

# **3M™ Dual Comms RF Monitoring System and RF Transmitter**

## **Installation & Operation**

**February 2017**

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## Versions and Changes Table

Version	Status/Changes	Author	Date
1.0	New format – initial release version	Steve Graniewitz	02-FEB-2017
2.0	Addition of TRXS-890 transmitter to Safety Instructions. Addition of FCC statement.	Steve Graniewitz	06-NOV-2017



## Safety Information

Please read, understand, and follow all safety information contained in these instructions prior to the use of this 3M Electronic Monitoring device. Retain these instructions for future reference.

### Intended Use


This 3M Electronic Monitoring device is part of an electronic monitoring system, which performs data transfer using the PSTN or cellular network to a monitoring platform. This device has not been tested for and is not intended for use on airplanes, in hazardous environments, in healthcare facilities, or where cellular phones or other intentional transmitters are restricted.

The Dual Comms Monitoring Receiver is intended for indoor use only. The operating temperature of the Dual Comms Monitoring Receiver is -20°C to +55°C. The operating temperature of the TRXS-860 RF Transmitter and TRXS-890 RF Transmitter is -25°C to +55°C. The storage temperature of the Dual Comms Monitoring Receiver is -40°C to +55°C. The storage temperature of the TRXS-860 RF Transmitter and TRXS-890 RF Transmitter is -40°C to +55°C. The maximum temperature at which the Dual Comms Monitoring Receiver's battery may be charged is +50°C.

Explanation of Signal Word Consequences	
 <b>WARNING</b>	Indicates a hazardous situation which, if not avoided, could result in serious injury or death.
 <b>CAUTION</b>	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury and/or property damage.
<b>NOTICE:</b>	Indicates a situation which, if not avoided, could result in property damage.

Safety information for:

- Rechargeable hand-held/wearable devices
- Non-rechargeable hand-held/wearable devices
- Cradles/receivers/base units

 <b>WARNING</b>	<p>Avoid placing a device next to an implanted electronic device (e.g., don't carry the device in a shirt or jacket pocket directly near an implanted device).</p> <p>To reduce the risks associated with fire or explosion:</p> <ul style="list-style-type: none"> <li>• Do not intentionally open or damage the device.</li> <li>• Ensure storage temperature of device is within the range as specified in device manual.</li> <li>• Do not attempt to access or replace battery. Battery is not user-replaceable. The device shall be opened by 3M authorized service only.</li> <li>• Do not use device outside of the operation temperature range specified in device manual. Contact the agency representative from which you are monitored to get operation temperature range.</li> </ul>
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 **WARNING**

To reduce the risks associated with hazardous voltage:

- Do not modify, decorate, or attempt to service the device. Return to 3M authorized personnel or location for repair or service. There are no user serviceable parts.
- If the device or power cord becomes damaged, contact the agency representative from which you are monitored.

**NOTICE**

- Only authorized personnel can turn off or remove the device.

Safety information for:

- Rechargeable hand-held/wearable devices
- Cradles/receivers/base units

 **WARNING**

To reduce the risks associated with hazardous voltage:

- Do not modify AC/DC power adapter plug.
- Do not force the power plug into an outlet where it does not fit.
- Use only a 3M provided AC/DC power adapter to recharge or power the device.
- Do not unplug AC/DC adapter by power cord. Handle the adapter by the body only.
- Do not attempt to charge the device using an outdoor outlet. Only use the AC/DC adapter indoors.
- Do not expose power adapter to rain, steam or wet conditions.
- Do not submerge the device, or hold the device under running water, while it is charging.

 **CAUTION**

To reduce the risks associated with hot surfaces:

- Do not touch thermal pads on device or charger if charging is interrupted.

Safety information only for:

- Rechargeable Hand-held/wearable Devices
- Non Rechargeable Hand-held/wearable Devices

 **WARNING**

To reduce the risks associated with fire or explosion:

- Do not enter areas with potentially explosive atmosphere. Potentially explosive areas are often, but not always, clearly marked.

 **CAUTION**

To reduce the risks associated with sharp points:

- Use caution when handling pin trays.

 **CAUTION**

- Avoid installing the electronic monitoring device in the presence of ulcers, open wounds, blisters, swelling or skin infection over the expected area of contact with the electronic monitoring device.
- If the user reports pain, numbness or other symptom over the expected area of contact with the electronic monitoring device, a medical opinion is recommended prior to installation.
- If the user reports concerns about an underlying medical condition that could be exacerbated by use of the electronic monitoring device, a medical opinion is recommended prior to installation of device.
- If, during use, the user experiences skin changes or symptoms in the area in contact with the electronic monitoring device, the user should immediately contact their agency representative.

Cancer Patients that have been treated with Radiotherapy:

- Avoid installing the electronic monitoring device in the presence of radiation-induced skin changes (such as ulcers, open wounds, blisters, desquamation, erythema, hyperpigmentation) over the expected area of contact with the electronic monitoring device. Otherwise, there is no currently available evidence the use of the electronic monitoring device is contraindicated in cancer patients that have been treated with Radiotherapy.

Pregnant women:

- Avoid installing the electronic monitoring device in the presence of ulcers, open wounds, blisters, swelling or skin infection over the expected area of contact with the electronic monitoring device. Otherwise, there is no currently available evidence the use of the electronic monitoring device is contraindicated in pregnant women.

