Back Function.
- It consists of 4 digits and has been set to (1111) as factory default. Before you set your own Access Code, (1111) must be keyed in.
- To set a new Access code; enter the desired (4-digit number) in Function Selection.

Command 41

Auto Answer for Remote Programming

 CTC-1052 can be programmed to auto answer incoming phone calls after a pre-set number of rings have been reached. The number of rings range from (00) (no auto answer) to (32) rings.

Function Selection	Result
(00)	<u>OFF</u>
(01) - (32)	<u>ON</u>

• Factory Default is (00) Rings.

<NOTE>

When (00), it means CTC-1052 cannot auto-answer the call by ring count. If you want to do Remote programming, please follow the Remote Programming method described in 3. System Confguration, 3.1. Entering Programming Mode, 3.1.3 Remote Programming Mode.

Command 42

Guard Time Delay

This command is designed for any compatible sensor, except Fall Sensor (fall detection).

- Guard Time Delay time is a time period programmed to delay alarm reporting. If a false alarm is raised, it can be cancelled within this Guard Time Delay time.
- The programmable delay time range from (00) (instant reporting) to (99) seconds.
- Emergency alarms activated by Smoke Detectors (SD), Carbon Monoxide Detectors (CO), and Water Sensors (WS) do not have Guard Time Delay and will be reported immediately.

Function Selection	Result
(00)	INSTANT REPORTING
(01) - (99)	DELAY

- Factory Default is (10), 10 SECONDS.
- Alarm activated by pressing a button cannot be cancelled after the Guard Time is elapsed.

- The Guard Time Delay time from pressing the Active Button on a Fall sensor is determined by Command #42 instead of Command #66.
- The Guard Time Delay from a fall detection (of a Fall Sensor) is set by **Command #66**.

Periodic Test Call

 CTC-1052 can be programmed to make test calls periodically from (00) (no test call) to every (1) - (7) or 30 days:

Function Selection	Result
(0)	<u>OFF</u>
(1) - (7)	1 - 7 DAYS
(8)	30 DAYS

Factory Default is set as (0), OFF.

<NOTE>

- Whenever programming mode is accessed, CTC-1052 will reset the Periodic Test Call timer.
- Periodic Test Call will only function with telephone numbers assigned to **Digital** or **SMS** reporting method in **Command** 20-24.

Command 44

Mobility Timer

This function monitors user movement around the premises and sends an inactivity report to the Monitoring Center if the user fails to reset the inactivity timer.

 This will disable or enable the Inactivity Timer with selectable count down periods. Options are:

Function Selection	Result
(00)	DISABLE
(01)	<u>1HR</u>
(02)	<u>2HR</u>
(36)	<u>36HR</u>

Factory Default is set as (00), DISABLE.

- The Mobility Timer counting down can be reset by:
 - 1. Pressing the **Green Reset Button** on CTC-1052, or,
 - 2. Movement detected by PIR Detector
 - Only workable by entering 2 digits.
- When Mobility Timer expires and no reset signal is received, CTC-1052 starts to emit one long beep every 5 minutes to alert the user. (You can enable or disable long beep sound, see Command 78 for details). After 30 minutes, if reset signal is not received, a mobility alarm reporting will be made.
- The reporting method for mobility alarm is the same as the emergency alarm. The report will be sent based on your reporting methods without guard time waiting.
- When (**00**) is selected, no code is sent to Monitoring Center.
- When CTC-1052 is in idle mode, press and hold the **Green Reset Button** for 16 seconds, until you hear a long beep. Release the button and the Mobility function will be disabled.

Follow-On Mode Choice

- This Command is only available for Digital reporting with <u>Command #38</u> set as (0) or (2).
- It is used to select the Follow-On Choice for CTC-1052 after it has made a report to the Monitoring Center.
- After reporting, CTC-1052 can wait for further commands, or enter a Two-Way Full Duplex Communication, or Listen-In Half Duplex Communication immediately according to the setting selection:

Function Selection	Result	
(0)	WAIT COMMAND	
(1)	<u>LISTEN</u>	
(2)	TWO WAY	

- Factory Default is set as (2), TWO WAY.
- When (0) is selected, after CTC-1052 has made a report to the Monitoring Center, it will wait for 1-10 minutes (set by Cammand 46), and then follows the DTMF commands that are received from the Central Monitoring Station for action.

If no command is received after the waiting period, the system will automatically return to Idle mode.

- When (1) is selected, after CTC-1052 has made a report to the Monitoring Center, it will automatically enter Listen-In Half Duplex for 1-10 minutes (set by Command 46) allowing the Monitoring Center Personnel to listen in to what is happening on the other side.
- When (2) is selected, after CTC-1052 has made a report to the Monitoring Center, it will immediately enter a Two-way Fullduplex Communication mode for 1-10 minutes (set by Command#46), that gives the user the ability to speak directly with the Monitoring Center Personnel.

<NOTE>

If either Scancom or Tunstall reporting format is selected, CTC-1052 will ignore Command#45 selections. It will always open a Two-way voice for Follow-On choice.

Command 46

Follow-On Mode & Two-Way Period

 This command is used to program the allowable time duration for Follow-On mode choice (Command #45) & Two-way voice communication period (Speech mode). It can be set from (01) (1 minute) - (10) (10 minutes).

Function Selection	Result	
(01)	1 MINUTE	
(02)	2 MINUTES	
(03)-(10)	3-10 MINUTES	

Factory default is set as (05), 5 minutes. The allowable time duration for either Wait Command, Two-way, Listen-In Only or Two-way voice comminucation in Speech mode is 5 minutes. During the 5-minute period, CTC-1052 will emit two beeps via the telephone handset to alert the call recipient the remaining time of 20 & 10 seconds. Press any DTMF key except the hang up key to reset the communication time to its preset duration.

Command 47

Off-Set Time

- After the Control Panel's power is supplied, the time of the Check-in Report starts calculating.
- According to the setting of Off-Set Time, the Control Panel will send Check-in Report once, and then send report according to the setting of Command 43 — Test call.

Function Selection	Result
(1)	<u>1 Hour</u>
(2)	2 Hour
(3)	<u>3 Hour</u>
(4)	4 Hour
(5)	8 Hour
(6)	<u>12Hour</u>

- Factory default is set as (1) 1 Hour. When the Off-Set Time is reset in programming Mode, the time of the Off-Set period will recalculate.
- Off-Set time Report will be sent only once, and then the Control Panel sends Check-in Report according to setting of period test call, unless the Control Panel restarts or the Off-Set time is reset.

<NOTE>

Whenever programming mode is accessed, CTC-1052 will reset the Off-Set timer.

Command 49

Supervision

<u>This function is not available for the digital</u> <u>Scancom reporting method.</u>

 This option is used to enable system Supervision function. Once enabled, CTC-1052 will be able to receive the check-in signals from Wrist Pendants (WTR) to indicate their proper functioning.

Function Selection	Result
(0)	<u>Disable</u>
(1)	4 Days
(2)	<u>5 Days</u>
(3)	<u> 6 Days</u>
(4)	7 Days
(5)	8 Days
(6)	9 Days
(7)	10 Days

- Factory default is set as (0) Disable. No code is sent to Monitoring Center.
- When the supervisory timer expires and no supervision signal is received from WTR, CTC-1052 will send a <u>Supervisory Failure</u> report.
- Supervisory Failure is a status report.

Command 61

Check SIM Card PIN Code

This option is used to check SIM card PIN Code.

Function Selection	Result
(0)	OFF (Disable)
(1)	ON (Enable)

Factory default is set as (0) OFF.

<NOTE>

- If this function is disabled, the system will not check the entered SIM Card PIN Code set by Command 62.
- If the SIM card PIN Code is entered, be sure to enable this function. Otherwise, the SIM card will be locked.

Command 62

Input SIM Card PIN Code

- This function is used to input SIM card PIN Code to access the mobile service.
- Program the panel to input SIM card PIN code by entering a 4-8 digit SIM card PIN code.
- Factory default is set as (Null).
- Command 62 is functional only when the SIM card PIN code is activated and when Command 61 is enabled.
- When the SIM card requires the PIN code to access the mobile service, please make sure Command 61 is set as ON, enabled, and that the PIN code set by Command 62 is exactly the same as the SIM card PIN code.
- If the SIM card PIN code is not required, CTC-1052 can receive calls normally regardless of the settings of Commands 61 and 62.
- Please set the SIM card PIN code correctly before putting in another SIM card to prevent locking the SIM card.

Follow the steps below to changing a SIM card without locking:

Step 1. Enter local programming mode (SIM

card module is disabled during this time).

Step 2. Remove the old SIM card and insert a new SIM card.

Please DO NOT remove the SIM card except when the Control Panel is turned off or is in local programming mode to prevent errors or malfunctions.

- **Step 3.** Setup the new SIM card PIN code using Command 62.
- **Step 4.** Exit local programming mode. The SIM card module will start up and attempts to activate the SIM card by entering the SIM card PIN code.

<NOTE>

- This function is not used to change the SIM card PIN code. If you want to change your SIM card PIN code, please use a mobile phone to change it.
- If the SIM card is locked, please contact your local telecommunications service provider.

Command 63

Speaker Volume Adjustment

 This function is used to adjust speaker volume. To set speaker volume in different communication channels, please set different parameters.

