ELECTRONIC MONITORING SYSTEM

MOBILE UNIT OPERATIONAL GUIDE

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Chapter 1: Introduction

The Mobile Monitoring System is based on Elmo-Tech's field proven RF monitoring technology. The Mobile Unit is one of the many unique elements of this system.

The Mobile Unit is a lightweight hand held unit that can be used by mobile officers in the field to monitor offender transmitters.

The Mobile Unit has the following features and advantages:
Ability to verify monitored offender compliance while patrolling in a vehicle, or on foot
Minimizing direct unnecessary contact with offenders
Light, palm sized and water-resistant new design
18 hour rechargeable battery
Extended memory capacity
Windows™ PC interface, for batch report processing

The groundbreaking GPS model will report the offender's location and immediately upload this information to the monitoring center.

Chapter 2: Mobile Unit Activation and Setup

The Mobile Unit is a lightweight hand held unit that can be used by mobile officers in the field to monitor offender transmitters.

2.1 Parts of the Mobile Unit

Figure 2-1 The Mobile Unit

The parts of the Mobile Unit are explained, in detail, in the table on the following page:

Control/Indicator	Description
LED indicator	Used to indicate the battery status of the Mobile Unit, as well as the receipt of status and event messages
Message Display panel	Used to display status indicators and status/event messages
Up button ▲	Used to initiate commands in the command menu
Down button ▼	Used to navigate through the command menu
Antenna	Mobile Unit antenna
Charging socket	Used to connect the Mobile Unit to an external power source. This is in order to charge the Mobile Unit

2.1.1 Display Panel

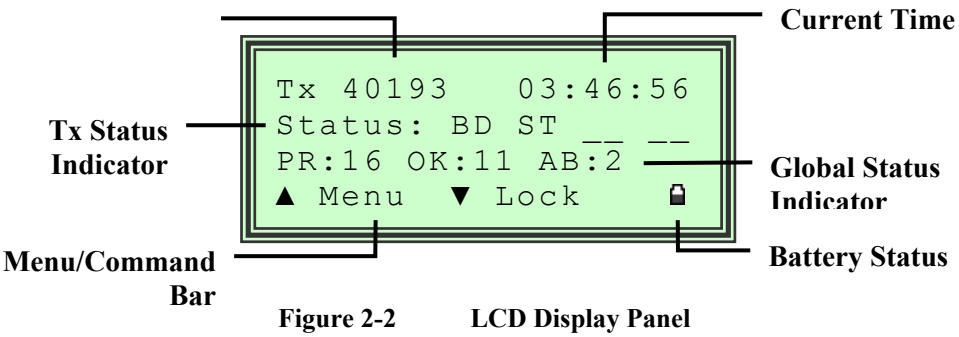

Figure 2-2 LCD Display Panel

The LCD display panel indicators are explained, in detail, in the following table:

Indicator	Description
Tx ID Number	Used to display the identification number of the currently displayed transmitter (Tx)
Current Time	Used to display the current time
Tx Status Indicator	Used to display the status of the currently displayed transmitter (Tx)
Global Status Indicator	Used to display the global status of all transmitters (the number of present transmitters, OK transmitters and absent transmitters)
Menu/Command Bar	Used to display the menu/command options
Battery Status	Used to display the current battery level status

Before the Mobile Unit can be used to perform any its designated monitoring tasks, the unit should be activated and the internal battery should be fully charged.

2.2 Activating the Mobile Unit

In order to activate the Mobile Unit, perform the following:

1. Press either the Up ▲ or Down ▼ buttons for approximately 3 seconds. The Mobile Unit makes a number of audible beeping sounds, conducts the initial series of built-in activation procedures and then the Start-Up message (system logo; version number and current date) briefly appears in the display panel.

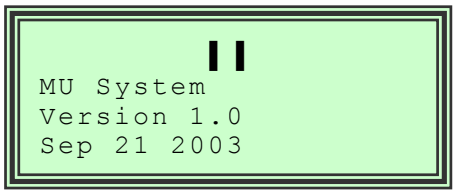

Figure 2-3 The Start-Up message

2. Wait for the Search Mode view to appear in the display panel. This view indicates that the Mobile Unit has been activated successfully.

