

# ElmoTech User Guide

**MEMS3000 & E3 Presence Monitoring** 



# **Table of Contents**

M	<b>E</b> M	<b>IS3</b>	000	VB/\	/BR	Hard	lware
---	------------	------------	-----	------	-----	------	-------

MEMS3000 VB\VBR Overview	1
MEMS3000 at a Glance	
Installing and Operating a MEMS3000 VB Receiver	2
RF Transmitter	4
RF Transmitter Installation Components at a Glance	5
Installing the RF Transmitter (VBR only)	6
Performing an RF Range Test (VBR only)	8
MEMS3000 VB Alarms	9
MEMS3000 VBR Transmitter Alarms	11
Deactivating and Removing Equipment (End of Service)	12
MEMS3000 VB/VBR Offender Guidelines	13
E3 RF Presence Monitoring Hardware	
53 Padia Francia de (PS) Occasione	1.5
E3 Radio Frequency (RF) Overview	
Installing and Operating an E3 RF Receiver/Transmitter	
RF Transmitter Installation Components at a Glance	
Installing the RF Transmitter	
Performing an RF Range Test (VBR only)	
E3 RF Receiver/Transmitter Common Events	
Deactivating and Removing Equipment (End of Service)	
E3 RF Offender Guidelines	
ElmoTech E3 Software	
Logging In	27
Enrolling a New Offender	29
Downloading Information to the Receiver	
Configuring Offender Schedules	
Capturing Enrollment Reference Picture (MEMS3000 Only)	
Deactivating Equipment (End of Service)	
Exiting the Software	

### **Contact Us**

SecureAlert Corporate 866 451-6141 | M-F 8am-5pm (MST)

Monitoring Center 800 466-1377 | 24/7 Officer ID:

When contacting the SecureAlert Monitoring Center concerning a MEMS3000 device, please request to speak with an Alcohol Monitoring Specialist.

SecureAlert Training Department 800 451-6141 Option 4 | M-F 8am-5pm (MST) SATraining@secureAlert.com



# www.SecureAlertUniversity.com

SecureAlert Unvierstiy is an online resource for training materials, resources and job aids, certification and more.

Our goal is to provide these training materials in a myriad of methods to meet the diverse needs of our customer base.



### To log on for the first time

- 1. Visit www.securealertuniversity.com
- 2. Click the Create Account link in the top right corner of the window.
- 3. Enter the required information, create a password and click Create Account. Your account will be evaluated for approval within one business day. You will be notified by email when your account is approved.
- **4.** Once your account has been approved, return to www.securealertuniversity.com and enter your email address and the password you created and click submit to login.

# MEMS3000 VB/VBR

# Hardware

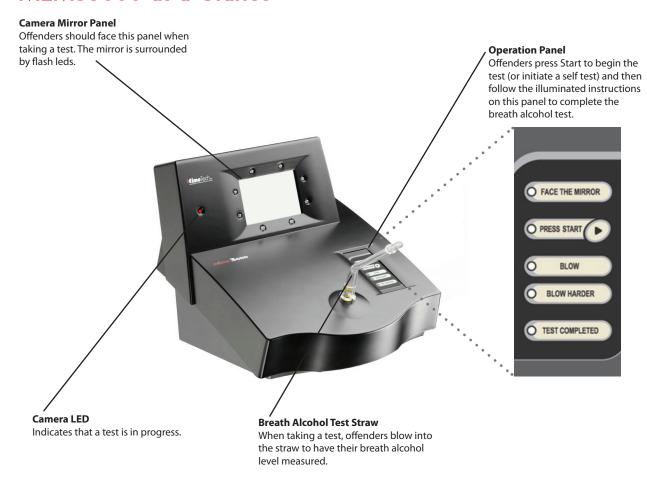
## MEMS3000 VB\VBR Overview

The MEMS3000 Receiver is a highly sensitive alcohol monitoring device (to .019%) that combines breath alcohol testing with video identity verification. The device automatically transmits breath alcohol test results and user images taken at the time of the test to the SecureAlert monitoring center for identify verification.

The MEMS3000 VBR also contains a radio frequency component which enables it to be used in conjunction with an RF transmitter for home confinement.

There are two different versions of the MEMS3000 VB and VBR to meet offenders' needs. One that communicates using a regular telephone landline and one that uses a cellular connection to communicate.

