Mobile Lite Cellular Emergency Alarm System Installation Guide

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1. Introduction

1.1. Mobile Lite Series

Mobile Lite is a light, portable and richly featured cellular medical alarm with GPS positioning, cell locator and GSM/3G network that protect you wherever you go. The device is capable of playing voice prompts to raise the users' self-awareness and reporting events via Speech, SMS and IP protocols to directly communicate with the monitoring centers.

1.2. What's in the Box

Your Mobile Lite package includes the following items:

	Items
٠	Mobile Lite
•	Charging Cradle (CT-5)
•	Belt Clip Case
•	Micro-USB cable
•	AC Adapter
•	CD-ROM containing:
	- Mobile Lite Installation and Operation Guide
	- USB Driver Installer
	- PC Programming Tool

Belt Clip Case

Mobile Lite comes with a Belt Clip Case. It is designed to protect Mobile Lite and for the user to conveniently carry Mobile Lite around.





Micro-USB Cable

Mobile Lite has a micro USB port for charging or programming.

For charging Mobile Lite via connecting to charging cradle, a regular USB cable is provided.

For connecting Mobile Lite to computer for programming, a special programming USB cable is required. The USB end of programming cable is larger than regular cable. For more information, refer to 3.3. Hardware Installation – PC Programming Tool connection.

Always use the Programming micro USB cable for connection Mobile Lite to computer. Never use a regular micro USB cable for computer connection.

If Programming cable is not provided, please contact your supplier.



Programming Micro-USB Cable



Regular Micro-USB Cable

Lanyard and Attachment



Using the Belt Clip Case

Step 1. Open the cover of the case by separating the Magnetic Button.



Step 2. Insert Mobile Lite into the case.



Step 3. Close the cover of the case by attaching the Magnetic Button.



Using the Lanyard

Step 1. Attach the Release Buckle to the Lanyard Hole Attachment String.



Step 2. Click the Male and Female Release Buckle together.



Step 3. Put the lanyard around the neck of the user.

2. System Overview

2.1. Identifying the Parts



- 1. Microphone
- 2. LED Indicator (Green (Top), Amber (Middle) and Red(Bottom)
- 3. Active Button
- 4. Speaker
- Protective Cover Screw Holes
 To stabilize SIM Card and USB Protective Cover onto Mobile Lite.
- 6. SIM Card and USB Protective Cover
- 7. Micro SIM Card Slot
- 8. Micro USB Jack
- 9. Lanyard Hole

For the Lanyard Hole Attachment String to stabilize onto Mobile Lite.

- **10. Charging Contact Plates**
- 11. Anti-Slide Magnets



- 12. Charging Cradle
- **13. Cradle Charging Contact Plates**
- 14. Cradle USB Jack

2.2. LED indicators

LED	Behavior	Indication
Green LED (Top)	On	Mobile Lite is being charged.
	1 flash every 2 seconds	Mobile Lite operating normally
Amber LED (Middle)	Flashing quickly	GSM/3G fault
Red LED (Bottom)	Flashing quickly	Mobile Lite low on battery

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

2.3. Power Supply

- Mobile Lite is powered by rechargeable battery.
- The typical charging time is ~4 hours.
- To Charge Mobile Lite, please refer to 3.2. Charging Mobile Lite.
- When Mobile Lite is low on battery, the LED will flash quickly in Red color.
- Mobile Lite makes a low battery report to the CMS when it is running low on battery.
- 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. SIM Card Insertion

- **Step 1.** Loosen the Protective Cover Fixing Screws using a Philips screwdriver and remove the SIM Card and USB Protective Cover.
- **Step 2.** Hold Mobile Lite with its front side facing you. Insert a micro SIM card into the SIM card slot with the chip side of the SIM card facing you as shown in the picture below.

Please make sure that the micro SIM card PIN code is deactivated and all SMS messages removed before insertion.



Step 3. Replace the Protective Cover and tighten the Protective Cover Fixing Screws using a Philips screwdriver.

3.2. Charging Mobile Lite

Step 1. Place Mobile Lite into the Charging Cradle. Please make sure that the Charging Contact Plates (of both Mobile Lite and the cradle) are in contact with each other. The Anti-Slide Magnets should help align Mobile Lite into the Charging Cradle.



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



Step 3. Insert the programming/charging end of the USB cable into the AC Adapter and plug the adapter into a power socket.

3.3. Hardware Installation – PC Programming Tool Connection

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

- **Step 1.** Loosen the Protective Cover Fixing Screws using a Philips screwdriver and remove the SIM Card and USB Protective Cover.
- **Step 2.** Insert the device/cradle end of the <u>Programming Micro-USB Cable</u> into the Micro-USB jack as shown in the picture:



Step 3. Insert the programming/charging 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 Mobile Lite to computer with a regular Micro-USB cable.



