

Mobile Lite R32

Cellular Emergency Alarm System

Installer's Guide

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1. Introduction

1.1. Mobile Lite R32

Coming in a slimmer case design, Mobile Lite R32 is a light, portable and richly featured cellular medical alarm with GPS positioning, Wi-Fi positioning, GeoFencing and mobile network that protect you wherever you go. The built-in fall sensor will raise an alarm call when a fall has been detected.

The mobile lite unit is capable of playing voice prompts to raise the users' self-awareness and reporting events via Speech, SMS and IP (Mobile Network) protocols to directly communicate with the monitoring centers.

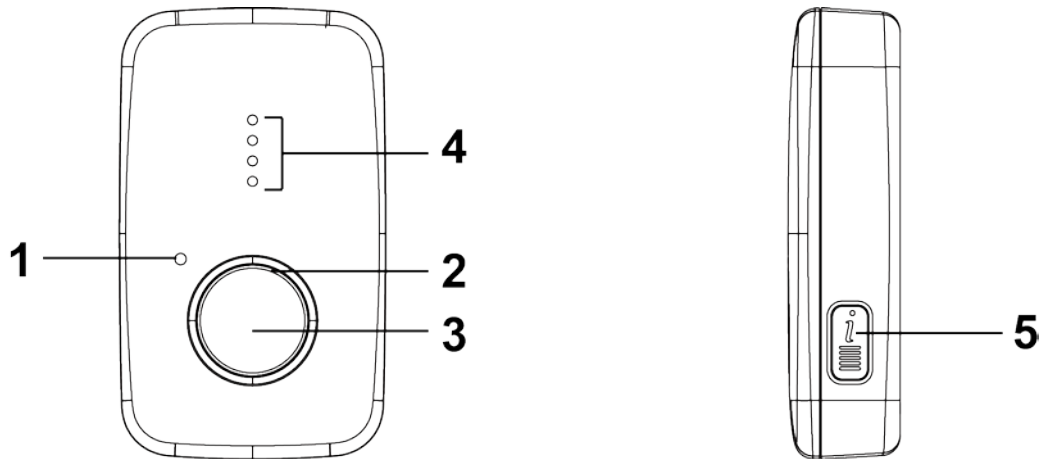
1.2. What's in the Box

Your Mobile Lite package includes the following items:

Items
• Mobile Lite R32 • Lanyard • Belt Clip • CT-32 • Regular Micro-USB Cable • 5V 1A Adapter • Programming Micro-USB Cable (Optional)

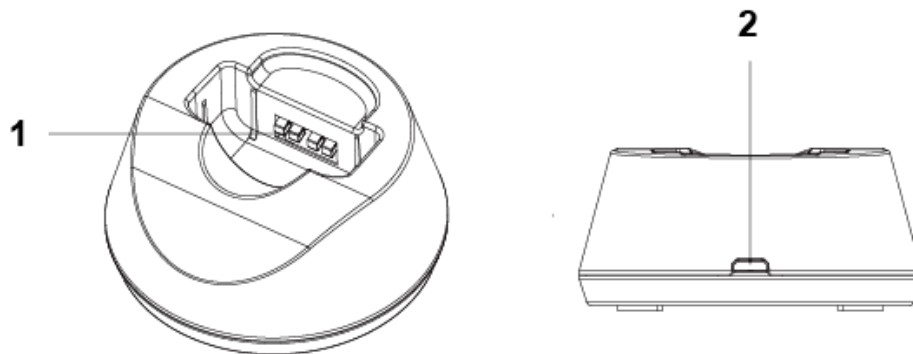
2. System Overview

2.1. Identifying the Parts



Button/LED/Component	Behavior	Function/Indication
1. Microphone		
2. Green LED	On	Full Charged
	1 flash every 2 minutes	Charging or in use (battery percentage > 20%) Normal Cellular Network connection
Red LED	1 flash every 30 seconds	Low battery (battery percentage is 10% - 20%)
	On	Low battery (battery percentage < 10%)
		Charging (battery percentage < 20%)
Amber LED	1 Flash every 1 minute	Cellular Network fault
	All LEDs ON	During Firmware Update
3. Active Button (Help Button)	Press for 2 seconds	Trigger emergency alarm
	Press and hold for 5 seconds during a Guard Time	Cancel alarm
	Press and hold for 5 seconds during a call	Terminate the call
4. Speaker		
5. Info Button	Press once	Check cellular signal strength and battery level
	Press twice quickly	Enter the Test Mode
	Press 3 times quickly	Enter the Pairing Mode
	Press 4 times quickly	Power off the device

Charging & Programming Cradle (CT-32)



1. Charging & Programming Contact Plates

2. Micro-USB jack

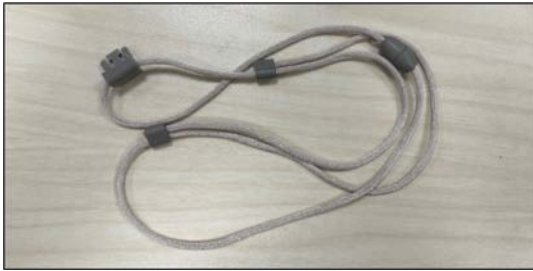
2.2. Power Supply

- Mobile Lite is powered by rechargeable battery. The typical charging time is 4 hours.
- As the battery may not be 100% charged when you get your Mobile Lite, make sure to charge your Mobile Lite before the first use.
- To charge Mobile Lite, please refer to **3.4. Charging Mobile Lite**.
- When Mobile Lite is low on battery, the Red LED will flash once every 30 seconds and Mobile Lite will make Low Battery report.
- If battery is not charged after making Low Battery report, Mobile Lite will make the second Low Battery report when battery voltage drops too low and turn off GPS/Wi-Fi positioning function. The Red LED will turn steady on.
- Mobile Lite makes a battery restored report to the CMS when its battery is fully recharged.

3. Getting Started – Setting up Mobile Lite

3.1. Mobile Lite Lanyard and Attachment

Adjustable Lanyard



Lanyard with Magnetic Breakaway Clasp



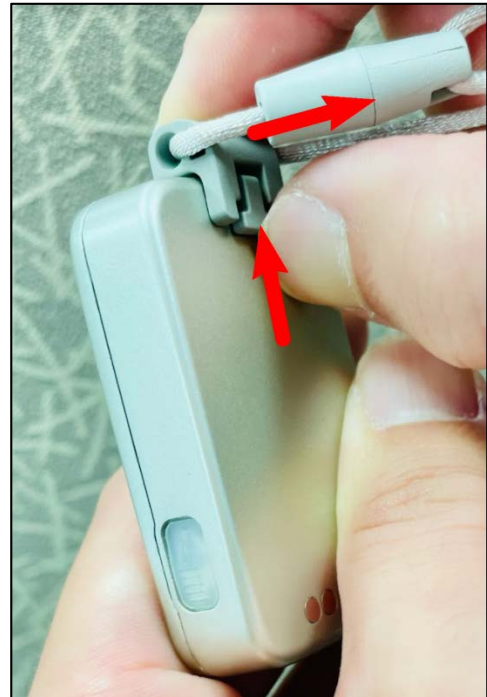
Attachment

- Hook the the lanyard onto the Mobile Lite unit.
- Put the lanyard around the neck of the user.



Removal

- Press the button to release the hook and remove the lanyard.



3.2. Mobile Lite Belt Clip and Attachment

Belt Clip



Attachment

- Hook the the belt clip onto the Mobile Lite unit.
- Use the clip to attach the Mobile Lite to the user's waistband or belt.



Removal

- Press the button to release the hook and remove the belt clip.



<NOTE>

☞ When the fall detection function is enabled for Mobile Lite, please use the lanyard to wear Mobile Lite unit on the neck and let it hang in front of the chest, so that Fall Sensor can be effectively triggered.

Please do not use the belt clip to wear the Mobile Lite on waistband or hide the Mobile Lite unit inside coat pocket, which may lead to difficult trigger or non-detection of fall.

3.3. Charging Mobile Lite

Step 1. Place Mobile Lite into the CT-32 Cradle. Please make sure that the Charging Contact Plates of both Mobile Lite and the cradle are in contact with each other.

The Mobile Lite R32 can also be inserted into the Cradle without removing the belt clip.



Picture A.

*Mobile Lite R32 without a belt clip
on CT-32*



Picture B.

*Mobile Lite R32 with a belt clip
on CT-32*

Step 2. Insert the cradle end of the Regular Micro-USB Cable into the Micro-USB jack as shown in the picture:



Step 3. Insert the charging end of the Regular Micro-USB Cable into the AC Adapter and plug the adapter into a power socket.



3.4. Hardware Installation (For PC Programming)

Programming Micro-USB Cable

For programming via connecting Mobile Lite to CT-32 and then connecting to computer, a special Programming Micro-USB Cable is required. The USB end of programming cable is larger than the regular cable.

Always use the Programming micro USB cable for connecting CT-32 to computer. **Never use a regular micro USB cable for computer connection.**

The programming cable is ONLY provided for sample order.

If extra Programming cable is needed, please contact your supplier.



*Programming
Micro-USB Cable*



*Regular Micro-USB
Cable*

To use PC Programming Tool for programming Mobile Lite, follow the hardware installation steps below:

Step 1. Place Mobile Lite into the CT-32 Cradle. Please make sure that the programming Contact Plates of both Mobile Lite and the cradle are in contact with each other.