### MEMS3000 at a Glance



### Installing and Operating a MEMS3000 VB Receiver

### **MEMS3000 Pre-installation**

- 1. Enroll offender in ElmoTech E3 software (see the Software chapter for details)
- 2. Verify that you have the correct equipment for the offender's program type and that the serial number(s) on the equipment match those selected on the Offender Details tab in the E3 software
  - Equipment to install a MEMS3000 Receiver:
    - ▲ MEMS3000 Receiver
    - Power Adapter
    - ▲ Breath Alcohol Test Straw
    - ▲ Telephone line (landline devices only)

### Finding a Suitable Location for the MEMS 3000 Receiver

- ▲ Place the receiver:
  - ▲ In a quiet, well lit area
  - ▲ On a flat and secure surface
  - ▲ 3 feet above the ground and at least 1 foot away from the wall.
  - Near a power source (and telephone jack if the receiver is a landline device)
- ▲ Avoid placing the receiver near:
  - Television sets, microwaves, computers and other electrical equipment
  - Neat sources (e.g., radiators, air ducts, direct sunlight)
  - Mirrors and other reflective materials

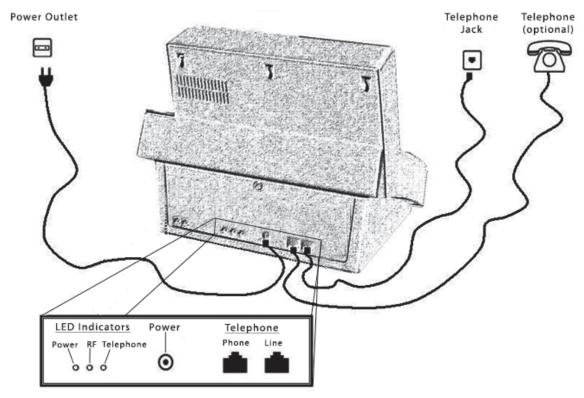
### Tip: Avoid Backlighting\Exposure Problems

Once a location has been selected, it's also important to position the receiver with the mirror panel facing away from any direct light. Doing so will ensure that pictures are taken at the correct exposure and that the offender's photo is captured with sufficient detail.

### **Installing the MEMS 3000 Receiver**

Once the receiver has been positioned in an appropriate location:

- 1. Insert the power cord into the back of the receiver.
- 2. Plug the power cord into a power outlet in the wall.
- 3. The receiver will play audio tones while it initializes and beep once it has finished.
- 4. If the receiver is a landline device, plug one end of a telephone cord into the wall and the other into the Line jack on the back of the device (see next page).
- 5. If a telephone is already plugged in to the wall, unplug it and plug it into the Phone jack on the back of the device (see next page).



MEMS3000 Landline Receiver

- 6. Check the LED indicators on the back of the receiver to ensure that the Power and Telephone LEDs are illuminated.
  - Note: For cellular devices, the Telephone LED indicates whether the device has successfully connected to a cellular network.
- 7. Once both LEDs are illuminated, use the E3 software or contact the monitoring center to download enrollment information to the device and take the offender's reference picture. See the Software chapter for more information. It is important that the enrollment picture is captured in the presence of the supervising officer to ensure that the correct person is taking the breath alcohol tests.
  - Note: If the telephone LED is flashing, the device is communicating with the server. Wait until the LED stops flashing, to download enrollment information.

### Tip: Landline Device Requirements

In order to use a landline device, the telephone line must not have any of the following services:

- ▲ Answering Machine
- ▲ Fax Machine
- ▲ Fax\Internet Modem
- ▲ ADSL Internet
- ▲ Call Forwarding
- Call Waiting

### **Performing a Breath Alcohol Test**

Breath alcohol tests can be scheduled in the E3 software or administered manually by pressing the Press Start button on the front of the receiver.

- 1. When the device receives the command to administer a test, it produces an audio siren.
- 2. Press Start.
- 3. The device beeps and the Blow and Face the Mirror LEDs illuminate on the front panel.
- 4. Blow into the breath alcohol test straw
- 5. During the test, the camera flash will trigger and a picture will be taken for video ID
- 6. The device will beep when the test is completed and the Test Completed LED will illuminate on the front panel

The picture and results will then appear in the software where they can be evaluated and compared with (or saved as) a reference picture.



MEMS3000 Receiver Front Panel

Note: Pictures should clearly display the offender's face without obstruction. Offenders should refrain from wearing appearance altering clothing while taking breath alcohol tests (e.g., sunglasses, hats).

Offenders may not touch the straw while the test is being administered.

### **RF Transmitter**

The MEMS3000 VBR can be used in conjunction with a transmitter to confine an offender to an area near the receiver. The transmitter sends Radio Frequency (RF) signals to the MEMS3000 receiver every 20 seconds. If the receiver doesn't receive the signal it will generate an event message in the software and alert the monitoring center.



