

Mobile Lite R35-C

New-generation Wristwatch PERS GPS Locator

Installer's Guide

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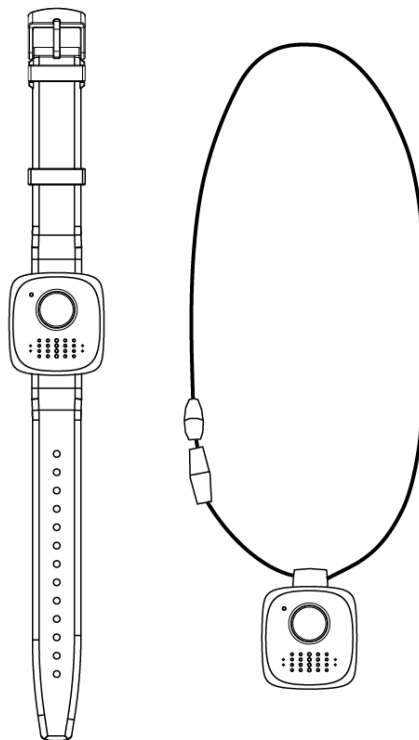
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1. Introduction

1.1. Mobile Lite R35-C

Coming in a watch design, Mobile Lite R35-C is a light, wearable and richly featured GPS Locator with GPS positioning, Wi-Fi positioning, GeoFencing and mobile network that protects 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.



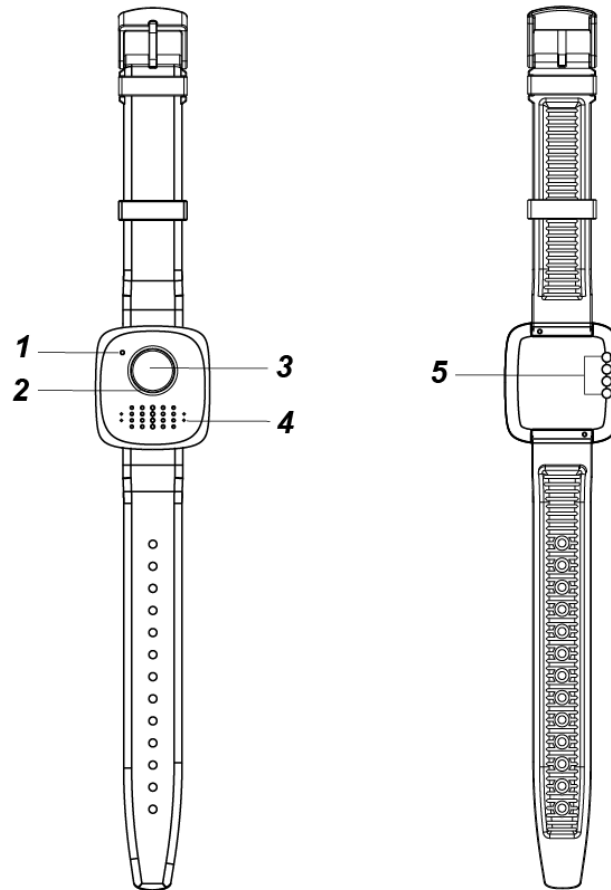
1.2. What's in the Box

Your Mobile Lite package includes the following items:

Item
• Mobile Lite R35-C • CT-35-C charging cradle • Lanyard • Wristband • Power Cable • 5V 1A Adapter • Programming Cable (Optional)

2. System Overview

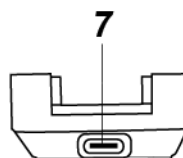
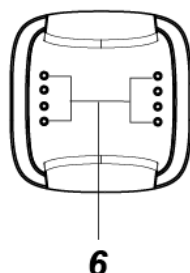
2.1. Identifying the Parts



Button/LED/Component	Behavior	Function/Indication
1. Microphone		
2. Green LED	On	Charging
	1 flash every 5 seconds	Normal Operation
Red LED	1 Flash every 3 seconds	Low Battery *When AC power is connected, Mobile Lite R35-C will not detect if the battery is low in power.
Amber LED	1 Flash every 3 seconds	Cellular Network fault
ALL LEDs	On	Local Update
	Off	GSM power-off mode
3. Active Button	Press and hold for 5 seconds	- To turn on the unit (exits GSM Power-off mode). - To turn off the unit (enters GSM Power-off mode)
	Press once	Trigger emergency alarm

3. Active Button	Press and hold for 5 seconds during Guard Time	Cancel alarm
	Press once when Mobile Lite is ringing	Pick up incoming call
	Press and hold for 5 seconds during a call	Terminate the call
4. Speaker		
5. Charging Contacts		

Charging & Programming Cradle (CT-35-C)



6. Charging & Programming Contact Plates

7. Type C Jack

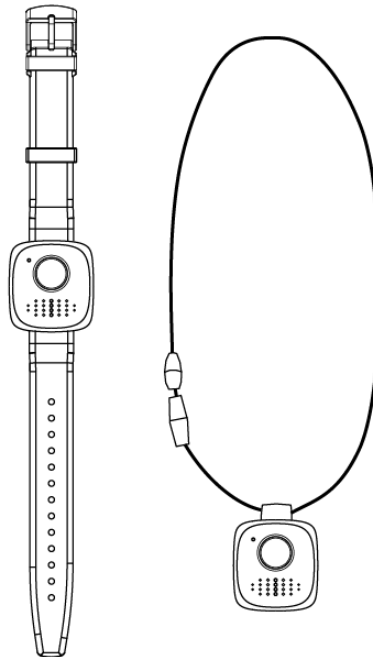
2.2. Power Supply

- 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 **3.3. Charging Mobile Lite**.
- When Mobile Lite is low in battery (remaining power: 20%), the Red LED will flash every 3 seconds and Mobile Lite will make a first Low Battery report as well as play twice a voice prompt "Mobile Unit battery is low. Please charge it".
- If battery is not charged after making the first Low Battery report, Mobile Lite will make a second Low Battery report when the battery voltage drops too low (remaining power: 10% or below) and turn off its GSM module and GPS/Wi-Fi positioning function.
- 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

Mobile Lite R35-C comes in two types for wearing: watch-type and necklace-type.



The lanyard and the wristband have a quick-release mechanism, allowing fast assembly and disassembly.

Adjustable Lanyard



Attachment

Step 1 Turn Mobile Lite R35-C around.

<NOTE>

☞ It is suggested to attach the lanyard to the side near the button.

Step 2 Insert one end of the spring bar into the lug.

Step 3 Use a finger to grab and press the knob and gently position the other end in the watch lughole.



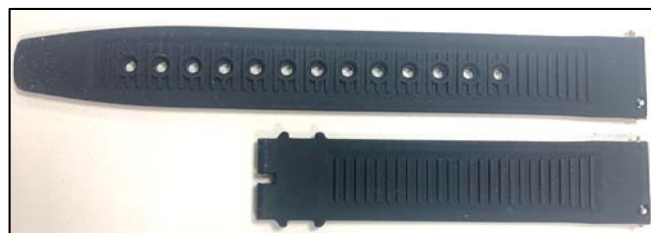
Removal

- Use a finger to grab and press the knob and gently move the end of the spring bar off the lug.



3.2. Mobile Lite Wristband and Attachment

Wristband



Attachment

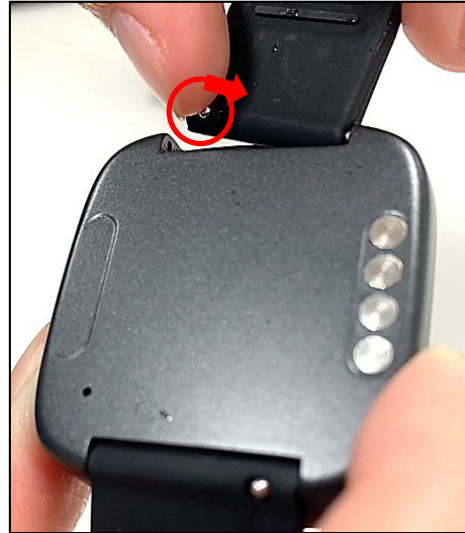
Step 1 Turn Mobile Lite R35-C around.

<NOTE>

☞ It is suggested to attach the wristband having the buckle to the side near the Active Button.

Step 2 Insert one end of the spring bar into the lug.

Step 3 Use a finger to grab and press the knob and gently position the other end in the watch lughole.



Step 4 Repeat the same steps on the other side.

Removal

- Use a finger to grab and press the knob and gently move the end of the spring bar off the lug.



3.3. Charging Mobile Lite

Step 1 Place Mobile Lite into the CT-35-C Cradle. Please make sure the Charging Contact Plates of both Mobile Lite and the cradle are in contact with each other. Mobile Lite R35-C can also be inserted into the Cradle without removing the wristband or the lanyard.

Two rows of contact plates are provided on CT-35-C, allowing you to place your Mobile Lite R35-C into the cradle in either direction.

Step 2 Insert the Type-C end of the Power Cable into the Type-C jack as shown in the picture.



Step 3 Insert the USB end of the Power Cable into the 5V/1A Adapter and plug the adapter into a power socket.



3.4. Hardware Installation (For PC Programming)

Programming Cable

For programming via connecting Mobile Lite to CT-35-C and then connecting to computer, a special Programming Cable is required. The USB end of programming cable is larger than the power cable.

Always use the Programming Cable for connecting CT-35-C to the computer.

Never use a power cable for computer connection.

The programming cable is ONLY provided for sample order.

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



Programming Cable



Power Cable

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

Step 1. Place Mobile Lite into the CT-35-C Cradle. Please make sure the programming Contact Plates of both Mobile Lite and the cradle are in contact with each other.

Step 2. Insert the Type C end of the Programming Cable into the Type C jack as shown in the picture.



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



<WARNING>

☞ If the programming cable is not provided, please contact your supplier. **DO NOT** attempt to connect CT-35-C to computer with the power cable.



Programming Cable



Power Cable

3.5. Software Installation (For PC Programming Tool)

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.

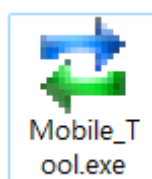
Step 1. Make sure Mobile Lite is connected properly (please refer to **3.4. Hardware Installation**)

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.exe” file.



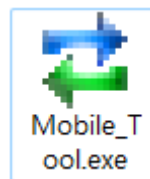
4. Programming Mobile Lite

Mobile Lite can be programmed by sending SMS commands to the device or using a PC Programming Tool.