Safety information only for:

- Cradles/receivers/base Units

 **WARNING**

To reduce the risks associated with hazardous voltage:

- Do not submerge the device, or hold the device under running water.

## FCC

FCC ID: LSQ-E4-RF-2

FCC ID: LSQ-TRXS-860-2

FCC ID: LSQ-TRXS-890-2

### FEDERAL COMMUNICATIONS COMMISSION (FCC) Part 15 STATEMENT

The equipment 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.

This device complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna, 2. Increase the separation between the equipment and the receiver, 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, 4. Consult the dealer or an experienced radio/TV technician for help.

3M Electronic Monitoring has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

## WEEE



This symbol according to the European Directive indicates that the Waste of Electrical and Electronic Equipment (WEEE) must not be disposed of as unsorted municipal waste and must be collected separately. Please contact an authorized representative of the manufacturer or an authorized waste management company for information concerning the decommissioning of your equipment.

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# 1 Introduction

The 3M™ Dual Comms Monitoring Receiver is a home unit designed for offender monitoring applications. A combination of flexible configuration options and anti-tamper mechanisms built-in across the platform, enables the Dual Comms receiver to provide a robust solution tailored to the precise needs of each individual home curfew program.



Figure 1: Dual Comms Monitoring Receiver

The unit comprises an RF transceiver, 3G cellular modem, PSTN modem, telephone handset, rechargeable lithium-ion backup battery and a menu-driven LCD interface.

Communication with the transmitter worn by the offender and the data transfer to the monitoring station are fully encrypted as a means of ensuring data confidentiality and authentication.

The Dual Comms receiver supports up to 15 offenders at a single curfew location.



Figure 2: RF Transmitter

Each monitored offender is assigned an RF transmitter which is physically attached to their body. The RF transmitter sends periodic signals that are utilized by the Dual Comms receiver to determine the presence of the monitored offender. The Dual Comms receiver generates events that are communicated to the monitoring center in order to report if the offender is adhering to the conditions of their curfew program.

The Dual Comms receiver includes a number of tamper detection mechanisms including tilt, power, and telephone line detection. Attempts to disconnect or move the unit are immediately reported. The unit also includes an internal rechargeable battery that provides back-up power in the event of an extended power outage.

## 2 Installing the Dual Comms Receiver

Installing the Dual Comms receiver involves:

- Assembling the appropriate equipment
- Verifying that the offender is registered in the 3M™ Web Offender Management Software
- Locating the optimal position for the unit in the offender's curfew site
- Setting up the unit

### 2.1 Before Installation

Before leaving the monitoring center, check that you have the correct installation kit and the appropriate installation tools. In addition, verify that the offender is correctly registered in the 3M™ Web Offender Management Software application.

#### 2.1.1 Installation Equipment

The kit of installation equipment should include the following items:

- Dual Comms receiver
- Power adapter
- Telephone cables
- RF transmitter with strap holder
- Locking clips

#### 2.1.2 Installation Tools

You will also need the following installation tools:

- Manual Reset Device (MRD) – for activating the RF Transmitter
- Strap locking tool – for locking the RF Transmitter
- 0.2" (5mm) flat head screwdriver – for opening the locking clip
- Snake eye screwdriver – for changing the straps on the RF transmitter

#### 2.1.3 Verifying Offender Information in the Web Offender Management Software

Verify the following Offender details in the 3M™ Web OMS:

- Offender's ID, name and address
- Offender's program type –RF Curfew Dual (E4)
- Equipment serial numbers – These must match the serial numbers on the equipment you are planning to install
- Landline number
- SIM card details

For more information about working with the 3M™ Web Offender Management Software, refer to the *3M Dual Comms Curfew RF Monitoring System Operational Guide*.

## 2.2 Placing the Receiver

The ideal location for the Dual Comms receiver is:

- In an open area
- As close as possible to the center of the curfew site
- On a flat and secure surface
- 1m (3 feet) above the ground and at least 30cm (1 foot) away from the wall

Make sure the RF Dual Comms receiver is located far away from:

- Television sets or other electrical appliances
- Microwave ovens
- Personal computers or laptops
- Disruptive noise sources such as heavy traffic or mechanical vibrations
- Heat sources such as a radiator, air ducts or direct sunlight
- Excessive moisture or extremely low temperatures
- Mirrors or reflective materials