E3 RF Transmitter

# RF Transmitter Installation Components at a Glance



### Installing the RF Transmitter (VBR only)

#### **RF Transmitter Pre-installation**

- 1. Enroll offender in ElmoTech E3 software (see the software chapter for details).
- 2. Verify that you have the correct equipment for the offender's program type and that the serial number(s) on the equipment match those selected on the Offender Details tab in the E3 software.
- 3. Install the MFMS3000 VBR receiver.
  - ▲ Equipment to install an RF Transmitter:
    - ▲ Transmitter
    - ▲ Strap Holder
    - Locking Clips
    - Manual Reset Device (MRD)
    - ▲ Strap Locking Tool
    - ▲ Flat Head Screwdriver (to remove clips if necessary)
    - ▲ Snake Eye Screwdriver (to replace straps if necessary)

### **Activating (turning on) the RF Transmitter**

Before the Transmitter can be attached to the Offender, you must first activate and calibrate the transmitter.

- 1. Press the contact points on the top of the MRD to the metal pins on the strap with the ON button closest to the transmitter.
- 2. Press the ON button
- 3. Hold the MRD in position as the red LED illuminates for 2 seconds and then blinks for two seconds. **Note:** If the command failed, the the MRD LED will shut off without blinking. If the MRD battery is low, the LED will blink as soon as the button is pressed.
- 4. Set the transmitter on its side while the transmitter powers on and begins communicating with the
- 5. The MEMS30000 Receiver should emit a beeping sound within 60 seconds indicating that communication has been established
  - Note: The beeping will continue each time the receiver receives a signal from the transmitter until the transmitter is secured around an offender's ankle, or until the devices downloads the program information from the E3 software.
- 6. Leave the transmitter laying on its side until you are ready to install it. Once the transmitter is moved, you have two minutes to attach it to the offender's ankle.
- 7. If you do not install the transmitter successfully within two minutes. Turn the transmitter off (see page 12), wait 15 seconds, then repeat the activation/installation process.

### **Attaching the Transmitter**

1. Place a strap holder over the short strap (pin side) of the Transmitter.



2. Attach the female Clip to the underside of the Transmitter's short strap (to lie against the Offenders skin).



- **3.** Wrap the Transmitter around the narrowest point of the offender's ankle.
- 4. Lay the long strap over the other strap, ensuring that the pins are protruding through both straps.



- 5. Push the other side (male) of the locking clip into place, securing the strap into position around the offender's ankle
- **6.** Slide the strap holder over the end of the long strap to hold it in place.

### Tip: Fitting the Transmitter

The Transmitter must fit tightly around the offender's ankle, but not squeezing. It is also permissible for an offender to wear a sock underneath the ankle Transmitter. Try to mount the Transmitter over the sock before it is fastened. Keep in mind that if the strap is too loose, the transmitter may report false strap tamper alarms.

- 7. Finally, clamp the two clips together using the Strap Locking Tool. The clips will click together indicating that the clips are fastened properly
- 8. If you haven't done so already, use the E3 software or contact the monitoring center to download enrollment information to the device and take the offender's reference picture. Also, ask the monitoring center to confirm that the transmitter was successfully calibrated before moving on.

# Performing an RF Range Test (VBR only)

A range test is used to ensure that the MEMS3000 Receiver's range setting is sufficient to receive signals from the transmitter throughout the offender's confinement area.

**Note:** The Range setting for the receiver can be adjusted by the monitoring center in the E3 software.

1. Use the table below to determine an appropriate initial range setting for the MEMS3000 Receiver (e.g. medium). Select a setting that is big enough to include the offender's home but not big enough for them to leave.

Range Setting	Radius
Short	15-45ft
Medium	45-80ft
Long	80-145ft
Maximum	145-260ft

- 2. Call the monitoring center and request that the range settings for the receiver be adjusted (per your estimation) and request that they send a command to the device to begin a range test.
- 3. The receiver will beep 3 times to indicate thath the range test has been initiated. Note: If the MEMS3000 receiver is connected to a landline, the phone will ring 2-3 times before the reciever picks up the call and initiates the test.
- Throughout the test, the receiver will beep every 20 seconds when it receives a signal from the transmitter
- Escort the offender throughout the location, pausing occaisionally to confirm that the receiver is receiving signal from the transmitter.