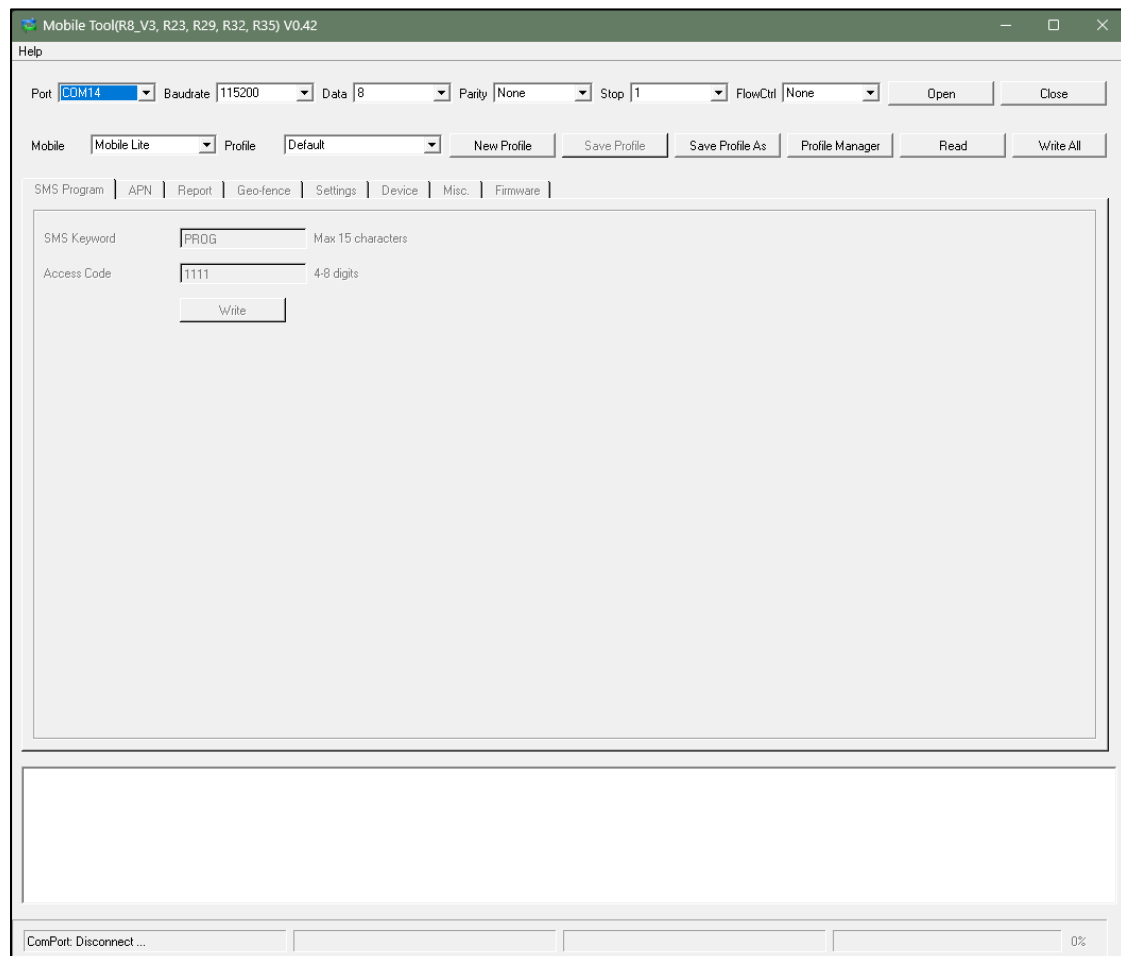
4.1. PC Programming Tool (Installers Only)

For programming system setting with PC Programming Tool software via USB port, follow the instructions 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.”

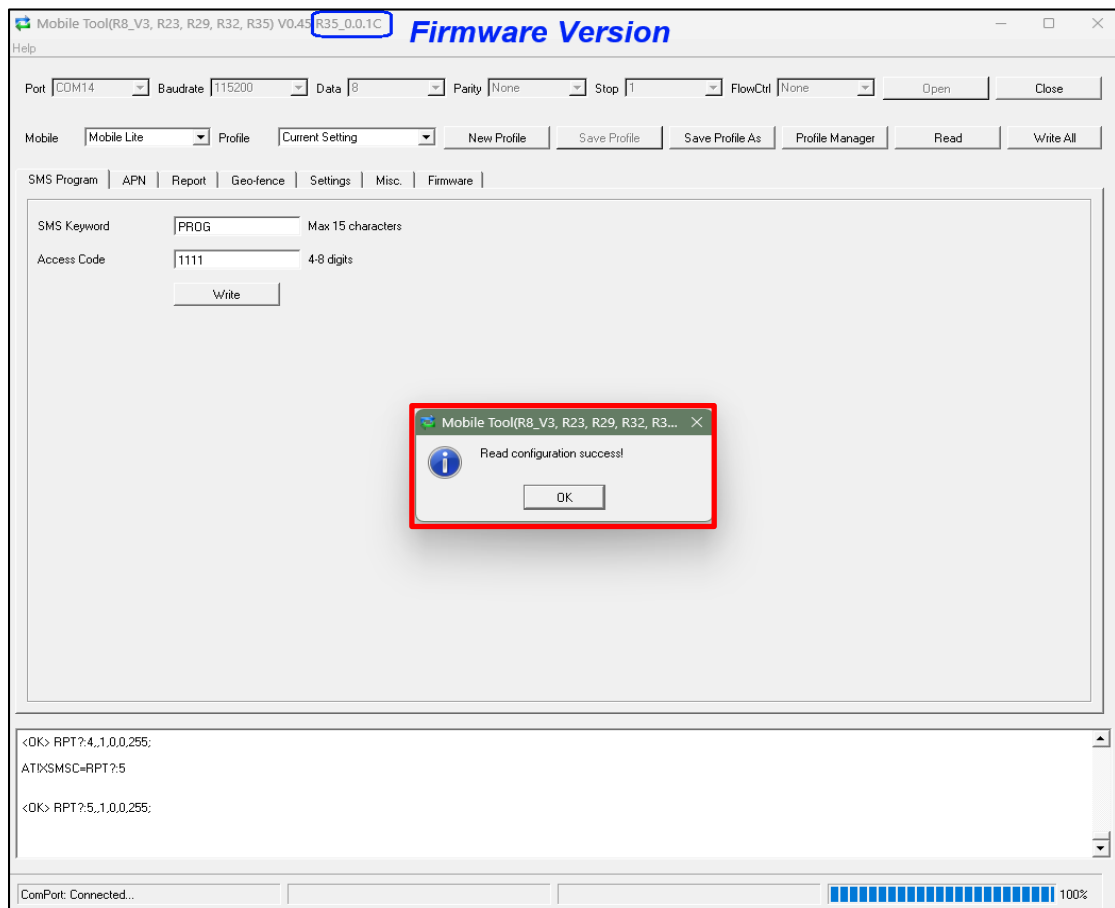
- Port: Select the COM port generated for Mobile Lite after installing the USB Driver (the USB port connected to Mobile Lite).
- Baud rate: 115200
- Data: 8
- Parity: None
- Stop: 1
- FlowCtrl: None



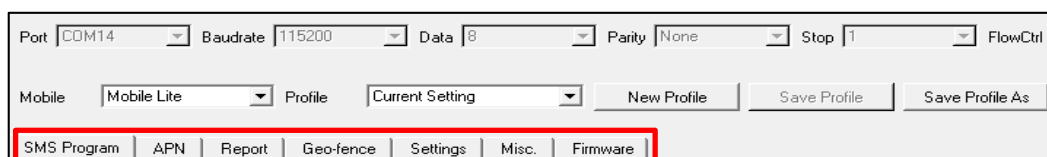
Step 3. Read Configuration

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

When the configuration is read successfully, the current firmware version will be shown in the upper left corner.

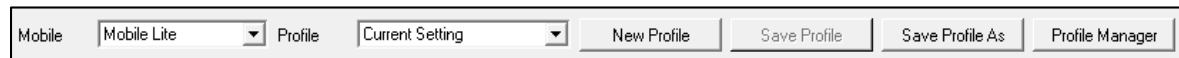


The current Mobile Lite setting will be displayed. Click on different tabs to see and edit Mobile Lite functions.



4.1.1. Profile

The Profile function allows you to create and edit different setting profiles which can be easily accessed in the future for quick programming.



Current Setting

After reading the configuration of Mobile Lite, the Profile scroll down bar will now display “**Current Setting**” indicating PC Programming Tool is now displaying the current Mobile Lite configurations. Selecting different tabs will show the current values of each setting.



If you select a different profile from the drop down menu, the “**Current Setting**” profile will disappear to indicate the PC Programming Tool is no longer displaying Mobile Lite’s current configuration. To access Current Setting again, click on “Read”.

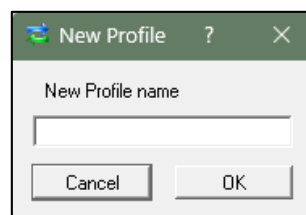
Default

When “**Default**” is selected, the PC Programming Tool will display default configurations of Mobile Lite, you can use this profile to return Mobile Lite to its default setting.



New Profile

To create a new profile, click on “**New Profile**”. A pop-up window will prompt you to enter a profile name:



After entering a profile name, the profile scroll down bar will show the new profile name:



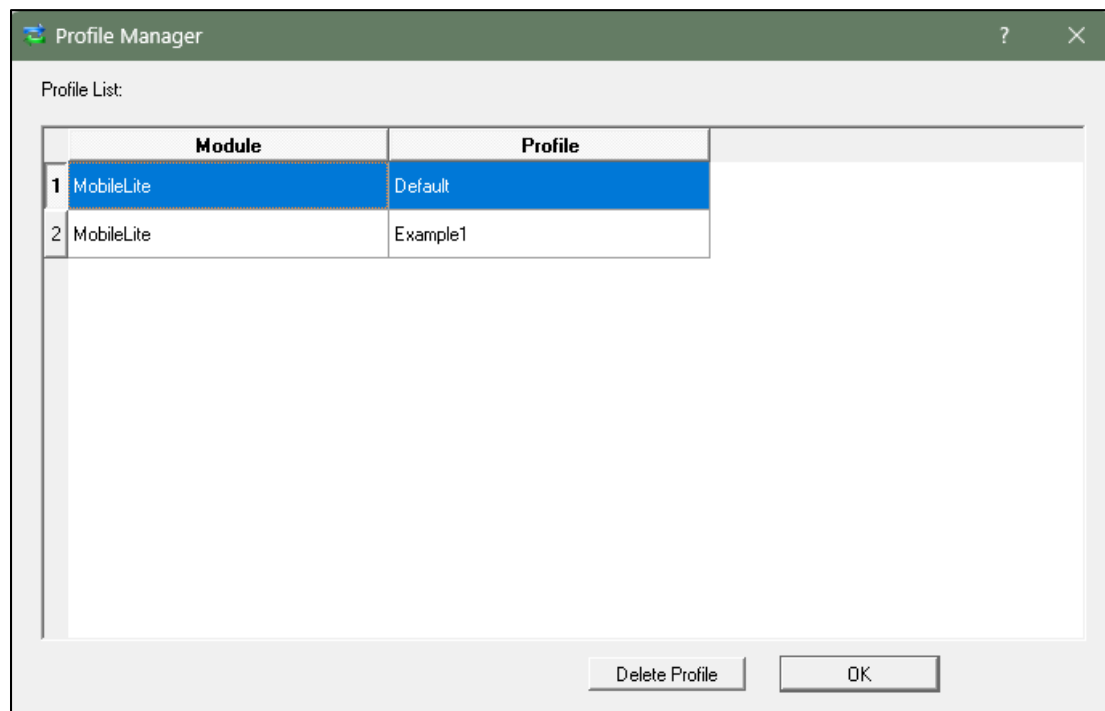
After editing the settings, click “**Save Profile**” to save the profile settings. A pop-up window will indicate the profile has been saved. You can use this profile in the future to apply the same setting to other Mobile Lite.

Apply profile

If you wish to apply all the configuration of a profile into Mobile Lite, go to each individual page and click on all the “Write” buttons to make sure all settings are programmed into Mobile Lite.