Step 2. Insert the cradle end of the Programming Micro-USB Cable into the Micro-USB jack as shown in the picture:



Step 3. Insert the programming end of the Programming Micro-USB Cable into a computer USB port as shown in the picture below:



<WARNING>

☞ If programming cable is not provided, please contact your supplier. **DO NOT** attempt to connect CT-32 to computer with a regular_Micro-USB cable.



Programming
Micro-USB Cable



Regular Micro-USB
Cable

3.5. Software Installation (For PC Programming)

3.5.1. Installing USB Driver

Mobile Lite can be programmed via USB port connection of a computer using the PC Programming Tool software (using the Programming Cable).

If the computer cannot recognize the USB connection, please try installing the USB driver as instructed below.

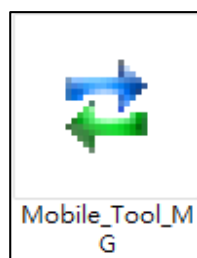
Step 1. Make sure Mobile Lite is connected properly (please refer to **3.4. Hardware Installation**)

Step 2. Please go to <http://www.ftdichip.com/Drivers/VCP.htm>. Scroll down the webpage and select the driver file according to your operation system, download and install the driver.

Operating System	Release Date	Processor Architecture							Comments
		x86 (32-bit)	x64 (64-bit)	PPC	ARM	MIPSII	MIPSIV	SH4	
Windows*	2017-08-30	2.12.28	2.12.28	-	-	-	-	-	WHQL Certified. Includes VCP and D2XX. Available as a setup executable Please read the Release Notes and Installation Guides .
Linux	-	-	-	-	-	-	-	-	All FTDI devices now supported in Ubuntu 11.10, kernel 3.0.0-19 Refer to TN-101 if you need a custom VCP VID/PID in Linux VCP drivers are integrated into the kernel.
Mac OS X 10.3 to 10.8	2012-08-10	2.2.18	2.2.18	2.2.18	-	-	-	-	Refer to TN-105 if you need a custom VCP VID/PID in MAC OS
Mac OS X 10.9 and above	2017-05-12	-	2.4.2	-	-	-	-	-	This driver is signed by Apple
Windows CE 4.2-5.2**	2012-01-06	1.1.0.20	-	-	1.1.0.20	1.1.0.10	1.1.0.10	1.1.0.10	
Windows CE 6.0/7.0	2016-11-03	1.1.0.22 CE 6.0 CAT CE 7.0 CAT	-	-	1.1.0.22 CE 6.0 CAT CE 7.0 CAT	1.1.0.10	1.1.0.10	1.1.0.10	For use of the CAT files supplied for ARM and x86 builds refer to AN_319
Windows CE 2013	2015-03-06	1.0.0			1.0.0				VCP Driver Support for WinCE2013

3.5.2. Installing PC Programming Tool

PC Programming Tool for Mobile Lite is a portable application and requires no installation. After installing the USB driver, simply unzip the file to a desired folder and execute the “Mobile_Tool_MG.exe” file.



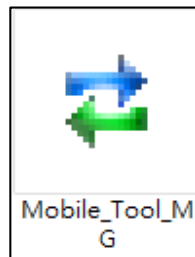
4. Programming Mobile Lite

Mobile Lite can be programmed by using a PC Programming Tool.

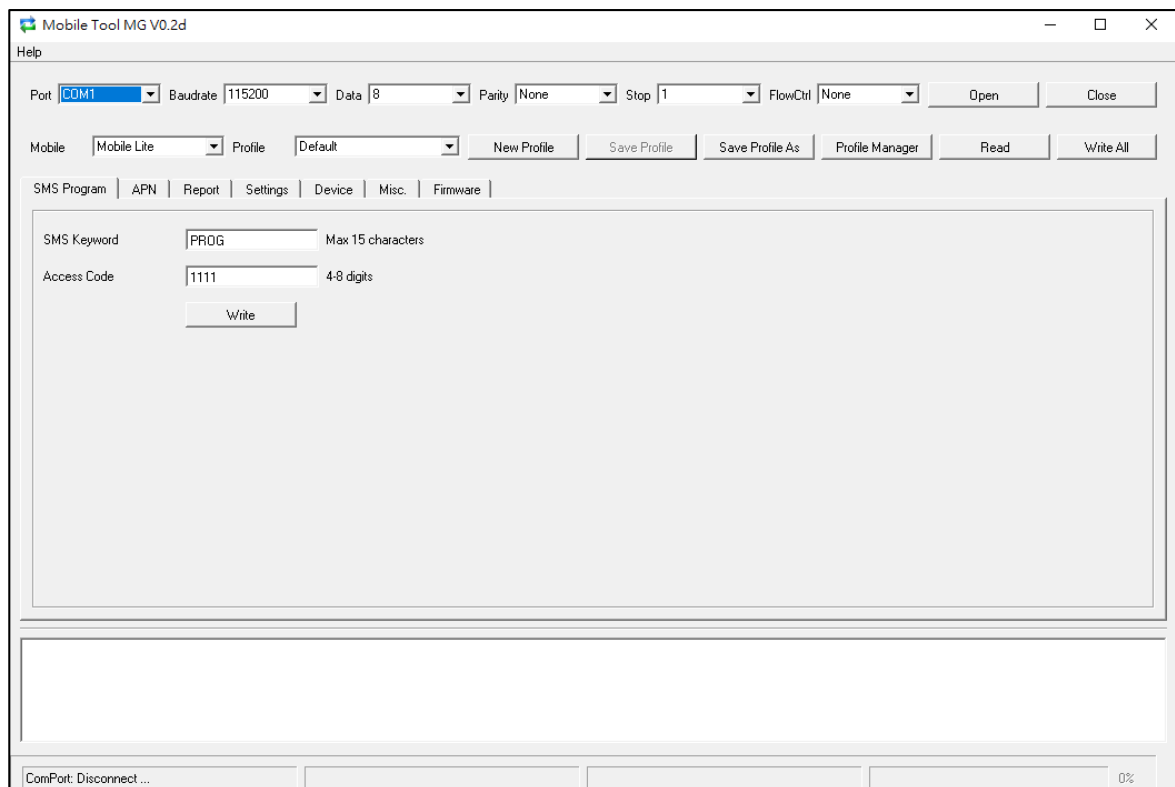
4.1. PC Programming Tool (Installers Only)

For system setting programming with PC Programming Tool software via USB port, follow instruction below.

Step 1. Execute the programming tool:



The following configuration screen will be opened.



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

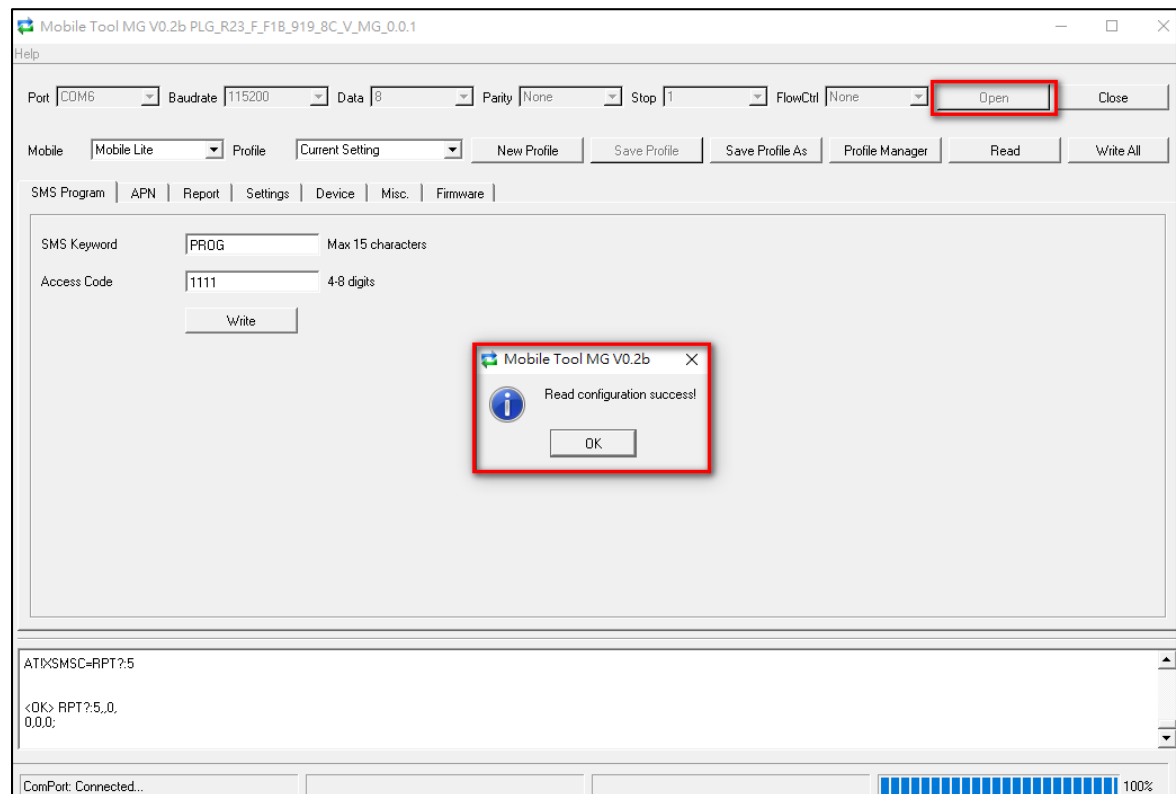
- Port: Select the COM port generated for Mobile Lite after installing the USB Driver (the USB port connected to Mobile