Pay special attention to:

- Places where the offender may be located for long periods of time (e.g., living room, bedroom,
- Remote locations where the offender is permitted (e.g., garage, cellar back yard)
- Extreme corners of the location
- Behind large metal objects

In these locations, pause long enough for the transmitter to beep 4 times (two minutes) to ensure that there is sufficient signal strength for the transmiter to consistenly communicate with the receiver

Note: If possible, have another person stand by the receiver to listen for the beeps that indicate that signals from the transmitter are reaching the receiver.

- 6. If you do not hear a beep after waiting for one minute in a test location, the transmitters signals are not reaching the receiver in that location. Call the monitoring center and request an increase in the receiver's range and to begin another range test once the range is updated. If the receiver is already at the maximum range setting, try to find a new place for the receiver that is more central to the offender's location
- 7. Once the range test is completed, call the monitoring center and ask them to end the range test. Note: The range test automatically terminates after 15 minutes. If the test isn't completed when the test expires, contact the monitoring center to request another range test.

## **MEMS3000 VB Alarms**

The MEMS3000 Receiver initiates a routine sanity call to the monitoring center in order to report the status of the equipment and upload all stored events (i.e., events that did not require immediate attention). The table below details some of the most common event messages that display in the software.

Message	Description
BAT Failed	The Breath Alcohol test has failed (exceeded allowed alcohol limit)
BAT Failed – Last Retry	The Breath Alcohol test has failed (exceeded number of allowed retries)
Case opened	The receiver's case has been opened. This is a violation and requires attention.
Case is still open	The receiver's case is still open. This is cause for concern and requires immediate attention.
Power too high	The receiver has indicated that the electrical current that is being received from the external power supply is too high. This is a cause for concern and requires attention.
BAT Request Failed	The BAT request has failed.
Buffer Full	The MEMS 3000 HomeStation memory is full. Cannot store any additional pictures. Send a download command to the receiver.
Low battery	The receiver's internal backup battery is low on power. This is a cause for concern and requires immediate attention.
Phone line failure	The phone line that connects the receiver to incoming / outgoing calls has failed, or has been disconnected. This is a violation and should be reported.
Phone line restored	The phone line that connects the receiver to incoming / outgoing calls has been reconnected after having been defined as failed or disconnected.
Power failure	The power cable that connects the receiver to the external power supply has failed, or has been disconnected.
Power restored	The power cable that connects the receiver to the external power supply has been replaced or reconnected after having been defined as failed or disconnected.
End of Service	The receiver has been deactivated and servce has halted
Receiver Missed Call	The system has indicated that the receiver did not perform its pre-defined status call-in (sanity call) procedure.
Alcohol Sensor Failure	The alcohol sensor has failed during the test. Because the picture mechanism works according to the alcohol sensor, this could mean that no picture was taken or this could be due to sensor warm up period. If detected unit will prompt for another test immediately
Alcohol Test activated	The alcohol test has been activated.
Alcohol Test Cancelled	The Breath Alcohol test has been cancelled
Alcohol Test Suspended	The alcohol test was suspended.
BAT failed – request time out	The breath alcohol test request has been defined as failed. This is activated when the number of test request attempts has exceeded the defined time out parameter.

Message	Description
BAT Succeeded	The breath alcohol test has succeeded (alcohol level did not exceed allowed limit)
Case closed	The receiver's case has been closed after it was initially opened.
Case Tilt	The receiver is not positioned on its original flat (parallel) surface. This could suggest that the receiver has been moved. This is a cause for concern and may require attention.
Download Successful	All events have been successfully downloaded from the receiver.
Init Enrolment failed	The enrolment request failed.
Init Enrolment Successful	The enrolment request was initiated successfully.
Line / phone connected correctly	The line or phone lines that connect the receiver to all incoming and outgoing calls has been reconnected correctly, after having initially been defined as connected incorrectly.
Line / phone connected incorrectly, requires switch	The line / phone cables that connect the receiver to incoming / outgoing calls has been connected incorrectly. The cables will have to be disconnected and then reconnected correctly.
New version installed	The receiver has indicated that a new software version has been installed successfully.
Offender start monitoring	The monitored individual's monitoring program has started.
Offender stop monitoring	The monitored individual's monitoring program has been stopped.
Phone was used	The phone line that is connected to the receiver was in use. This means that any download or upload of information, during this period, cannot be performed.
Picture Capture Succeeded	The picture capture procedure has succeeded.
Receiver is still in tilt	The receiver has indicated that it is still in a tilted (non parallel) position.

### **MEMS3000 VBR Transmitter Alarms**

The table below details some of the event messages that are specific to the RF component of the MEMS3000 VBR. See the previous table for MEMS3000 related events.