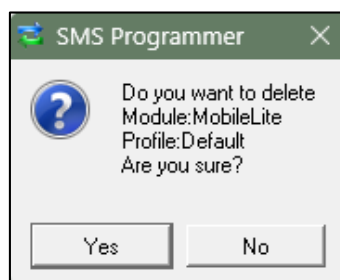
Profile Manager

Click on “**Profile Manager**” to manage the profiles:



Delete Profile

Select a profile and click on “**Delete Profile**”. A pop-up window will ask you to confirm the selection:

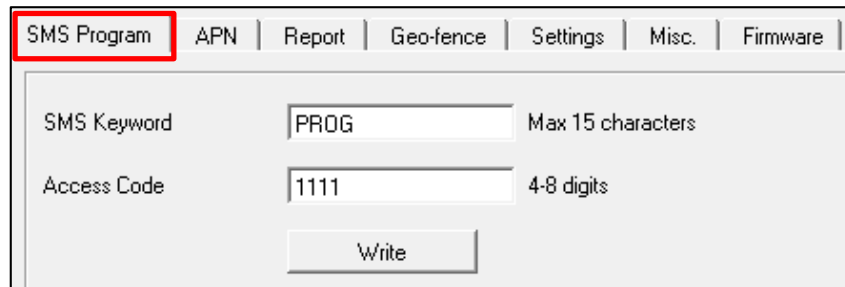


Select “**Yes**” to delete the profile, or “**No**” to return to the previous page.

4.1.2. 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.

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



SMS Remote Programming Procedure

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

Step 2 Enter the programming command. The composition of the command is as below:

Command<colon>**PROG**<comma>**1111**<comma>**Parameter1**
<comma>**Parameter2**<comma>**Parameter3**

- **Command** - Please refer to the Appendix for the **6.1. SMS Remote Programming Commands Table**.
- **PROG** - Default SMS Keyword
- **1111** - Default Access Code
- **Parameter** – Programmed parameter.

Example:

1) CBTI:PROG,1111,5,5,1

The command **CBTI** is used to set Callback time & Two-way time, and to enable/disable callback check access code.

Parameter 1: Callback timer, 0 = disable, 1-30 = 1-30 minutes

Parameter 2: Two-way time, 1-30 = 1-30 minutes

Parameter 3: callback check access code, 0 = Disable, 1= Enable

2) SPKVL:PROG,1111,3

The command **SPKVL** is used to adjust speaker volume of Mobile Lite

Parameter: **1-5** speaker volume (**1** = minimum, **5** = maximum)

<NOTE>

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

Step 3 Send the command to Mobile Lite.

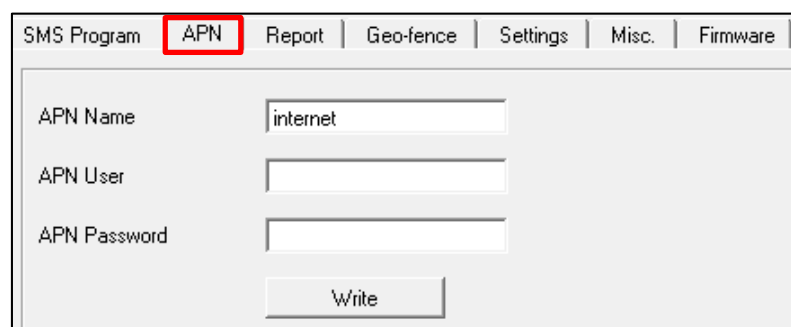
For detail information, please refer to **4.2. SMS Remote Programming**.

4.1.3. 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.



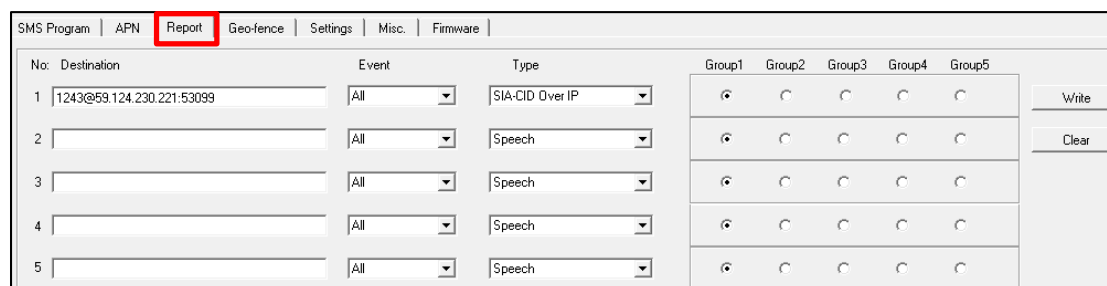
SMS Program	APN	Report	Geo-fence	Settings	Misc.	Firmware
APN Name		internet				
APN User						
APN Password						
		Write				

4.1.4. 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:



SMS Program	APN	Report	Geo-fence	Settings	Misc.	Firmware			
No.	Destination	Event	Type	Group1	Group2	Group3	Group4	Group5	
1	1243@59.124.230.221:53099	All	SIA-CID Over IP	☒	☐	☐	☐	☐	Write Clear
2		All	Speech	☒	☐	☐	☐	☐	
3		All	Speech	☒	☐	☐	☐	☐	
4		All	Speech	☒	☐	☐	☐	☐	
5		All	Speech	☒	☐	☐	☐	☐	

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:

- IP Report Format: **AccountNumber@server:port**

IP Reporting: When activated, Mobile Lite will send event code, battery level and location information (if available) via mobile network.

AccountNumber: Enter 4 to 23 alphanumeric account number assigned by CMS.

Server: Enter either the IP address or the domain name of receiver.

Port: Separate from Server with a colon “:”, then enter the port number

Example: 0001@59.124.123.66:50123

For XML Report Format, you can also enter

<http://AccountNumber@server> url or

<https://AccountNumber@server> url

AccountNumber: Enter 4 to 23 alphanumeric account number assigned by CMS.

Server URL: Enter the Server URL of receiver.

Example: <http://11111@developer.climaxrd.com/soap/test>

<https://11111@developer.climaxrd.com/soap/test>

- 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 **5.5. 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, battery level 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 in 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:

- **Speech:** Mobile Lite reports over the Speech channel to allow the user to talk directly to the call recipient.
- **SIA_CID over IP:** Mobile Lite reports digital CID event codes and location information over mobile network TCP Protocol in SIA format.
- **SIA2_CID over IP:** Mobile Lite reports digital CID event codes and location information over mobile network TCP Protocol in SIA2 format.
- **SIA over IP:** Mobile Lite reports digital SIA event codes over mobile network TCP Protocol.

- **SIA2 over IP:** Mobile Lite reports digital SIA2 event codes over mobile network TCP Protocol.
- **SIA_CID over UDP:** Mobile Lite reports digital CID event codes and location information over mobile network UDP Protocol in SIA format.
- **SIA2_CID over UDP:** Mobile Lite reports digital CID event codes and location information over mobile network UDP Protocol in SIA2 format.
- **SIA over UDP:** Mobile Lite reports digital SIA event codes over mobile network UDP Protocol.
- **SIA2 over UDP:** Mobile Lite reports digital SIA2 event codes over mobile network UDP Protocol.
- **XML:** XML reporting in Avant Guard XML protocol.
- **MAN_XML:** XML reporting in Manitou XMP protocol.
- **SMS CID:** Mobile Lite sends an SMS text message containing event code and a location link.
- **SMS TEXT:** Mobile Lite sends an SMS text message containing event information and a location link.
- **SMS PASOS:** Mobile Lite sends a PASOS SMS message.

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
GPS signal lost	Mobile Lite GPS Signal Failure
Carrier leaves GeoFence area	Mobile Lite has exit GeoFence Area
Carrier enters GeoFence area	Mobile Lite has entered GeoFence Area

- When help is sent by pressing the Active Button, according to CID event code, the user will receive SMS text format as follows:

Mobile Lite Medical Help, Battery 60%
Mobile Lite Medical Help, Battery 50%
maps.google.com/maps?q=12.12312,121.123123 By:GPS
Mobile Lite Medical Help, Battery 40%
maps.google.com/maps?q=12.12312,121.123123 By:WiFi
Mobile Lite Medical Help, Battery 30%
maps.google.com/maps?q=12.12312,121.123123 Last Know Loc. 1 Min Ago
Mobile Lite Medical Help, Battery 30%

maps.google.com/maps?q=12.12312,121.123123 Last Know Loc. 1 Hour Ago
--

<For Example>:

- Mobile Lite Medical Help, Battery 60%

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, Battery 50%

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, Battery 40%

maps.google.com/maps?q=12.12312,121.123123 Last Know Loc. 1 Min Ago
By:GPS

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

4.1.5. Geo-fence

The “**Geo-fence**” tab allows the user to setup a GeoFence area.

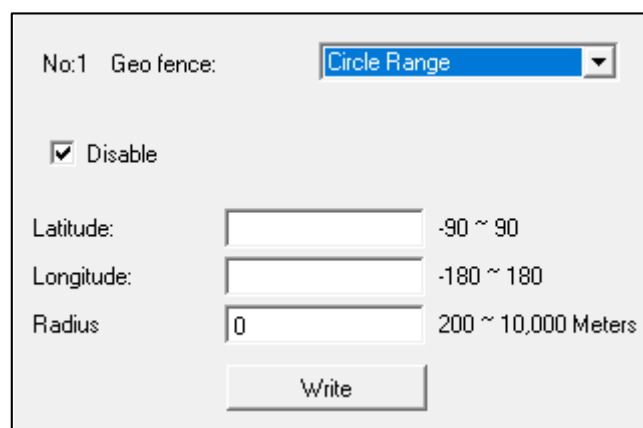


The screenshot shows a web interface with a top navigation bar containing tabs: SMS Program, APN, Report, Geo-fence (highlighted with a red box), Settings, Misc., and Firmware. Below the tabs, there are three identical configuration sections for No.1, No.2, and No.3. Each section contains a 'Geo fence:' label, a 'Delete' dropdown menu, and a 'Write' button.

- When GeoFencing is enabled, Mobile Lite will check its location every 2 minutes.
- If the user leaves the GeoFence area and is detected while Mobile Lite is checking its location, it will automatically report to the report destinations.
- If the user returns to the GeoFence area, it will also send restoration report to the report destinations.
- When Mobile Lite makes a second low battery report to the CMS, the GPS function is turned off and GeoFence function will also be turned off.

Circle Operational Area

Select “Circle Range” to program a circular GeoFence area.



The screenshot shows a configuration window for No.1. It features a 'Geo fence:' dropdown menu set to 'Circle Range'. Below this is a checked 'Disable' checkbox. There are three input fields: 'Latitude:' with a range of '-90 ~ 90', 'Longitude:' with a range of '-180 ~ 180', and 'Radius' with a value of '0' and a range of '200 ~ 10,000 Meters'. A 'Write' button is located at the bottom.

Latitude: Enter the location latitude of the center of the operational area (-90 to 90).

Longitude: Enter the location longitude of the center of the operational area (-180 to 180).