Programming Micro-USB Cable



Regular Micro-USB Cable

3.4. Software Installation – PC Programming Tool Connection

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

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

<NOTE>

- Please only use the PC Programming Tool on Windows XP or Windows 7 operating systems.
- Step 1. Make sure Mobile Lite and the computer is connected properly (please refer to 3.3. Hardware Installation)
- **Step 2.** Insert the supplied CD-ROM into your CD-ROM drive and find the "USB Driver" folder. Double Click the "PL2303_Prolific_DriverInstaller_v1.9.0" file and follow the on-screen instruction to complete installing the driver.



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

Step 1. Find and open the "PC Programming Tool" folder in the supplied CD-ROM. Click "Mobile LiteX Vx.x.exe" to execute the programming tool.



The following configuration screen will be opened.

🖻 Mobile LiteX Tool	V2.10		
Help			
Port CDM4 Saudrate Mobile Mobile Lite SMS Program APN Report	115200 V Data 8 V Parity 1 Profile Default V Setting Misc. Firmware	None Stop 1 Flor	wCtrl None V Open Close
Help Event Guard Time Normal Auto Check-in Interval Auto Check-in Offset Guard Time Sound Confirmation Sound Answer Incoming Call Callback Timer Two-way Timer Mobile Silent	Medical(100) 10 sec 12 hour 1 hour 1 hour 0n 0n 2 min 6 min Disable Write	Location Tracker Period Caller ID #1 Caller ID #2	1 hour
ComPort Disconnect			02
ComPort: Disconnect			0%

- **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

100	191	121	10 1 W		96	18 B.	10 A.			
Port COM5	Maudrate	115200	🔀 Data 8	Y Parity	None	Stop 1	FlowCtrl None	~ (Open	Close
			100 C		81					

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:

🛱 Mobile Lite/X Tool V1.8	MPM_T_0.0.2-2G			
Help				
Port COM5 Baudrate 115200 Mobile Mobile X Profile SMS Program APN Report Setting	Data 8 Parity None Current Setting Misc. Firmware	Stop 1 Flow	WCtri None Open	Close Read
Help Event Guard Time Normal Auto Check-in Interval Auto Check-in Offset Guard Time Sound Confirmation Sound Answer Incoming Call Callback Timer Two-way Timer Mobile Silent	Medical(100)	Location Tracker Period	1 hour	
<0K> RPT?5,000.0; ATIXSMSC=RPT?6				^
<0K> RPT?:6,,0,0,0,0;				~
ComPort: Connected				100%

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

Port COM5 Baudrate 115200	Data 8 Parity None	Stop 1 FlowCtrl None	Open	Close
Mobile X Profile	Current Setting	Save Profile New Profile	Profile Manager F	lead
SMS Program APN Report Setting	Misc. Firmware	1r		

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.

							(
Mobile	Mobile Lite	Market Profile	Default	~	Save Profile	New Profile	Profile Manager	Read

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.

obile Mob	ile×		Y Profile	Curren	nt Setting	~	Save Profile	New Profile	Profile Manager	Read
MS Program	APN	Report	Setting	Misc.	Firmware					

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".

<u>Default</u>

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:

New Profile	? 🗙
New Profile name	
ок [Cancel

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

Mobile	Mobile X 🗸 🗸	Profile	example1 💌	Save Profile	New Profile	Profile Manager	Read

After editing the settings, click "**Save Profile**" to save the profile settings. A pop-up window will indicate the profile has 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:

P	rofile Manager		?×
Pro	file List:		
	Module	Profile	
1	MobileLite	Default	(
2	MobileX	Default	
3	MobileX	example1	
		Delete Profile OK	

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

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

SMS Keyword	PROG	Max 15 characters	
Access Code	1111	4-8 digits	

4.1.3. APN

The APN setting must be completed for Mobile Lite to report events via GPRS / 3G 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.

\PN Name	internet		
APN User			
APN Password			

4.1.4. Report Setting

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

Mobile Lite reports over 3 media: Speech channel, IP/GPRS and SMS Text message.

Mobile Lite supports many different reporting formats. When reporting, it will transmit both event information and location information. (except for Speech Reporting)

5 Report Indexes are available as shown in the picture below:

o: Destination	Event	Туре:	Group1	Group2	Group3	Group4	Group5	
	All	Speech		0	0	0	0	Wri
	All	Speech	✓ ③	0	0	0	0	Clea
[Al	Speech	× 0	0	0	0	0	
	Al	Speech	• •	0	0	0	0	
	All	Speech	✓ ③	0	0	0	0	

4 programmable settings are available per Report Index:

1. <u>Report Destination</u>

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

2. Event Filter

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

3. <u>Reporting Format (Type)</u>

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 the apply the settings to Mobile Lite.