Message	Description
Body tamper	The monitored individual's transmitter has possibly been removed or installed to loose on the individual's ankle. Re-install to a tighter fit.
Body tamper reset	The transmitter body tamper sensor has been reset (re-attached to the ankle) after the tag was initially removed from the monitored individual's ankle.
Strap tamper	The monitored individual's transmitter has been opened or cut. and should be reported. Check to ensure there are no cuts/nicks/re-calibrate and or replace straps
Strap tamper reset	The transmitter's strap has been closed, after initially being opened or cut.
Left during curfew	The monitored individual has left the curfew location during a curfew schedule. Verify Schedule is correct.
Returned after absence	The monitored individual has returned the curfew location, after being defined as absent. Verify Schedule is correct.
Did not return	The monitored individual has not returned in time for the defined curfew frame.
Transmitter Tamper	The transmitter has indicated both Strap tamper and Body Tamper have occurred at the same time. This is a cause for concern and requires immediate attention.

### **Responding to Strap Tamper Events**

If the monitoring center detects a Strap Tamper event for the Offender's Transmitter, the Transmitter must be reset (turned off and back on) using the MRD.

Tamper events can be caused by the following issues:

- ▲ The offender tried to cut, open, or otherwise tamper with the transmitter
- ▲ The transmitter straps are defective

Check the transmitter for any signs of tampering, such as:

- ▲ Cracks on the clip
- ▲ Broken pins
- ▲ Tearing in the straps
- Cracks on the transmitter body

If it is determined that the straps are defective, they can be replaced using the snake eye screwdriver included in your tool kit.

### Deactivating and Removing Equipment (End of Service)

Before any equipment is removed from the offender's location, the MEMS3000 receiver should receive an End of Service (EOS) command. This will happen automatically on the offender's program end date as recorded on the Details tab (see the softare chapter). A manual EOS can also be sent from the E3 software by the monitoring center. The device must recive the End of Service command before it can be reassigned to a new offender.

### Disconnecting a MEMS3000 VB\VBR Receiver

- 1. Call the monitoring center to confirm that the device has received the End of Service command.
- 2. Unplug the power cord from the wall and the back of the receiver.
- **3.** Unplug the telephone cord from the back of the receiver (landline only).
- 4. Pack the device and cables into the carrying case including the Breath Alcohol Test Straw. **Note:** The straw can be discarded once you've returned to your agency. It is best not to discard any equipment until you have departed the offender's location.

### Removing the Transmitter (VBR only)

1. Insert a the tip of a flathead screwdriver into the grooves of the clip and gently pry the clip open. Take care not to damage or cut the strap.



- 2. Collect all the fragments of the broken clip.
- 3. Deactivate (turn off) the transmitter by pressing the contact points on the MRD to the metal pins on the strap and pressing the OFF button. Make sure that the MRD is positioned so that the OFF button is closest to the free end of the strap (away from the transmitter).
- 4. Hold the MRD in position as the red LED illuminates for 2 seconds and then blinks for two seconds. **Note:** If the command failed, the the MRD LED will shut off without blinking. If the MRD battery is low, the LED will blink as soon as the button is pressed.
- **5.** Pack the transmitter into the carrying case.
  - ▲ If desired, the MEMS3000 Receiver and Transmitter can be cleaned after use by wiping with an alcohol based solution.
  - One or both straps can be replaced if there is excessive wear or visible damage to the strap.

### MEMS3000 VB/VBR Offender Guidelines

### **General Guidelines**

Be sure to inform offenders of the following guidelines

#### Offenders should never:

- ▲ Touch or move the MEMS3000 Receiver once it has been installed
- ▲ Place any objects on top of the MEMS3000 Receiver
- ▲ Disconnect the power cord from the MEMS3000 Receiver
- ▲ Attempt to open the MEMS3000 Receiver
- ▲ Adjust or tamper with the breath alcohol rest straw
- ▲ Obstruct their faces or identiy while taking a breath alcohol test
- ▲ Wear inappropriate/insufficient clothing while taking a breath alcohol test

#### **MEMS3000 VBR Guideliness**

Offenders should never:

- ▲ Exit the confinement area without obtaining permission
- ▲ Attempt to open the Transmitter strap
- Cut or break the Transmitter strap or clip

### **MEMS3000 VB/VBR Landline Guideines**

The telephone line must not have any of the following services:

- Answering Machine
- ▲ Fax Machine
- ▲ Fax\Internet Modem
- ▲ ADSL Internet
- ▲ Call Forwarding
- ▲ Call Waiting

### **Inbound Calls**

- When offenders receive a call, the phone rings up to six times before the MEMS3000 Receiver automatically answers and disconnects the call
- While using the phone, the receiver may emit short audio tones indicating that the MEMS3000 Receiver needs to call the monitoring center computer. When this occurs, offenders should hang up as soon as possible to enable the MEMS3000 Receiver to make its call. Failure to give up the line could result in a violation.