- Lite).
- Baud rate: 115200
- Data: 8
- Parity: None
- Stop: 1
- FlowCtrl: None

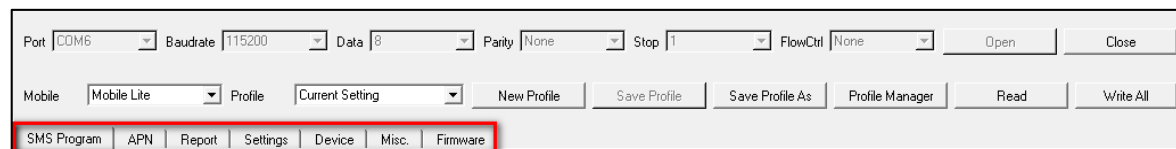


Step 3. Read Configuration

To start configuring Mobile Lite settings, click on **“Open”**. A Read configuration success message will pop up, click **“OK”** to proceed:



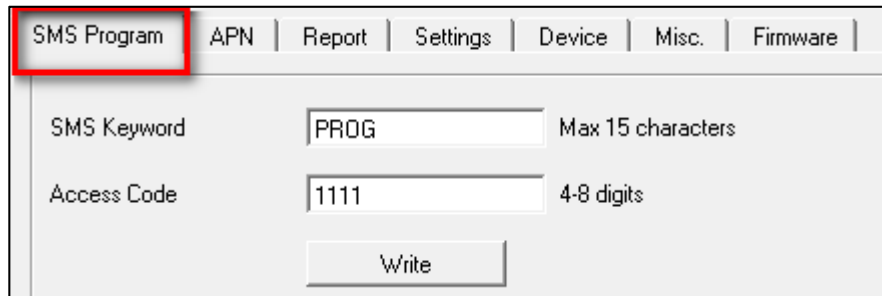
The current Mobile Lite setting will be displayed. Click on different tabs to see and edit Mobile Lite functions.



4.1.1. SMS Program

This tab allows the user to program SMS Keyword (15 characters max.) and Access Code 1 (4-8 digits) which are used for SMS Programming feature. Enter the information and click “Write” to complete programming. Please note that SMS Keyword is case-sensitive. For detail information, please refer to **4.2. SMS Programming**.

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



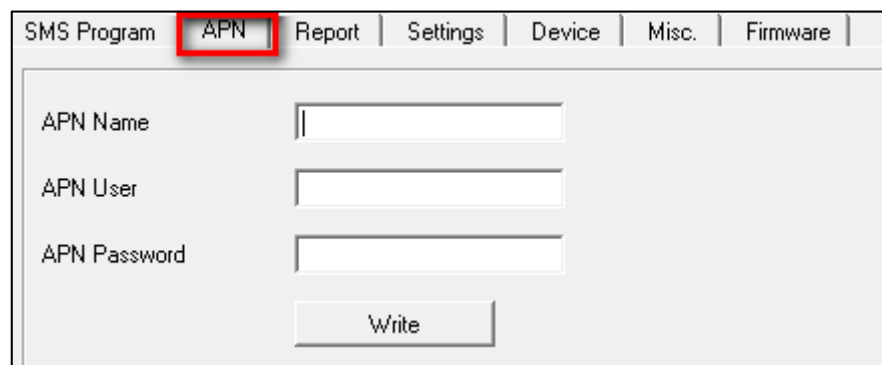
The screenshot shows a software interface with a tabbed menu at the top. The 'SMS Program' tab is selected and highlighted with a red rectangle. Below the tabs, there are two input fields: 'SMS Keyword' with the value 'PROG' and a label 'Max 15 characters', and 'Access Code' with the value '1111' and a label '4-8 digits'. A 'Write' button is located at the bottom of the form.

4.1.2. APN

The APN setting must be completed for Mobile Lite to report events via cellular network.

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

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



The screenshot shows the same software interface as before, but with the 'APN' tab selected and highlighted with a red rectangle. The 'SMS Program' tab is now disabled. The form contains three input fields: 'APN Name', 'APN User', and 'APN Password', each with an empty text box. A 'Write' button is at the bottom.

4.1.3. Report Setting

The “**Report**” tab allows the user to configure report settings.

Mobile Lite reports over 3 media: IP (Mobile Network), Speech channel, and SMS message.

5 **Report Indexes** are available for setting:

No.	Destination	Event	Type	Group1	Group2	Group3	Group4	Group5
1	http://iota.medicalguardian.com	All	JSON	☐	☐	☐	☐	☐
2		All	Speech	☐	☐	☐	☐	☐
3		All	Speech	☐	☐	☐	☐	☐
4		All	Speech	☐	☐	☐	☐	☐
5		All	Speech	☐	☐	☐	☐	☐

JSON uri:

4 programmable settings are available per Report Index:

1. Report Destination

Enter a report destination. The format of the report destination will depend on the Reporting Format (Type). Please see **Report Destinations** below.

If there are no report destinations programmed, Mobile Lite will not report upon alarm activation and will emit 1 beep as a reminder.

2. Event Filter

Select an event filter. The event filter determines which events are reported to the selected Report Destination.

3. Reporting Format (Type)

Select a reporting format. The reporting format determines how the events are reported to the Report Destination.

4. (Reporting) Groups

Assign the Report Index to a Reporting Group. The Reporting Group determines the sequence of reporting.

Click “Write” to apply the settings to Mobile Lite.

Report Destinations

After Report Format is determined, enter the Report Destinations according to the designated Report Format:

- **JSON** reporting: <http://iota.medicalguardian.com>

JSON udi: Please input the device UDI (Unique Device Identifier) for JSON Report. Maximum of 15 numeric characters or alphanumeric letters.

- Speech reporting and SMS Text Report Format: **PhoneNumber**

Example: **0912345678**

Speech Reporting: When activated, Mobile Lite will dial to the telephone number and open two-way voice communication directly.

- ☞ Speech reporting is for Emergency Event only. Status event will not be sent via speech.
- ☞ Please note that Location info cannot be sent via Speech.
- ☞ It is recommended to program at least one IP report before a Speech Report. The IP and speech reports each should be assigned to a separate Group. During two-way communication, Mobile Lite location info will be updated every minute, and at the same time reported via the last successful IP channel. (refer to **6.5. Alarm Activation** for more details).

SMS Text Reporting: When activated, Mobile Lite sends a SMS text message to the recipient. The message contains event information and a Google Map link for location. If the recipient's receiver device supports map function, he/she can click on the link to locate Mobile Lite.

Event Filter

This parameter determines which events are reported to the selected Report Destination.

3 options: "**All**", "**Emergency**" and "**Status**". When an event is triggered, it will be reported to the reporting destination according to the setting. If set to **All**, the panel will report all events regardless of event type.

For example:

- Mobile Lite being low on battery is a "status" event. If report index 3 and 5 are set as "status" and index 4 as "all" in event filters, this status event will be reported to destinations 3, 4, and 5.
- For more information, refer to **8. Appendix** for event code types.

Reporting Format (Type)

The available reporting formats include:

- **JSON:** The default IP report format for Mobile Lite R32.
- **Speech:** Mobile Lite reports over the Speech channel to allow the user to talk directly to the call recipient.
- **SMS TEXT:** Mobile Lite sends a SMS text message containing event

information and a location link.

Group

The Reporting Group determines the sequence of reporting.

One Report Index can only be assigned to one Group.

Reporting within a Group:

If there are multiple Report Indexes programmed within a Group:

- Mobile Lite will report according to the numeric order (e.g. 1 > 2 > 3, etc.) of the Report Index in a Group. Report will stop when one report is successful and Mobile Lite will regard reporting to this Group successful.

For example, if Report Index 1 and 4 are assigned to Group 1, Mobile Lite will stop reporting if reporting to Index 1 is successful. If reporting to Index 1 failed, Mobile Lite will carry on reporting to Index 4.

- If all reporting in a group failed, Mobile Lite will retry reporting. Mobile Lite will try reporting within the same group for **up to three times**, (or until one of the reports is successful). If three times of trying within the same group failed, Mobile Lite will regard reporting to this Group unsuccessful.

From the example above, suppose all report failed, the report sequence would be:

1 > 4 > 1 > 4 > 1 > 4

Reporting Cycle

- If multiple groups are assigned to the same event type (emergency or status), Mobile Lite will report according the group numeric order from the first programmed Group to the last programmed group. This report sequence is one reporting cycle.
- Reporting cycle is regarded as successful if any Group is successful, but Mobile Lite will terminate reporting only after completing the reporting cycle (going from the first programmed group to the last programmed group).
- Reporting behavior depends on the event type:

- **Emergency Events:**

- When reporting to the first group is successful, Reporting is regarded as successful. Mobile Lite will still report to the next group until all groups have been tried to complete the reporting cycle.

For example, Groups 1 and 3 are assigned to Emergency Events:

If Group 1 is successful, Mobile Lite will still report to Group 3.

If reporting to Group 3 is successful, Mobile Lite will terminate reporting.

If reporting to Group 3 is unsuccessful (going through all the Report Indexes within the group for 3 times), Mobile Lite will also terminate reporting.

- When reporting to the first group failed (going through all the Report Indexes within the group for 3 times), Mobile Lite will start reporting to the next group. When reporting to the second group succeeds, reporting is regarded as successful. If no other group is programmed, Mobile Lite will stop reporting. If there are more groups programmed, Mobile Lite will continue reporting until all groups have been tried to complete the reporting cycle.
- If reporting to all the programmed groups failed in a reporting cycle, Mobile Lite will wait for 5 minutes. After 5 minutes, Mobile Lite will retry as it starts another reporting cycle.