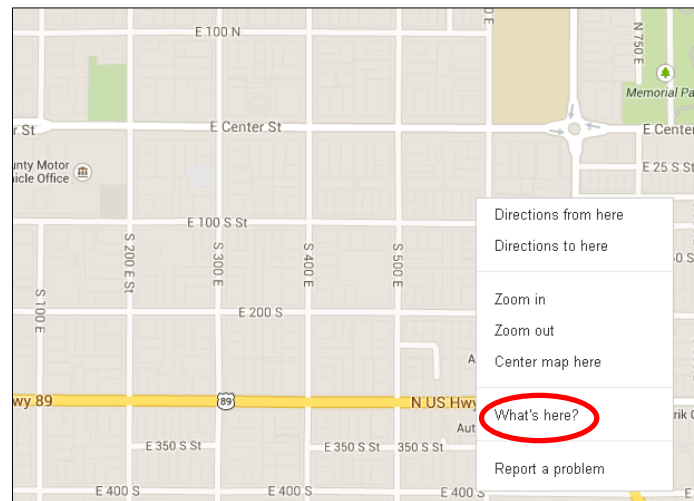
Both Latitude and Longitude accept coordinates of up to 6 decimal points. Due to the mechanics of GPS positioning, the 6th decimal point may deviate slightly from the entered value. However, the actual position is affected very slightly.

Radius: Enter the radius of the operational area with respect to the center of the operational area (200 to 10,000 meters).

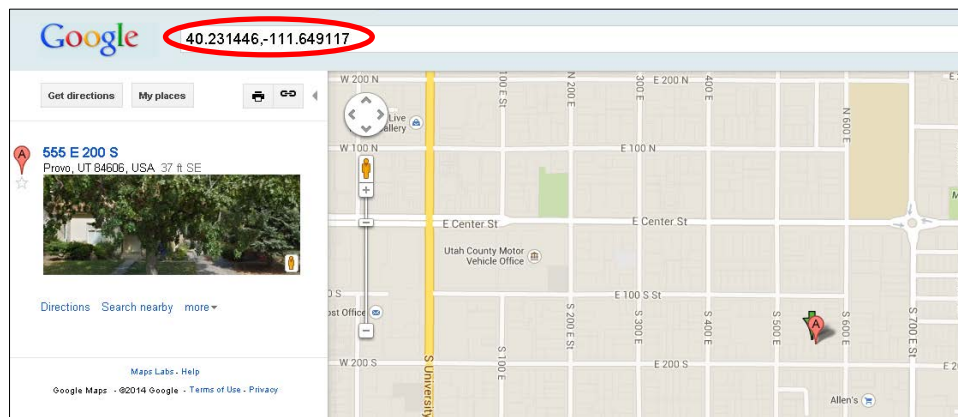
To identify the latitude and longitude of a particular location, follow the steps below to identify a coordinate using Google Map:

Step 1: Open internet browser and access Google Map.

Step 2: Right-Click on a location and select “What’s here?” as shown:



Step 3: The latitude and longitude will be shown respectively:



Polygon Operational Area

Select “Polygon Range” to set a Polygon shaped GeoFence area.

The screenshot shows a configuration window titled "No:1 Geo fence:". At the top, there is a dropdown menu set to "Polygon Range". Below this is a checked checkbox labeled "Disable". Underneath is a "Polygon Vertex Number:" label followed by a dropdown menu set to "3". The main section contains eight input fields arranged in four rows. Each row has a label on the left, an input field in the middle, and a range on the right. The rows are: Latitude1: 0.000000 -90 ~ 90; Longitude1: 0.000000 -180 ~ 180; Latitude2: 0.000000 -90 ~ 90; Longitude2: 0.000000 -180 ~ 180; Latitude3: 0.000000 -90 ~ 90; Longitude3: 0.000000 -180 ~ 180; Latitude4: 0.000000 -90 ~ 90; Longitude4: 0.000000 -180 ~ 180. The input fields for Latitude4 and Longitude4 are dimmed. At the bottom center is a "Write" button.

Label	Value	Range
Latitude1:	0.000000	-90 ~ 90
Longitude1:	0.000000	-180 ~ 180
Latitude2:	0.000000	-90 ~ 90
Longitude2:	0.000000	-180 ~ 180
Latitude3:	0.000000	-90 ~ 90
Longitude3:	0.000000	-180 ~ 180
Latitude4:	0.000000	-90 ~ 90
Longitude4:	0.000000	-180 ~ 180

Polygon Vertex Number: Select the number of vertices the polygon will have (3 or 4). If 3 is selected, Latitude4 and Longitude4 will dim to prevent selection.

Latitude 1-4: Enter the location latitude of 1-4 vertices of the operational area (-90 to 90).

Longitude 1-4: Enter the location longitude of 1-4 vertices of the operational area (-180 to 180).

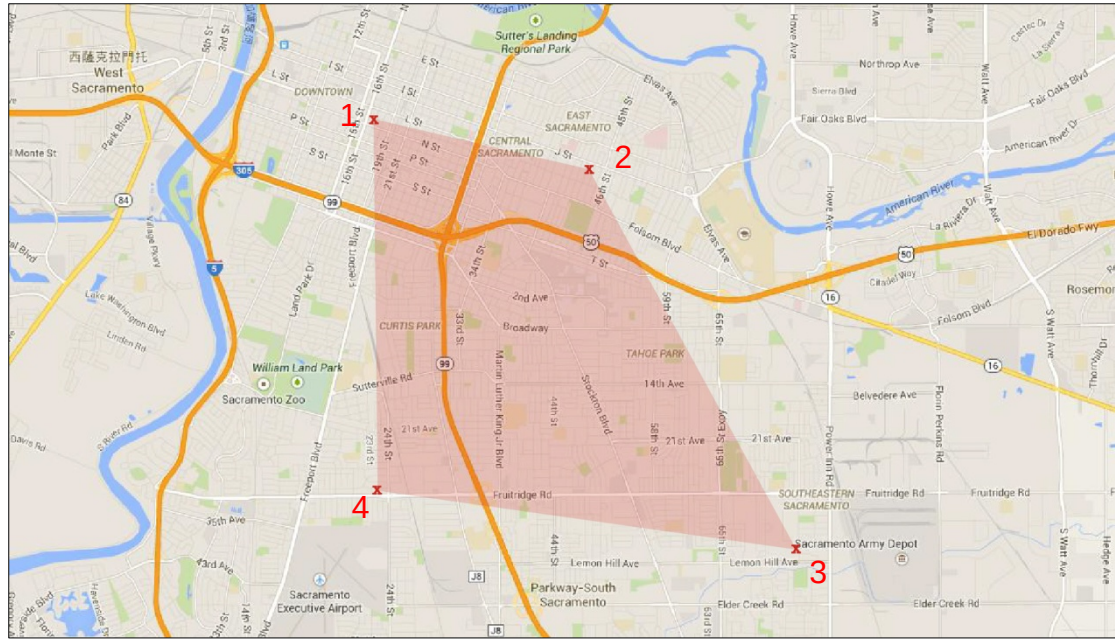
Mobile Lite will connect the coordinates consecutively (from 1 > 2 > 3 > 4) and draw up a GeoFence area (see [Example](#) below). Do not cross any coordinate connections (to prevent GeoFence area error).

Both Latitude and Longitude accept coordinates of up to 6 decimal points. Due to the mechanics of GPS positioning, the 6th decimal point may deviate slightly from the entered value. However, the actual position is affected very slightly.

Click on “Write” to submit the settings.

Example:

For a polygon of 4 vertices, enter the coordinates from coordinate 1 to coordinate 4 to create a GeoFence area as shown below (pink-colored area):



4.1.6. Settings

The Settings tab allows you to program general configuration for Mobile Lite.

Click “Write” when you have completed all settings to confirm.

SMS Program | APN | Report | Geofence | **Settings** | Misc. | Firmware

Help Event	Emergency (101)	Guard Time Sound	On
Guard Time	10 sec	Confirmation Sound	On
Guard Time Fall Sensor	30 sec	Mobile Silent	Disable
Speech Report Ack	Off Hook	Speaker volume level	3
Two-way Timer	5 min	Answer Incoming Call	Enable(Ring)
Callback Timer	5 min	Incoming Call Check Access code	Disable
Callback Check Access code	Disable	Voice Prompt	Enable
Auto Check-in Interval	1 hour	Fall Detection	Enable
Auto Check-in Offset	1 hour	Mobile Fall Detection Sensitivity	4
		Night Mode(GSM Off)	From 22:00 To 06:00

AGPS: Enable
Use Last Position: Disable
Write

Geofence Alert and Continuous GPS report:
Report period: Disable
Report interval timer: Disable
Write

Caller ID1:
Caller ID2:
Write

Write

- **Help Event (Selecting an event code):**
 - You can select the event code to be sent to the CMS when the Active Button is pressed once. Choose your preferred event code in the box after “Help Event” and click “Write.”
 - There are three options for the event code:
 - 100: Medical
 - 101: Emergency
 - 120: Panic
- **Guard Time:**
 - The Guard Time will begin to count down when the Active Button on Mobile Lite is pressed once or a fall is detected. 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 detection function is set separately from regular Guard Time for button-press activation.
 - This function is only used when a fall is detected. If the Active Button on Mobile Lite is pressed to activate alarm, normal guard time is used instead.
 - If a false alarm is triggered by Fall Detection, it can be canceled within the guard time fall sensor by pressing the Active Button of Mobile Lite for 5 seconds.

- After the Guard Time Fall Sensor expires, Mobile Lite will begin reporting.
- **Speech Report Ack:**
 - Use this option to set how Mobile Lite should determine whether Speech Reporting is successful.
 - When set to “Off Hook”. Mobile Lite will consider the Speech Report successful when the call recipient picks up the call.
 - When set to “Any DTMF”. Mobile Lite will only consider the Speech Report successful until the call recipient has entered any DTMF command.
- **Two-Way Timer:**
 - When Mobile Lite makes Speech Report or answer an incoming call. The duration of Two-way communication is conditioned by the Two-Way Timer setting.
 - Pressing any DTMF key during Two-way communication (except DTMF 9) will reset the communication time to the preset duration.
- **Callback Timer:**
 - After an alarm is reported to all the reporting destinations and at least one of them is successful, Mobile Lite will start a waiting period (callback time) to auto answer any incoming calls.
 - When Mobile Lite receives an incoming call within the callback timer, it will auto answer the call (after the first ring) and wait for the Access Code (default: 1111) and # key entry within 15 seconds.
 - When the correct Access Code is received, Mobile Lite will open a full-duplex Two-way communication. Use DTMF commands to switch communication type.
 - The Access Code (and the # key) must be entered within 15 seconds or the system will disconnect the call automatically.
 - Press DTMF (9) on Mobile Lite to terminate the call.
 - When callback timer is up, the system will automatically exit the waiting mode and return to idle mode.
- **Callback Check Access code:**
 - When set as “Disable”, Mobile Lite will auto answer an incoming call within the callback timer and open a full-duplex Two-way communication without checking the Access Code (default: 1111).
 - When set as “Enable”, Mobile Lite auto answer an incoming call (after the first ring) within the callback timer, and wait for the correct Access Code (default: 1111) and # key entry within 15 seconds

before it opens a full-duplex Two-way communication. If the correct Access Code (and the # key) are not entered within 15 seconds, the system will disconnect the call automatically.