#### **Outbound Calls**

▲ If offenders try to perform an outbound call and hears sharp modem/fax sounds, they should immediately hang up the phone. This indicates that the MEMS3000 Receiver needs to call the monitoring center computer. Failure to give up the line will result in a violation.

# E3 RF Presence Monitoring Hardware

# E3 Radio Frequency (RF) Overview

The E3 RF Presence Monitoring system consists of the RF Transmitter worn on the offenders' ankle and the E3 RF Receiver which is placed in the offender's home and monitors the offender's presence (or absence). Using the E3 software, users can upload an offender's schedule to the receiver, designating when the offender must be in and if there are times the offender may (or must) be out of his/her confinment area. The receiver will then report any violations to the monitoring center.

Both the transmitter and receiver are also equipped with tamper sensors and will report any detected violations to the monitoring center.

### The E3 RF Cellular Receiver Telephone

The E3 RF Cellular Receiver is also equiped with a telephone receiver that can be used to communicate with the SecureAlert monitoring center and emergency services.



### Installing and Operating an E3 RF Receiver/Transmitter

### E3 RF Pre-installation

- 1. Enroll offender in ElmoTech E3 software (see the software chapter for details)
- 2. Verify that you have the correct equipment for the offender's program type and that the serial number(s) on the equipment match those selected on the Offender Details tab in the E3 software
  - Equipment to install an E3 RF Receiver / Transmitter:
    - ▲ E3 Receiver
    - Power Adapter
    - ▲ Telephone line (only applicible for landline devices)
    - ▲ Transmitter
    - Strap Holder
    - Locking Clips
    - Manual Reset Device (MRD)
    - ▲ Strap Locking Tool
    - ▲ Flat Head Screwdriver (to remove clips if necessary)
    - ▲ Snake Eye Screwdriver (to replace straps if necessary)

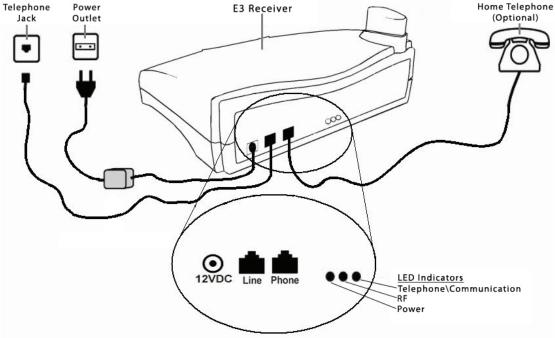
### Finding a Suitable Location for the E3 RF Receiver

- ▲ Place the receiver:
  - ▲ In a central location of the offender's home
  - On a flat and secure surface
  - 3 feet above the ground and at least 1 foot away from the wall.
  - Near a power source (and telephone jack if the receiver is a landline device)
- ▲ Avoid placing the receiver near:
  - Television sets, microwaves, computers and other electrical equipment
  - Neat sources (e.g., radiators, air ducts, direct sunlight)
  - Sinks

#### **Installing the E3 RF Receiver**

Once the receiver has been positioned in an appropriate location:

- 1. Insert the power cord into the back of the device
- 2. Plug the power cord into a power outlet in the wall
- 3. The receiver will play audio tones while it initializes and beep once it has finished
- 4. If the receiver is a cellular device, check the LEDs on the back to ensure that the left and right LEDs are illuminated
- 5. If the receiver is a landline device, plug one end of a telephone cord into the wall and the other into the Line jack on the back of the device (see next page).
- 6. If a telephone is already plugged in to the wall, unplug it and plug it into the Phone jack on the back of the device (see next page).



E3 Landline Receiver

- 7. Check the LED Indicators on the back of the receiver to ensure that the Power and Telephone LEDs are
  - Note: For cellular devices, the Telephone\Communication LED indicates whether the device has successfully connected to a cellular network.
- 8. If both LEDs are illuminated, use the E3 software or contact the monitoring center to download enrollment information to the device and take the offender's reference picture. See the software chapter for more information. It is important that the enrollment picture is captured in the presence of the supervising officer to ensure that the correct person is taking the breath alcohol tests.

Note: If the telephone\cellular LED is flashing, the device is communicating with the server. Wait until the LED stops flashing, to download enrollment information.