Report Destinations

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

IP/GPRS <u>Report Format</u>: AccountNumber@server:port

IP/GPRS Reporting: When activated, Mobile Lite will send an event information report (and location information in SIA-supported format) to a receiver.

<u>AccountNumber</u>: Enter 4 to 8 alphanumeric letters for CMS to identify who reported the event.

Server: Enter either the IP address or the domain name as shown below:

Example: 0001@59.124.123.66:50123

Port: Enter a port number for the server.

• Speech reporting and SMS Text <u>Report Format</u>: **PhoneNumber**

Example: 0912345678

Speech Reporting: When activated, Mobile Lite user can talk directly to the call recipient (e.g. CMS personnel).

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

<NOTE>

If SMS_MPTP is selected, the format is:

AccountNumber@PhoneNumber

Example: 0001@0912345678

<u>AccountNumber:</u> Enter 4 to 8 alphanumeric letters for CMS to identify who reported the event.

- Mobile Lite also supports XML report format, please contact the supplier if you wish to report using XML Reporting Format.
- If two-way communication is required after an IP or SMS report, it is recommended that the user programs a Speech Report. Alternatively, the user can also utilize Callback operation (refer to **6.4. Alarm Activation**).

Event Filter

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

3 options: "AII", "Emergency" and "Status". When an event is triggered, it will be reported to the reporting destination according to the setting. If set to AII, 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 format includes:

- **Speech:** Mobile Lite reports over the Speech channel to allow the user to talk directly to the call recipient.
- **CID over IP:** Mobile Lite reports digital CID event codes over IP/GPRS TCP Protocol.
- SIA_CID over IP: Mobile Lite reports digital CID event codes and location information over IP/GPRS TCP Protocol in SIA format.
- **SIA over IP:** Mobile Lite reports digital SIA event codes and location information over IP/GPRS TCP Protocol.
- **SIA_CID over UDP:** Mobile Lite reports digital CID event codes and location information over IP/GPRS UDP Protocol in SIA format.
- SIA over UDP: Mobile Lite reports digital SIA event codes and location information over IP/GPRS UDP Protocol.
- **CSV over IP:** Mobile Lite reports digital CID event codes over IP/GPRS TCP Protocol in CSV format.
- **SMS TEXT:** Mobile Lite sends a SMS text message containing event information and a location link.
- **SMS MPTP:** Mobile Lite sends a SMS message containing MPTP event codes and a location link.

<u>Group</u>

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 is 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 to all Report Indexes within this group for 5 times (or until one of the reports is successful). If all the retry fails, 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 > 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 behavior depends on the event type:

Emergency Events:

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

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 Index within the group for 5 times), Mobile Lite will also terminate reporting.

- When reporting to the first group failed (going through all the Report Index within the group for 5 times), Mobile Lite will start reporting to the next group. When reporting to the second group succeeded, Mobile Lite will terminate reporting.
- 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. It will continue retrying until recognizing at least one successful report.

Example 1, if Groups 1 and 3 are programmed for "Emergency" reports, and assuming NO successful report:

Group 1 > Group 3 > <u>Wait 5 minutes</u> > Group 1 > Group 3 > <u>Wait 5</u> <u>minutes</u> > Group 1 > Group 3 > Wait 5 minutes > Group 1 > Group 3 > <u>Wait 5 minutes</u> > ... Continues Reporting Example 2, if Groups 1 and 3 are programmed for "Emergency" reports, and assuming NO successful report until Group 1 is successful after several retries:

Group 1 > Group 3 > <u>Wait 5 minutes</u> > Group 1 > Group 3 > <u>Wait 5</u> <u>minutes</u> > Group 1 (Success!) > Group 3 > Stops reporting whether Group 3 succeeded or not.

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

4.1.5. Setting

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

Click "Write" when you have completed all settings to confirm.

Help Event	Medical(100)	*	AGPS	Enable
Guard Time Normal	10 sec	~	Location Tracker Period	1 hour
Auto Check-in Interval	12 hour	~		Write
Auto Check-in Offset	1 hour	~		
Guard Time Sound	On	~	Caller ID #1	
Confirmation Sound	On	~	Caller ID #2	
Answer Incoming Call	On	~		Write
Callback Timer	2 min	~		
Two-way Timer	6 min	~		

• Help Event (Selecting an event code):

- You can select the event code to be sent to the CMS when the Active Button of Mobile Lite is pressed. 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 Normal:
 - The Guard Time will begin to count down when the Active Button on Mobile Lite is pressed. 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.

• Auto Check-In Interval:

- You can select the length of the interval between auto check-in reports.
- There will be no auto check-in report if you select "Disable."
- Whenever 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 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 during guard time or "off" to disable the beeping sound during guard time.