Function Selection	Result
(2)	<u>Two-way</u>

 To set speaker volume in two-way modes, the sequence is:

Communication Channel	DTMF	Speaker Volume
2	*	1 to 5

- * Communication Channel: 1 digit (2: Two-way)
- * Be sure to put * between communication channel value and speaker volume value.
- To set the speaker volume with a number, ranging 1 to 5. The higher the value, the louder the voice. Factory default is set as (3) for Two-Way mode.
- Please refer to programming command table section for configuration.

 Example: if you want to raise the speaker volume to level 5 in the Two Way mode, please enter: 2*5

<NOTE>

- The volume value in the Listen In or Talk-Only mode is adjusted for the best communication quality. It is fixed and can not be changed.
- Echo volume varies depending on adjustment of speaker volume and microphone sensitivity. To minimize the impact of echo, if you raise speaker volume, please be sure to lower microphone sensitivity, and vice versa.

Command 64

Microphone Sensitivity Adjustment

- This function is used to adjust microphone sensitivity. The microphone sensibility only can be adjusted in the two-way mode.
- To set the microphone sensitivity with a number, ranging 1 to 5. This value represents the received sound source range. The higher the value, the wider range of sound source. Factory default is set as (3).
- Please refer to programming command table section for configuration.

<NOTE>

- The sensitivity level in the Listen In or Talk-Only mode is adjusted for the best communication quality. It is fixed and can not be changed.
- Echo volume varies depending on adjustment of speaker volume and microphone sensitivity. To minimize the impact of echo, if you raise speaker volume, please be sure to lower microphone sensitivity, and vice versa.

Command 66

Set Guard Time Delay Time for Fall Sensor

- This command is used to set the Guard Time Delay time for fall sensor.
- CTC-1052 can be programmed to delay alarm reporting triggered by a fall detection from (00) (instant reporting) to (99) seconds.

- During this time period, a continuous series (1 beep every 0.5 second) of beeps will be emitted to alert user.
- If a false alarm is triggered by a fall detection, it can be cancelled within the Guard Time Delay by pressing the Active Button of the Fall Sensor for 4 seconds.

Function Selection	Result
(00)	INSTANT REPORTING
(01) - (99)	<u>DELAY</u>

Factory Default is (15), 15 SECONDS.

<NOTE>

- This command is used if a fall is detected.
- If an emergency alarm is triggered by pressing the Active Button on Fall sensor, the guard time delay time is determined by Command 42.

Command 67

Setting the Help Arrived Timer

 This command is used to set the countdown timer for CTC-1052 to resend the alarm report if no help has arrived after the initial report is made (meaning the reset button has not been pressed before the timer expires).

Function Selection	Result
(01)-(15)	1-15 MINUTES

• Factory default is (15), 15 MINUTES.

<NOTE>

The Help Arrived function (Command 33) must be set as **ON** for this function to work.

Command 71-72

Auto-Answer Numbers #1 & #2

- Used to program the 1st & 2nd Auto-Answer Numbers 1 and 2 respectively.
- To program Auto-Answer Number 1: enter
 (71) followed by (#). After one short beep,

enter (telephone number) followed by (#).

If the number is successfully programmed, the telephone handset will emit one short beep.

If the number is unable to be programmed, the Control Panel will emit one long beep.

 Auto-Answer Number 2 can be programmed using the same method, except command (71) is replaced by (72).

<NOTE>

Up to 20 digits including (*) are allowed for each telephone number.

Delete Telephone Number:

To delete Auto-Answer Number 1, enter (71) followed by (#), after one short beep, enter another (#).

If the number is successfully deleted, the telephone handset will emit one short beep.

If the number is unable to be deleted, the Control Panel will emit one long beep.

 Auto-Answer Number 2 can be erased using the same method, except command (71) is replaced by (72).

Command 75

Help Not Arrived Call

- If help has not arrived after sending the alarm report for 4 times, CTC-1052 will dial the telephone number programmed by Command 75 and open two-way communication when the call is answered.
- Enter a telephone number followed by (#) to program the telephone number.

- When you program the phone number, entering (*) will cause a 3-second pause is for a switchboard system, extension, etc.
- The telephone number can contain up to 20 digits, including (*).
- The Help Arrived function (Command 33) must be set as ON for this function to work.
- CTC-1052 only dials this telephone number once. If this phone call fails, CTC-1052 will not try again.

Call Progress Tone

 This command is used to turn on/off the dialing tone of phone calls while making alarm reporting.

Function Selection	Result
(0)	<u>OFF</u> (Disable)
(1)	<u>ON</u>

<NOTE>

- When this function is set to **ON**, you will hear a dialing tone from the speaker indicating the status of phone calls.
- When this function is set to **OFF**, you will not hear the dialing tone of phone calls.
- This function will be disabled if **Command 35** is set as **Enable**.
- This function will be disabled if alarm activation is made from a **Silent Device** (learnt using Command #93).
- Factory default is (0), OFF.

Command 77

Speech Report ACK

- A two-way communication is established when a call is made from CTC-1052 to the Monitoring Center by sending out a speech report.
- When speech report is set to (0), press any DTMF key for panel to regard speech reporting successful.
- When speech reporting is set to (1), off-hook phone for panel to regard speech reporting successful.
- Factory default is (0), Any DTMF.

Function Selection	Result
(0)	Any DTMF
(1)	OFF-HOOK

Command 78

Mobility Time Out Warning

- When Mobility Time expires and no reset signal is received, CTC-1052 will emit a <u>long</u> <u>beep</u> every 5 minutes in 30 minutes. This warning can be enabled or disabled.
- Factory default is (1), Enable.

Function Selection	Result
(0)	<u>Disable</u>
(1)	<u>Enable</u>

Command 80

Remove Devices

 CTC-1052 can be programmed to remove *ALL* previously learnt devices by entering (80) followed by (#).

After entering command (80) (#), the system will immediately emit an acknowledging beep over the phone. Continue to hold the phone set until you hear the second acknowledging beep after 12 seconds.

Command 93

Learn-In Silent Pendant

- This command is not available in Remote Programming Mode.
- Only one Silent Pendant can be learnt into CTC-1052 by using Command #93.
- For learning Silent Pendant:
 - Step 1: Enter 93 + # on the phone set, then a short beep will be heard via the phone set. (If no command is dialed, CTC-1052 will exit Programming mode automatically and return to idle mode).
 - **Step 2:** Press the Pendant Button within 20 seconds.
 - Learning can only be completed within the signal reception range of CTC-1052.

- If no signal is received within 20 sec, CTC-1052 will emit a long beep and automatically returns to Programming mode.
- **Step 3:** CTC-1052 will emit 2 beeps to indicate that Silent Pendant is learntin successfully.
 - Adding a Pendant for a second time is prohibited unless it is removed from the system first.
 - If **one long beep** is emitted instead of 2 beeps, it indicates:
 - ✓ The device has already been learnt-in.
 - ✓ Another device has been learnt-in before.

<NOTE>

When CTC-1052 received the alarm signal from the Silent Pendant, it will not emit any warning beeps during Reporting and Guard time period.

Command 94

Learn-In Device

<NOTE>

- This command is not available in Remote Programming Mode.
- Up to 17 devices can be learnt into CTC-1052 by using Command #94.
- The available devices that can be learnt-in <u>Command #94</u> are:
 - ✓ PIR Sensor ---- PIR
 - ✓ Smoke Detector ---- SD
 - ✓ Carbon Monoxide ---- CO
 - ✓ Fixed Panic Button ---- PB
 - ✓ Wrist Transmitter ---- WTR
 - ✓ Pendant Transmitter ---- WTR
 - ✓ Water Sensor ---- WS
 - ✓ Fall Sensor
 - Step 1: Enter 94 + # on the phone set, then a short beep will be heard via the phone set. (If no command is dialed, CTC-1052 will exit Programming mode automatically and return to idle mode).
 - Step 2: Press the learn button on the device

- within 20 seconds.
- Learning can only be completed within the signal reception range of CTC-1052.
- If no signal is received within 20 sec, CTC-1052 will emit a long beep and automatically returns to Programming mode.
- **Step 3:** CTC-1052 will emit 2 beeps to indicate the device is learnt-in successfully.
 - Adding a Pendant for a second time is prohibited unless it is removed from the system first.
 - If **one long beep** is emitted instead of 2 beeps, it indicates:
 - ✓ The device has already been learnt-in.
 - ✓ When an 8th device is attempted to learn-in.
- **Step 4:** Repeat steps 1-3 until all devices are learnt-in.

- Adding a device for a second time is prohibited unless it is removed from the system first.
- If the Follow on or Call Back function is set by Command 38, the Control Panel will follow the preset parameter to open the two-way communication.

Factory Default Reset

- To Reset CTC-1052 to factory default settings, enter (98) and then (#).
- After one short beep, continue by entering (**) and then end with another (#), one beep will be heard for termination.
- Once the Factory Default Reset is executed, all the programmed data is returned to its default value and all the devices that have been learnt-in are removed. You have to do the programming and learn-in the device one by one again.

Command 99

Exit Programming Mode

 Enter (99) and (#), after one short beep, CTC-1052 exits the Programming Mode and returns to idle mode.

3.3. SMS Remote Programming

<NOTE>

- Prior to proceed, please be reminded to change the language setting of your mobile phone to English.
- **Step 1:** Use your handset and go into the SMS edit screen.
- **Step 2:** Enter the **SMS keyword** (default is **PROG**).
- Step 3: Enter a space.
- Step 4: Enter the access code (default is 1111 as defined by Command 40).
- Step 5: Enter a space.
- **Step 6:** Enter the **programming command**.
- **Step 7:** Editing is complete; you may send to the Control Panel.