### Tip: Landline Device Requirements

In order to use a landline device, the telephone line must not have any of the following services:

- Answering Machine
- ▲ Fax Machine
- ▲ Fax\Internet Modem
- ▲ ADSL Internet
- Call Forwarding
- ▲ Call Waiting

# RF Transmitter Installation Components at a Glance



### Installing the RF Transmitter

#### **RF Transmitter Pre-installation**

- 1. Enroll offender in ElmoTech E3 software (see software chapter for details)
- 2. Verify that you have the correct equipment for the offender's program type and that the serial number(s) on the equipment match those selected on the Offender Details tab in the E3 software
- 3. Install the F3 RF Receiver
  - ▲ Equipment to install the Transmitter:
    - ▲ Transmitter
    - Strap Holder
    - ▲ Locking Clips
    - Manual Reset Device (MRD)
    - ▲ Strap Locking Tool
    - ▲ Flat Head Screwdriver (to remove clips if necessary)
    - ▲ Snake Eye Screwdriver (to replace straps if necessary)

### **Activating (turning on) the RF Transmitter**

Before the Transmitter can be attached to the Offender, you must first activate and calibrate the transmitter.

- 1. Press the contact points on the top of the MRD to the metal pins on the strap with the ON button closest to the transmitter.
- 2. Press the ON button
- 3. Hold the MRD in position as the red LED illuminates for 2 seconds and then blinks for two seconds. Note: If the command failed, the the MRD LED will shut off without blinking. If the MRD battery is low, the LED will blink as soon as the button is pressed.
- 4. Set the transmitter on its side while the transmitter powers on and begins communicating with the receiver.
- 5. The E3 Receiver should emit a beeping sound within 60 seconds indicating that communication has been established
  - **Note:** The beeping will continue each time the receiver receives a signal from the transmitter until the transmitter is secured around an offender's ankle, or until the devices downloads the program information from the E3 software.
- 6. Leave the transmitter laying on its side until you are ready to install it. Once the transmitter is moved, you have two minutes to attach it to the offender's ankle.
- 7. If you do not install the transmitter successfully within two minutes. Turn the transmitter off (see page 12), wait 15 seconds, then repeat the activation/installation process.

### **Attaching the Transmitter**

1. Place a strap holder over the short strap (pin side) of the Transmitter.



2. Attach the female Clip to the underside of the Transmitter's short strap (to lie against the Offenders skin).



- **3.** Wrap the Transmitter around the narrowest point of the offender's ankle.
- 4. Lay the long strap over the other strap, ensuring that the pins are protruding through both straps.



- 5. Push the other side (male) of the locking clip into place, securing the strap into position around the offender's ankle
- **6.** Slide the strap holder over the end of the long strap to hold it in place.

### Tip: Fitting the Transmitter

The Transmitter must fit tightly around the offender's ankle, but not squeezing. It is also permissible for an offender to wear a sock underneath the ankle Transmitter. Try to mount the Transmitter over the sock before it is fastened. Keep in mind that if the strap is too loose, the transmitter may report false strap tamper alarms.

- 7. Finally, clamp the two clips together using the Strap Locking Tool. The clips will click together indicating that the clips are fastened properly.
- 8. If you haven't done so already, use the E3 software or contact the monitoring center to download enrollment information and schedule to the device. See the Software for more information.

## Performing an RF Range Test (VBR only)

A range test is used to ensure that the receiver's range setting is sufficient to receive signals from the transmitter throughout the offender's confinement area.

**Note:** The Range setting for the receiver can be adjusted by the monitoring center in the E3 software.

1. Use the table below to determine an appropriate initial range setting for the E3 Receiver (e.g. medium). Select a setting that is big enough to include the offender's home but not big enough for them to leave.

Range Setting	Radius
Short	15-45ft
Medium	45-80ft
Long	80-145ft
Maximum	145-260ft

- 2. Call the monitoring center and request that the range settings for the receiver be adjusted (per your estimation) and request that they send a command to the device to begin a range test.
- **3.** The receiver will beep 3 times to indicate thath the range test has been initiated. **Note:** If the receiver is connected to a landline, the phone will ring 2-3 times before the reciever picks up the call and initiates the test.
- 4. Throughout the test, the receiver will beep every 20 seconds when it receives a signal from the transmitter.
- 5. Escort the offender throughout the location, pausing occaisionally to confirm that the receiver is receiving signal from the transmitter.