For Emergency event, Mobile Lite will try reporting for up to three reporting cycles. If going through three reporting cycles and all failed, Mobile Lite will terminate reporting.

Example 1, if Groups 1 and 3 are programmed for “Emergency” reports, and assuming NO successful report until Group 1 is successful after the second try:

Group 1 > Group 3 > Wait 5 minutes > Group 1 (Success!) > Group 3 > Stops reporting whether Group 3 is successful or not.

Example 2, if Groups 1 and 3 are programmed for “Emergency” reports, and assuming there is NO successful report:

Group 1 > Group 3 > Wait 5 minutes > Group 1 > Group 3 > Wait 5 minutes > Group 1 > Group 3 > Stops reporting

■ **Status Events:**

Mobile Lite will only go through one reporting cycle for Status reports.

For example, if Groups 1 and 3 are programmed for “Status” reports:

Group 1 > Group 3 > Stops reporting whether Groups 1 and 3 succeeded or not

SMS Report text format

- Below are the SMS Text messages sent to user according to the condition of the Mobile Lite.

SMS text table:

Mobile Lite Condition	SMS Text format
Low battery status	Mobile Lite Low Battery
Battery voltage restored	Mobile Lite Battery Restored
Wakes up time	Mobile Lite Periodic Test

- When help is sent by pressing the Mobile Lite's Button, in which according to CID event code, the user will receive SMS text format as follows:

Mobile Lite Medical Help
Mobile Lite Medical Help maps.google.com/maps?q=12.12312,121.123123 By:GPS
Mobile Lite Medical Help maps.google.com/maps?q=12.12312,121.123123 By:WiFi
Mobile Lite Medical Help maps.google.com/maps?q=12.12312,121.123123 Last Know Loc. 1 Min Ago
Mobile Lite Medical Help maps.google.com/maps?q=12.12312,121.123123 Last Know Loc. 1 Hour Ago

<For Example>:

- Mobile Lite Medical Help maps.google.com/maps?q=12.12312,121.123123:
By:GPS

(Display Mobile Lite exact location where help is sent through GPS signal).

- Mobile Lite Medical Help maps.google.com/maps?q=12.12312,121.123123
By:WiFi

(Display Mobile Lite exact location where help is sent through WiFi positioning).

- Mobile Lite Medical Help maps.google.com/maps?q=12.12312,121.123123
Last Know Loc. 1 Min Ago

(Display Mobile Lite exact location where help is sent through GPS signal with the last time the location spotted).

4.1.4. Setting

The Setting tab allows you to program general configuration for Mobile Lite. Click “Write” when you have completed all settings to confirm.

The screenshot shows the 'Settings' tab of the Mobile Lite configuration interface. The 'Settings' tab is highlighted with a red box. The interface contains the following settings:

- Guard Time: 10 sec
- Guard Time Fall Sensor: 30 sec
- Fall Sensor Sensitivity: 3
- Speaker volume level: 3
- Test Mode timeout: 5 min
- Auto Check-in Interval: 1 hour
- Step Count Timer: 10 min
- Supervision Timer: Disable
- Mobile Fall Detection: Enable
- Mobile Fall Detection Sensitivity: 4

On the right side, there are fields for 'Caller ID1' and 'Caller ID2', and a 'Write' button.

- **Guard Time:**
 - When the Active Button on Mobile Lite is pressed, the device will play voice prompt “Initiating help. Press and hold the help button to cancel” and enter guard time.
 - During guard time, the device will emit one beep every second. After Guard Time expires, Mobile Lite will begin report.
- **Guard Time Fall Sensor:**
 - The Guard Time for Fall Sensor’s fall detection function is set separately from regular Guard Time.
 - After the Guard Time Fall Sensor expires, Mobile Lite will begin report.
 - This function is only used when a fall is detected, if the Active Button on Mobile Lite or the Active Button of the learnt-in Fall Sensor is pressed to activate alarm, normal guard time is used instead.
- **Fall Sensor Sensitivity:**
 - Select a preferred sensitivity level for the learned-in Fall Sensor FS-3. (5 is the highest sensitivity level while 1 is the lowest sensitivity level.)
 - After setting the sensitivity level in the MP tool, please press and hold the button on the fall sensor for 8 seconds to receive the sensitivity level data. (Refer to the Fall Sensor FS-3 user manual to complete sensitivity setting.)
- **Speaker Volume Level**
 - Adjust the speaker volume of Mobile Lite from a scale of 1-5, where

1 = minimum speaker volume

5 = maximum speaker volume

- **Test Mode timeout**
 - Select a time limit (1-10 minutes) for Test Mode.
 - After the Mobile Lite enters Test Mode, if the Active Button is not pressed within the programmed period, the Mobile Lite will automatically come out of test mode.
- **Auto Check-In Interval:**
 - You can select the length of the interval between auto check-in reports.
 - When the Mobile Lite makes the auto check-in report to CMS, its location info will also be updated and sent with the report.
 - There will be no auto check-in report if you select "Disable."
 - Whenever Mobile Lite is programmed, the auto check-in timer will be reset.
- **Step Count Timer:**
 - You can select the length of time between each step count report.
 - There will be no step count report if you select "Disable."
 - Whenever Mobile Lite is programmed, the step count report timer will be reset.
- **Supervision Timer:**
 - The Mobile Lite monitors accessory devices according to the supervision signal transmitted regularly from the device. Use this option to select a time period for receiving supervision signals. If the Mobile Lite fails to receive supervision signal from a device within this duration, it will consider the device out of order and report the event accordingly.
- **Mobile Fall Detection**
 - Select to enable or disable the fall detection function of Mobile Lite.
- **Mobile Fall Detection Sensitivity:**
 - Select a preferred sensitivity level for Mobile Fall Detection. (5 is the highest sensitivity level while 1 is the lowest sensitivity level.)
- **Caller ID:** Caller ID #1 & Caller ID #2
 - The device will instantly pick up the call if the incoming caller ID matches with the number(s) programmed in this function.

- The device will match the numbers starting from the last digit. For example, if a number string 321 is programmed, the device will instantly pick up any call that has a caller ID of 321 as the last 3 digits.
- Up to 15 numeric digits are allowed per setting.

4.1.5. Telemetry Log

The Telemetry log tab logs the Mobile Lite's detailed cellular connection history.

SMS Program APN Report Settings Device Telemetry Log System Log Misc. Firmware			
	Time	Type	Log
1	2020/01/01 02:07:18	WIFI	"b0:4e:26:c8:a1:a7",-39,"04:d9:f5:fb:3d:e0",-47,"ac:84:c6:99:0b:c5",-48
2	2020/01/01 02:10:45	WIFI	"b0:4e:26:c8:a1:a7",-38,"04:d9:f5:fb:3d:e0",-42,"ac:84:c6:99:0b:c5",-48
3	2020/01/01 02:10:57	WIFI	"b0:4e:26:c8:a1:a7",-38,"b0:4e:26:aa:87:ee",-46,"04:d4:c4:29:f0:90",-48
4	2020/01/01 02:14:25	WIFI	"04:d9:f5:fb:3d:e0",-44,"b0:4e:26:aa:87:ee",-47,"04:d4:c4:29:f0:90",-49
5	2020/01/01 02:14:37	WIFI	"04:d9:f5:fb:3d:e0",-41,"b0:4e:26:c8:a1:a7",-44,"ac:84:c6:99:0b:c5",-46
6	2020/01/01 02:18:05	WIFI	"b0:4e:26:c8:a1:a7",-41,"04:d9:f5:fb:3d:e0",-42,"04:d4:c4:29:f0:90",-50
7	2020/01/01 02:18:17	WIFI	"04:d9:f5:fb:3d:e0",-42,"b0:4e:26:c8:a1:a7",-43,"04:d4:c4:29:f0:90",-48
8	2020/01/01 02:21:45	WIFI	"b0:4e:26:c8:a1:a7",-41,"04:d9:f5:fb:3d:e0",-42,"04:d4:c4:29:f0:90",-48
9	2020/01/01 02:21:58	WIFI	"b0:4e:26:c8:a1:a7",-40,"04:d9:f5:fb:3d:e0",-43,"04:d4:c4:29:f0:90",-47
10	2020/01/01 02:25:25	WIFI	"b0:4e:26:c8:a1:a7",-40,"04:d9:f5:fb:3d:e0",-41,"04:d4:c4:29:f0:90",-47
11	2020/01/01 02:25:25	WIFI	"b0:4e:26:c8:a1:a7",-41,"04:d9:f5:fb:3d:e0",-42,"04:d4:c4:29:f0:90",-47