<EXAMPLE>

E.g. PROG_1111_TEL1:0227940001				
PROG	\rightarrow	SMS Keyword		
_	\rightarrow	Space		
1111	\rightarrow	Access Code		
_	\rightarrow	Space		
TEL1	\rightarrow	Telephone number 1		
:	\rightarrow	Colon		
0227940001	→	Programming data/option		

<NOTE>

For a complete list of SMS commands, please refer to section 5.5. CTC-1052 SMS Remote Programming Command Table.

4. Operation

4.1. Idle Mode

When the system is in Idle Mode, CTC-1052 is ready to execute the following functions:

4.1.1. Answering Incoming Phone Calls

This function is only available when <u>Command</u> #31 is set as **ON** (factory default is **OFF**).

- For an Incoming telephone call, CTC-1052 will emit cycles of 2 quick beeps.
- User can answer the call either by pressing the Active button of WTR, PB, or Fall Sensor or the Red Help Button on CTC-1052. Once CTC-1052 answers the call, it will open a Two-Way Voice Communication. The Red Help Button illuminates.
 - You can use the following DTMF commands to change the communication type:

DTMF (1) to TALK ONLY
Enter DTMF (2) to open TWO-WAY
VOICE COMMUNICATION

Enter DTMF (3) to LISTEN-IN ONLY

- Enter (7) to Speaker Volume Control and then press (6) or (4) to increase or decrease the levels of speaker volume in the "Two-Way" communication mode(not in TALK ONLY mode).
- Enter (8) to Microphone Sensitivity Control and then press (6) or (4) to increase or decrease the levels of microphone sensitivity in the "Two-Way" communication mode.
- If the speaker volume and microphone sensitivity was adjusted, the adjusted value will be kept for the next communication.
- To hang-up, press either the **Active button** of WTR, PB, or Fall Sensor, or the **Green Reset Button** on CTC-
- To hang-up as the caller, he/she can press DTMF 9 or just put the handset back into the base cradle.
- 30 minutes is allowed for each call.

Auto-Answer Numbers

The Control Panel can program up to 2 Auto-Answer Numbers. If a user calls the Control Panel using an auto-answer number, the Control Panel will pick up the call and instantly open up a two-way communication with the caller.

The Control Panel will auto-answer calls from the auto-answer numbers and are unaffected by Command #31. Please refer to Command #71 & #72 or the SMS Programming table (5.5. SMS Remote Programming Command Table) on how to program these numbers.

4.1.2. AC Power Check Up

- If the AC Power failure is detected for 10 seconds or longer, the GREEN LED starts to flash as a visual warning to the user and voice prompt "Power failure, check power cord." 3G/LTE/3G/LTE module will be turned off to conserve power. Remote Programming will thus become unavailable. 3G/LTE/3G/LTE module will only be turned on when activated from the Control Panel side.
- When AC Power resumes, the GREEN LED will turn on again, and will voice prompt "Power restored."
- If the AC Power failure lasts for an hour, CTC-1052 will send an <u>AC Failure</u> report to the Monitoring Center.
- After the Power restoration lasts more than one hour, CTC-1052 will report <u>AC Restore</u> to the Monitoring Center.
- During the AC Power failure period, the Call-Back function are automatically disabled.

4.1.3. CTC-1052 Low Battery

- CTC-1052 continuously checks its own Battery Condition 30 minutes after powering up.
- When the low battery condition lasts for <u>4</u> <u>6 mins</u>, CTC-1052 will report to the Monitoring Center and the GREEN LED flashes slowly.
- After the battery voltage is restored and lasts for 12 hours, CTC-1052 will send <u>Battery Restore</u> report to Monitoring Center and the GREEN LED returns to steady ON.

4.1.4. CTC-1052 Battery Disconnection

- CTC-1052 can detect the absence of battery in the following cases:
 - Battery switch OFF
 - Battery not connected
 - Battery failure.
- When the battery disconnection lasts for 10-15 minutes, CTC-1052 will report to the Monitoring Center and the GREEN LED flashes slowly.
- After the battery is restored for 10-15min, CTC-1052 will send <u>Battery Restore</u> report to Monitoring Center and the GREEN LED returns to steady ON.

4.1.5. Devices Low Battery

- When CTC-1052 receives a battery low signal from a particular device, it will report to the Monitoring Center and the GREEN LED will flash rapidly until the fault condition is cleared.
- Press the Green Reset Button on CTC-1052, the LED will turn on.
- If any device Low Battery signal is received again, the LED will light up accordingly.
 Press the Green Reset Button again, the LED will turn on.
- After the faulty battery is replaced, CTC-1052 will immediately send <u>Battery Restore</u> report to the Monitoring Center for that particular device.

4.1.6. Automatic Check-in Report = Periodic Test Call

- When CTC-1052 is programmed to send a periodical check-in report, CTC-1052 will report to the Monitoring Center accordingly.
- The Periodic-Check-in Timer will be reset whenever Programming Mode is entered.

4.1.7. Mobility Timer

- In order to check the user's well being, a Mobility Timer can be set by using Command #44.
- If Mobility Timer is set as Enable, a counting down period starts from:

- Immediately after powering up CTC-1052
- Exit Programming Mode
- After the pre-set Timer expires, CTC-1052 will emit a long beep and voice prompt reminder "Inactivity timer expiring, please reset." at every 5 minutes to notify the user for 30 minutes. (You can enable or disable the long beep sound, see **Command 78** for details).
- When the Mobility timer is not reset after 30 minutes, CTC-1052 will send a Mobility Timer Expired report to the Monitoring Center.
- After CTC-1052 sends a **Mobility Timer Expired** Report, but the Mobility timer still not be reset, when reaching next pre-set time, the CTC-1052 will emit a beep at every 5 minutes to notify the user for 30 minutes. Yet, if no reset action after 30 minutes, the panel will send another **Mobility Timer Expired** report to the Monitoring center and the step will repeatedly until Mobility timer is reset.
- Mobility Timer can be reset by pressing <u>RESET</u> button once on CTC-1052 or whenever a movement is detected by PIR Detector. CTC-1052 will also play a voice prompt "Inactivity timer reset." to inform the user.
- To disable the Mobility Timer function:
 - Set Command #44 to 00 (Disable), or,
 - Press and hold the <u>RESET</u> button on CTC-1052 for 16 seconds or longer.

- If no movement is detected during preset mobility time, CTC-1052 will send a CID event code 641 with a fixed zone number 071 regardless of the zones the triggered motion detectors occupy.
- Disable the Mobility function in idle mode:
- **Step 1:** When the system is in Idle Mode, press & hold the Reset Button for 16 seconds.
- Step 2: During the 16-sec period, CTC-1052 will emit one short beep → a double beep → continuous three short beeps → a long beep.

Step 3: Release the Reset Button when you hear the last long beep; a short beep will sound to indicate the mobility function is disabled.

<NOTE>

Please use Command #44 to enable the Mobility timer again.

4.1.8. Country Code

The Phone Number Format for each SIM card may vary between different Telecom companies. Thus, you can either check with your Telecom provider or follow the steps described below to check the correct format.

- **Step 1:** Remove the SIM card from SIM card holder on the Panel, and insert it into a workable mobile phone.
- **Step 2:** Power on the mobile phone and send a test SMS message to another mobile telephone number.
- **Step 3:** Once the test message is received, you can then check the phone number format shown in the received message.

<EXAMPLE>

With the phone number <u>0987654321</u>, the format should either INCLUDE or EXCLUDE Contry Code, which is "886" for Taiwan as below:

INCLUDE Country Code	+886987654321
EXCLUDE Country Code	0987654321

- **Step 4.** Remove the SIM card from the Mobile phone and insert it back into SIM Card holder on Panel.
- A. If the Phone Number Format <u>EXCLUDES</u> Country Code, please skip this section.
- B. If the Phone Number Format <u>INCLUDES</u> Country Code, please proceed to SMS Remote Program and send in this format:

"PROG 1111 REPLA:886&0"

Where:

PROG = SMS Keyword

1111 = Access Code

REPLA = SMS command for Country Code

886 = number to be replaced

0 = number to substitute

After this is completed, Country Code "886" will be replaced by "0".

4.2. Alarm Activation

- When an alarm is triggered, CTC-1052 will enter the Guard Time Delay period (see Command 42). Both Red LED and Red Help Button backlight will turn on.
 - During the Guard Time period, pressing the Green Reset Button on CTC-1052 will stop alarm reporting and return to Idle Mode.
 - If the Guard Time Delay is set as **00**, CTC-1052 will dial immediately.
- An alarm report can be canceled anytime by pressing the Green Reset Button on CTC-1052.

Call Progress Tone

 Once Guard Time Delay expires, CTC-1052 will summon help based on the programmed reporting method. If Call Progress Tone is set as On, dailing tones will be heard once the CTC-1052 goes offhook.

Guard Time Delay

- Guard Time Delay time is a time period programmed to delay alarm reporting (by command #42). If a false alarm is raised, the user can cancel the alarm before the Control Panel starts reporting.
- Emergency alarms activated by Smoke Detectors (SD), Carbon Monoxide Detectors (CO) and Water Sensors (WS) do not have Guard Time Delay and will be reported immediately. CTC-1052 will play voice prompt "Fire Alarm," "Carbon Monoxide Alarm," "Water Leak Alarm" to inform the user of the alarm at hand.
- During this time period, a continuous series of beeps (1 beep every 0.5 second) will be emitted and voice prompt "Emergency call was pressed" to alert the user(s).