• Confirmation Sound:

• Select "on" to enable confirmation beeps during reporting or "off" to disable confirmation beeps during reporting.

• Answering Incoming Calls:

- When this function is set to "On", Mobile Lite will ring when there is an incoming call. Press the Active Button to answer the call.
- When this function is set to "Off", Mobile Lite remains silent when there is an incoming calls.

• 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 from the CMS.
- When the CMS calls back within the callback timer, Mobile Lite 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 communication to allow the CMS to speak to Mobile Lite user directly. 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.

• Two-Way Timer:

• After the system makes a report to the CMS, a communication channel (from Follow-on or Callback function) is established. The duration of the communication is conditioned by the Two-Way Timer setting.

- Pressing any DTMF key (except DTMF 9) will reset the communication time to the preset duration.
- 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 regardless of the current **Follow-on** setting. The call recipient can enter DTMF keys to change communication types (please refer to **6.4. Alarm Activation** for more details).
- AGPS
 - Select "Enable" to use Assisted GPS function to track the position of Mobile Lite (Default).
 - Select "Disable" to stop using Assisted GPS function.
- Location Tracker Period
 - Select a time interval for the periodic location update of Mobile Lite.
- 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.

4.1.6. Miscellaneous

Click on the "Misc." tab to program miscellaneous options:

MS Program APN	Report Settin	ng Misc.	Firmware		
CSQ for GSM					
Scream duration	5 sec	• (Scream)	
Location					
Alive					
Reboot Mobile					
Reboot GSM					
Factory Reset					

• CSQ for GSM

- When pressed, Mobile Lite will return the GSM signal strength.
- The scale ranges from 0-30. The greater the number, the greater the signal strength.

Scream duration	5 sec	v (Scream
Location			
Alive			
Reboot Mobile			
Reboot GSM			

• Scream Duration

- Select a duration and click on the **Scream** button. Mobile Lite will emit a series of long beeps for the duration. A location information will also be sent to the reporting destination(s).
- Location
 - Clicking on this button will send the location information to the reporting destinations.
- Alive
 - To check whether Mobile Lite is operational.

• Reboot Mobile

• Clicking on "**Reboot Mobile**" will reboot Mobile Lite. This will not remove any programmed parameters on Mobile Lite.

• Reboot GSM

• Clicking on "**Reboot GSM**" will reboot the mobile service module and reconnect to the mobile network. This will not remove any programmed parameters on Mobile Lite.

• Factory Reset

• Factory Resetting Mobile Lite will clear all programmed parameters (e.g. report setting).

4.1.7. Firmware

Below displays the Firmware tab:

• To update the firmware of Mobile Lite:

Step 1. Clicking on the "Firmware".

Step 2. Select the provided firmware and click on "Open". A small window will pop-up with the message "Read file ! OK!". Click on the "**OK**" button.



Step 3. Click on the "Start" button to start firmware update.

SMS Program	APN	Report	Setting	Misc.	Firmware		
Firmwar	e	Start					
C:/Documer	its and Se	ttings/C087	4.CLIMAX-T	ECH/My I	Documents/Do	vnloads/MPMG_0.0.2_b	oin.txt

Total elapsed time will be displayed to show how long the updating process has elapsed.

SMS Program	APN	Report	Setting	Misc.	Firmware		
Firmwa	re	Start					
C:/Documer	nts and Se	ettings/C087	4.CLIMAX-T	ECH/My I)ocuments/Dow	inloads/MPM	1G_0.0.2_bin.txt

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



Step 5. Click on "**OK**" and the programming tool will read the settings of Mobile Lite again.

<<u>WARNING></u>

During updating process, please DO NOT disconnect Mobile Lite from the computer nor clicking on the "Close" button of the programming tool.

≅ Mobile Lite/X Tool V2.0	MPM_T_0.0.3	2-2G				
Help						
Port COM5 Baudrate 115200	Data 8	Parity None	Stop 1	FlowCtrl None	Open	Close
Mobile Mobile X Yrofile	Current Setting	×	Save Profile	New Profile	Profile Manager	Read
SMS Program APN Report Setting	Misc. Firmware					
Firmware Start						
Time: Total elapsed timer 00:04	ECH7My Documents/Dow	nioads/MPMG_0.0.2_f	ain. (88			
ATXUPGHADE						
OK K						
S //1// Erase flash !						~
ComPort: Connected	State_Firmware					100%

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				

<u><NOTE></u>

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

Please refer to the Appendix for the **8.1.** SMS Remote Programming Commands Table.

5. Learning in a RF pendant

Please follow the steps below to learn in a pendant. Mobile Lite can learn in a WTR pendant, Panic Button or a fall sensor. Mobile Lite can be activated by WTR, PB or Fall Sensor to make an emergency call.