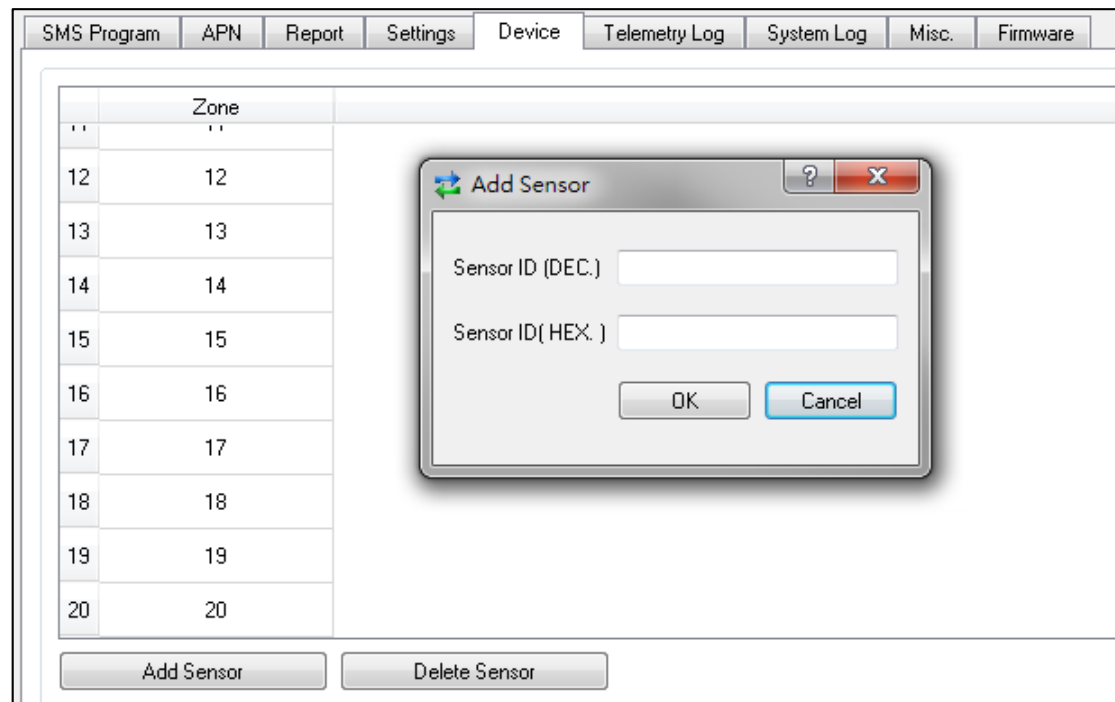
4.1.6. System Log

The system log tab logs the Mobile Lite's detailed system operation history.

SMS Program APN Wifi Report Settings Device Telemetry Log System Log Misc. Firmware			
	Time	Type	Log
1	2020/01/01 01:01:02	GSM	Start
2	2020/01/01 01:01:02	System	Reboot
3	2020/01/01 01:01:03	WIFI	wifi ready
4	2020/11/26 06:03:10	GSM	NTP update
5	2020/11/26 06:03:19	RF	Zone2Trigger
6	2020/11/26 06:03:26	RF	Zone2Tamper
7	2020/11/26 06:03:51	RF	Zone2Tamper Restore
8	2020/11/26 06:03:54	RF	Zone2Tamper
9	2020/11/26 06:04:09	RF	Zone2Trigger_Restore
10	2020/11/26 06:04:11	RF	Zone2Trigger
11	2020/11/26 06:04:15	RF	connect to AP

4.1.7.Device

Click on the “**Device**” tab for Device settings where you can view device zone, type, add or remove devices.



For learning new device(s), please use local learning mode or use the PC Programming Tool.

Add Sensor:

Depends on the supplier, a Sensor ID of the device may be labeled (usually on the back of the device). Users can use the “Add Sensor” function to include sensors into the Mobile Lite.

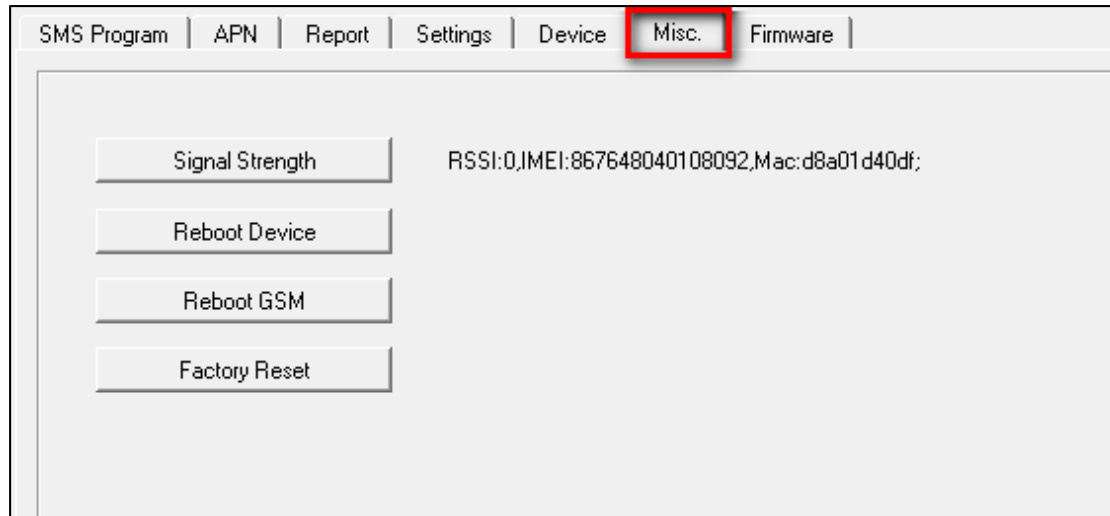
- Click on the “**Add Sensor**” button:
- Enter the Sensor ID (the barcode on the back of the sensor). A sensor ID is a combination of digits 1-9 and characters A-F and can contain 10 decimal or 8 hexadecimal characters (can be uppercase or lowercase characters).
- If the sensor is successfully added, the sensor will be assigned from Zone 1 to 20 in sequence.

Removing sensors:

Click on the device entry you wish to delete from the Device List, and then click the “**Delete Sensor**” button.

4.1.8. Miscellaneous

Click on the “Misc.” tab to program miscellaneous options:

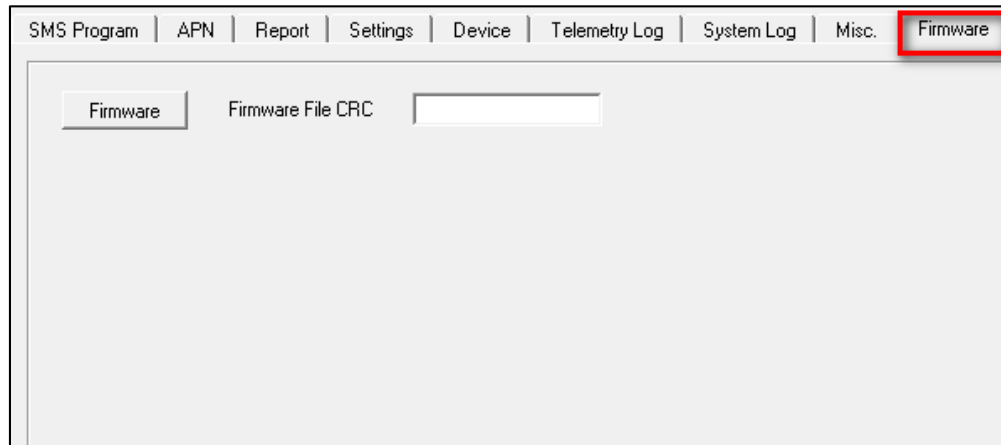


- **Signal Strength**
 - Click on the Signal Strength button to obtain GSM signal strength. The IMEI number of GSM module will be displayed on the right side of GSM signal strength.
- **Reboot Device**
 - Click “**Reboot Device**” to reboot Mobile Lite. This will not remove any programmed parameters on Mobile Lite.
- **Reboot GSM**
 - Click “**Reboot GSM**” will reset the Cellular module.
- **Factory Reset**
 - Factory Resetting Mobile Lite will clear all programmed parameters.

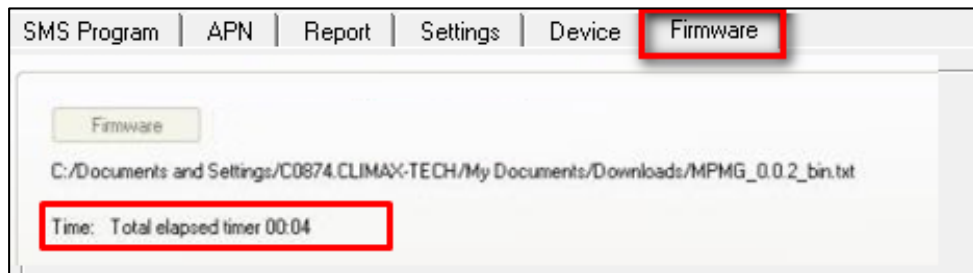
4.1.9. Firmware

To update the firmware of Mobile Lite:

Step 1. Click “Firmware”.



Step 2. Select the provided firmware in your computer. A small window will pop-up with the message “Read file ! OK!”. Click on the “OK” button and the update process will start. Total elapsed time will be displayed to show how long the updating process has elapsed.



Step 3. When updating process is completed, a message “Firmware update success!” will be displayed in a pop-up window.

Step 4. Click on “OK” and the programming tool will read the settings of Mobile Lite again.

<WARNING>

☞ During updating process, all LEDs will light up. Please DO NOT disconnect Mobile Lite from the computer nor clicking on the “Close” button of the programming tool.

4.2. SMS Remote Programming

- Step 1.** Enter the SMS screen on your mobile phone or smartphone.
- Step 2.** Enter the programming command (see the SMS remote programming commands tables below).
- Step 3.** Enter a colon (:).
- Step 4.** Enter SMS Keyword (default is **PROG**).
- Step 5.** Enter a comma (,).
- Step 6.** Enter the Access Code (default is **1111**).
- Step 7.** Enter a comma (,).
- Step 8.** Enter the parameter(s).
- Step 9.** The composition of the command is completed. You can send the command to Mobile Lite now.