- **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.
- **Auto Check-In Offset:**
 - After Mobile Lite is rebooted, reset or programmed, the system will start counting down the time for the first Auto check-in report.
 - Mobile Lite will send the first check-in report according to the setting of Auto Check-In Offset time. Afterwards, Mobile Lite will send reports according to the setting of Auto Check-in Interval.
- **Guard Time Sound:**
 - Select “on” to enable beeps or voice prompts (if enabled) during guard time, or “off” to disable the beeping sound during guard time.
 - No voice prompts will be played if Guard Time sound is disabled even when voice prompt is enabled.
- **Confirmation Sound:**
 - Select “on” to enable confirmation beeps during reporting or “off” to disable confirmation beeps during reporting.
- **Mobile Silent**
 - When this function is set to “On”, silent mode is turned on where all sounds are silent.
 - When this function is set to “Off”, silent mode is turned off.
 - When Mobile Silent is enabled, a Listen-in only communication will be established initially for Speech Reporting. The call recipient can enter DTMF keys to change communication types (please refer to **5.5. Alarm Activation** for more details).
- **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

- The volume level is set to 3 by default.
- **Answering Incoming Calls:**
 - Off: Mobile Lite remains silent when there is an incoming call.
 - Enable(Ring): Mobile Lite will ring when there is an incoming call. Press the Active Button to answer the call.
 - Enable(Auto-Answer): Mobile Lite will auto-answer an incoming call. Depending on the setting of “Incoming Call Check Access Code” (see below), Mobile Lite will check the Access Code or not before it opens a full-duplex Two-way communication.
- **Incoming Call Check Access code:**
 - When set as “Disable”, Mobile Lite will auto answer an incoming call and open a full-duplex Two-way communication without checking the Access Code (default: 1111).
 - When set as “Enable”, Mobile Lite auto answer an incoming call (after the first ring), and wait for the correct Access Code (default: 1111) and # key entry within 15 seconds before it opens a full-duplex Two-way communication. If the correct Access Code (and the # key) are not entered within 15 seconds, the system will disconnect the call automatically.
- **Voice Prompt**
 - Enable: Mobile Lite will play voice prompts accordingly.
 - Disable: Mobile Lite will not play voice prompts.

<NOTE>

☞ Mobile Lite will beep if “Guard Time Sound” is turned on when voice prompt is disabled.
- **Fall Detection**
 - Select to enable or disable the fall detection function of Mobile Lite.
 - The fall detection function is supported only when Mobile Lite is worn as a necklace.
- **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.)
- **Night Mode (GSM Off)**
 - Mobile Lite can be put to Night Mode to conserve power. Night Mode is set by inputting the start and end time.

- During Night Mode, Mobile Lite's GSM module is powered off when idle.
- **The GSM module will be turned on by alarm activation only.** Please refer to **5.7. Night Mode**.
- **AGPS**
 - Select to enable or disable APGS (Assisted GPS) for Mobile Lite.
 - When APGS is enabled (Factory Default), data connection will be used to contact the assistance server for AGPS information to improve the performance of GPS.
- **Use Last Position**
 - When Enabled, 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 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.
 - When Disabled, Mobile Lite will NOT scan for nearby Wi-Fi hotspots or check GPS location regularly. When Mobile Lite is activated to send a report, if new location cannot be acquired by the time Guard Time ends, Mobile Lite will send report without location. After new location is acquired, Mobile Lite will send another report to update the location info.
- **Geofence Alert and Continuous GPS report:**
 - Mobile Lite will send report with location info when the user leaves the programmed Geofence area. (See **4.1.5 Geo-fence**)
 - By setting the Continuous GPS Report function, the Mobile Lite user's location will be continuously tracked and updated after Geofence alarm according to the set report interval and Report period.
 - **Report Period:** Set the continuous GPS report period after Geofence alarm. Mobile Lite will keep reporting GPS location

during report period.

- **Report Interval:** Select the period of time between each GPS location report during report period. You can set the report interval from 0-60 minutes. When set as 0, Mobile Lite will not update or report GPS location, continuous GPS Report function is disabled
- For example, if **Report Period** is selected as “1 hour” and **Report Interval** set as “3 minutes”, Mobile Lite will keep checking and reporting GPS location every 3 minutes during the 1 hour-period after Geofence Alarm.
- **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.

4.1.7. Miscellaneous

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

SMS Program | APN | Report | Geo-fence | Settings | **Misc.** | Firmware

Signal Strength

RSSI:0
IMEI:869712060004082
IMSI:
ICCID:
B:10%
IP:;

Scream duration: 5 sec Scream

Location

Reboot Device

Reboot GSM

Factory Reset

Debug Disable Write

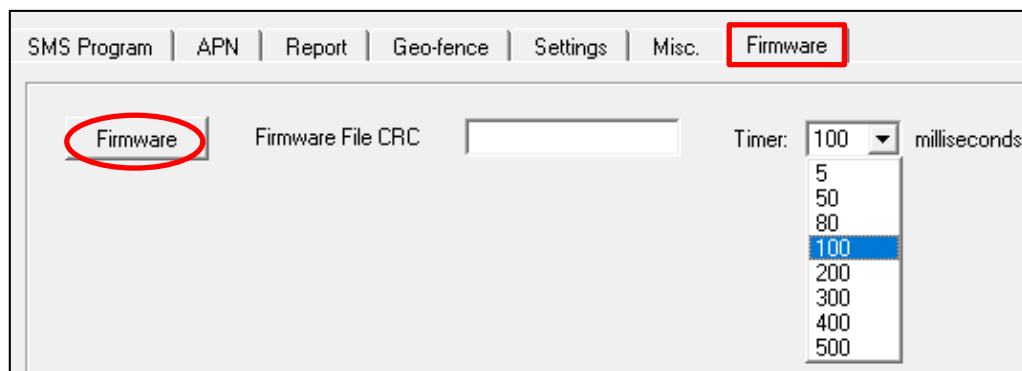
- **Signal Strength**
 - Click on the Signal Strength button to obtain GSM signal strength. The IMEI number of GSM module will be displayed on the right side of GSM signal strength. Mobile Lite will play the voice prompt “GSM Signal (1-5)” to indicate the signal strength upon connecting to a mobile network, with GSM Signal 1 being the weakest and GSM Signal 5 the strongest signal.
- **Scream Duration**
 - Select a duration and click on the **Scream** button. Mobile Lite will emit a series of long beeps for the duration. The location information will also be sent to the reporting destination(s).
- **Location**
 - Clicking on this button to send current location information to the reporting destinations.
- **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.

4.1.8. Firmware

To update the firmware of Mobile Lite:

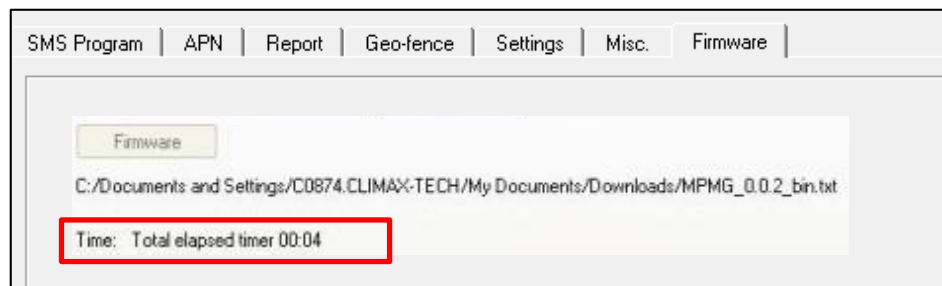
Step 1. Click “Firmware”.

Step 2. Select the firmware update speed from the drop down menu. The shorter the time, the faster the update speed; however some computer may not be able to support high update speed and doing so may crash the computer. You may start by selecting 5 milliseconds, if the computer could not support this speed, change to 100 milliseconds.



Step 3. 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 4. When updating process is completed, a message “Firmware update success!” will be displayed in a pop-up window.

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

<WARNING>

☞ During updating process, 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:

KEYWD:PROG,1111,IPOG		
KEYWD	=	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 **6.1. SMS Remote Programming Commands Table**.

5. Operation

5.1. Answering Incoming Calls

- Mobile Lite will ring when there is an incoming call.
- Press Mobile Lite Active Button to pick up the call.
- If “Answer Incoming Calls” is set as Enable(Auto-Answer), Mobile Lite will auto-answer an incoming call after the first ring, and depending on the setting of “Incoming all Check Access Code”, Mobile Lite will check the Access Code or not before it opens a full-duplex Two-way communication. (Please see **4.1.6. Settings**)
- If the number of the incoming call matches any of the Caller ID, Mobile Lite will instantly pick up the call (without checking Access Code).
- The caller can press a DTMF key for over 1 second to enable a designed shortcut function.
 - 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. The caller can also put the handset back to the base cradle to end the call.
- Pressing any DTMF (except DTMF **9**) can reset the communication time to the preset duration.
- The Mobile Lite user can press Mobile Lite’s Active Button for 5 seconds to hang up.

5.2. 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 being charged
	1 flash every 5 seconds	Mobile Lite operating normally
Red LED	1 Flash every 3 seconds	Mobile Lite low in battery
Amber LED	1 Flash every 3 seconds	Cellular Network fault
ALL LEDs	On	Firmware Update
	Off	GSM power-off mode

When Mobile Lite is being charged, the Red LED will not indicate the battery status.

If Mobile Lite is activated while having a Cellular Network fault (Amber LED flashes once every 3 seconds), it will emit 3 beeps as a local warning.

5.3. 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)

2. **Auto Check-In Report**

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

3. **Send SMS command LOC**

If the SMS Command LOC is correct and successfully received, Mobile Lite will report location info to programmed report destination and the sender of the SMS command according to command selection. Refer to **8.1. SMS Remote Programming Commands Table** for more details.

- For IP reporting, the Location coordinates will be included in SIA_CID and XML event reports.

- 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, the location info will be updated every minute, but it cannot be sent via Speech reporting format.

You will need to program at least one IP report before Speech report. Mobile Lite location updates during two-way communication will be reported through last successful IP channel.

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

5.4. GeoFencing

- The installer can setup a GeoFence area for the user to do everyday activity.
- When GeoFencing is enabled, Mobile Lite will check its location every 2 minutes.
- If the user leaves the GeoFence area and is detected while Mobile Lite is checking its location, it will automatically report to the report destinations.
- If the user returns to the GeoFence area, it will also send restoration report to the report destinations.
- When Mobile Lite makes a second low battery report to the CMS, the GPS function and GeoFence function will be turned off.

5.5. Alarm Activation

- When an alarm is activated by pressing the Active Button, Mobile Lite will emit a voice prompt “Emergency Call was pressed” as it enters guard time.
- When Mobile Lite detects a fall, it will enter guard time and begin report when the guard time expires. A voice prompt “Fall detected, press and hold the help button to cancel” will be played.
- If Mobile Lite is activated while having a Cellular Network fault (Amber LED flashes once every 3 seconds), it will emit 3 beeps as a local warning.
- 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 **5.3. GPS/Wi-Fi Locate Function**) provided the programmed report method(s) supports location report.

Guard Time

- After Mobile Lite is activated or detects a fall, it will begin counting down the Guard Time and begin reporting after Guard Time has expired. Mobile Lite will continuously play voice prompt “Help call in progress” during guard time.
- During guard time, the user can cancel the alarm reporting by pressing the Active Button for 5 seconds. If alarm is canceled, Mobile Lite will play voice prompt “Help call cancelled”.
- Alarm cannot be cancelled after guard time has expired.

Confirmation Beeps

- After guard time expires, Mobile Lite will summon help based on the programmed reporting methods. When Mobile Lite is reporting, it will emit confirmation beeps (1 beep every second).
- For Speech Reporting, if the call recipient picks up the call, Mobile Lite will stop beeping. It will start emitting confirmation beeps again when reporting is resumed (e.g., report to the next report destination).