<NOTE>

The Guard Time Delay triggered from a fall detection (of a Fall Sensor) has its own timer (programmed using Command 66). The CTC-1052 will play voice prompt "A fall has been detected," to notify the user; and "Fall detection has restored, cancelling help

call" voice prompt, when fall detection has been cancelled.

Confirmation Beeps

- After Guard Time expires, CTC-1052 will summon help based on the programmed reporting method. The Control Panel will start emitting a continuous confirmation beeping sound (about 1 beep every second) and voice prompt "Emergency call in progress" to indicate that the call is in progress.
- The Control Panel will emit Confirmation beeps and voice prompt during the following situations:
 - After the Control Panel dials out to summon help and until handshake (for Digital Reporting Method).
 - After the Control Panel dials out to summon help and until the call is answered (for Speech Reporting Method).
 - When the first reporting failed, and the Control Panel retries.
- The Control Panel stops emitting confirmation beeps once the first reporting succeeded and it is in the process of backup reporting.

4.2.1. GPRS Reporting Method

- Please program GPRS Report settings via SMS Remote Programming Commands for GPRS Reporting Methods. Below are the settings required for GPRS reporting:
- Access Point Name (APN): the name of an access point for GPRS. Please inquire your SIM card service provider for your APN.
- User Name: offered by your SIM card service provider. Please inquire 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 inquire your service provider for your GPRS password. If no Password is required, you may skip this step.
- IP Address: Central Monitoring Station server IP. Please refer to 5.5. CTC-1052 SMS Remote Programming Table on how

to set CMS IP Address(es) (SMS Commands: TCIP1 and TCIP2).

- Port Number: Central Monitoring Station server port number. Please refer to 5.5. CTC-1052 SMS Remote Programming Table on how to set Port Number(s) (SMS Commands: PORT1 and PORT2).
- GPRS/IP Account Number: There are 2 account numbers available for GPRS/IP reporting. Please refer to 5.5. CTC-1052 SMS Remote Programming Table on how to set GPRS/IP Account Number(s) (SMS Commands: IPAC1 and IPAC2).
- To disable GPRS Reporting Method: by removing the IP address, GPRS reporting becomes ineffective. Proceed to SMS Remote Programming and send in this format:

"PROG 1111 TCIP1:"

Where:

PROG = SMS Keyword

1111 = Access Code

TCIP1 = SMS command for IP Address(no input value means deletion of characters)

 If Command 33 is enabled, the panel will enter Help Arrived Mode after GPRS reporting. Please refer to <u>Help Arrived</u> <u>Mode</u> below.

4.2.2. Digital Reporting Method

- If Digital Reporting Method is selected, after dialing, the Control Panel will report digital event codes according to the format of the report (set by Commands 20-24).
- If SMS CID reporting is selected, the event codes will be sent in the form of a SMS message to the reporting destination.

Post-Digital-Alarm Operation

 After a successful digital report, CTC-1052 will then follow the choice of Command #38, to enter Follow-On and/or Call-Back mode.

Call-Back Operation

 If <u>Command #38</u> is set as Call-Back (1) or Follow-On & Call-Back (2) after alarm reporting, it will then wait 5 minutes for Monitoring Center Personnel to call-back after reporting.

<NOTE>

Call-back option is disabled by default.

• If Auto-Answer Number is programmed:

If the Monitoring Center calls back within the 5-minute Call-Back period using an auto-answer number, the Control Panel will pick up the call and instantly open up a twoway communication with the caller.

If at least one Auto-Answer Number is programmed, the Control Panel will only answer calls from the Auto-Answer Numbers.

If no Auto-Answer Number is programmed:

If the Monitoring Center calls back within the 5-minute Call-Back period, the Control Panel will automatically answer the call after the 1st-2nd rings and wait for proper Access Code (default is 1111) and the (#) key entry within 12 seconds.

Upon receiving the correct Access Code and the (#) key, CTC-1052 will then open a Full-Duplex Communication to allow the caller to communicate directly.

- During a call-back communication, Monitoring center can use the following DTMF command to control the Control Panel:
 - Enter (1) to TALK ONLY
 - Enter (2) to open TWO-WAY VOICE COMMUNICATION
 - Enter (3) to LISTEN-IN ONLY
 - End a Call: enter (9) or (0) to HANG UP or put the handset back into the base cradle.
 - Enter (7) to Speaker Volume Control and then press (6) or (4) to increase or decrease levels of speaker volume in the "Two-Way" communication mode(not in TALK ONLY mode).
 - Enter (8) to Microphone Sensitivity Control and then press (6) or (4) to increase or decrease levels of microphone sensitivity in the "Two-Way" communication mode.

- If the speaker volume and microphone sensitivity was adjusted, the adjusted value will be kept for the next communication.
- Press any DTMF key, except the designated "hang-up" keys to reset the communication time to its preset duration. Please note that when a particular DTMF key is pressed, its designed shortcut function will be executed & the communication time will be extended at the same time.
- Pressing the **Green Reset Button** can also terminate the call.
- The Control Panel will only allow one call per call-back mode. Terminating a call during call-back period will therefore terminate the call-back mode.
- A special conditioned call-back mode is when both Call-Back mode and Help Arrived mode are activated. For the duration of Help Arrived mode, the Callback function is always available. The Monitoring Center can call CTC-1052 as many times as possible until Help Arrived Mode is terminated (Please refer to Help Arrived Signaling section for more details).

<NOTE>

If you wish to enable a designed shortcut function, please press the DTMF keys for over 1 second to enable the function you desire.

Follow On Operation

<u>Follow-On options are only available for</u> <u>Digital Reporting methods.</u>

- If <u>Command #38</u> is set as <u>0</u>, Follow-On, or <u>2</u>, Follow-On & Call-Back, it will then follow its setting as in <u>Command #45</u>, Follow-On Choice to open Two-way Voice, or, Listen-In, or just waiting for commands.
- During the Follow-On period, the Monitoring Center can remotely control CTC-1052 by the DTMF commands below:
 - Enter (7) to Speaker Volume Control and then press (6) or (4) to increase or decrease the levels of speaker volume in the "Two-Way" communication mode (not in TALK ONLY mode).

- Enter (8) to Microphone Sensitivity Control and then press (6) or (4) to increase or decrease the levels of microphone sensitivity in the "Two-Way" communication mode.
- If the speaker volume and microphone sensitivity was adjusted, the adjusted value will be kept for the next communication.
- Press any DTMF key except the designated "hang-up" keys to reset the communication time to its preset duration. Please note that when a particular DTMF key is pressed, its designed shortcut function will be executed & the communication time will be extended at the same time.
- Communication can be terminated by the following:
 - DTMF Commands:

Contact ID: 9 or 0

Scancom: 5 or 0

Transfells # 2.2

Tunstall: # or 0

- Pressing the **Green Reset Button**.
- Automatically hangs up after the Follow-On Period expires.
- The allowable time duration for Follow-On Period is set by <u>Command #46</u> (1-10 mins).
- During Two-way Voice Communication, at 20 & 10 seconds before the Follow-On period expires, CTC-1052 will emit two beeps to alert both the user and the Monitoring Center Personnel.

<NOTE>

If you wish to enable a designed shortcut function, please press the DTMF keys for over 1 second to enable the function you desire.

The DTMF commands for different digital reporting are listed below:

1. CONTACT ID FORMAT:

- Enter (1) to TALK ONLY
- Enter (2) to open TWO-WAY VOICE COMMUNICATION
- Enter (3) to LISTEN-IN ONLY
- End a Call: enter (9) or (0) to HANG

UP or just put the handset back into the base cradle.

2. SCANCOM FORMAT:

- Enter (1) to LISTEN-IN ONLY
- Enter (2) to TALK ONLY
- Enter (3) to open TWO-WAY VOICE COMMUNICATION
- End a Call: enter (5) or (0) to HANG UP or put the handset back into the base cradle.
- Enter (*) to TOGGLE

3. TUNSTALL FORMAT:

- Enter (C) to TALK ONLY
- Enter (*) to LISTEN-IN ONLY
- Enter (3) to open TWO-WAY VOICE COMMUNICATION
- End a Call: enter (#) or (0) to HANG UP or put the handset back into the base cradle.

4.2.3. Help Arrived Mode

This function is available for Digital reporting, SMS reporting and GPRS reporting methods, and when Help Arrive Signaling (Command #33) is set to enable.

- Help arrived mode will be activated after Contact ID code 100, 101 or 120 is reported. CTC-1052 will start counting down the Help Arrive Timer according to the length of time set by Command 67. The Red Help Button starts flashing.
- The Help Arrived Timer starts as soon as the first CID reporting finishes (even when the Control Panel has started reporting the next report destination).
- If the **Green Reset Button** is not pressed before the timer expires, CTC-1052 will send the alarm report again to inform the Monitoring Center that no help has arrived.
- After sending the alarm report for 4 times and that the **Green Reset Button** is still not pressed, CTC-1052 will dial the telephone number programmed by Command **75** and open two-way communication when the call is answered. If the call is not answered, CTC-1052 will end the

- report, retry no more, and return to idle mode.
- When help has arrived, the Green Reset Button can be pressed twice quickly to send a Help Arrived Mode Canceled report to the Monitoring Center (if the emergency is resolved and no further observation is needed). The Red Help Button will stop flashing and CTC-1052 will return to idle mode
- When help has arrived, pressing the Green Reset Button once will enable CTC-1052 to send a Nurse Present report to the Monitoring Center (if further observation / treatment is needed). The Red Help Button will continue to flash. The Help Arrived Timer will be reset and start counting down from the beginning again.
 - When the nurse has completed treatment, he/she should press the Green Reset Button again to send a Nurse Finished report to the Monitoring Center. The Red Help Button will stop flashing and the Help Arrived Timer will stop counting as the system returns to idle mode
 - ✓ If the nurse needs more help, he/she should press the Red Help Button to send a Nurse Needs Help report to the Monitoring Center to call for more help.
 - ✓ If the Green Reset Button is not pressed (to send a Nurse Finished report) after sending a Nurse Present report, CTC-1052 will continue to resend the Nurse Present report when the Help Arrived Timer expires.