<NOTE>

- ☞ If the SMS message text format of your mobile phone is not English, please change it to English for SMS remote programming.

Example: To set IPOG as the keyword, you can send the following command:

SUPPR:PROG,1111,IPOG		
SUPPR	=	Programming command
:	=	Colon
PROG	=	SMS Keyword
,	=	Comma
1111	=	Access Code
,	=	Comma
IPOG	=	Programmed parameter

<NOTE>

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

Please refer to the Appendix for the **7.1. SMS Remote Programming Commands Table**.

5. Local RF Device Management

Mobile Lite can learn up to **20** RF devices which can be used to activate Mobile Lite to make emergency report.

Entering Learning Mode

Press the Info Button three times quickly. Mobile Lite R32 will play voice prompt “Entering Pairing Mode, press the button on the peripheral to connect to the device.”

Device Learning and Testing

- Step 1.** Press the Button on the RF device to transmit a signal. Refer to RF device manual for detail.
- Step 2.** Mobile Lite will play voice prompt “Pairing completed” when it receives the signal from the device to indicate it has learned in the device.
- Step 3.** After a device is successfully learned in, Mobile Lite will automatically exit learning mode. To learn in another device, you will need to press the Info Button three times quickly to enter learning mode again.

Exit Learning Mode

Mobile Lite will exit learning mode immediately after a device is successfully learned in, or after 1 minute of inactivity.

6. Operation

6.1. Current Operation Condition

Mobile Lite uses its LED to remind the user of its Current Operation Condition.

- **LED indicators:**

LED	Behavior	Indication
Green LED	On	Mobile Lite is full charged.
	1 Flash every 2 minutes	Mobile Lite is operating or charging, and battery percentage is above 20%. Normal Cellular Network connection
Red LED	1 Flash every 30 seconds	Mobile Lite low on battery (10%-20%)
	On	Mobile Lite low on battery (below 10%)
		Mobile Lite is charging, and battery percentage is below 20%.
Amber LED	1 Flash every 1 minute	Cellular Network fault

If Mobile Lite is activated while having a Cellular Network fault (Amber LED flashes once every 1 minute), it will play voice prompt "Poor cellular connection. Please call 911."

6.2. GPS/Wi-Fi Locate Function

- Mobile Lite location info can be acquired in 3 ways.

1. **Activate an alarm**

When an alarm is activated, Mobile Lite will also report its location info along with the alarm event. (For IP & SMS Reporting)

During two-way communication following a successful IP report, Mobile Lite location info will be updated every minute, and reported via the previously successful IP channel. (For Speech Reporting or Callback call)

2. **Auto Check-In Report or LB**

When the Mobile Lite makes the auto check-in report to CMS, its location info will also be updated and sent with the report.

- For IP reporting, the Location coordinates will be included in JSON report.
- For SMS reporting, the location info is sent as a webpage link for Google

Map. Click the link to display the location.

- For Speech reporting or callback call, the location info will be updated every minute, but the location cannot be sent via two-way communication.

There must be one successful IP report before two-way communication for the Mobile Lite to report and update the location through.

- If Mobile Lite is under low battery and makes a second low battery report to the CMS, the location function will be turned off.

6.3. Test Mode

- Test Mode is for user to test if the Mobile Lite can make a successful report to the CMS.
- To enter Test Mode:

Step 1. Press the Info button twice quickly.

Step 2. Mobile Lite R32 will play voice prompt “Entering Test Mode, press the Help Button to connect to the test center.”

Step 3. Press the Help Button once to continue with the Test. If no action is taken, Mobile Lite will come out of test mode in programmed period.

6.4. Alarm Activation

- When an alarm is activated by pressing the Active Button of Mobile Lite or the learnt-in RF device (WTR, Fall Sensor or PB), or pulling the cord of PCU, Mobile Lite will emit a voice prompt “Initiating help. Press and hold the help button to cancel” as it enters guard time (default 10 seconds).

If alarm is activated by fall detection, Mobile Lite will emit a voice prompt “Fall Detected. Press and hold the help button to cancel” as it enters guard time fall sensor (default 10 seconds).

- If there are no report destinations programmed, Mobile Lite will not report upon alarm activation and will emit 1 beep as a reminder.
- Mobile Lite will also report its location along with the alarm report (please refer to **6.3. GPS/Wi-Fi Locate Function**) provided the programmed report method(s) supports location report.
- If Mobile Lite is activated while having a Cellular Network fault (Amber LED flashes once every 3 seconds), by the time guard time expires it will play voice prompt “Poor cellular connection. Please call 911.” to alert user to call 911 by themselves.

Guard Time

- When the Active Button on Mobile Lite is pressed for 2 seconds, the device will play voice prompt “Initiating help. Press and hold the help

button to cancel” and enter guard time.

- During guard time, the device will emit one beep every second. If a false alarm is triggered, it can be canceled during guard time by pressing and holding the Active Button for 5 seconds.
- After the Guard Time has expired, Mobile Lite will begin report, the alarm event cannot be cancelled after Guard Time has expired

Guard Time Fall Sensor

- The Guard Time for Fall Sensor’s fall detection function is set separately from regular Guard Time.
- If a false alarm is triggered by Fall Detection, it can be canceled within the guard time fall sensor period by pressing the Active Button of Mobile Lite for 5 seconds or pressing the Active Button of the learnt-in RF device for a duration determined by the device (please refer to the device user manual).
- After the Guard Time Fall Sensor has expired, Mobile Lite will begin report, the alarm event cannot be cancelled after Guard Time Fall Sensor has expired.
- This function is only used when a fall is detected, if the Active Button on Mobile Lite or the Active Button of the learnt-in Fall Sensor is pressed to activate alarm, normal guard time is used instead.

Confirmation Voice Prompt

- After guard time expires, Mobile Lite will summon help based on the programmed reporting methods. When Mobile Lite is reporting, it will first play a voice prompt “Connecting”, and then repeat voice prompt “Call in progress” every 10 seconds to indicate that the call is in progress.
- When Mobile Lite is connected to CMS successfully, it will play the voice prompt “Call Connected”.
- After connecting to CMS successfully and until a call recipient picks up the call and presses any DTMF, Mobile Lite will repeat the voice prompt “Please standby for an operator” every 10 seconds.

Last Location

The Last Location function determines Mobile Lite reporting behavior when activated.

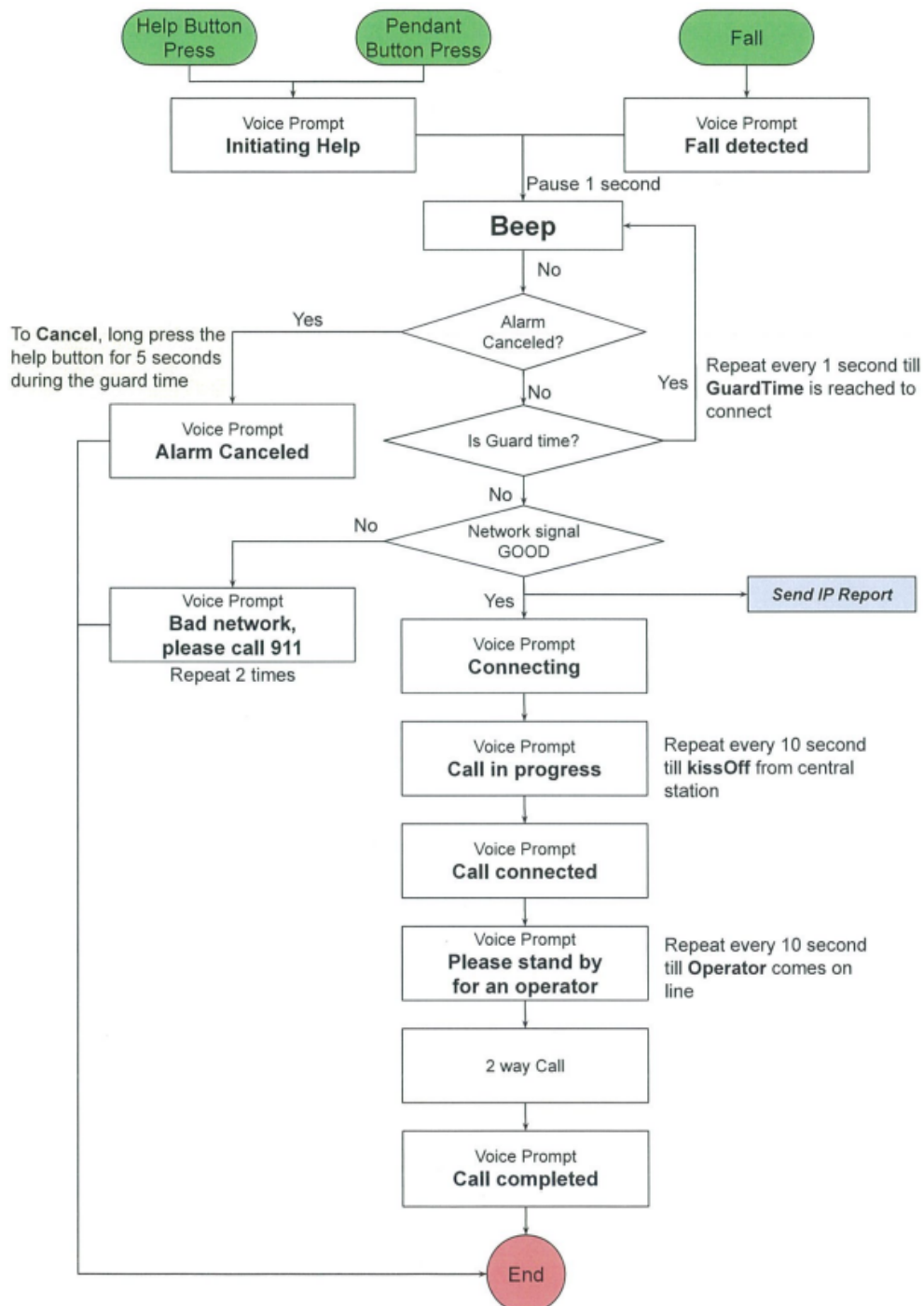
- Mobile Lite will regularly scan for nearby Wi-Fi hotspots, other wireless access points and store the data according to set time interval. Mobile Lite will also check GPS location regularly according to set time interval.