- **Step 1.** Press the Active Button of Mobile Lite for 8 seconds (On the fifth second, Mobile Lite will emit 1 beep), Mobile Lite will emit one beep to indicate it has entered learning mode.
- **Step 2.** Press the Active Button of the RF pendant. The LED of the pendant will blink to indicate it is sending a signal to Mobile Lite.

<NOTE>

- One Mobile Lite can only learn in one pendant.
- **Step 3.** Mobile Lite will emit 2 beeps when it receives the signal from the pendant to indicate it has learned in the pendant.
- **Step 4.** Press the Active Button on Mobile Lite once to exit learning mode. Mobile Lite will emit two beeps to indicate it has exited learning mode.

<NOTE>

When Mobile Lite is in learning mode, pressing Mobile Lite's Active Button twice will cause Mobile Lite to remove the learned-in pendant and exit learning mode at the same time.

6. Operation

6.1. Answering Incoming Calls

- Mobile Lite will ring when there is an incoming call.
- The user can press Mobile Lite's Active Button to pick up the call.
- If the number of the incoming call matches any of the Caller ID, Mobile Lite will instantly pick up the call.
- Once Mobile Lite has answered the call, it will open two-way voice communication.
- Press a DTMF key for over 1 second to enable a designed shortcut function.
 - Enter (1) to talk only.
 - Enter (2) to open two-way voice communication.
 - Enter (3) to listen in only.
 - Enter (9) to hang up. You can also put the handset back to the base cradle to end the call.
- Press Mobile Lite's Active Button for 5 seconds to hang up.
- The caller can press either DTMF (9) key, Active Button of RF device, or put the handset back to the base cradle to hang up.
- Pressing any DTMF (except DTMF 9) can reset the communication time to the preset duration.

6.2. Current Operation Condition

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

LED	Behavior	Indication
Green LED (Top)	On	Mobile Lite is being charged.
	1 flash every 2 seconds	Mobile Lite operating normally
Amber LED (Middle)	Flashing quickly	GSM/3G fault
Red LED (Bottom)	Flashing quickly	Mobile Lite low on battery

• LED indicators:

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

6.3. Locating Mobile Lite

- There are three ways to identify the current location of Mobile Lite:
 - 1. Send the location SMS command LOC (please refer to 4.2. SMS *Remote Programming*):

The sender of the SMS command will receive a confirmation message (but no location information).

The location information is sent to the reporting destinations.

2. Activate an alarm:

When an alarm is activated, Mobile Lite will also report its destination along with the alarm report(s).

- Event information will be reported to Speech, CID over IP and CSV over IP reporting formats but not location information.
- For IP-related reporting (except CID over IP and CSV over IP), the location will be included in the report (format depends on the reporting type).
- For SMS-related reporting, Mobile Lite will also send a location link. If the receiver is a device that can use the link, click on it to display the location on an application or software.

6.4. Alarm Activation

- When the user presses the Active Button of Mobile Lite or the learnt-in RF device (WTR, Fall Sensor or PB) for help, Mobile Lite will emit a voice prompt "Emergency Call was pressed" as it enters guard time.
- When a fall is detected from the learnt-in Fall Sensor, Mobile Lite will enter guard time.
- Mobile Lite will continuously emit a voice prompt "Help call in progress" during guard time.
- During guard time, the user can cancel the alarm reporting 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). If cancelling was successful, Mobile Lite will emit a voice prompt "Help call cancelled".
- You cannot cancel alarm reporting after guard time has expired.
- Mobile Lite will also report its destination along with the alarm report (please refer to **6.3. Locating Mobile Lite**)

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 pause emitting confirmation beeps. Mobile Lite will start emitting confirmation beeps again when it resumes reporting (e.g. to the next report destination).

GPRS Reporting Method

- If Access Point Name, Username and Password are programmed, Mobile Lite can report using GPRS reporting (please refer to 4.1. PC Programming Tool or 4.2. SMS Remote Programming on how to program these settings).
- Access Point Name (APN): The name of an access point for GPRS. Please ask your SIM card service provider for your APN.
- **Username**: Offered by your SIM card service provider. Please ask your service provider for your GPRS username. If no username is required, you may skip this step.
- **Password**: Offered by your SIM card service provider. Please ask your service provider for your GPRS password. If no password is required, you may skip this step.
- All IP-related reporting types are reported using this method.
- Location information is not supported by CID_IP or CSV_IP reporting types but is sent to all other IP-related reporting types.

Callback Operation

• After reporting an alarm successfully to the CMS, Mobile Lite will enter callback mode by default. User can choose to turn on/off the Callback feature (Please refer to *4.1.5. Setting*).