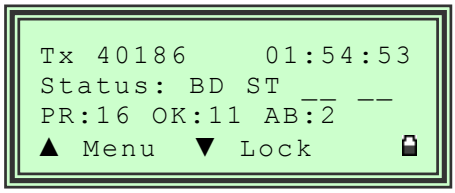

Figure 2-4 The Search Mode View

2.3 Memory Management

Memory management is an integral part of the Mobile Unit setup and can be applied in order to perform the following actions:
Delete the complete event log
Delete all existing members

2.3.1 Deleting the Event Log

In order to delete the event log, perform the following steps:

1. Press the Up ▲ button to enter the Main menu. The Main menu is displayed.
2. Press the Down ▼ button until the Memory Management (MEM) menu option is highlighted.
3. Press the Up ▲ button to enter the Memory Management menu.
4. Press the Up ▲ button to delete the event log. A warning message appears in order to confirm the deletion.
5. Press the Down ▼ button to confirm the deletion, or press the Up ▲ button to cancel.
6. Press the Down ▼ button until the 'Return to Menu' (←) menu option is highlighted.
7. Press the Up ▲ button to return to the Main menu.

2.3.2 Deleting all Existing Members

In order to delete all existing members, perform the following steps:

8. Press the Up ▲ button to enter the Main menu. The Main menu is displayed.
9. Press the Down ▼ button until the Memory Management (MEM) menu option is highlighted.
10. Press the Up ▲ button to enter the Memory Management menu.
11. Press the Down ▼ button until the 'Delete all Members' (LST) menu option is highlighted.
12. Press the Up ▲ button to delete the member list. A warning message appears in order to confirm the deletion.
13. Press the Down ▼ button to confirm the deletion, or press the Up ▲ button to cancel.
14. Press the Down ▼ button until the 'Return to Menu' (←) menu option is highlighted.
15. Press the Up ▲ button to return to the Main menu.

2.4 Operational Mode Definition

During the Mobile Unit setup, operational mode definition can be applied in order to define the actual operational mode of the Mobile Unit. The Mobile Unit can be set to operate in the following modes of operation:

Search Mode – Used to display the current status of all transmitters within range

Event Mode – Used to display new event message from all transmitters within range (only applicable for group monitoring systems)

For a detailed description of the all the available operational modes, refer to, **Modes of Operation**, located in the chapter about, **Operating the Mobile Unit**.

Chapter 3: Operating the Mobile Unit

The Mobile Unit is a lightweight hand held unit that can be used by mobile officers in the field to monitor offender transmitters.

3.1 Modes of Operation

The Mobile Unit can be used in the following modes of operation:
Search Mode – Used to display the transmitters identification number (Tx ID), the current status of the transmitter (e.g. strap open, body off) and the time of each reception. Search mode can be used in the following sub-modes:

- **Search (Unlock) Mode** – Used to display the current status of all transmitters within range
- **Lock Mode** – Used to display the current status of only the currently selected (locked) transmitter

Event Mode – Used to display new event message from all transmitters within range (only applicable for group monitoring systems)
Remote Mode – Used to upload stored data from the Mobile Unit to the Mobile Monitoring System software application.

3.1.1 Monitoring in Search (Unlock) Mode

Once the Mobile Unit has been activated, the unit automatically enters into Search mode.

For more information about activating the Mobile Unit, refer to the section about, **Activating the Mobile Unit**, located at the beginning of this guide.

Whenever the status of a monitored transmitter (transmitter within range) changes, the Mobile Unit makes a beeping sound, the right LED lights up and the new status is displayed in the display panel.

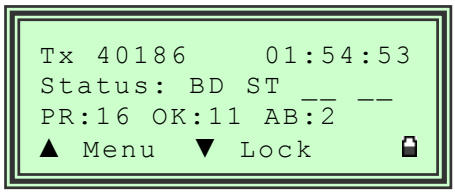

Figure 3-1 Search (Unlock) Mode View

Once the status of the first monitored transmitter (transmitter within range) appears in the display panel, the following information is displayed; the identification number of the currently displayed transmitter (Tx ID), the current time, the status of the currently displayed transmitter (e.g. strap open, body off) as well as the global status of all transmitters (the number of present transmitters, status OK transmitters and absent transmitters).