After sending the **Nurse Present** report for 4 times and the Green Reset Button was not pressed during this period, CTC-1052 will telephone number dial the programmed by Command 75. When answered, a Two-way communication is established. If the call is unanswered. CTC-1052 will stop reporting completely and return to idle mode.

- If both Call-Back mode and Help Arrived mode are enabled, for the duration of Help Arrived mode, callback mode is always on and the Callback function is always available. The Monitoring Center can call CTC-1052 as many times as possible until Help Arrived Mode is terminated.
- Calls established in help arrived mode can be terminated by pressing DTMF 9 or 0 on the caller handset or pressing the Green Reset Button on the Control Panel.
- The Help Arrived Timer is paused during Call-Back communications.
- The control panel will still remain in help arrived mode (and call-back mode) after the call and until Help Arrived Mode is terminated.

4.2.4. Speech Reporting Method

- If Speech Reporting Method is selected, after dialing, CTC-1052 will open a two-way voice communication between the Call Recipient and CTC-1052 for 1-10 minutes (set by Command #46).
- At 20 & 10 seconds before the time period expires, CTC-1052 will emit two beeps via the telephone handset to alert the user.
- If the Call Recipient needs more talk time, they can press any keys except 9 or 0 on their phone set to reset the communication time to its preset duration.
- The Monitoring Center can remotely control CTC-1052 by the DTMF commands below:
 - Enter (1) to TALK ONLY
 - Enter (2) to open TWO-WAY VOICE COMMUNICATION
 - Enter (3) to LISTEN-IN ONLY
 - Enter (9) or (0) to end the call
 - Enter (7) to Speaker Volume Control and then press (6) or (4) to increase or decrease levels of speaker volume in the "Two-Way" communication mode (not in TALK ONLY mode).
 - Enter (8) to Microphone Sensitivity Control and then press (6) or (4) to increase or decrease levels of microphone sensitivity in the "Two-Way" communication mode.

- Speech Reporting made under Silent Mode or using a Silent Device will automatically be switched to Listen-in, but the call recipient can press DTMF keys (as listed above) to change modes.
- If Speech Reporting is set to 0, press any DTMF key, for panel to regard the report successful.
- If Speech Reporting is set to 1, off-hook phone for panel to regard reporting successful.
- If the report was unsuccessful, the Control Panel will keep on dialing the CMS number conditioned by <u>Retry Method</u> described below.

4.2.5. Report Sequence

- There are 6 reporting destinations available and the Control Panel will report sequentially according to the following report sequence: GPRS #1, GPRS #2, Tel. #1, Tel. #2, Tel. #3 to Tel. #4.
- 4 reporting methods are available: <u>GPRS</u>, <u>Digital</u> (that includes CID, Scancom, Tunstall), <u>SMS CID</u> and <u>Speech Reporting</u>.

Report and Retry

- When the panel is reporting, the Red LED will stay turned on while the Red Help Button backlight dims.
- If an emergency event occurs while the system is going through a status report call sequence, the system will immediately pause the status report sequence, and start the emergency report sequence. The paused status report sequence will start reporting again when the emergency report(s) is completed. Any other status events happened before the emergency event will also wait until emergency report is completed.

Emergency Report:

If GPRS reporting, Digital Alarm reporting, SMS CID reporting and Speech Reporting methods are set, the Control Panel will report according to the following rules:

1. Control Panel will retry one report destination for a maximum of 5 times.

- 2. Control Panel will retry all report destinations up to 15 times in total.
- If more than 1 report destinations are set to a report method (e.g. Digital), the panel will consider the report method to be successful if reporting to one of the destinations succeeds. Control Panel will completely stop reporting to this report method after receiving a successful report.
- If any report method fails after the total of 15 retries, the Control Panel will pause for 10 minutes before restart reporting. Only failed report method(s) will be retried

During the 10-minute pause, CTC-1052 returns to normal mode with Red LED on:

- Press the Green Reset Button to terminate the reporting.
- If new event happens, CTC-1052 starts the reporting immediately.
- The control panel will not stop reporting until receiving at least 1 successful report from each report methods

Examples:

<u>Example 1:</u> If one destination is set, the panel will report as shown below:

1 > 1 > 1 > 1 > 1 > 1 > 1 > Wait 10 minutes and restart reporting

<u>Example 2:</u> If two destinations are set, the panel will report as shown below:

1 > 2 > 1 > 2 > 1 > 2 > 1 > 2 > 1 > 2 > Wait 10 minutes and restart reporting

<u>Example 3:</u> If six destinations are set, the panel will report as shown below:

1 > 2 > 3 > 4 > 5 > 6 > 1 > 2 > 3 > 4 > 5 > 6 > 1 > 2 > 3 > Wait 10 minutes and restart reporting

<u>Example 4:</u> If destinations 1 and 2 utilize digital report method while destination 3 utilizes speech report method:

1 > 2 > 3 > 1 > 2 > 3 > 1 success > 3 > 3 > 3 > End of report

Status Report

Status report will report according to the rules described in Emergency Report, except that there will only be a maximum of 15 retries regardless of whether the reports were successful or not.

4.3 Walk Test (Range Test)

Walk Test, or Range test, is a test to check whether learned-in devices are within signal range.

You can conduct Walk Test in CTC-1052 under 3 different modes as listed below.

4.3.1. In Learning Mode

Learning Mode is applicable to all devices.

- **Step 1.** From Idle Mode, press and hold the Green Reset Button of the CTC-1052. When pressed, the CTC-1052 will emit one beep sound initially, and then will emit a double beep on the 6th second.
- **Step 2.** Release the Green Reset Button at the voice prompt "Release the Green button, Ready to learn sensor." CTC-1052 is now in learning mode and the Red LED will start flashing.
- Step 3. Move the device to your desirable location in the house, and press the Learn/Test button of the device to observe the range of its operation.
- **Step 4.** If CTC-1052 responds with **one long beep**, then the particular device is within the operation range.
- Step 5. To exit Learning Mode, press both RESET and HELP buttons at the same time. Otherwise, CTC-1052 will exit Learning mode automatically after 5 minutes of inactivity.

4.3.2. In Walk Test Mode

Walk Test Mode is only applicable to Smoke Detector (SD), Carbon Monoxide Detector (CO), Motion Sensor (IR), and Water Sensor (WS).

- **Step 1.** Upon exiting Learning Mode, CTC-1052 will automatically enter Walk Test Mode for the devices mentioned above (SD, CO, IR, WS).
- Step 2. Move the device to your desirable location in the house, and press the TEST button to observe the range of its operation.
- **Step 3.** If CTC-1052 responds with **one long beep**, then the particular device is within the operation range.
- **Step 4.** CTC-1052 will automatically exit Walk Test Mode after 3 minutes.

4.3.3. In Idle Mode

Idle Mode is only applicable to Smoke Detector (SD), Carbon Monoxide Detector (CO), Motion Sensor (IR), and Water Sensor (WS).

- Step 1. Press the Test button of the devices mentioned above (SD, CO, IR, WS), and a signal will be sent to CTC-1052 indicating it is ready to conduct Walk Test.
- **Step 2.** Within 30 seconds, Move the device to your desirable location in the house, and press its **TEST button** again to observe the range for its operation.
- **Step 3.** If CTC-1052 responds with **one long beep**, then the particular device is within the operation range.
- **Step 4.** Please wait for at least 30 seconds before conducting Walk Test for another device under Idle Mode.

4.4 Global Test

 Global Test is used to test if the complete system is working properly.

To do the Global Test:

- Step 1. Press the Green Reset Button once.
- **Step 2. Within 5 seconds**, press Pendant button.
- **Step 3.** CTC-1052 will emit a short beep and report to Monitoring Center.

4.5 Factory Reset

CTC-1052 will clear all programmed parameters by the following sequence:

- **Step 1.** Unplug the power cord from the DC Jack.
- **Step 2.** Slide the Battery Switch to OFF position (or the opposite direction of the ON marking).
- Step 3. Plug the power cord into the DC jack while holding down both the <u>HELP</u> & <u>RESET</u> buttons, until one long beep is heard, indicating that the Factory Reset is successful.
- **Step 4.** Release both buttons.
- **Step 5.** Unplug and replug the power cord. The Control Panel will emit 2 beeps.
- **Step 6.** Slide the Battery Switch back to <u>ON</u> position again.

<NOTE>

Once the **Factory Reset** is executed, all the programmed data is returned to its default value and all the devices that have been learnt-in are removed. You will have to do the programming and learn-in the devices one-by-one again.