Silent Mode

- When Mobile Silent function is enabled and Mobile Lite is under Silent Mode, it won't play any voice prompt nor emit confirmation beeps during alarm reporting under Silent Mode.

Last Location

The Last Location function determines Mobile Lite reporting behavior when activated. Please refer to **4.1.6. Settings** for programming **Use Last Position** setting.

- When Enabled, 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 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 the location 8 hours ago.
- When Disabled, Mobile Lite will NOT scan for nearby Wi-Fi hotspots or check GPS location regularly. When Mobile Lite is activated to send a report, if new location cannot be acquired by the time Guard Time ends, Mobile Lite will send report without location. After new location is acquired, Mobile Lite will send another report to update the location info.

5.5.1. Alarm Report Procedure

The alarm and location reporting sequence is determined by **Use Last Position** setting.

- **Use Last Position Disabled**

When Mobile Lite button is pressed once and alarm is activated, it will begin to acquire the new location (through Wi-Fi and GPS positioning) and count down Guard Time.

- ◆ If new location is acquired within Guard Time, Mobile Lite will make an alarm report (event code 100/101/120) along with location coordinates when Guard Time expires.
- ◆ If new location is not acquired by the time Guard Time expires, Mobile Lite will make an alarm report (event code 100/101/120) without location info.

After new location is acquired, Mobile Lite will follow up with another report in event code 645.

If new location is acquired, and it's in two-way communication following a successful IP report, Mobile Lite will make report in event code 100/101/120 with location info via the previously successful IP channel. Mobile Lite will keep updating and reporting location info every minute in event 100/101/120 before two-way communication ends.

Example:

1. If Guard Time is set to 30 seconds, and new location is acquired within Guard Time:

Mobile Lite will make an alarm report (CID 100/101/120) upon Guard Time expiry along with the new location coordinates.

2. If Guard Time is set to 30 seconds, and new location is NOT acquired within Guard Time:

Mobile Lite will make an alarm report (CID 100/101/120) upon Guard Time expiry without location coordinate.

- a. When new position is then acquired, Mobile Lite will make a follow-up report (CID 645) immediately with the location coordinates.
- b. If new position is then acquired under two-way communication following a successful IP report, Mobile Lite will make a report (CID 100/101/120) via the successful IP channel with location coordinates.

During the two-way communication, Mobile Lite will keep updating location and making reports (CID 100/101/120) every minute.

- **Use Last Position Enabled**

When this function is Enabled, 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 once and an alarm is activated, it will begin to check last position while acquiring the 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 the new location using Wi-Fi and GPS positioning.

- ◆ If new location is acquired within guard time, the alarm report (event code 100/101/120) will made immediately with the new location coordinates.
- ◆ If new location is not acquired before the time Guard Time ends, Mobile Lite will send a report (event code 100/101/120) with the last location.

If there is no Last Location data stored, or the last location recorded is older than 8 hours, Mobile Lite will disregard it and send a report (event code 100/101/120) without location.

After new location is acquired, Mobile Lite will follow up with another report in event code 645.

If new location is acquired, and Mobile Lite is in two-way communication following a successful IP report, Mobile Lite will make a report in event code 100/101/120 with the location info via the previously successful IP channel. Mobile Lite will keep updating and reporting location info every minute in event 100/101/120 before two-way communication ends.

Example:

1. If Guard Time is set to 30 seconds, and new location acquired within Guard Time:

Mobile Lite will make an alarm report (CID 100/101/120) upon Guard Time expiry along with new location coordinates.

2. If Guard Time is set to 30 seconds, and new location is NOT acquired within Guard Time:

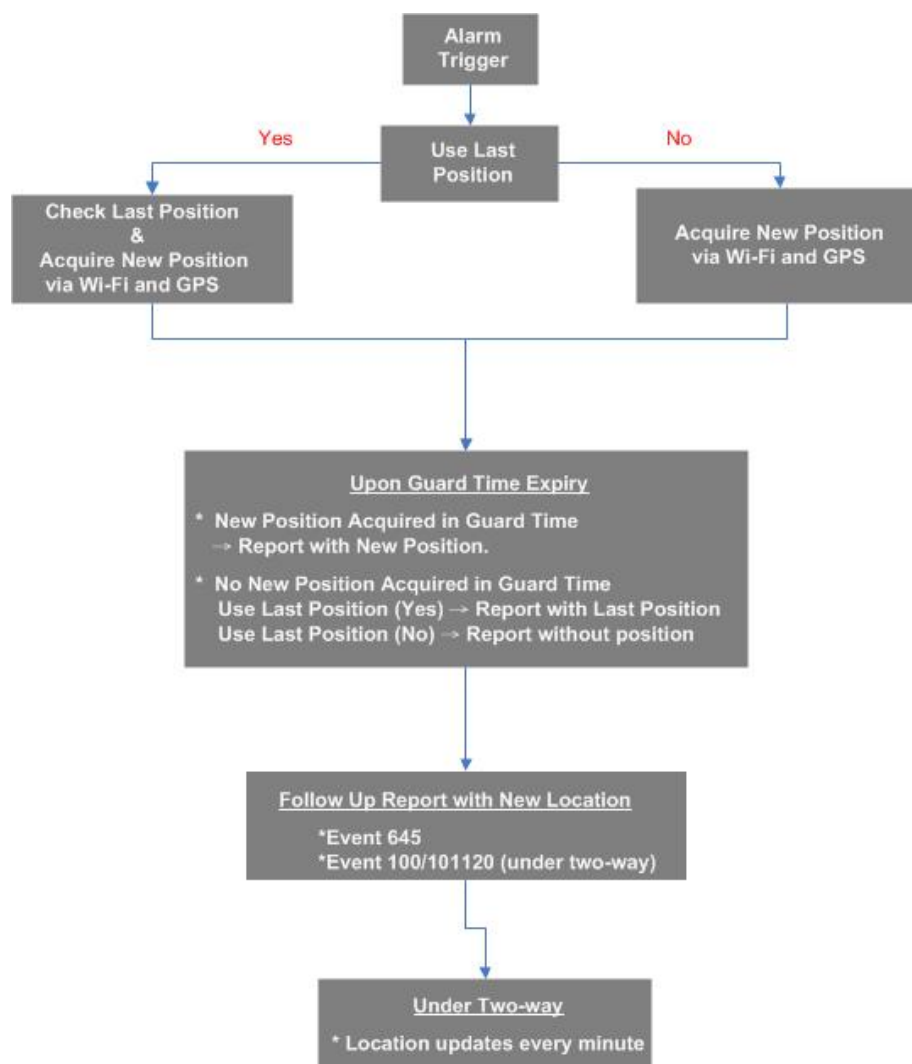
- a. If Mobile Lite has the Last Location, it will make an alarm report (CID

100/101/120) along with last location coordinates after Guard Time has expired.

- b. If Mobile Lite does not have the Last Location, or the Last Location recorded is older than 8 hours, it will make an alarm report (CID 100/101/120) without Location coordinates after Guard Time has expired.
- c. When new location is acquired, Mobile Lite will make a follow-up report (CID 645) immediately with the Location coordinates.
- d. If new location is acquired under two-way communication following a successful IP report, Mobile Lite will make a report (CID 100/101/120) via the successful IP channel with location coordinates.

During two-way communication, Mobile Lite will keep updating location and making report (CID 100/101/120) every minute.

Diagram:



5.5.2. Callback Mode

- After reporting an alarm successfully to the CMS, Mobile Lite R35-C will enter callback mode by default. User can choose to turn on/off the Callback feature and set call back mode time length (Please refer to **4.1.6. Settings**).

<NOTE>

☞ Mobile Lite R35-C will enter callback mode only after all groups have been reported to and at least one report was successful.

- When a caller calls back within the period, Mobile Lite will auto answer the call after 2 beeps, and depending on the setting of “Callback Check Access Code”, Mobile Lite R35-C will check the Access Code or not before it opens a full-duplex Two-way communication.
- If the number of the incoming call matches any of the Caller ID, Mobile Lite R35-C will instantly pick up the call, emit one beep (at the caller handset) and open a two-way communication (without checking Access Code).
- The caller can call back multiple times during the callback period.
- The caller can press a DTMF key for over 1 second to enable a designed shortcut function.
 - 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. The caller can also put the handset back to the base cradle to end the call.
- Pressing any DTMF (except DTMF **9**) can reset the communication time to the preset duration. When a DTMF key is pressed, its designed shortcut function will also be executed along with the communication time reset.
- The Mobile Lite user can press Mobile Lite R35-C's Active Button for 5 seconds to hang up.

5.5.3. Speech Reporting Method

- If speech reporting method is selected, Mobile Lite R35-C will dial the programmed number for reporting. It will establish a two-way voice communication between the call recipient and Mobile Lite user for a duration based on the setting of two-way timer.
- At 20 and 10 seconds before the communication time expires, Mobile Lite R35-C 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.
- The CMS can remotely control Mobile Lite R35-C 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.
- When a DTMF key is pressed, its designed shortcut function will also be executed along with the communication time reset.
- To end the call, the CMS call recipient can also put the handset back to the base cradle, and Mobile Lite user can press and hold Mobile Lite R35-C's Active Button for 5 seconds.

<NOTE>

 If Mobile Silent is enabled on Mobile Lite, a Listen-In only communication will be established instead; however, the call recipient can press DTMF keys (as listed above) to change modes.

- If the Speech Report Ack is set to **"Off Hook"**, Mobile Lite R35-C will consider the Speech Report successful when the call recipient picks up the call.
- If the Speech Report Ack is set to **"Any DTMF"**, Mobile Lite R35-C will consider the Speech Report successful when the call recipient has entered any DTMF command.
- If the report fails, Mobile Lite R35-C will keep on dialing the CMS number according to Report Retry Method.
- During two-way communication, Mobile Lite R35-C's 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 code 100/101/120 via the previously successful IP channel.

5.5.4. 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

5.6. GSM Power-off Mode

Mobile Lite can enter GSM Power-off Mode to conserve battery power.

When in normal operation mode, press the Active Button for 5 seconds, Mobile Lite will emit a voice prompt “Power Off” as an indication of it entering GSM power-off mode. The cellular module will be powered off after 30 seconds.

When in GSM power-off mode, LTE reporting and LED indicators are disabled; however, fall detection is still working. Users will not be able to program Mobile Lite with SMS commands in GSM power-off mode; the users can only program Mobile Lite using PC Programming Tool.

To leave GSM power-off mode, press the Active Button for 5 seconds, Mobile Lite will emit a beep to indicate it is powering on. It will then connect to the mobile network, and emit a voice prompt “GSM Signal” to indicate its signal strength.

<NOTE>

☞ When Mobile Lite is in GSM power-off mode, it will automatically turn on (exit GSM power-off mode) when inserted into CT-35-C, charging.