<NOTE>

- Mobile Lite will enter callback mode only after all groups have been reported to and at least one report was successful.
- Mobile Lite will wait 5 minutes (by default) for CMS personnel to call back after reporting (available callback interval settings are 3 min / 5 min / 10 min / 15 min / 20 min / 30 min).
- When the CMS calls back within the period, Mobile Lite will auto answer the call after 2 beeps and wait for the Access Code (default is **1111**) and **#** key entry within 15 seconds.

When the correct Access Code and # key entry is received, the caller can talk to the user using Mobile Lite.

- 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 CMS 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, or press Active Button of RF device once to end the call.
 - Press any DTMF key except for the designated hang-up key (9) to reset the communication time to its preset duration. 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.

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 (follow-on 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, or press the Active Button of RF device once to end the call.
 - Press any DTMF key except for the designated hang-up key (9) to reset the communication time to its preset duration. 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 5 times accordingly.

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 is 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 to all Report Indexes within this group for 5 times (or until one of the reports is successful). If all the retry fails, 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 > 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 behavior depends on the event type:
 - Emergency Events:
 - When reporting to the first group is successful, Mobile Lite will still report to the next group until all groups have been tried.

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 Index within the group for 5 times), Mobile Lite will also terminate reporting.

- When reporting to the first group failed (going through all the Report Index within the group for 5 times), Mobile Lite will start reporting to the next group. When reporting to the second group succeeded, Mobile Lite will terminate reporting.
- 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. It will continue retrying until recognizing at least one successful report.

Example 1, if Groups 1 and 3 are programmed for "Emergency" reports, and assuming NO successful report:

Group 1 > Group 3 > <u>Wait 5 minutes</u> > Group 1 > Group 3 > <u>Wait 5 minutes</u> > Group 1 > Group 3 > Wait 5 minutes > Group 1 > Group 3 > <u>Wait 5 minutes</u> > ... Continues Reporting

Example 2, if Groups 1 and 3 are programmed for "Emergency" reports, and assuming NO successful report until Group 1 is successful after several retry:

Group 1 > Group 3 > <u>Wait 5 minutes</u> > Group 1 > Group 3 > <u>Wait 5 minutes</u> > Group 1 (Success!) > Group 3 > Stops reporting whether Group 3 succeeded or not.

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.

6.5. Sleep Mode

Mobile Lite can enter Sleep Mode to conserve power.

While under normal operation mode, press the Active Button for 5 seconds to enter / exit Sleep Mode.

- When Mobile Lite enters Sleep Mode, all functions, including the LED indicators, will be disabled during this time. Mobile Lite will emit a voice prompt "Power Off" as an indication of it entering Sleep Mode.
- The user can only program Mobile Lite for the duration using PC Programming Tool. As the GSM/3G module is also disabled, SMS commands will not be able to program Mobile Lite for the duration.
- Mobile Lite will only start to function when it exits Sleep Mode (pressing the Active Button for 5 seconds). Mobile Lite will emit a voice prompt "Power On" as an indication of it exiting Sleep Mode.

<NOTE>

After exiting Sleep Mode, Mobile Lite will connect to the mobile network. It will emit a "GSM Signal" voice prompt and a number voice prompt to indicate its signal strength.

6.6. Rebooting and Factory Resetting Mobile Lite

Rebooting Mobile Lite

- **Step 1.** Press Mobile Lite's active button for 15 seconds in any mode to enter reset mode. All LED will turn on for 1 second.
- **Step 2.** Press the active button once within 10 minutes. After 3-5 seconds, all LED will turn on briefly to indicate rebooting successful.

<NOTE>

- These steps will only reboot Mobile Lite and will not remove any programmed parameters in the device.
- After rebooting, Mobile Lite will connect to the mobile network. It will emit a "GSM Signal" voice prompt and a number voice prompt to indicate its signal strength.

Factory reset

Mobile Lite will clear all programmed parameters when the following steps are taken.

- **Step 1.** Press Mobile Lite's active button for 15 seconds in any mode to enter reset mode. All LED will turn on for 1 second.
- Step 2. Quickly press the Active Button twice within 1 second in the 10minute reset mode to restore Mobile Lite to factory settings. The 2

quick presses must be completed in 1 second. After 3-5 seconds, all LED will turn on for another second.

<NOTE>

- All reporting settings in Mobile Lite will be removed after a factory reset.
- After reseting, Mobile Lite will connect to the mobile network. It will emit a "GSM Signal" voice prompt and a number voice prompt to indicate its signal strength.