5. Appendix

5.1. CID Event Code

The message composition for CID Event code is in the form:

ACCT MT QXYZ GG C₁C₂C₃

And is explained in the following table:

Where						
ACCT	=	4	Digit Account number (0-9)			
MT	=	M	essage Type, 18H.			
Q	=		Event qualifier, which gives specific event information:			
XYZ	=	E۱	vent code (3 Hex digits 0-9, B-	F)		
GG	=	G	Group or Partition number (00H)			
$C_1C_2C_3$	=	1.	1. For devices: area + zone			
			C₁ = Area number			
			0=Area 1,1= Area 2			
			C ₂ C ₃ = Zone number			
			001 Area 1, Zone 1			
			002 Area 1, Zone 2			
		080 Area 1, Zone 80				

100 - Panel emergency

When Red HELP button is pressed.

101 - Personal emergency

When the Wrist Transmitter / Emergency Pendant (WTR) or Fall Sensor is pressed.

102 - Inactivity

◆ If no sudden movement within 10 seconds after fall detection, an inactivity code will be sent to Central Monitoring Station.

111 - Smoke emergency

- When the Smoke Detector (SD) is triggered.
- When the Test Button of the Smoke Detector (SD) is pressed.

120 - Fall emergency

When Fall Sensor is triggered

147 - Sensor Supervisory Failure

When CTC-1052 is unable to receive the signal transmitted from the Wrist Transmitter for a pre-set period by Command #49, the Green LED flashes every 2 seconds.

154 - Water emergency

When Water Sensor (WS) is triggered

162 - Carbon Monoxide emergency

- When Carbon Monoxide Detector (CO) is triggered
- When the Test Button of Carbon Monoxide Detector (CO) is pressed.

301 - Panel AC Failure

When AC power fails for more than 10 sec, the Green LED flashes every sec with a beep every 30 seconds.

302 - Panel Low battery

When CTC-1052 is under Low Battery status, the Green LED flashes every 2 seconds.

311 - Panel Battery Disconnection

When CTC-1052 is under Battery Not Connected status, the Green LED flashes every 2 seconds.

373 - Smoke Low Battery

When Smoke Detector is under Low Battery Status, the Green LED flashes every 2 seconds.

380 - WTR Low Battery

When Wrist Transmitter / Emergency Pendant (WTR) is Low on Battery, the Green LED flashes every 2 seconds.

383 - IR Tamper open

◆ When the IR Tamper is opened.

384 - Other devices Low Battery

 When other devices are under Low Battery Status, the Green LED flashes every 2 seconds

602 - Periodic test report

 When CTC-1052 reports Periodic test call to monitoring Center.

606 - Follow-On Function

 When CTC-1052 receives kiss-off from Monitoring Center for opening Speech channel.

611 - Global test

When CTC-1052 reports Global Test to Monitoring Center.

• 641 - Mobility

When CTC-1052 makes Mobility Timer Expired reporting.

<NOTE>

This event code will be sent with a fixed zone number of **071**

661 - Nurse arrived/nurse finished his work

- When the nurse arrives within the preset time and presses the green reset button. The event qualifier Q is "1".
- When the nurse finishes treatment for the caller and presses the green reset button again. The event qualifier Q is "3".
- ◆ If the nurse has pressed the green reset button once in help arrived mode but did not press the green reset button again within the preset time to end help arrived mode, CTC-1052 will send this event code with the event qualifier Q "1" every 15 minutes for four times.

662 - Nurse needs help

When the nurse needs more help and presses the red help button to call for assistance.

• 663 - Helped arrived mode canceled

When the green reset button is pressed twice in help arrived mode to cancel help arrived mode.

5.2. Tunstall Event Code

D#1011 - Panel AC Restored/ Help Arrived

- When AC power is restored to CTC-1052.
- When CTC-1052 makes Help Arrived reporting.

D#1012 - Global test & Periodic test report

- When CTC-1052 reports Global Test to monitoring Center.
- When CTC-1052 reports Periodic test call to monitoring Center.

D#1013 - Sensor Supervisory Failure

When CTC-1052 is unable to receive the signal transmitted from the Wrist Transmitter for a pre-set period by Command #49.

D#1014 - Device Low Battery

 When devices are under Low Battery Status, the Green LED flashes every 2 seconds.

D#1015 – Mobility/Inactivity

- When CTC-1052 makes Mobility Timer Expired reporting.
- If no sudden movement within 10 seconds after fall detection, an inactivity code will be sent to Central Monitoring Station.

D#1016 - Personal emergency or Fall emergency

- When Wrist Transmitter / Emergency Pendant (WTR), or Fall Sensor is pressed.
- When a fall sensor is triggered

D#1017 - Panel emergency

- When the Red HELP Panel button is pressed.
- When Water sensor is triggered.

D#1018 - Smoke emergency

- When Smoke Detector (SD) is triggered or Smoke Detector's test button is pressed.
- When Carbon Monoxide Detector (CO) is triggered or Carbon Monoxide

Detector's test button is pressed.

D#1019 - Panel AC Failure

When AC power fails for more than 10 seconds, Green LED flashes every second with a beep every 30 seconds.

D#1019 - Panel Low Battery / Panel Battery Disconnection

- When CTC-1052 is under Low Battery status, Green LED flashes every 2 seconds.
- When CTC-1052 is under Battery Not Connected status, the Green LED flashes every 2 seconds.

5.3. Scancom Event Code

- 51555517 Panel emergency / Pendant
 1 emergency / WS emergency / Fall
 emergency / WTR / PB emergency
 - When the Red HELP Panel button is pressed.
 - When Pendant 1 is pressed or triggered.
 - When Water Sensor is triggered.
 - When Fall Sensor is pressed or triggered.
 - When WTR (non Pendant 1 or Pendant 2) or PB is pressed.

555155517 - Pendant 2 emergency

When Pendant 2 is pressed or triggered.

515555518 – Pendant 1 Emergency (Low Battery)

When Pendant 1 is pressed or triggered under Low Battery status.

555155518 – Pendant 2 Emergency (Low Battery)

When Pendant 2 is pressed or triggered under Low Battery status.

551555517 – Mobility/Inactivity

- When CTC-1052 makes Mobility Timer Expired reporting.
- ◆ If no sudden movement within 10 seconds after fall detection, an inactivity code will be sent to Central Monitoring Station.

● 555556558 - Panel Low battery / Panel Battery Disconnection

- When CTC-1052 is under Low Battery status, the Green LED flashes every 2 seconds.
- When CTC-1052 is under Battery Not Connected status, the Green LED flashes every 2 seconds.

• 555551557 - AC Failure

- When the AC power fails for more than 10 seconds, the Green LED flashes every second with a beep every 30 seconds.
- 555553557 AC Failure Restore / Panel Low Battery restore / Panel Battery Disconnection restore
 - When the AC power failure status is restored.
 - When the Panel Low Battery status is restored.
 - When the Battery Disconnection status is restored.

51555559 - Global test / WTR Supervision Failure

- When CTC-1052 reports Global Test to monitoring Center.
- ◆ When CTC-1052 is unable to receive the signal transmitted from the Wrist Transmitter for a pre-set period by Command #49.

55555559 - Periodic test report / Help Arrived

- When CTC-1052 reports Periodic test call to Monitoring Center.
- When CTC-1052 makes Help Arrived reporting.

53555557 - WTR Supervision Failure Restore / WS Emergency Restore

- When the WTR supervision failure status is restored.
- When WS emergency status is restored.

• 55555558 - Device Low Battery

- When devices are under Low Battery Status, the Green LED flashes every 2 seconds.
- 55555557 Device Low Battery Restore

When the device Low Battery status, is restored.

155555517 - SD or CO emergency

- When Smoke Detector (SD) is triggered or Smoke Detector's test button is pressed.
- When Carbon Monoxide Detector (CO) is triggered or Carbon Monoxide Detector's test button is pressed.

35555557 - SD or CO emergency restore

When the Smoke Detector (SD) or Carbon Monoxide Detector (CO) emergency status is restored.

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.
- (3) This device should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.
- (4) The antennas used for this device 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.