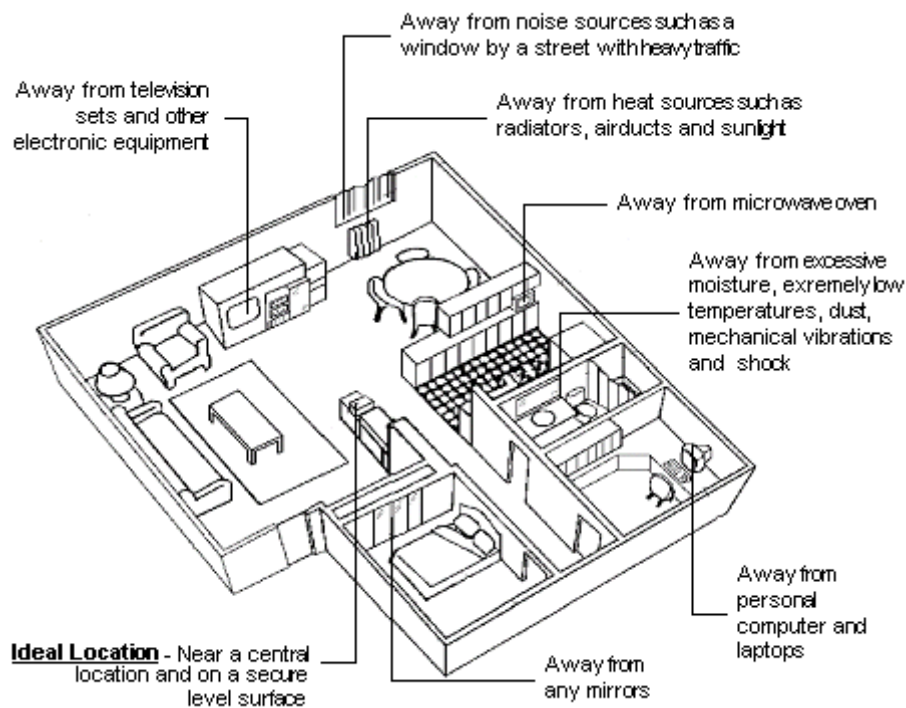


Figure 3: Positioning the Curfew Unit

## 2.3 Installing the Receiver

For the Dual Comms receiver to receive and transmit signals with maximum efficiency, the unit should be positioned horizontally on a hard, flat surface. The Dual Comms receiver should also be positioned within easy reach of a power outlet.

To install the Dual Comms receiver:

1. If there is a telephone already connected to the telephone wall socket, disconnect the telephone cable connect it to the Phone socket located on the back panel of the Dual Comms receiver.
2. Connect one end of the supplied telephone cable into the Line socket located on the back panel of the Dual Comms receiver and plug the other end into the telephone wall socket.

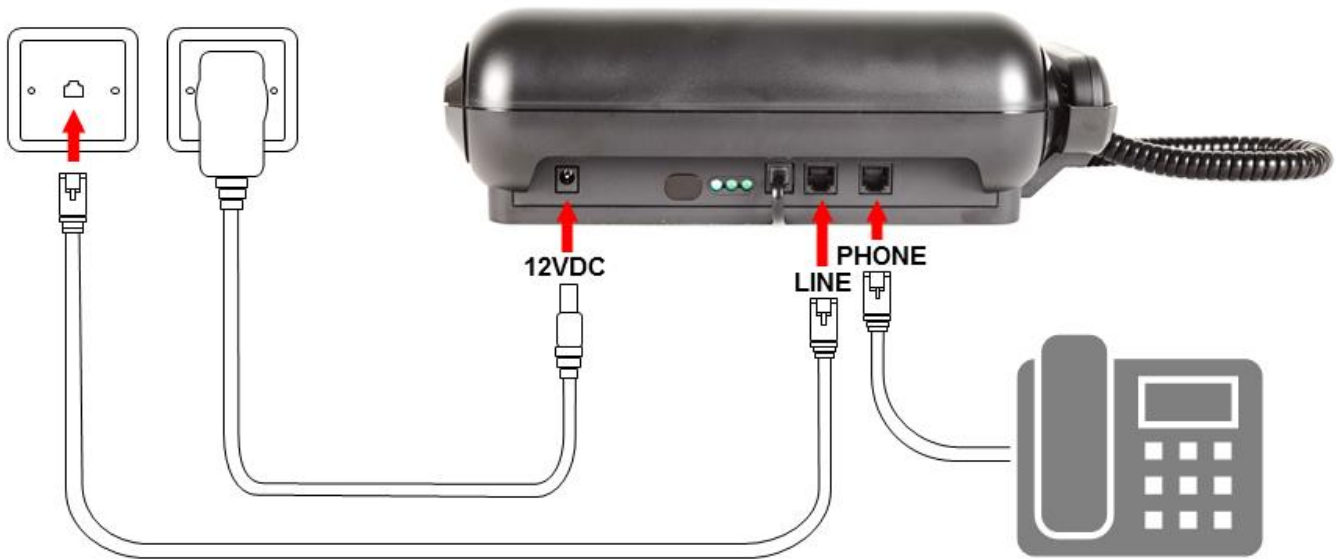


Figure 4: Dual Comms Receiver Connections

3. Connect the power adapter to the nearest available power outlet.
4. Plug the other end of the supplied power adapter cord into the socket labelled 12VDC on the back panel of the Dual Comms receiver.

The left and right LEDs, located on the back panel, are turned on. This indicates that the Dual Comms receiver is functioning correctly.

The LED indicators are:

- Left - indicates that external power is connected.
- Right - indicates that the unit has at least one working communication channel

The Dual Comms receiver automatically switched to standby mode.

### 3 Installing the RF Transmitter

After the Dual Comms receiver has been connected and is working correctly, you can activate, calibrate and install the RF transmitter (TX).

Check that you have the following equipment items before you install the RF transmitter:

- RF transmitter (TX) and strap holder
- Electronic key (MRD)
- Locking tool
- Locking clips (male and female)
- 0.2" (5mm) flat head screwdriver – for opening the locking clip
- Snake eye screwdriver – for changing the straps of the RF transmitter

#### 3.1 Activating the RF Transmitter

Before the RF Transmitter can be attached to the offender, you must first activate the RF Transmitter.