5.7. Night Mode

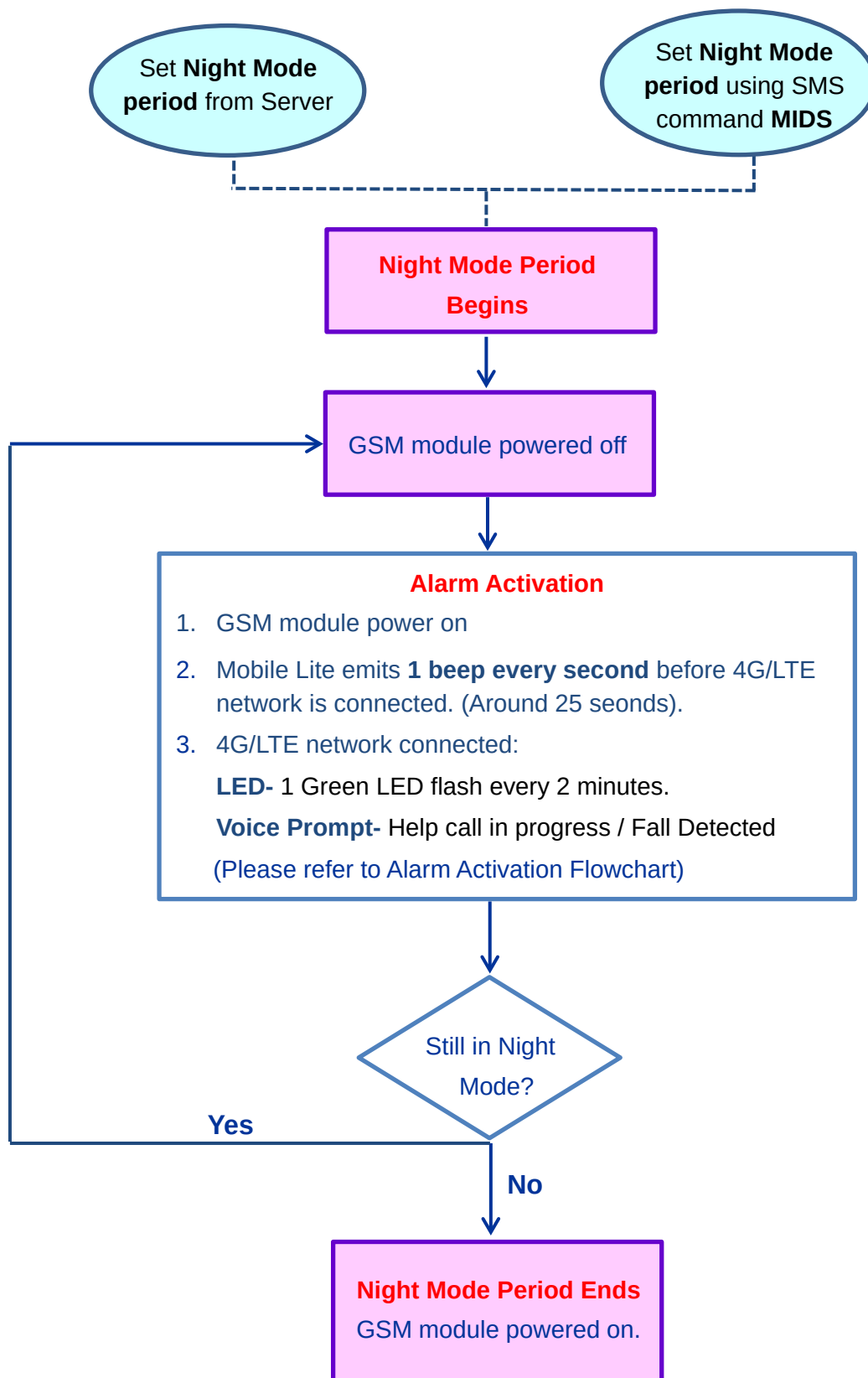
Mobile Lite can also be put to Night Mode to conserve battery power by setting from Server using PC Tool or sending SMS command “**MIDS**”.

During Night Mode, Mobile Lite's GSM module is powered off when idle. Mobile Lite will power on its GSM module in the following situations:

1) Alarm activation

When an alarm is activated by pressing the Active Button of Mobile Lite or when a fall is detected, Mobile Lite will wake up to transmit alarm reports to the CMS.

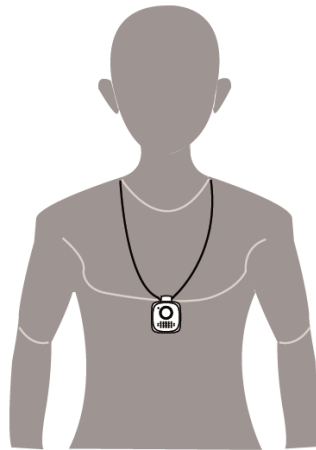
2) Status Event Reporting (Auto Check-in Report excluded)



5.8. Usage Recommendation for Fall Detection

When the fall detection function is enabled for Mobile Lite, please wear the unit as a necklace and let it hang in front of the chest, so that Fall Sensor can be effectively triggered. Please **do not** place it in your bag or inside your pocket, which may lead to difficulty in alarm triggering or fall detection. Please note that Fall detection is not supported when wearing Mobile Lite as a watch.

- Best way to wear Mobile Lite as a fall sensor (O)
 - A. Let it hang in front of the chest and adjust lanyard length so that the sensor hangs at the bottom of the breastbone.



- B. Expose the pendant outside and in front of any clothes or heavy/feather jacket.
- Wrong way to wear Mobile Lite (X)
 - A. Necklace being too short (around clavicle) or too long (below breastbone) is likely to cause false trigger or no response.
 - B. Mobile Lite being placed inside a pocket or a bag will lead to detection failures.
- 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 fall detection mechanism's inherent nature, it cannot guarantee 100% accuracy. False alarms or detection failures may occur during daily use and cannot be completely avoided.

False alarms or detection failures are more likely to happen in the following scenarios:

- a) When Mobile Lite is placed in a pocket.
 - b) When Mobile Lite does not make contact with the ground, such as landing on the users' chest, shoulders, or a thick coat/jacket).
 - c) When users fall onto a lawn or into water-filled tub.
- Please utilize the Active Button to activate an alarm manually to ensure safety when needed.

5.9. Voice Prompts

Mobile Lite will play voice prompts according to different conditions.

Voice prompts can be turned on/off using SMS remote programming.

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	Emergency call was pressed.	Plays once when the Active Button is pressed once
2	Fall detected, press and hold the help button to cancel	Plays when an alarm is activated by fall detection
3	Help call in progress	Plays every 2-3 seconds during guard time.
4	Help call cancelled	Plays once when pressing the Active Button of Mobile Lite for 5 seconds during guard time
5	Alarm received. Please standby	Plays when speech report has reached the recipient
6	Mobile Unit battery is low. Please charge it.	Plays twice when Mobile Lite is low in battery
7	Power Off	Plays when Mobile Lite enters GSM Power-off Mode by pressing the Active Button for 5 seconds
8	GSM Signal (1-5)	Plays when Mobile Lite just connects to a mobile network. The number behind "GSM Signal" is an indication of its signal strength. "One" = Weakest. "Five" = Strongest.

6. Appendix

6.1. SMS Remote Programming Commands Table

Item	Command	Example & Usage	Default
Make Unit Scream	SCREAM	SCREAM:PROG,1111,60 To set the length of Mobile Lite's beeping period (0-60 seconds) to help the search for Mobile Lite when the device is lost This command will also request for location information.	--
Locating via SMS	LOC	LOC:PROG,1111,1 To locate Mobile Lite user via SMS Parameter: 0 = No reply to sender's mobile number 1 = Reply location to sender's mobile number	--
Cellular Module Reset	RSTG	RSTG:PROG,1111 To reset Cellular Module	--
To obtain Cellular signal strength	CSQ	CSQ:PROG,1111	--
GPRS APN, username & password	APN	APN:PROG,1111,internet,, To set GPRS APN, username and password (31 characters max. for APN, 31 characters max. for username, 31 characters max. for password)	
Report settings	RPT	RPT:PROG,1111,1,0933111222,1,0,0,1 To configure report settings (index number, report destination, group, type, miscellaneous and event filter) Parameter 1. Report Index: 1-5 Parameter 2. Report destination: Depending on the reporting format Parameter 3. Report group: 1-5 Parameter 4. Report type: 0 = Speech, 11 = CID_SIA_IP, 12 = SIA_IP, 13 = CID_SIA_UDP, 14 = SIA_UDP, 18 = AG_XML, 19 = MAN_XML, 20 = CID_SIA2_IP, 21 = SIA2_IP, 22 = CID_SIA2_UDP, 23 = SIA2_UDP, 30 = SMS_CID, 31 = SMS_TEXT, 36 = SMS_PASOS Parameter 5. Miscellaneous: Enter 0 for this parameter Parameter 6. Event filter: 255 = all, 1 = status, 4 = emergency	No report destination
To reboot Mobile Lite	RESET	RESET:PROG,1111 To restart Mobile Lite	--
Keyword setting	KEYWD	KEYWD:PROG,1111,IPOG To set the keyword 15 characters max. for the keyword	PROG
Access Code	ACCES	ACCES:PROG,1111,1,1234 To set the Access Code (index number, code) 8 digits max. for the Access Code	1111 for user 1
Guard time settings	GUDT	GUDT:PROG,1111,10 To set the length of guard time periods (seconds) Normal: 5 = 5 seconds, 10 = 10 seconds, 15 = 15 seconds, 20 = 20 seconds, 25 = 25 seconds, 30 = 30 seconds	10
Fall Detection	FALDE	FALDE:PROG,1111,1 To enable or disable fall detection function 0 = Disable, 1 = Enable	1

Item	Command	Example & Usage	Default
Auto check-in reports	TESTC	TESTC:PROG,1111,720,60 To configure the settings of auto check-in reports Parameter 1. Interval: 0 = disable, 10 = 10 minutes, 20 = 20 minutes, 30 = 30 minutes, 60 = 1 hr, 120 = 2 hr, 240 = 4 hr, 360 = 6 hr, 480 = 8 hr, 720 = 12 hr, 1440 = 1 day, 2880 = 2 days, 4320 = 3 days, 5760 = 4 days, 7200 = 5 days, 8640 = 6 days, 10080 = 1 week, 21600 = 15 days, 43200 = 30 days Parameter 2. Offset time: 10 = 10 minutes, 20 = 20 minutes, 30 = 30 minutes, 60 = 1 hr, 120 = 2 hr, 240 = 4 hr, 360 = 6 hr, 480 = 8 hr, 720 = 12 hr	720, 60
Callback time	CBTI	CBTI:PROG,1111,5,5,1 To set Callback time & Two-way time, and enable/disable callback check access code Parameter 1. Callback timer, 0 = disable, 1-30 = 1-30 minutes Parameter 2. Two-way time, 1-30 = 1-30 minutes Parameter 3. callback check access code, 0 = Disable, 1 = Enable	5,5,0
Factory reset	FTSET	FTSET:PROG,1111 To execute a factory reset	--
Location function	GEOTR	GEOTR:PROG,1111,1,1,0 To configure the location function Parameter 1. Reserved, Enter either 0 or 1 Parameter 2. AGPS: 0 = disabled and 1 = enabled Parameter 3. Tracking period: 0 = disabled, 3 = 3 minutes, 6 = 6 minutes, 7 = 7 minutes, 8 = 8 minutes, 9 = 9 minutes, 10 = 10 minutes, 15 = 15 minutes, 20 = 20 minutes, 30 = 30 minutes, 60 = 60 minutes	
To set the CID event code for the button	BTNEV	BTNEV:PROG,1111,100 To set the CID event code sent when the Active button is pressed once. 100 = medical event 101 = personal emergency 120 = panic report	101
To enable/disable voice prompts during guard time and confirmation beeps	SNDCR	SNDCR:PROG,1111,1,1 To enable/disable voice prompts during guard time and confirmation beeps Parameter 1. Voice prompts during guard time: 0 = disable, 1 = enable Parameter 2. Confirmation beep: 0 = disable, 1 = enable	1,1
To check whether Mobile Lite is operational	ECHO	ECHO:PROG,1111 To check if Mobile Lite R35-C functions normally	--
Incoming call alert	ANSIN	ANSIN:PROG,1111,1,1 To enable/disable ringing sound for incoming call and enable/disable incoming call check access code Parameter 1. Ringing sound for incoming call, 0 = Disable, 1 = Ring Enable, 2 = Ring Enable(Auto-Answer) Parameter 2. Incoming call check access code, 0 = Disable, 1 = Enable	1,0
To enable / disable silent mode	SILENT	SILENT:PROG,1111,1 Enable/disable mobile silent mode 0 = Disable, 1 = Enable	0