5.4. CTC-1052 Programming Command Table

DTMF CHARACTER COMMANDS	DTMF ACK	COMMAND OPERATION	TERM I- NATO R	DTMF ACK	DEFAULT
01#	Bi	Telephone number 1	#	Bi	No number
02#	Bi	Telephone number 2	#	Bi	No number
03#	Bi	Telephone number 3	#	Bi	No number
04#	Bi	Telephone number 4	#	Bi	No number
05#	Bi	Telephone number & GPRS/IP for alarm report 1=TEL1, 2=TEL2, 3=TEL3, 4=TEL4, 5=GPRS1, 6=GPRS2	#	Bi	1,2,3,4,5,6
06#	Bi	Telephone number& GPRS/IP for status report 1=TEL1, 2=TEL2, 3=TEL3, 4=TEL4, 5=GPRS1, 6=GPRS2	#	Bi	1,2,3,4,5,6
10#	Bi	Global account number, 4 or 6 or 8 digits	#	Bi	No account number
11#	Bi	4 or 6 or 8 digits Account number 1 (Tel. Number 1)	#	Bi	No account number
12#	Bi	4 or 6 or 8 digits Account number 2 (Tel. Number 2)	#	Bi	No account number
13#	Bi	4 or 6 or 8 digits Account number 3 (Tel. Number 3)	#	Bi	No account number
14#	Bi	4 or 6 or 8 digits Account number 4 (Tel. Number 4)	#	Bi	No account number
20#	Bi	All formats the same, 0 = Contact ID, 1= Scancom, 2 = Tunstall, 3 = Speech, 4 = SMS CID	#	Bi	Contact ID
21#	Bi	0 = Contact ID, 1= Scancom, 2 = Tunstall, 3 = Speech, 4 = SMS CID (Tel. Number 1)	#	Bi	Contact ID
22#	Bi	0 = Contact ID, 1= Scancom, 2 = Tunstall, 3 = Speech, 4 = SMS CID (Tel. Number 2)	#	Bi	Contact ID
23#	Bi	0 = Contact ID, 1= Scancom, 2 = Tunstall, 3 = Speech, 4 = SMS CID (Tel. Number 3)	#	Bi	Contact ID
24#	Bi	0 = Contact ID, 1= Scancom, 2 = Tunstall, 3 = Speech, 4 = SMS CID (Tel. Number 4)	#	Bi	Contact ID
31#	Bi	Ringer enable, 0 = Disable, 1 = Enable	#	Bi	Ringer Disabled
32#	Bi	Audible fault alert, 0 = Off, 1 = On	#	Bi	Off
33#	Bi	Help arrived signalling, 0 = Off, 1 = On	#	Bi	Help arrived signalling Off
34#	Bi	Emergency button enable, 0 = Button off, 1 = Button on	#	Bi	Emergency button On
35#	Bi	Silent Mode, 0 = Silent mode On, 1 = Silent mode Off	#	Bi	Silent mode Off
37#	Bi	AC fault report, 0 = Off, 1 = On	#	Bi	On
38#	Bi	Follow-On & Call Back Function, 0 = Follow-On, 1= Call-Back, 2= Follow-On & Call-Back	#	Bi	Follow-On
40#	Bi	Set Access Code	#	Bi	1111
41#	Bi	Auto answer for Remote programming, 00 = call twice, 01 - 09 = Auto answer 1 - 9 rings	#	Bi	0
42#	Bi	Guard time delay for any compatible sensor (except Fall Sensor), 00 = Instant reporting; 99 = 99 seconds		Bi	10 seconds
43#	Bi	Test call, 0 = OFF, 1 = 1 Day, 2 = 2 Days, 3 = 3 Days, 4 = 4 Days. 5 = 5 Days, 6 = 6 Days, 7 = 7 Days, 8 = 30 days	#	Bi	No test call

DTMF CHARACTER COMMANDS	DTMF ACK	COMMAND OPERATION		DTMF ACK	DEFAULT
44#	Bi	Mobility time 00= Disable, 01 - 36= 1 - 36 Hours	#	Bi	Mobility time disable
45#	Bi	Follow-On Choice, 0 = Wait command, 1 = Listen, 2 = Two way voice communication	#	Bi	Two-way voice communication
46#	Bi	Follow-On mode & Two-Way Period, 01=1 min, 02=2mins, 03=3mins, 04=4mins, 05=5mins, 06=6mins, 07=7mins, 08=8mins, 09=9mins, 10=10mins.	#	Bi	5 minutes
47#	Bi	Off-set time, 1=1 hour, 2=2 hours, 3=3 hours, 4=4 hours, 5=8hours, 6=12 hours	#	Bi	1 Hour
49#	Bi	Supervision, 0 = disable, 1 = 4 days, 2 = 5 days, 3 = 6 days, 4 = 7 days, 5 = 8 days, 6 = 9 days, 7 = 10 days		Bi	Disable
61#	Bi	Check SIM CARD PIN CODE 0: Disable 1: Enable	#	Bi	Disable
62#	Bi	Set Input SIM CARD PIN CODE : 4 - 8 digital	#	Bi	Null
63#		Set Speaker Volume Enter: Mode Number + *+ Speaker Volume Note: Mode Number: 1 digit (2:Two-way) Speak volume: 1 digit (1-5 level)	#	Bi	Two way mode: 3
64#		Set Microphone Sensitivity: Note: Mic sensitivity: 1 digit (1-5 level) Only can be adjusted in the two-way mode.	#	Bi	Two way Mode: 3
66#	Bi	Guard time delay for Fall Sensor, 00 = Instant reporting; 99 = 99 seconds	#	Bi	15 sec
67#	Bi	Help Arrived Timer 01-15 = 1-15 minutes	#	Bi	15 minutes
71#	Bi	Auto-Answer Number 1. Up to 20 digits.	#	Bi	No Number
72#	Bi	Auto-Answer Number 2. Up to 20 digits.	#	Bi	No Number
75#	Bi	Help Not Arrived Call	#	Bi	No number
76#	Bi	Call progress tone, 0 = Off, 1 = On	#	Bi	Off
77#	Bi	Speech report acknowledgement, 0 = Any DTMF On, 1 = OFF-HOOK	#	Bi	Any DTMF
78#	Bi	Mobility Timeout Prompt, 0= Disable, 1= Enable	#	Bi	Enable
80#	Bi	Remove all device (learnt in Command 91-94)			
93#	Bi	Learn-in silent emergency transmitters		Bi Bi	No device
94#	Bi	Learn-in smoke detectors, CO detectors, pendants and fixed emergency transmitters, long range pendants		Ві Ві	No device
98#	Bi	Load defaults when $**$ is pressed (DTMF A is heard after defaults have been loaded)	#	Bi	
99#	Bi	Exit programming mode			

5.5. CTC-1052 SMS Remote Programming Command Table

• If the SMS Keyword is set as **PROG**, and Access Code is set as **1111** (factory default).

CORRESPONDING DTMF CHARACTER COMMANDS		COMMAND	EXAMPLE & USAGE	DEFAULT
	SMS Keyword (Installer)	KEYWD	PROG 1111 KEYWD:IPOG To set/change the SMS keyword for installer (4-character)	PROG
01#	Telephone number 1	TELN1	(Max. 20 digits, Null=to clear Telephone number 1)	No number
02#	Telephone number 2	TELN2	(Max. 20 digits, Null=to clear Telephone number 2)	No number
03#	Telephone number 3	TELN3	PROG 1111 TELN3:0227940559 To set/change Telephone number 3 (Max. 20 digits, Null= to clear Telephone number 3)	No number
04#	Telephone number 4	TELN4	(Max. 20 digits, Null=to clear Telephone number 4)	No number
05#	Telephone number for alarm report	ALMRP	PROG 1111 ALMRP:1234 To select the number for alarm report 1=Telephone 1, 2=Telephone 2, 3=Telephone 3 4=Telephone 4, 5=GPRS1, 6=GPRS2	1,2,3,4,5,6
06#	Telephone number for status report	STARP	PROG 1111 STARP:1234 To select then number for status report 1=Telephone 1, 2=Telephone 2, 3=Telephone 3 4=Telephone 4, 5=GPRS1, 6=GPRS2	1,2,3,4,5,6
10#	Global account number	ACNTG	PROG 1111 ACNTG:1234, To set/change the same 4- 6- 8- digit account number for all 4 telephone numbers (Null=to clear 4 Telephone numbers)	No account number
11#	Account number 1	ACNT1	PROG 1111 ACNT1:1234, To set/change the 4- 6- 8-digit account number for Telephone number 1(Null=to clear account number for Telephone number 1)	No account number
12#	Account ACNT2		PROG 1111 ACNT2:1234, To set/change the 4- 6- 8-digit account number for Telephone number 2 (Null=to clear account number for Telephone number 2)	No account number
13#	Account number 3	ACNT3	PROG 1111 ACNT3:1234, To set/change the 4- 6- 8-digit account number for Telephone number 3 (Null=to clear account number for Telephone number 3)	No account number
14#	Account number 4	ACNT4	PROG 1111 ACNT4:1234, To set/change t the 4- 6- 8-digit account number for Telephone number 4 (Null=to clear account number for Telephone number 4)	No account number
20#	Reporting method for all 4 Telephone numbers	FMATG	PROG 1111 FMATG:0 To set the reporting methods for all 4 Telephone numbers 0=Contact ID, 1=Scancom, 2=Tunstall, 3=Speech, 4=SMS CID	0 = Contact ID
21#	Reporting method for Telephone number 1	FMAT1	PROG 1111 FMAT1:0 To set the reporting method for Telephone number 1 0=Contact ID, 1=Scancom, 2=Tunstall, 3=Speech, 4=SMS CID	0 = Contact ID
22#	Reporting method for Telephone number 2	FMAT2	PROG 1111 FMAT2:0 To set the reporting method for Telephone number 2 0=Contact ID, 1=Scancom, 2=Tunstall, 3=Speech 4=SMS CID	0 = Contact ID
23#	Reporting method for Telephone number 3	FMAT3	PROG 1111 FMAT3:0 To set the reporting method for Telephone number 3 0=Contact ID, 1=Scancom, 2=Tunstall, 3=Speech 4=SMS CID	0 = Contact ID
24#	Reporting method for Telephone number 4	FMAT4	PROG 1111 FMAT4:0 To set the reporting method for Telephone number 4 0=Contact ID, 1=Scancom, 2=Tunstall, 3=Speech 4=SMS CID	0 = Contact ID