To activate the RF transmitter:

1. Hold the free end of the RF transmitter strap in your hand with the metal pins pointing towards you.
2. Hold the MRD in your other hand, with the two connection points facing the metal pins.
3. Press the metal pins on the RF transmitter onto the two connection points on the MRD and hold them in this position.
4. On the MRD, press the ON button.



The red LED on the MRD turns on for 2 seconds and then flashes for another 2 seconds. The flashing indicates that the RF Transmitter has passed the first phase of its activation.

- i** If the RF Transmitter failed to receive the activation command, the red LED on the MRD turns off after initially being on for two seconds. If the MRD's battery is low, the red LED flashes for two seconds immediately after the ON button is pressed.

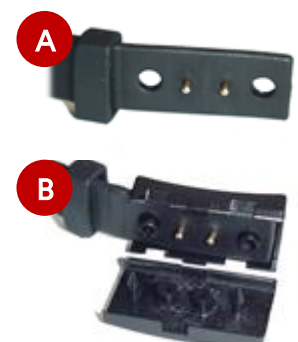
5. Place the RF transmitter on its side on a non-metal surface and leave it untouched for 60 seconds to allow it to calibrate.

The RF Transmitter is now activated.

#### 3.2 Attaching the RF Transmitter

To attach the RF transmitter:

1. Place the strap holder over the short strap of the RF transmitter (A).
2. Attach the female part of the clip to the underside of the short strap ensuring that the closed end of the clip fits snugly onto the end of the strap (B).
3. Wrap the RF Transmitter around the wrist or ankle at its narrowest point.



4. Lay the long strap over the female part of the clip ensuring that the strap pins and the clip studs are protruding through the holes in the long strap (C).
5. Slide the strap holder over the end of the long strap in order to hold the strap in place.
6. Move the RF Transmitter around the wrist or ankle to ensure that it fits comfortably.
7. Place the male part of the clip over the female part, ensuring that the grooves on each side of the clips match (D).
8. Place one side of the locking tool underneath the clip and close the two parts together. You should hear a clicking sound indicating that the clip is properly locked.



**i** Be sure to collect all of the installation equipment at the offender's curfew site. This includes any locking clips that may have broken during the installation.

## 4 Activating the Offender's Monitoring Program

After installing the monitoring equipment, you can download the offender's program configuration and perform a range test.

### 4.1 Performing Registration

To perform registration:

- Connect the Dual Comms receiver to power.

The registration screen is displayed. The initial registration of the voice, data and phone line communication is automatically performed.

After registration, the following communication status icons are displayed on the Dual Comms receiver's main screen:

- Cellular reception
- Cellular network (2G or 3G)
- Data communication
- Phone Line

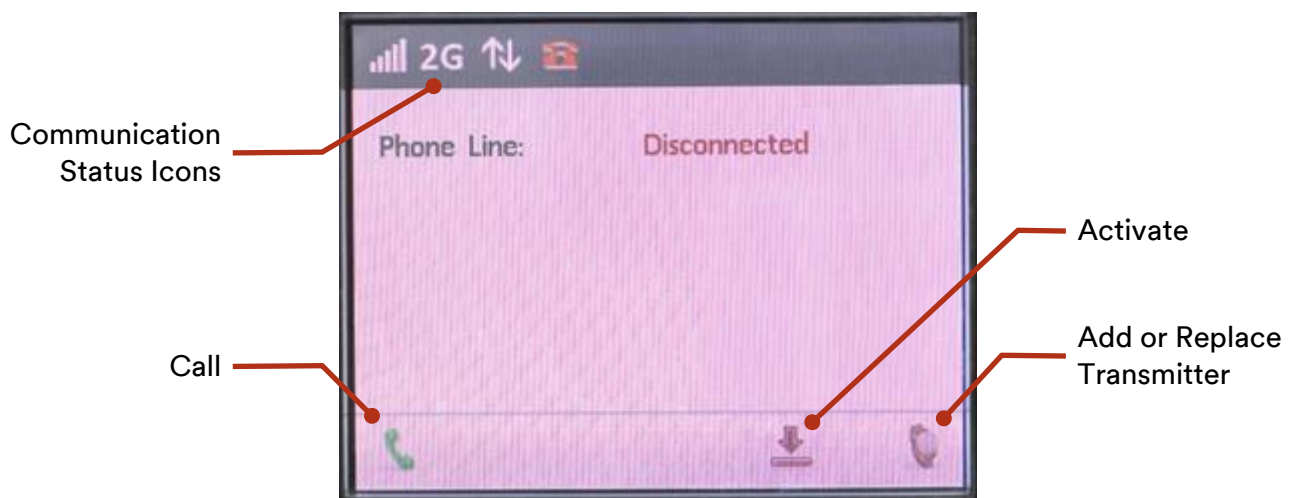


Figure 5: Post-Registration Status Icons on Initial Screen

**i** White communication status icons indicate that the status is OK. Red icons indicate that the status is not OK. If a problem is detected with the communication status, the details will be displayed on the screen. In the above example, the phone line is disconnected so the phone line icon is red and the cause of the problem is displayed on the LCD.