6.7. Voice Prompts

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 of Mobile Lite or the Active Button of the learnt-in RF pendant is pressed.	
2	Help call in progress	Plays every 2-3 seconds during guard time.	
3	Help call cancelled	Plays once when pressing the Active Button of Mobile Lite for 5 seconds during guard time	
4	Alarm received. Please stand by.	Plays once when Speech report has reached the recipient	
5	Mobile Lite battery is low. Please charge it.	Plays twice when Mobile Lite is low on battery	
6	Power On	Plays when Mobile Lite exits sleep mode by pressing the Active Button for 5 seconds.	
7	Power Off	Plays when Mobile Lite enters sleep mode by pressing the Active Button for 5 seconds.	
8	GSM Signal "Number" "Number" = One, Two, Three, Four or Five	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.	

7. Appendix

7.1. 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 (5-60 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 To locate Mobile Lite user via SMS	
Mobile connectio n Reset	RSTG	RSTG:PROG,1111 To reset mobile communication	
GPRS APN, username & password	APN	APN:PROG,1111,internet,, To set GPRS APN, username and password (31 characters max. for APN, 31 characters max. for username, 31 characters max. for password)	APN: Internet Username and password: empty
Report settings	RPT	RPT:PROG,1111,1,0933111222,1,0,0,1 To configure report settings (index number, report destination, group, type, miscellaneuous and event filter) Report Index: 1-5 Report destination: Depending on the reporting format Group: 1-5 Type: 0 = Speech, 10 = CID_IP, 11 = CID_SIA_IP, 12 = SIA_IP, 13 = SIA_CID_UDP, 14 = SIA_UDP, 16 = CSV_IP, 18 = XML, 31 = SMS_TEXT, 32 = SMS_MPTP Miscellaneous: Enter 0 for this parameter Event filter: 255 = all, 1 = status, 4 = emergency	No report destination
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 the guard time period Guard time: $5 = 5$ sec, $10 = 10$ sec, $15 = 15$ sec, $20 = 20$ sec, $25 = 25$ sec, $30 = 30$ sec	10
Auto check-in reports	TESTC	TESTC:PROG,1111,720,60 To configure the settings of auto check-in reports Interval: $0 = disable$, $240 = 4$ hrs, $360 = 6$ hrs, $480 = 8$ hrs, $720 = 12$ hrs, $1440 = 1$ 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 Offset time: $60 = 1$ hr, $120 = 2$ hrs, $240 = 4$ hrs, $360 = 6$ hrs, $480 = 8$ hrs, $720 = 12$ hrs	720, 60

Item	Command	Example & Usage	Default
Callback	CBTI	CBTI:PROG,1111,5,5	5, 5
time		To set Callback time and Two-way time	
		Duration: 0 = disable, 3 = 3 min, 5 = 5 min, 10 = 10 min, 15 = 15	
		min, 20 = 20 min, 30 = 30 min	
		Two-way time: 1 = 1 min, 3 = 3 min, 5 = 5 min, 30 = 30 minute	
Factory	FTSET	FTSET:PROG.1111	
reset		To execute a factory reset	
Location	GEOTR	GEOTR:PROG,1111,,0,5	1,1,60
function		To configure the location function	
		AGPS: 0 = disabled and 1 = enabled	
		CellLocate: 0 = disabled and 1 = enabled (Always ON no matter	
		the selection)	
		Tracking period: 0 = disabled, 5 = 5 minutes, 10 = 10 minutes, 15 =	
		15 minutes, 20 = 20 minutes, 30 = 30 minutes, 60 = 60 minutes	
To set the	BTNEV	BTNEV:PROG,1111,100	101
CID event		To set the CID event code sent when Mobile Lite's red help button	
code for		is pressed.	
the red		100 = medical event	
help		101 = personal emergency	
buttons		120 = panic report	
To enable/	SNDCR	SNDCR:PROG,1111,1,1	1, 1
disable		To enable/disable voice prompts during guard time and	
voice		confirmation beeps	
prompts		1 = enable	
during		0 = disable	
guard time			
and			
confirmati			
on beeps			
To reboot	RESET	RESET:PROG,1111	
Mobile Lite		To restart Mobile Lite	
To check	ECHO	ECHO:PROG,1111	
whether			
Mobile Lite			
is			
operationa			
I			
To obtain	CSQ	CSQ:PROG,1111	
SIM Card			
signal			
strength			
Incoming	ANSIN	ANSIN:PROG,1111,1	1
call alert		Enable/disable ringing sound for incoming call.	
		Disable = 0, Enable = 1	
To enable	SILENT	SILENT:PROG,1111,1	0
/ disable		Enable/disable mobile silent mode	-
silent		Disable = 0, Enable = 1	
mode			
Set Caller	CALID	CALID:PROG.1111.1.0227942014	
ID		Parameter 1: Select Caller ID: 1 = ID #1. 2 = ID #2	
		Parameter 2: Caller ID number: Enter a number up to 15 digit long	

For more information on reporting, please refer to 4.1.4. Report Setting.