3.1.2 Monitoring in Lock Mode

Once the Mobile Unit starts to receive and display the status of more than one monitored transmitter (transmitter within range), you can lock the Mobile Unit onto a particular transmitter using lock mode. Once in lock mode, the Mobile Unit will only display status information for the selected (locked) transmitter.

3.1.2.1 Locking the Mobile Unit onto a Transmitter

In order to lock the Mobile Unit onto a specific transmitter, perform the following steps:

16. Wait until the required transmitter identification number (Tx ID) is displayed in the display panel.

17. Press the Down ▼ button once to lock the Mobile Unit onto the selected transmitter. The status of the selected transmitter is displayed in the Display panel.

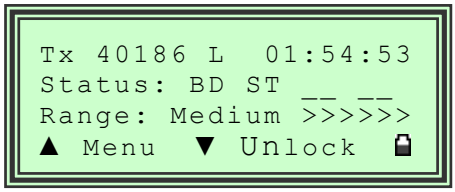

Figure 3-2 Lock Mode View

Once the Mobile Unit has locked onto the selected transmitter, the following information is displayed; the identification number of the currently displayed transmitter (Tx ID), the lock indicator (L), the current time, the status of the currently displayed transmitter (e.g. strap open, body off) as well as the approximate distance between the Mobile Unit and the locked transmitter (e.g. short, medium, long).

18. Press the Down ▼ button once to unlock the transmitter. The Mobile Unit enters back into Search mode.

3.1.3 Remote Mode

Once you have completed a monitoring session, you have the capability to upload any stored data from the Mobile Unit to the Mobile Monitoring System software application. This can be achieved in Remote mode.

3.1.3.1 Activating Remote Mode

Before the upload process can commence the Mobile Unit's Remote mode should be activated.

In order to activate Remote mode, perform the following steps:

19. Press the Up ▲ button to enter the Main menu. The Main menu is displayed.

20. Press the Down ▼ button until the Remote menu item (REM) has been selected.
21. Press the Up ▲ button to enter the Remote menu. Remote mode is automatically activated and the Mobile Unit is now ready for the upload process to commence.

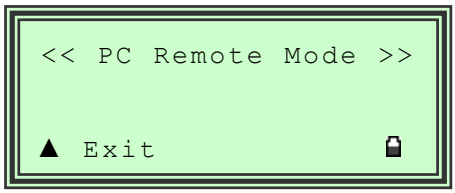

Figure 3-3 PC Remote Mode

For detailed description about uploading stored data to the Mobile Monitoring System application, refer to the section about, **Uploading Stored Data from the Mobile Unit**, located in the **Mobile Monitoring System-Monitor Operator's Manual**.

22. Press the Up ▲ button to exit Remote mode. The Mobile Unit enters back into Search mode.

3.2 Charging the Mobile Unit

The Mobile Unit is supplied with a built-in rechargeable battery. In order to keep the internal battery fully charged, you will need to connect the Mobile Unit to the supplied charging adapter whenever the unit is not in immediate use.

Note that, whenever the Mobile Unit is low on power, the low battery status indicator located in the display panel flashes.

3.2.1 Charging the Mobile Unit in the Home/Office

In order to charge the Mobile Unit in the home or office perform the following steps:

23. Plug the appropriate end of the supplied power adapter (charger) into the wall socket.
24. Connect the other end of the power adapter into the charger socket on the Mobile Unit. The 'Charging in Progress' message is displayed in the Display panel and the left LED indicator on the Mobile Unit lights up.

3.2.2 Charging the Mobile Unit in a Vehicle

In order to charge the Mobile Unit in a vehicle perform the following steps:

25. Plug the appropriate end of the supplied power adapter (charger) into the vehicles cigarette lighter power outlet.
26. Connect the other end of the power adapter into the charger socket on the Mobile Unit. The 'Charging in Progress' message is displayed in the Display panel and the left LED indicator on the Mobile Unit lights up.

Chapter 4: Maintaining the Mobile Monitoring System

In order to keep the Mobile Monitoring System functional and in good working order a number of maintenance procedures will need to be adhered to.