## 4.2 Assigning the Transmitter

When activating the Dual Comms receiver, the receiver must be paired with a correctly installed transmitter – see *chapter 3: Installing the RF Transmitter*.

To assign a Transmitter to a Dual Comms receiver:

1. From the initial screen (see Figure 5), press the Transmitter button for about 10 seconds until a list of transmitter serial numbers is displayed.
2. Press the up and down buttons to navigate to the transmitter you installed.

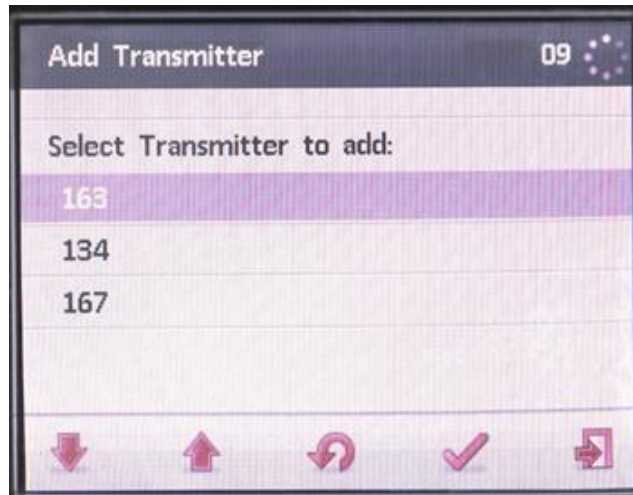


Figure 6: Selecting a Transmitter

3. Press ✓.

The transmitter is paired to the receiver.

## 4.3 Performing Activation

Dual Comms receiver activation can be performed using one of three methods:

- Basic activation
- Fast activation
- Advanced activation

### 4.3.1 Basic Activation

Basic activation requires downloading the curfew schedule and general operational parameters by monitoring center.

To perform Basic activation:

1. Call the monitoring center and ask the monitoring personnel to perform a manual download.
2. At the end of a successful download make sure the unit emits the following series of sounds:

Long Beep, Short Beep, Long Beep, Short Beep.

This sequence of sounds indicates that the download was successful.

3. After the “Download Successful” sound, make sure the unit emits the following sounds:

Long Beep, Short Beep.



This sound indicates that the transmitter is OK (the strap is closed, the body is detected and the battery is OK).

- i** In cases where the unit is monitoring multiple transmitters, the “Transmitter OK” sound is triggered only for the first transmitter which fulfils the specified conditions.

After the download process has been confirmed as successful, the Receiver Unit will automatically switch to monitoring mode.

### 4.3.2 Fast Activation

Fast activation activates the program without modifying the configuration settings.

In order to perform a Fast activation, the monitoring center needs to request a “Download on Next Call” prior to the activation.

To perform Fast activation:

1. Make sure that a Download Next Call request is waiting in the queue.
2. Press the Activation icon (↓).

The activation process is performed. After the activation is successfully completed, a success message is displayed on the screen.

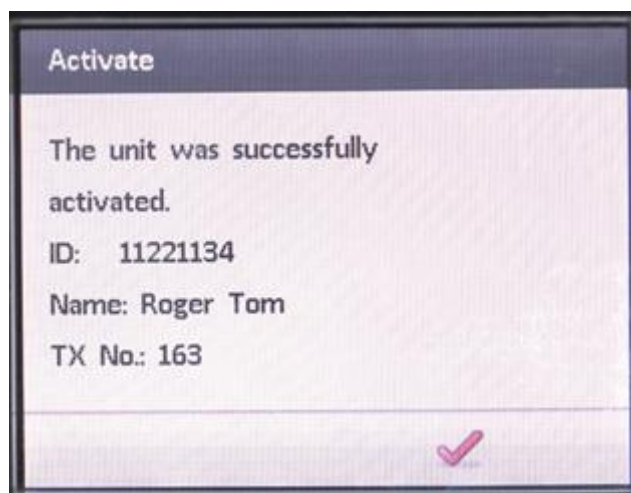


Figure 7: Success Message Example

The Dual Comms receiver and the offender program are now active and in Monitoring mode.

- i** If there is no Download Next Call request in the queue, the Fast activation will fail and the following message will appear: "Activation Failed - No pending request".

### 4.3.3 Advanced Activation

Advanced activation involves modifying the Dual Comms Receiver's configuration before activating the unit. To activate the Dual Comms Receiver, you need to make sure that the transmitter is calibrated and assigned, and that there are communication details defined.

To perform advanced activation:

1. Press the second and third buttons (from left to right) together until the Password screen is displayed.

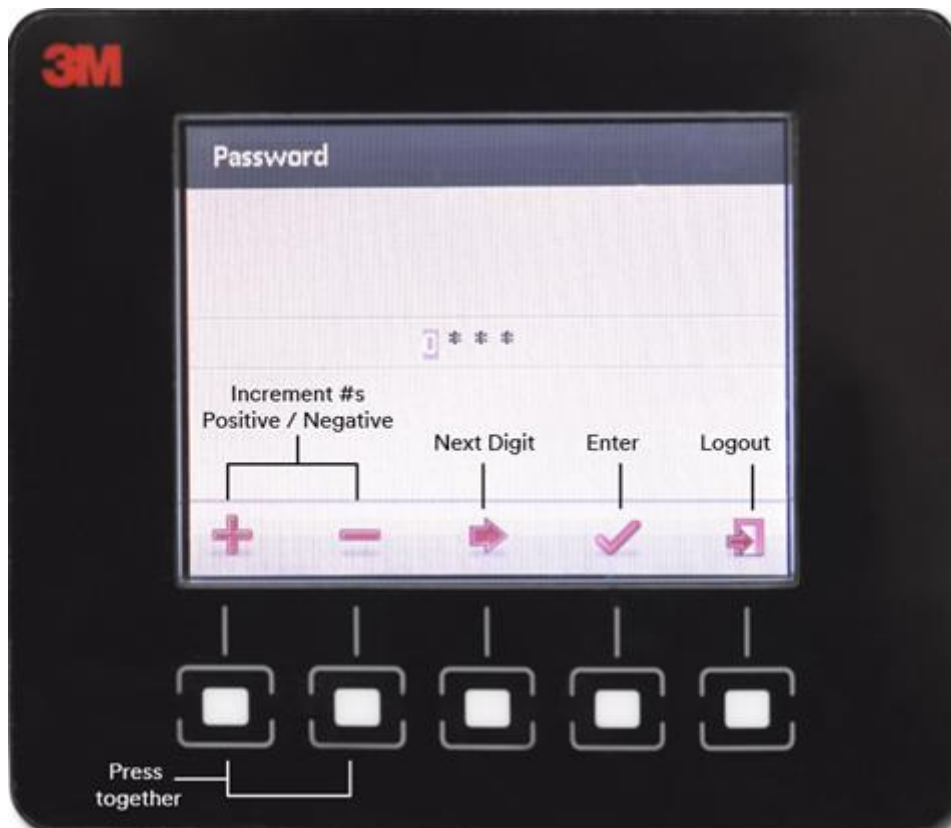


Figure 8: Password Screen

2. Enter the password that was provided to you by your system administrator.
3. The Main Menu screen appears – see *Figure 9*.
4. Modify the configuration settings as required – see *5 Performing Advanced Configuration*.
5. Verify that a Download request is waiting in the queue.
6. From the Main Menu, select Activate.

The activation process is performed during which the Dual Comms receiver communicates with the Offender Management System and the offender's program configuration is downloaded.

After activation is successfully completed, a success message is displayed on the Dual Comms receiver's LCD screen – see *Figure 7*.

7. Both the Receiver unit and Offender Program are now active and in Monitoring mode.

## 5 Performing Advanced Configuration

This chapter explains how you can modify the Dual Comms receiver's configuration settings before completing the Advanced activation process – see 4.3.3 *Advanced Activation*.

Configuration can also be performed after the unit is activated.

### 5.1 Main Configuration Functions

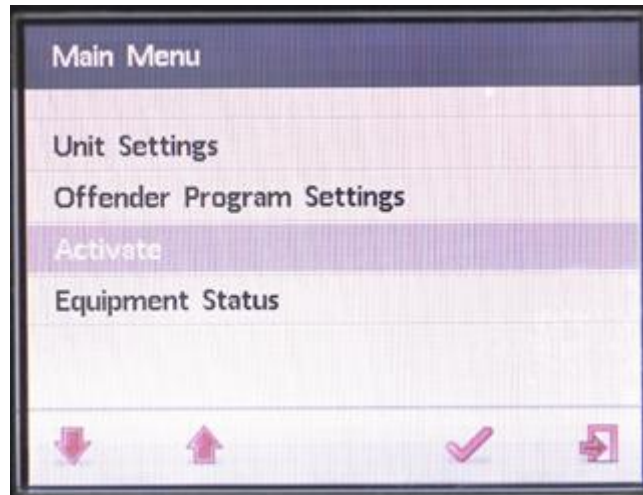


Figure 9: Main Menu

The Dual Comms receiver's Main Menu includes the following options:

- Unit Settings – enables setting the language, date and time, siren volume, and communication details.
- Offender Program Settings – enables setting the following:
  - Adding or replacing a transmitter
  - Performing a range test and automatically (or manually) setting the receiver's range
  - Setting a temporary schedule
- Activate – Initiates the activation process
- Equipment Status – Enables you to view the transmitter and receiver status

**i** After the activation is successfully completed, it is recommended to disable the Main Menu from the application in the monitoring center.

### 5.2 Configuring Unit Settings

The Unit Settings screen enables you to set the language, date and time, siren volume and communication details.



Figure 10: Unit Settings Menu

### 5.2.1 Setting the Language

The Language setting enables you to change the language displayed on the LCD interface.

To set the language:

1. From the Main Menu, select Unit Settings.
2. Select Language.
3. Select a language from the list displayed and press ✓.

### 5.2.2 Setting the Date and Time Configuration

Setting the date and time is an optional feature that is relevant only before the unit is activated. Following activation, the date and time are synchronized with Offender Management System.

In addition to setting the date and time, various options are available that allow you to configure how the date and time will be displayed


To set the date:

1. From the Main Menu, select Unit Settings.
2. Select Date and Time.
3. Select Date.
4. Use the + and - buttons to configure the date and the ➡ button to move right.
5. Press 📁 to save.


To set the time:

1. From the Main Menu, select Unit Settings.
2. Select Date and Time.
3. Select Time.
4. Use the + and - buttons to configure the time and the ➡ button to move right.
5. Press 📁 to save.