Item	Command	Example & Usage	Default
Adjust 2-way Volume	SPKVL	SPKVL:PROG,1111,3 Adjusts 2-way volume of Mobile Lite Volume level 1-5 (1 = minimum, 5 = maximum)	3
Enable / Disable Voice Prompt	VOIEN	VOIEN:PROG,1111,1 Enable/disable Mobile Lite R35-C to play voice prompts 0 = Disable, 1 = Enable	1
Set Caller ID	CALID	CALID:PROG,1111,1,0227942014 Parameter 1. Select Caller ID: 1 = ID #1, 2 = ID #2 Parameter 2. Caller ID number: Enter a number (15 digits max.)	--
Disable or enable and set GeoFencing area	GEOFE	GEOFE:PROG,1111,2,4,11,11,22,22,33,33,44,44 To disable or enable GeoFencing and to set the operational area of GeoFencing Parameter 1. Operation area: 0-2, 0 = disable, 1 = circle, 2 = polygon Parameter 2. a. If Circle is selected in Parameter 1, enter the location coordinate of the center of the circle. Latitude: -90 to 90 Longitude: -180 to 180 b. If Polygon is selected in Parameter 1, select the vertex number of the polygon: 3 = 3 vertices, 4 = 4 vertices. Parameter 3. a. If Circle is selected in Parameter 1, enter a radius between 200 and 10,000 meters. b. If Polygon is selected in Parameter 1 and the vertex number determined in Parameter 2, enter the location coordinates (latitude and longitude respectively). - If 3 vertices are selected, enter 3 sets of coordinates. - If 4 vertices are selected, enter 4 sets of coordinates. E.g.: GEOFE:PROG,1111,0 for disable GeoFencing E.g.: GEOFE:PROG,1111,1,12,123,200 for circular operation area E.g.: GEOFE:PROG,1111,2,3,11,11,22,22,33,33 for polygon vertex of 3 E.g.: GEOFE:PROG,1111,2,4,11,11,22,22,33,33,44,44 for polygon vertex of 4 Both Latitude and Longitude accept coordinates of up to 6 decimal points. Due to the mechanics of GPS positioning, the 6th decimal point may deviate slightly from the entered value. However, the actual position is affected very slightly.	--
Speech Report Ack Setting	RPACK	RPACK:PROG,1111, 1 To set speech report ack 0 = Off hook, 1 = Any DTMF	0
GPS Tracker Report	TRACR	TRACR:PROG,1111,0 To enable/disable GPS tracker report 0 = Disable, 1 = Enable	1
Switch on/off GSM	GSMNF	GSMNF:PROG,1111,1 To switch on/off the GSM module 0 = Disable, 1 = Enable	
Upload current Mobile Lite settings	ULOAD	ULOAD:PROG,1111,59.124.230.221,53033,1 To upload current Mobile Lite settings to server Parameter 1. Host (server url or IP address, max. 44 digits) Parameter 2. Port number 53033 Parameter 3. Session ID (maximum length: 31 digits)	

Item	Command	Example & Usage	Default
Remote Firmware Update	DLOAD	ULOAD:PROG,1111,59.124.230.221,53033,1 To upgrade Mobile Lite firmware by downloading firmware file from server remotely Parameter 1. Host (server url or IP address, max. 44 digits) Parameter 2. Port number 53033 Parameter 3. Session ID (maximum length: 31 digits)	
To set Fall sensor sensitivity / Mobile Fall Detection Sensitivity	FSST	FSST:PROG,1111,3,2 To set Fall sensor sensitivity / Mobile Fall Detection Sensitivity Parameter 1. Enter 3 for this parameter Parameter 2. Fall detection sensitivity level 1-5 for fall sensor panel (5 is the highest sensitivity, while 1 is the lowest sensitivity)	3,4
Geofence exit track	GEGPS	GEGPS:PROG,1111,60,15 To set Continuous GPS Report function after Geofence Alert Parameter1: Continuous GPS report period, 0 = disabled, 60 - 360 = 60 - 360 minutes Parameter 2: Continuous GPS Report Interval, 0 = disabled, 1 - 60 = 1- 60 minutes	0,0
To set the night mode duration	MIDS	MIDS:PROG,1111,0,0 To configure the night mode duration (Start time, End time) Parameter 1: Start Time (in minutes): 0 = 00:00, 60 = 01:00, 90 = 01:30, 120 = 02:00,,1320 = 22:00, 1380 = 23:00, 1439 = 23:59 Parameter 2: End Time (in minutes): 0 = 00:00, 60 = 01:00, 90 = 01:30, 120 = 02:00,,1320 = 22:00, 1380 = 23:00, 1439 = 23:59 When set as "MIDS:PROG,1111,0,0", night mode is disabled.	--

6.2. Contact ID Communications Protocol and Format

Mobile Lite can communicate with the CMS receiver using the Contact ID protocol. The CMS can receive the event codes using SMS or IP reporting methods.

The form of the CID message is:

IP Reporting Data Format

[ACCT <space>MT QXYZ GG CCC S₁S₂S₃S₄]

[] All data inside bracket will be processed.

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

<space> = Delimited for ACCT and MT.

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

Q = Event qualifier, which gives specific event information:

1 = New Event or Opening

3 = New Restore or Closing

6 = Previously reported condition still present (Status report)

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

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

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

S₁S₂S₃S₄ = Using the 8-bit Fletcher Checksum Algorithm

SMS Reporting Data Format

ACCT<space>MT<space>QXYZ<space>GG<space>CCC<space>SSSS

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

<space> = Delimited for ACCT and MT.

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

<space> = Delimited for MT and Q

Q = Event qualifier, which gives specific event information:

1 = New Event or Opening

3 = New Restore or Closing

6 = Previously reported condition still present (Status report)

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

<space> = Delimited for XYZ and GG

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

<space> = Delimited for GG and CCC

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

<space> = Delimited for CCC and SSSS

SSSS = Using the 8-bit Fletcher Checksum Algorithm

<NOTE>

 The Checksum is calculated up to CCC (including space).

The category to which each event belongs is shown in the brackets following every event description. The event filter (please refer to **4. Programming Mobile Lite – SMS Remote Programming** for details about the event filter) will process events according to the categories to which events are assigned.

For example, in the case of “100 – Mobile Lite Emergency (medical)”, “medical”

means the category to which the event “Mobile Lite Emergency” is assigned.

<NOTE>

☞ Apart from CID_IP and CSV_IP reporting types, Mobile Lite will report its current location along with other reports.

Event Codes:

- **100 – Mobile Lite Emergency (emergency)**
 - ◆ When the Active Button of Mobile Lite is pressed once (“Help Event” set as 100).
 - ◆ Location info will be sent with event 100.
- **101 – Personal Emergency (emergency)**
 - ◆ When the Active Button of Mobile Lite is pressed once (“Help Event” set as 101).
 - ◆ Location info will be sent with event 101.
- **102 –Fall Detection (emergency)**
 - ◆ When Mobile Lite detects a fall.
 - ◆ Location info will be sent with event 102.
- **120 –Panic (emergency)**
 - ◆ When the Active Button of Mobile Lite is pressed once (“Help Event” set as 120).
 - ◆ Location info will be sent with event 120.
- **302 – Mobile Lite Low in Battery (status)**
 - ◆ When Mobile Lite is low in battery.
- **308 – System shutdown (status)**
 - ◆ When Mobile Lite R35-C enters or exits GSM Power-off Mode by manually pressing the Active Button for 5 seconds.
- **359 – Device lost / regained cellular network coverage (status)**
 - ◆ When Mobile Lite lost cellular network coverage.
 - ◆ When Mobile Lite regained cellular network coverage.
- **602 – Auto Check-In Report (status)**
 - ◆ When Mobile Lite makes an auto check-in report to the CMS.
 - ◆ The Mobile Lite location info will be updated and sent with the auto check-in report to CMS.
- **645 – Locate Position Follow Up After Alarm (emergency)**
 - ◆ When an alarm is triggered, if new location could not be acquired before the alarm report is made, Mobile Lite will report the alarm event code first then follow up with event code 645 to report new location.
 - ◆ If location update failed during two-way communication, Mobile Lite

will follow up with event code 645 to report updated location.

- **646 – Location Positioning Command (status)**
 - ◆ When Mobile Lite receives the SMS command “LOC” to report its location, the report is sent with event code 646.
- **648 – Location Scream (status)**
 - ◆ When a user requests Mobile Lite to scream, the Mobile Lite will beep, and location will be reported.
- **671 – GeoFencing Action (status)**
 - ◆ When Mobile Lite leaves the programmed GeoFence area. The location info will also be sent
 - ◆ When Mobile Lite makes continuous GPS report after GeoFence Alert.
- **672 – Device is taken off / put on the charger (status)**
 - ◆ When Mobile Lite is taken off the charger.
 - ◆ When Mobile Lite is put on the charger.

6.3. SIA Digital Communication Standard

Please refer to the document *SIA Digital Communication Standard – Internet Protocol Event Reporting (ANSI/SIA DC-09-2012A)* published by the Security Industry Association for details. Examples of events reported in the SIA/CID format are as follows:

```
<LF>16680089"ADM-CID"0009L0#41770744318[#41770744318|1101 00
200][X006E33.66754530][Y46N31.02882385][P0,b:100%,d:0,g:4,t:201908151
00017,la:1,c:0,by:G]<CR>
```

Where:

- “ADM-CID” means that the content of this message is in the CID format.
- 0009 for <seq>
- L0 for <Lpref>
- #41770744318[#41770744318|1101 00 200]
41770744318 = account number
1101 00 200 = CID data (QXYZ GG CCC)
- [X...] and [Y...] are location data.
[X...] includes the longitude coordinate represented as E (for East) or W (for West) _ degrees. The degree count is always a positive value.
[Y...] includes the latitude coordinate represented as N (for North) or S (for South) _ degrees. The degree count is always a positive value.
- [P0,b:...%,g:...,t:...,la:...,c:...,by:...] includes the following information:
 - P0 (the parameter will always show a 0).
 - b:...% stands for the battery level (100%, 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, 10%)
 - g:... stands for the Cellular signal strength (level: 1-5, where 5 = strongest signal strength and 1 = weakest signal strength)
 - t:...stands for the timestamp in UTC when the location was acquired.
 - la:...means if it's last GPS location or current GPS location (0 = current GPS location, 1 = last GPS location)
 - c:... stands for the charging status (0 = not charging, 1 = charging)
 - by:...displays if the location data was identified by GPS or Wi-Fi positioning. (G = GPS, W = Wi-Fi positioning)

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 22/24/27 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).

RF Exposure Information (SAR):

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

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 0.729W/kg.

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.