When Mobile Lite is activated to send alarm report, it will begin to check last position while acquiring new Location. If new location cannot be acquired by the time Guard Time ends, Mobile Lite will send report with

last location. After new location is acquired, Mobile Lite will send another report to update the location info.

<NOTE>

- ☞ Mobile Lite will check Last Location by transmitting last stored Wi-Fi hotspot data to Google Wi-Fi positioning service for location identification or using last acquired GPS location if there is any. (GPS function is only turned on when no Wi-Fi hotspot data is obtained.)
- ☞ Mobile Lite will disregard Last location if it is older than 8 hours.



6.4.1. Alarm Report Procedure

Mobile Lite will regularly scan for nearby Wi-Fi hotspots, other wireless access points and store the data according set time interval. If Wi-Fi data cannot be obtained, Mobile Lite will check GPS location instead.

When Mobile Lite button is pressed and alarm is activated, it will begin to check last position while acquiring new Location and count down Guard Time.

☞ Mobile Lite will check Last Location by transmitting last stored Wi-Fi hotspot data to Google Wi-Fi positioning service for location identification or using last acquired GPS location. (GPS function is only turned on when no Wi-Fi hotspot data is obtained.)

☞ Mobile Lite will acquire new location using Wi-Fi and GPS positioning.

- ◆ If new location is acquired within guard time, the alarm report is made immediately with the new location coordinates.
- ◆ If new location is not acquired by the time Guard Time ends, Mobile Lite will send report with last location.

If there is no Last Location data stored, or it is older than 8 hours, Mobile Lite will disregard it and send report without location.

After new position is acquired, Mobile Lite will follow up with another report.

If new position is acquired, and it's in two-way communication (of either a speech report or a callback call) following a successful IP report, Mobile Lite will make report with location info via the previously successful IP channel. Mobile Lite will keep updating and reporting location info every minute before two-way communication ends.

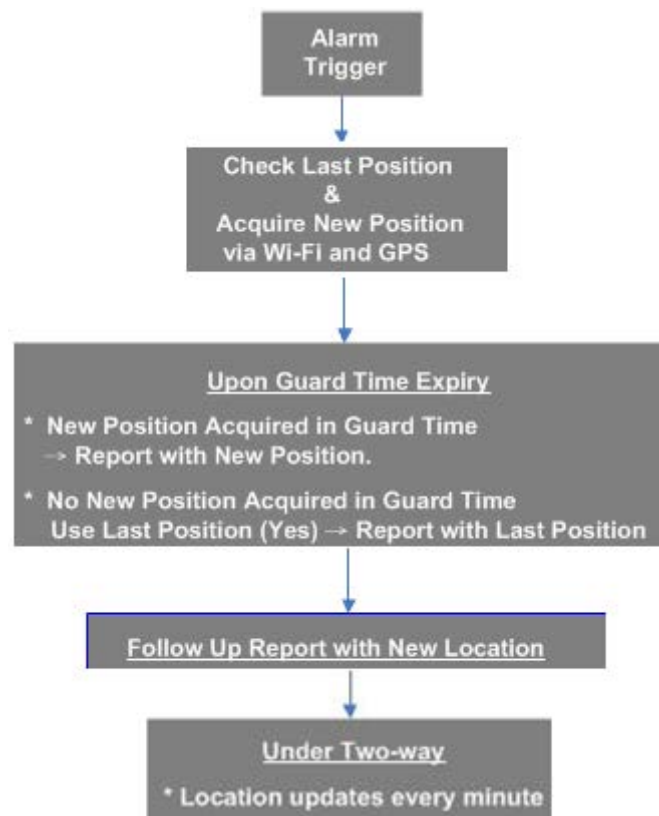
Example:

1. If Guard Time = 30 seconds, new Location acquired within Guard Time:
Mobile Lite makes alarm report upon Guard Time expiry along with new Location coordinates.
2. If Guard Time = 30 seconds, new Location is NOT acquired within Guard Time:
 - a. If Mobile Lite has Last Location, it makes alarm report along with location coordinates after Guard Time has expired.
 - b. If Mobile Lite does not have Last Location, or the Last Location is older than 8 hours, it makes alarm report without Location coordinates after Guard Time has expired.
 - c. When new position is acquired, Mobile Lite makes follow up report immediately with Location coordinates.

- d. If new position is acquired under two-way communication following a successful IP report, Mobile Lite makes report via the successful IP channel with location coordinates.

During the two-way communication (of either a speech report or a callback call), Mobile Lite will keep updating location and making report every minute.

Diagram:



6.4.2. Callback Mode

- After reporting an alarm successfully to the CMS, Mobile Lite will enter callback mode by default.

<NOTE>

- ☞ Mobile Lite will enter callback mode only after all groups have been reported to and at least one report was successful.
- If the number of the incoming call matches any of the Caller ID, Mobile Lite will instantly pick up the call, emit one beep (at the caller handset) and open a two-way communication.
- The caller can call back multiple times during the callback period.
- The caller can use the following DTMF commands to control the call:

- Enter **(1)** for talk-only mode.
- Enter **(2)** for two-way voice communication.
- Enter **(3)** for listen-in only mode.
- Enter **(9)** to hang up.
- Put the handset back to the base cradle to end the call.
- Press and hold the Active Button of Mobile Lite for 5 seconds to end the call.
- Press any DTMF key except for the designated hang-up key **(9)** to reset the communication time to 5 minutes. When a DTMF key is pressed, its designed shortcut function will also be executed along with the communication time reset.

<NOTE>

- ☞ If you wish to enable a designed shortcut function, please press the DTMF key for at least 1 second.
- ☞ During two-way communication of a callback call, Mobile Lite location info will be updated every minute. If there was a successful IP report before the two-way communication, the location updates will be reported via the previously successful IP channel.

6.4.3. Speech Reporting Method

- If speech reporting method is selected, Mobile Lite will dial the programmed number for reporting. It will establish a two-way voice communication between the call recipient and Mobile Lite user.
- The CMS can remotely control Mobile Lite during the voice communication period using the DTMF commands below:
 - Enter **(1)** for talk-only mode.
 - Enter **(2)** for two-way voice communication.
 - Enter **(3)** for listen-in only mode.
 - Enter **(9)** to hang up.
 - Put the handset back to the base cradle to end the call.
 - Press and hold the Active Button of Mobile Lite for 5 seconds to end the call.
 - Press any DTMF key except for the designated hang-up key **(9)** to reset the communication time to 5 minutes. When a DTMF key is pressed, its designed shortcut function will also be executed along with the communication time reset.

<NOTE>

- ☞ If you wish to enable a designed shortcut function, please press the DTMF key for at least 1 second.
- At 20 and 10 seconds before the communication time expires, Mobile Lite will emit 1 beep via the telephone handset to alert the user.
- If the call recipient needs more talk time, he can press any key except for

(9) to reset the communication time to its preset duration.

- If no DTMF command is pressed during the speech period, the call will automatically hang up and be recorded as an unsuccessful report. Each phone number will be retried up to a maximum of 2 times accordingly.
- During two-way communication, Mobile Lite location info will be updated every minute, if there was a successful IP report before the current two-way communication, the location updates will be reported in event via the previously successful IP channel.

6.4.4. Report Sequence

The Reporting Group determines the sequence of reporting.

One Report Index can only be assigned to one Group.

Reporting within a Group:

If there are multiple Report Indexes programmed within a Group:

- Mobile Lite will report according to the numeric order (e.g. 1 > 2 > 3, etc.) of the Report Index in a Group. Report will stop when one report is successful and Mobile Lite will regard reporting to this Group successful.

For example, if Report Index 1 and 4 are assigned to Group 1, Mobile Lite will stop reporting if reporting to Index 1 is successful. If reporting to Index 1 failed, Mobile Lite will carry on reporting to Index 4.

- If all reporting in a group failed, Mobile Lite will retry reporting.
Mobile Lite will try reporting within the same group for **up to three times**, (or until one of the reports is successful). If three times of trying within the same group failed, Mobile Lite will regard reporting to this Group unsuccessful.

From the example above, suppose all report failed, the report sequence would be:

1 > 4 > 1 > 4 > 1 > 4

Reporting Cycle

- If multiple groups are assigned to the same event type (emergency or status), Mobile Lite will report according the group numeric order from the first programmed Group to the last programmed group. This report sequence is one reporting cycle.
- Reporting cycle is regarded as successful if any Group is successful, but Mobile Lite will terminate reporting only after completing the reporting cycle (going from the first programmed group to the last programmed group).
- Reporting behavior depends on the event type:

- **Emergency Events:**

- When reporting to the first group is successful, Reporting is regarded as successful. Mobile Lite will still report to the next group until all groups have been tried to complete the reporting cycle.