To configure the date and time display:

1. From the Main Menu, select Unit Settings.
2. Select Date and Time.
3. Select Date and Time Display.
4. Choose one of the following options:
  - Hide Date and Time
  - Show Date and Time
5. Press  to save.

To set the date format:


1. From the Main Menu, select Unit Settings.
2. Select Date and Time.
3. Select Date Format.
4. Choose one of the following date formats:
  - DD/MM/YYYY
  - MM/DD/YYYY
  - YYYY/MM/DD
5. Press  to save.

To set the time format:

1. From the Main Menu, select Unit Settings.
2. Select Date and Time.
3. Select Time Format.
4. Choose one of the following time formats:
  - 24 Hours
  - 12 Hours
5. Press  to save.

### 5.2.3 Setting the Siren Volume


To set the time format:

1. From the Main Menu, select Unit Settings.
2. Select Siren Volume.
3. Choose one of the following siren volume options:
  - Low
  - Medium (default)
  - High
4. Press  to save.

### 5.3 Defining the Communication Details

The Communication Details are the telephone numbers, IP and port of the Offender Management System's communication gateway.

To set the communication details:

1. From the Main Menu, select Unit Settings.
2. Select Communication.
3. Enter the following parameters:
  - Landline Number
  - Cellular Number
  - IP Address
  - Port Number
4. Press  to save.

### 5.4 Adding or Replacing a Transmitter

After the Dual Comms receiver is activated, it is possible to add or replace transmitters.

To add a new transmitter or replace the existing transmitter:

1. From the Main Menu, select Offender Program Settings.
2. Select Transmitter.
3. Select Add Transmitter to add a new transmitter or Replace Transmitter to replace an existing one.  
A list of serial numbers of transmitters in range of the Dual Comms receiver is displayed.
4. Press the up and down buttons to navigate to the transmitter you want to add.

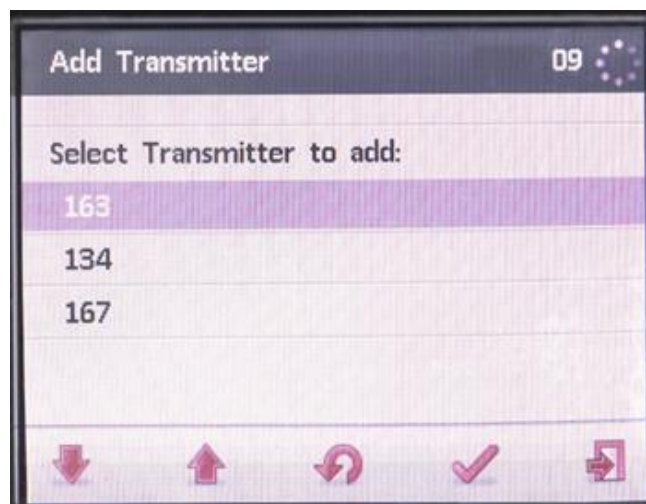




Figure 11: Selecting a Transmitter

5. Press .

 If you chose to replace a transmitter, the message “The unit is monitoring transmitter number [XXX]. Do you want to replace it?” is displayed. Press  to confirm transmitter replacement.

## 5.5 Setting the Temporary Curfew Schedule

Setting a temporary curfew schedule is an optional feature that is relevant to units that cannot be activated in the Offender Management System at the time of installation. For example, the Dual Comms receiver is installed in a location with no cellular coverage and a telephone line is due to be installed at a later date.


It is important to note the following:

- You can only set a temporary curfew schedule after manually setting the date and time – see 5.2.2: *Setting the Date and Time Configuration*.
- The temporary curfew schedule is effective from the same date that it was set.
- The Dual Comms is capable of monitoring using a temporary curfew schedule but the events generated will be reported to the Offender Management System only once the Dual Comms receiver has been successfully activated.

If you do not set a temporary curfew schedule, the offender must stay within range of the Dual Comms receiver at all times. Leaving the curfew area will generate a violation event.

The temporary curfew schedule allows you to configure one time frame during which the offender can leave the curfew area. Alternatively, you can configure a time frame during which the offender must leave the curfew area and failure to do so will generate a violation event.

To set the temporary curfew schedule:

1. From the Main Menu, select Offender Program Settings.
2. Select Temporary Curfew Schedule.
3. Enter the Start Time of the time frame.
4. Enter the End Time of the time frame.
5. Choose the Type of time frame:
  - Out – the offender can leave the curfew area during the time frame.
  - Must Be Out – the offender must leave the curfew area during the time frame.
6. Press  to save.

## 6 Setting the RF Range

The Dual Comms receiver supports five RF range settings. The RF range can either be set automatically using the Range Test feature or you can choose the range manually.

### 6.1 Performing a Range Test

A range test helps you to determine that the Dual Comms receiver is positioned in the optimum location to receive signals from the RF transmitter from all positions within the offender's curfew site. It also helps you to set a suitable RF range for the receiver.

While performing a range test you should escort the offender to the following types of locations:

- Places where the offender may be located for long periods of time, such as the living room, bedroom or bathroom
- Remote locations where the offender is permitted, such as the garage, cellar or backyard.
- Locations within the curfew site that are furthest from the receiver.
- Behind large metal objects.