7.2. 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:

ACCT MT QXYZ GG CCC

Where:

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

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

Q = Event qualifier, which gives specific event information:

- 1 = New Event or Opening
- 3 = New Restore or Closing
- 6 = Previously reported condition still present (Status report)

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

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

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

S = 1 Digit Hex checksum calculated such that:

(Sum of all message digits + S) MOD 15 = 0

<NOTE>

A '0' shall be transmitted as a 10 and valued as a 10 for checksum purposes even though it is displayed and printed as '0'.

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 ("Help Event" set as 100).
- 101 Personal Emergency (emergency)
 - When the Active Button of Mobile Lite is pressed ("Help Event" set as 101).
 - When the Active Button of the learnt-in Fall Sensor, WTR or Panic Button is pressed.

• 102 – Inactivity (emergency)

- When a fall is detected from Fall Sensor and no activity was detected after fall detection.
- When a fall is detected from the learnt-in Fall Sensor.

• 120 – Panic (emergency)

- When the Active Button of Mobile Lite is pressed ("Help Event" set as 120).
- When a fall is detected from the learnt-in Fall Sensor.

• 302 – Mobile Lite Low on Battery (status)

- When Mobile Lite is low on battery.
- 384 RF Device Low on Battery (status)
 - When the learnt-in RF Fall Sensor, WTR or Panic Button is low on battery.
- 602 Auto Check-In Report (status)
 - When Mobile Lite makes an auto check-in report to the CMS.
- 643 Location Accuracy Deviation (status)
 - When the margin of error for locating Mobile Lite is too great.
- 644 Location Positioning Timed Out (status)
 - When Mobile Lite locating process timed out.
- 645 Location Positioning After an Alarm Is Triggered (emergency)
 - When the location of Mobile Lite is sent after an alarm is triggered.
- 646 Location Positioning Command (status)
 - When the SMS command "LOC" is sent for Mobile Lite to update its location.
- 647 Periodic Location Positioning (status)
 - When Mobile Lite sends a periodic Location update according to the preset interval.

• 648 – Location Scream (status)

• When a user requests Mobile Lite to scream.

7.3. 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. An example of an event reported in the SIA/CID format is as follows:

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

Where:

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

9999 = account number 1100 00 000 = CID data (QXYZ GG CCC)

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

7.4. MPTP Protocol

Please refer to Benefon Corporation's "MPTP specification description for all Benefon GSM/GPS products" for details.

7.5. CSV IP

The message composition for CSV IP reporting includes username and password before the message.

The form of the message is similar to CID reporting:

ACCT,MT,QXYZ,GG,CCC

Where:

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

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

- Q = Event qualifier, which gives specific event information:
 - 1 = New Event or Opening
 - 3 = New Restore or Closing
 - 6 = Previously reported condition still present (Status report)

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

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

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

• 100 – Mobile Lite Emergency (emergency)

- When the Active Button of Mobile Lite is pressed ("Help Event" set as 100).
- 101 Personal Emergency (emergency)
 - When the Active Button of Mobile Lite is pressed ("Help Event" set as 101).
 - When the Active Button of the learnt-in Fall Sensor, WTR or Panic Button is pressed.

• 102 – Inactivity (emergency)

- When a fall is detected from Fall Sensor and no activity was detected after fall detection.
- When a fall is detected from the learnt-in Fall Sensor.
- 120 Panic (emergency)
 - When the Active Button of Mobile Lite is pressed ("Help Event" set as 120).
 - When a fall is detected from the learnt-in Fall Sensor.
- 302 Mobile Lite Low on Battery (status)
 - When Mobile Lite is low on battery.
- 384 RF Device Low on Battery (status)
 - When the learnt-in RF Fall Sensor, WTR or Panic Button is low on battery.
- 602 Auto Check-In Report (status)
 - When Mobile Lite makes an auto check-in report to the CMS.
- 643 Location Accuracy Deviation (status)
 - When the margin of error for locating Mobile Lite is too great.
- 644 Location Positioning Timed Out (status)
 - When Mobile Lite locating process timed out.
 - 645 Location Positioning After an Alarm Is Triggered (emergency)
 - When the location of Mobile Lite is sent after an alarm is triggered.

- 646 Location Positioning Command (status)
 - When the SMS command "LOC" is sent for Mobile Lite to update its location.
- 647 Periodic Location Positioning (status)
 - When Mobile Lite sends a periodic Location update according to the preset interval.
- 648 Location Scream (status)
 - When a user requests Mobile Lite to scream.

Federal Communication Commission Interference Statement

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

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

. Reorient or relocate the receiving antenna.

. Increase the separation between the equipment and receiver.

. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

. Consult the dealer or an experienced radio/TV technician for help.

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

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

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

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

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