4.1 Cleaning the Mobile Unit

To clean the Mobile unit, perform the following:

27. Remove the Mobile unit from its water resistant carrying pouch and simply wipe the outside of the unit with a damp cloth.

Do not, under any circumstances, submerge or place the Mobile unit under running water.

28. Using a piece of cloth or a paper towel, dry the outer side of the Mobile unit.
29. Once the Mobile Unit is dry, place it into the water resistant pouch and then into the specially designed transportation case.

4.2 Cleaning the Transmitter

The Transmitter is made of a single mold, especially designed to protect the integrity of the electronic circuits during daily use and while it is being cleaned. A soft brush and an alcohol based solution; soapy water or Lysol can be used to clean the transmitter.

For additional safety and user comfort, it is recommended that after cleaning with any of the above-mentioned solutions, you wash and wipe the transmitter with clear water before it is re-used.

To clean the transmitter, perform the following:

30. Remove the 'female' clip and strap holder from the transmitter short strap.
31. If the storage clip is on, remove it until you finish cleaning the transmitter.
32. Holding the transmitter by the end of the long strap, spray the transmitter with a cleaning solution of choice.
33. Using a piece of cloth or a paper towel, dry the outer side of the transmitter. Lay the transmitter on the towel with its inner side facing up. Using a soft brush or a piece of cloth/towel, gently scrub the inner side of the transmitter along the tracks.
34. Wash the transmitter in clear water.
35. Dry the transmitter using a piece of cloth/paper towel or simply let it drip dry.
36. Once the transmitter is dry, place it into the specially designed transportation case.

4.3 Replacing the Transmitter Straps

After some time and depending on the wear and tear of the transmitter, the straps on the transmitter will need to be replaced. Any of the following points could justify replacing a transmitter strap:
Visible damage to one or both straps
Unexplainable strap tamper alarms
Transmitter will not calibrate

 Note that if only one side of the strap is damaged, you may want to leave the undamaged side in place and replace only the damaged side of the strap.

Check that you have the following equipment items before you replace the transmitter straps:
1 transmitter body

1 pair of replacement straps (long/medium non-pins side and long/medium pins side)
Screwdriver
Extra screws

- Extra strap clips (male and female)

Electronic key
To replacing the transmitter straps, perform the following:

37. Using the screwdriver, open the screw(s) that holds the strap clasp to the transmitter and remove the strap clasp.
38. Gently shake the strap loose from the transmitter body, being extra careful not to damage the metal pins on the transmitter body.
39. Position the new strap over the transmitter body. Notice that the two small holes on the strap have to lie exactly over the two metal pins.
40. Gently place the strap down over the metal pins and press down along the seam of the strap, snugly fitting the entire strap to the transmitter body.
41. Put the strap clasp back in place with the wider side pointing in-wards.
42. Close the screw (s) with the screwdriver. It has to be closed firmly, but not too tight since this can damage the strap.
43. Test the new strap by performing a calibration.

 If, after the calibration, the transmitter does not reset, repeat steps 1-6 making sure that the strap is positioned correctly over the pins. Then perform another calibration test. If changing only one side of the strap does not work, you should try and change the other strap side.

Chapter 5: Mobile Monitoring System Specifications

This chapter lists the specifications details for each equipment item associated with the Mobile Monitoring system.

5.1 Mobile Unit Specifications

This section of the Mobile Monitoring System specifications chapter is divided into the following sections:

Mobile Unit Features

Light, palm sized and water-resistant new design Ability to verify monitored offender compliance while patrolling in a vehicle, or on foot Minimizing direct unnecessary contact with offenders	Extended memory capacity Windows™ PC interface, for batch report processing The groundbreaking GPS model will report the offender's location and immediately upload this information to the monitoring center

Memory

Store and monitor up to 200 transmitters	Log up to 3000 events Records are time stamped

Operating Characteristics

Battery Life between charges: 16-24 hours	Charge Time: 5 hours

Mechanical Characteristics
Water Resistant
Size: 14 x 8.5 x 3.5 cm (5.5 x 3.3 x 1.4 in)
Antenna length: 8.5 cm (3.3 in)
LCD message display
Backlight push button
Acknowledge push button

Waterproof pouch with belt clip.