To perform a range test:

1. From the Main Menu, select Offender Program Settings.
2. Select Range.
3. Select Range Test.

The Dual Comms receiver starts the range test.



Figure 12: Range Test Example

4. Escort the Offender around the curfew site. Wait to hear at least four beeps in each test location to verify that the RF Transmitter's signals are successfully reaching the Receiver.


**i** You can press  to terminate the range test at any time.

After the test is completed, the Dual Comms receiver automatically sets the best range for the transmitter according to the test results.



## 6.2 Manually Setting the RF Range

To manually set the RF range:

1. From the Main Menu, select Offender Program Settings.
2. Select Range.
3. Select Manual Selection.
4. Choose one of the following options:
  - Very short
  - Short
  - Medium
  - Long
  - Maximum
5. Press  to save.

## 7 Daily Operating Instructions

The Dual Comms receiver is capable of receiving incoming calls from the monitoring center and enables the offender to perform outgoing calls to the monitoring center or to emergency services.


### 7.1 Incoming Voice Calls

The Dual Comms receiver can receive incoming calls to its cellular modem. On receiving an incoming call, the Dual Comms receiver sounds a ring tone.


Incoming calls include:

- Calls from the monitoring center or officers.
- Voice Verification Test calls (if the offender's program includes voice verification).


If the Dual Comms receiver is connected to the offender's landline, the line may be shared with a regular telephone on which the offender receives regular calls from friends or family. Incoming landline calls do not cause the Dual Comms receiver to ring.

 Upon answering a call to their landline telephone, the offender may hear a slight noise on the line during the first few seconds of the conversation. The offender should not be alarmed. The Dual Comms receiver automatically interacts with each incoming call for the first few seconds. If, during a conversation on the landline telephone, the Dual Comms receiver emits a short tone on the line, it means that the Dual Comms receiver unit needs to communicate with the Offender Management System. The offender should complete their current conversation as soon as possible to enable the Dual Comms receiver to make its call. Failure to free the line could register as a violation.

To answer an incoming call to the Dual Comms receiver's cellular modem:

- When the Dual Comms receiver sounds a ring tone, lift up the handset and press  .

To hang up an incoming call to the Dual Comms receiver's cellular modem:


- Press  and place the handset in its cradle.

### 7.2 Incoming Data Calls

Incoming data calls can be defined as a communication session between the Dual Comms receiver and the Offender Management System's communication gateway.

When the Offender Management System communicates with the Dual Comms receiver via the cellular network, the receiver does not ring and the offender will be unaware of the communication session in progress.

However, if the Offender Management System communicates with Dual Comms receiver via landline, the offender's telephone will ring and the Dual Comms receiver answers the call following a pre-defined number of rings.

 When monitoring center staff perform a download via landline, the offender should be instructed beforehand not to pick up the phone when it rings. The offender should be instructed that if they pick up their telephone and hear modem sounds, they must hang up the phone immediately and not attempt to use the phone for 10 minutes.



## 7.3 Outgoing Calls from the Dual Comms Receiver

The Dual Comms receiver has the capability to make the following types of outgoing calls via its cellular modem:

- Emergency calls to the monitoring center or emergency services. The phone numbers for these contacts are stored in the Dual Comms receiver's memory.
- Voice Verification test request calls.

### 7.3.1 Performing an Outgoing Call

To make an outgoing call from the Dual Comms receiver:

1. Lift the Dual Comms receiver's handset.
2. Press .
3. Choose a contact (Emergency or Control Center).
4. Press .

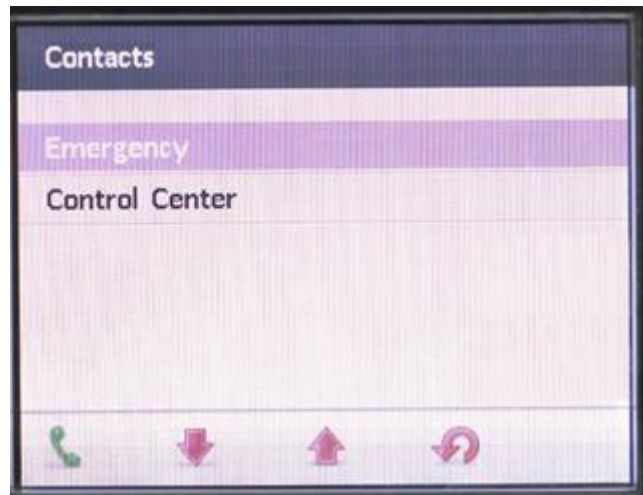




Figure 13: Emergency and Control Center Calling Options

 If you hear a low beeping sound while attempting to make an outgoing call via the Dual Comms receiver, the outgoing call attempt has failed.

To hang up the call:

- Press  and place the handset in its cradle.

## 7.4 General Rules for the Offender

The following are general rules for the Offender regarding their monitoring program:

 Never...

- Move the Dual Comms receiver after it has been installed
- Place any objects on top of the Dual Comms receiver
- Disconnect the Dual Comms receiver's power cord
- Attempt to open the Dual Comms receiver
- Leave the designated curfew area during the defined curfew time frame
- Attempt to open the RF transmitter's strap
- Cut the RF transmitter's strap or break the clips