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31#	Ringer enable for incoming calls	ENRIN	PROG 1111 ENRIN:0 To enable/disable ring tone for incoming calls 0=Disable, 1=Enable	0 = Disable
32#	Audible fault alert	FAUTA	PROG 1111 FAUTA:0 To enable/disable audible fault alert 0=Disable, 1=Enable	0 = Disable
33#	Help arrived signalling	HELPA	PROG 1111 HELPA:0 To enable/disable help arrived signalling 0=Disable, 1=Enable	0 = Disable
34#	Emergency button	EMBUT	PROG 1111 EMBUT:1 To enable/disable the Emergency button to send an emergency alarm report 0=Disable, 1=Enable	1 = Enable
35#	Silent mode	SILMO	PROG 1111 SILMO:1 To enable/disable silent mode 0=Silent mode On, 1=Silent mode Off	1 = Silent mode Off
37#	AC fault report	ACRPT	PROG 1111 ACRPT:1 To enable/disable AC fault report 0=Disable, 1=Enable	1 = Enable
38#	Follow-On & Call Back	FOLON	PROG 1111 FOLON:0 To set the follow-on & call back mode 0=Follow-on, 1=Call-back, 2=Follow-on & Call-back	0 = Follow- on
40#	Set access code	ACCES	PROG 1111 ACCES:1234 To change the access code for installer (4-digit)	1111
42#	Guard time delay	GUDTI	PROG 1111 GUDTI:10 To set the guard time delay time for a compatible sensor (except Fall Sensor) 00=Instant, 01-99=1-99 seconds	00= instant reporting 10=10 seconds
43#	Periodic test call	TESTC	PROG 1111 TESTC:0 To set the periodic test call 0=Off, 1=1 Day, 2=2 Days, 3=3 Days, 4=4 Days 5=5 Days, 6=6 Days, 7=7 Days ,8=30 Days	0 = Off
44#	Mobility timer	MOBTI	PROG 1111 MOBTI:00 To set the Mobility timer 00=Disable, 01-36 =1 - 36 Hours	00 = Disable
45#	Follow-on choice	LFOLL	PROG 1111 LFOLL:2 To set the follow-on choice for digital reporting 0=Wait command, 1=Listen 2=Two-way voice communication	2 = Two-way voice comm.
46#	Follow-on & two-way period	FOLTI	PROG 1111 FOLTI:02 To set the duration for follow-on & two-way voice communication period 01-10=1-10 minutes	05 = 5 minutes
47#	Off-set time	OFFST	PROG 1111 OFFST:1 To set the off-set time 1=1 Hour, 2=2 Hours, 3=3 Hours 4=4 Hours, 5=8 Hours, 6=12 Hours	1 = 1 Hour
49#	Supervision	SUPPR	PROG 1111 SUPPR:0 To set the supervision timer 0=Disable, 1=4 Days, 2=5 Days, 3=6 Days 4=7 Days, 5=8 Days, 6=9 Days, 7=10 Days	0 = Disable
61#	Check SIM card Pin code	SIMPE	PROG 1111 SIMPE:0 To set Check SIM Card Pin Code 0 = Disable , 1 = Enable	0 = Disable
62#	Input SIM card Pin code	SIMPC	PROG 1111 SIMPC:0000 PROG 1111 SIMPC:12345678 To input SIM CARD Pin Code: 4-8 digits are allowed to be entered.	Null

			PROG 1111 SPKVL:2&1-5	1
63#	Set speaker volume	SPKVL	 To set a communication channel: 2=Two Way To set the speaker volume with a number, ranging 1-5.The higher the value, the louder the voice. Default is set as (3) for two-way mode. 	Two way: 3
64#	Set microphone sensitivity	MICSN	PROG 1111 MICSN:1-5 To set the microphone volume with a number, ranging 1-5. The higher the value, the wider range the sound received. Default is set as (3). Note: only can be adjusted in the two-way mode.	Mic: 3
66#	Set guard time for fall sensor	FAGUD	PROG 1111 FAGUD: 01-99 To set the guard time delay time for fall sensor. 00=Instant, 01-99=1-99 seconds	15 sec
67#	Set Help Arrive Timer	HTIME	PROG 1111 HTIME : 01~15 To set the Hep Arrive Timer. 01-15=1-15 minutes	15 minutes
71#	Auto- Answer Number 1	CTEL1	PROG 1111 CTEL1: 0227940559 To set/change Auto-Answer Number 1 (Max. 20 digits, Null=to clear number)	No Number
72#	Auto- Answer Number 2	CTEL2	PROG 1111 CTEL2: 0227940559 To set/change Auto-Answer Number 2 (Max. 20 digits, Null=to clear number)	No Number
75#	Help Not Arrived Call	HTEL1	PROG 1111 HTEL1:0227940559 To set/change No Help Arrived Call (Max. 20 digits, Null=to clear)	No number
77#	Speech report ack	SPACK	PROG 1111 SPACK:1 Speech report acknowledgement. 0 = Any DTMF On, 1 = OFF-HOOK	Any DTMF
78#	Mobility Timeout Prompt	MOBBP	PROG 1111 MOBBP:1 To Enable/Disable Mobility Timeout Prompt 0 = Disable, 1 = Enable	Enable
	Country code	REPLA	PROG 1111 REPLA:886&0 To replace the Country Code with 0 886 → Country Code	No country code
	IP address	TCIP1	PROG 1111 TCIP1:192.168.1.110 To set/change the IP address for the Monitoring Station Input IP address: 000.000.000.000 to 255.255.255.255	No IP address
	IP address	TCIP2	PROG 1111 TCIP2:192.168.1.110 To set/change the IP address for the Monitoring Station Input IP address: 000.000.000.000 to 255.255.255.255	No IP address
	IP address confirm	COMIP	PROG 1111 COMIP:192.168.1.110 (for confirmation) To set/change the IP address for the Monitoring Station Input IP address: 000.000.000.000 to 255.255.255.255	No IP address
	Port number	PORT1	PROG 1111 PORT1:3301 To set/change the port number for the IP address Input 1 to 5 digits	No port number
	Port number	PORT2	PROG 1111 PORT2:3301 To set/change the port number for the IP address Input 1 to 5 digits	No port number
	Port number confirm	СОМРО	PROG 1111 COMPO:3301 (for confirmation) To set/change the port number for the IP address Input 1 to 5 digits	No port number
	GPRS/IP account number	IPAC1	PROG 1111 IPAC1:1052 To set/change the GPRS/IP account number (4-10digit)	No account number
	GPRS/IP account number	IPAC2	PROG 1111 IPAC2:1052 To set/change the GPRS/IP account number (4-10digit)	No account number
	Access Point Name	APNSR	PROG 1111 APNSR:INTERNET To set/change the Access Point Name (APN server, 31 digits)	No APN
	User name	GPUSE	PROG 1111 GPUSE:123 To set/change the user name Input 1 to 15 alphanumeric characters	No user name
	Password	GPASS	PROG 1111 GPASS:65536 To set/change the password Input 1 to 5 digits	No password

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 Reset to factory default	FTSET	PROG 1111 FTSET:YyS	
 3G/LTE RSSI (3G Version Only)	GRSSI	PROG 6336 GRSSI?	
 Delete Device	DEVDL	PROG 1111 DEVDL:SCMD To delete devices learnt into the panel. SCMD: 80 = delete All Devices.	
 Add Device	DEVAD	PROG 1111 DEVAD:SCMD,ID PROG 1111 DEVAD:94010203A001 To add devices into the panel SCMD: 93 = add silent device 94 = add device The devices are added sequentially into zone 1-20 ID: The 10-digit device ID (usually labelled on the back of the device)	
 Get Current Panel Settings (3G Version Only)	ULOAD	PROG 1111 ULOAD:IP address,PORT,ID To obtain the current panel settings IP address – The IP address to receive the current panel settings. Format: IP:xxx.xxx.xxx PORT – Enter the port number of the IP address. Format: PORT:xxxxx (up to 5 digits). ID: 5-digit ID number. For Example: PROG 1111 ULOAD:IP:123.123.123.123,PORT:54321,2222	

<NOTE>

- IP Address confirm (COMIP) & Port number confirm (COMPO) commands are used for GPRS server confiramtion purpose only. They do not change the IP address nor the port number settings.
- 2. GPRS functions can only be programed via SMS messages, and the commands **MUST** be sent in this sequence: Country code → IP address → Port number → GPRS/IP account number → Access Point Name → User name → Password.
 - > One comand per one SMS message. Multiple command in one SMS message is not allowed.
- 3. When setting IP Address Confirm (COMIP) and Port Number confirm (COMPO) commands together, the confirmation will send to assigned IP address. However, if COMIP and COMPO are set respectively or one of their commands is deleted or unset, the confirmation will be sent over SMS to cell phone.
- **4.** User and Central Monitoring Station will receive the SMS confirmation message in this format:

"Confirmed_PROG_1111_COMIP: 192.168.1.110", or

"Confirmed_PROG_1111_COMPO: 3301".

- 5. 3G/LTE RSSI (3G Version Only)
 - 1. < RSSI 10, poor signal.
 - 2. RSSI 15-30, normal signal.
 - 3. RSSI 99, 3G/LTE not connected
- **6.** To set multiple SMS commands:
 - 1. Ex: **PROG_1111_TELN1**:0227940559_**TELN2**:0227940559 (underline represents <space>).
 - 2. Maximum of 70 digits, including <space>, are allowed to be contained in a SMS

message sent by the cell phone.

- 3. SMS remote programming command can only be sent in the standby mode.
- 4. The SMS command is successfully set after getting a confirmation message.

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, Part 22, Part 24, and Part 27 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, Part 22, Part 24, and Part 27 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.

Industry Canada Statement

This device complies with Industry Canada RSS-130, RSS-132, RSS-133, RSS-139 standard. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

Cet équipement est conforme aux CNR-102 d'Industrie Canada. Cet équipement doit êtreinstallé et utilisé avec une distance minimale de 20 centimètres entre le radiateur et votrecorps. Cet émetteur ne doit pas être co-localisées ou opérant en conjonction avec autreantenne ou émetteur. Les antennes utilisées pour cet émetteur doivent être installés etfournir une distance de séparation d'au moins 20 centimètre de toute personne et doit pas être co-située ni fonctionner en conjonction avec une autre antenne ou émetteur.