For example, Groups 1 and 3 are assigned to Emergency Events:

If Group 1 is successful, Mobile Lite will still report to Group 3.

If reporting to Group 3 is successful, Mobile Lite will terminate reporting.

If reporting to Group 3 is unsuccessful (going through all the Report Indexes within the group for 3 times), Mobile Lite will also terminate reporting.

- When reporting to the first group failed (going through all the Report Indexes within the group for 3 times), Mobile Lite will start reporting to the next group. When reporting to the second group succeeds, reporting is regarded as successful. If no other group is programmed, Mobile Lite will stop reporting. If there are more groups programmed, Mobile Lite will continue reporting until all groups have been tried to complete the reporting cycle.
- If reporting to all the programmed groups failed in a reporting cycle, Mobile Lite will wait for 5 minutes. After 5 minutes, Mobile Lite will retry as it starts another reporting cycle.

For Emergency event, Mobile Lite will try reporting for up to three reporting cycles. If going through three reporting cycles and all failed, Mobile Lite will terminate reporting.

Example 1, if Groups 1 and 3 are programmed for “Emergency” reports, and assuming NO successful report until Group 1 is successful after the second try:

Group 1 > Group 3 > Wait 5 minutes > Group 1 (Success!) > Group 3 > Stops reporting whether Group 3 is successful or not.

Example 2, if Groups 1 and 3 are programmed for “Emergency” reports, and assuming there is NO successful report:

Group 1 > Group 3 > Wait 5 minutes > Group 1 > Group 3 > Wait 5 minutes > Group 1 > Group 3 > Stops reporting

- **Status Events:**

Mobile Lite will only go through one reporting cycle for Status reports and will not retry if report failed.

For example, if Groups 1 and 3 are programmed for “Status” reports:

Group 1 > Group 3 > Stops reporting

6.5. Sleep Mode

Mobile Lite R32 can be put to Sleep Mode to conserve battery power.

During Sleep Mode, Mobile Lite R32’s cellular module is powered off when idle. Mobile Lite R32 will power on its cellular module in the following situations.

1) Alarm is activated

When an alarm is activated by pressing the Active Button of Mobile Lite or the learnt-in RF device (WTR, Fall Sensor or PB), or pulling the cord of PCU, or when a fall is detected, Mobile Lite will wake up to transmit alarm report to CMS. Other status signals in queue buffer will be sent as well.

2) Auto Check-In Report

Users can program the length of the interval between auto check-in reports in sleep mode.

When the Mobile Lite makes the auto check-in report to CMS, status signals in queue buffer will be sent as well.

3) Low battery Detection

When Mobile Lite is low on battery, Mobile Lite will wake up to make Low Battery report.

If battery is not charged after making Low Battery report, Mobile Lite will wake up to make the second Low Battery report when battery voltage drops too low.

Other status signals in queue buffer will also be sent along with low battery report.

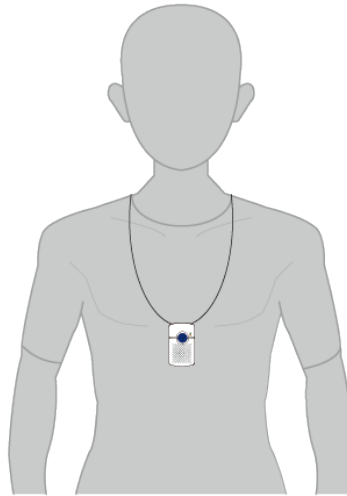
6.6. Check Device Information

To check Mobile Lite R32’s information, press the Info button once in normal mode. The device will beep once and play voice prompt, announcing the device state including connectivity status and battery level.

6.7. Usage Recommendation for Fall Detection

When the fall detection function is enabled for Mobile Lite, please wear the unit on the neck and let it hang in front of the chest, so that Fall Sensor can be effectively triggered. Please **do not** wear the Mobile Lite on your belt, place it in your bag, or hide it inside coat pocket, which may lead to difficult trigger or non-detection of fall.

- Best way to wear Mobile Lite as a fall sensor (O)
 - A. Let it hang in front of the chest and adjust necklace length so that the sensor hangs at the bottom of the sternum as shown in the picture below.
 - B. Wear the pendant exposed outside and in front of any clothes or heavy/feather jacket.



- C. When a fall occurs, it is best if Mobile Lite can touch the ground.
- Wrong way to wear Mobile Lite (X)
 - A. Necklace being too short (around clavicle) or too long (below sternum) is likely to cause false trigger or no response.
 - B. Mobile Lite being worn inside a chest pocket or placed in a bag will lead to non-detected condition.
- Carefully place the Mobile Lite on a desk when you are not using it in order to avoid triggering a false alarm.
- Due to the nature of fall detection mechanism, fall detection cannot be 100% accurate. False alarm or detection failure during daily use could not be avoided completely. Please utilize the Active Button to activate alarm manually when needed to ensure safety.

6.8. Voice Prompts

Mobile Lite will play voice prompts according to different conditions.

Below is a quick reference chart of all the voice prompts of Mobile Lite and the conditions under which they are played.

No	Voice Prompt	Condition
1	Initiating help. Press and hold the help button to cancel.	Plays when the Active Button (Help Button) is pressed to trigger emergency alarm
2	Fall Detected. Press and hold the help button to cancel.	Plays when alarm is activated by fall detection
3	Connecting	Plays when Mobile Lite begins Alarm reporting after guard time expires
4	Call in progress	Plays once every 10 seconds during reporting until KissOff from Center Monitoring Station (CMS)
5	Call connected	Plays once when connecting to CMS successfully
6	Please standby for an operator	Plays once every 10 seconds after connecting to CMS and until an operator picks up the call
7	Call completed	Plays once after 2-way call ends
8	Call canceled	Plays once when pressing the Active Button of Mobile Lite for 5 seconds during guard time
9	Poor cellular connection. Please call 911	Plays twice if the cellular signal is bad and the system cannot connect to CMS. The user need to dial 911 by himself.
14	Entering Test Mode, press the Help Button to connect to the test center	Plays after the Info Button is quickly pressed twice.
15	Entering Pairing Mode, press the button on the peripheral to connect to the device	Plays after the Info Button is quickly pressed for three times.
16	Pairing completed	Plays when Mobile Lite receives the signal from the pendant to indicate it has learned in the pendant.

No	Voice Prompt	Condition
17	Powering off	Plays after the Info Button is quickly pressed for four times.
18	Charging	Plays when the device is charging
19	Cellular signal good battery level good	Plays when pressing the Info Button once shortly and released, and there are 2,3 or 4 signal bars, the battery level is above 20%
20	Cellular signal good, battery level low, charge your device	Plays when pressing the Info Button once shortly and released, and there are 2,3 or 4 signal bars but the battery level is below 20%
21	Cellular signal good, battery level very low, charge your device immediately	Plays when pressing the Info Button once shortly and released, and there are 2,3 or 4 signal bars but the battery level is below 10%
22	Cellular signal poor battery level good	Plays when pressing the Info Button once shortly and released, and there is 1 signal bar or less, the battery level is above 20%
23	Cellular signal poor, battery level low, charge your device	Plays when pressing the Info Button once shortly and released, and there is 1 signal bar or less and the battery level is below 20%
24	Cellular signal poor, battery level very low, charge your device immediately	Plays when pressing the Info Button once shortly and released, and there is 1 signal bar or less and the battery level is below 10%
25	Device ready	Plays once when the device successfully starts 4G/LTE connection after power on
26	Device Error	Plays when pressing the Info Button once shortly and released, and there device error
27	Message E129 Please call customer care	Plays when pressing the Info Button once shortly and released, and there is device error, such as device out of order/tamper open/low battery.
28	Message E130 Please call customer care	Plays when pressing the Info Button once shortly and released, and there is cellular network fault.

7. Appendix

7.1. SMS Remote Programming Commands Table

Item	Command	Example & Usage	Default
Retrieve Mobile Lite configuration	RSCFG	RSCFG:PROG,1111 To retrieve Mobile Lite configuration	--
Upload device list	RGDEV	RGDEV:PROG,1111 To upload a list of all devices	--
Upgrade firmware	UPGRD	UPGRD:PROG,1111 To upgrade firmware	--
Cellular Module Reset	RSTG	RSTG:PROG,1111 To reset Cellular Module	--
To reboot Mobile Lite	RESET	RESET:PROG,1111 To restart Mobile Lite	--
Factory reset	FTSET	FTSET:PROG,1111 To execute a factory reset	--
Make Unit Scream	SCREAM	SCREAM:PROG,1111,60 To set the length of Mobile Lite's beeping period (5-60 seconds) to help the search for Mobile Lite when the device is lost This command will also request for location information.	--
Remove device using device ID	DEVRID	DEVRID:PROG,1111,00123abc To remove device using device ID Parameter: device ID (8 characters)	--
Remove RF Device	DEVRM	DEVRM:PROG,1111,0 Remove RF Device in Mobile Lite. Parameter: 0 = Remove all devices, 1-20 = Remove zone number device (1~20)	--
To power off Mobile Lite	GSMOFF	GSMOFF:PROG,1111 To power off Mobile Lite (Enter Sleep Mode).	--
To send an auto check-in report	GETHB	GETHB:PROG,1111 To send an auto check-in report	--

I. 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 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. The exposure standard for wireless devices employing a unit of measurement is known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/oet/ea/fccid after searching on FCC ID: GX9MOBLIR32

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

SAR testing for body-worn operations has been tested with 0.5 cm separation.

This device complies with Part 15 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.