Pay special attention to:

- Places where the offender may be located for long periods of time (e.g., living room, bedroom,
- Remote locations where the offender is permitted (e.g., garage, cellar back yard)
- Extreme corners of the location
- Behind large metal objects

In these locations, pause long enough for the transmitter to beep 4 times (two minutes) to ensure that there is sufficient signal strength for the transmiter to consistenly communicate with the receiver.

Note: If possible, have another person stand by the receiver to listen for the beeps that indicate that signals from the transmitter are reaching the receiver.

- If you do not hear a beep after waiting for one minute in a test location, the transmitters signals are not reaching the receiver in that location. Call the monitoring center and request an increase in the receiver's range and to begin another range test once the range is updated. If the receiver is already at the maximum range setting, try to find a new place for the receiver that is more central to the offender's location.
- 7. Once the range test is completed, call the monitoring center and ask them to end the range test. Note: The range test automatically terminates after 15 minutes. If the test isn't completed when the test expires, contact the monitoring center to request another range test.

# E3 RF Receiver/Transmitter Common Events

The E3 Receiver initiates a routine sanity call to the monitoring center in order to report the status of the equipment and upload all stored events (i.e., events that did not require immediate attention). The table below details some of the most common event messages that display in the software.

Message	Description
Body tamper	The monitored individual's transmitter has possibly been removed or installed to loose on the individual's ankle. Re-install to a tighter fit.
Body tamper reset	The transmitter body tamper sensor has been reset (re-attached to the ankle) after the transmitter was initially removed from the monitored individual's ankle.
Case opened	The receiver's case has been opened.
Case closed	The receiver's case has been closed after it was initially opened.
Case Tilt	The receiver is not positioned on its original flat (parallel) surface. This could suggest that the receiver has been moved. This is a cause for concern and may require attention.
Receiver not in tilt	The receiver has indicated that it has been returned to its non-tilted (parallel) position, after initially being in a tilted (non parallel) position.
Strap tamper	The monitored individual's transmitter has been opened or cut. Check to ensure there are no cuts/nicks/re-calibrate and or replace straps
Strap tamper reset	The transmitter's strap has been closed, after initially being opened or cut.
Phone line failure	The phone line that connects the receiver to incoming/outgoing calls has failed, or has been disconnected.
Event buffer full	The receiver's event memory buffer is full. The receiver is unable to store any more event information and requires immediate attention. Send a download command to the receiver.
GSM connection failed	The receiver has indicated that it is unable to connect to the cellular network (applicable to cellular receivers only). This could be a cause for concern and may require attention.
GSM connection restored	The receiver has indicated that it is now able to connect to the cellular network (applicable to cellular receivers only), after initially being unable to perform a connection. This could be a cause for concern and may require attention.
Receiver Low battery	The receiver's internal backup battery is low on power. This is a cause for concern and requires immediate attention.
Left during curfew	The monitored individual has left the curfew location during a curfew schedule. Verify Schedule is correct.
Returned after absence	The monitored individual has returned the curfew location, after being defined as absent.
Did not return	The monitored individual has not returned in time for the defined curfew frame.
Receiver Miss Call	The monitored individual receiver did not check in with the server as schedule, this is a cause for concern as there is currently not communication with the equipment.
Power failure	The power cable that connects the receiver to the external power supply has failed, or has been disconnected.
Power restored	The power cable that connects the receiver to the external power supply has been replaced or reconnected after having been defined as failed or disconnected.

Message	Description
Download offender failed/request time out	The receiver unit has indicated that it has failed to receive the information the downloaded offender's details. This could be caused due to phone features on the line. All features should be removed.
Phone line restored.	The phone line that connects the receiver to incoming/outgoing calls has been reconnected after having been defined as failed or disconnected.
No cell net coverage	The receiver's cellular network coverage is currently unavailable. This is a cause for concern and requires attention.
Cell net coverage restored.	The receiver's cellular network coverage has been restored after it was reported to be unavailable. This could be a cause for concern and may require attention.
Transmitter Tamper	The transmitter has indicated both Strap tamper and Body Tamper have occurred at the same time. This is a cause for concern and requires immediate attention.

### **Responding to Strap Tamper Events**

If the monitoring center detects a Strap Tamper event for the Offender's Transmitter, the Transmitter must be reset (turned off and back on) using the MRD.

Tamper events can be caused by the following issues:

- ▲ The offender tried to cut, open, or otherwise tamper with the transmitter
- ▲ The transmitter straps are defective

Check the transmitter for any signs of tampering, such as:

- ▲ Cracks on the clip
- ▲ Broken pins
- ▲ Tearing in the straps
- ▲ Cracks on the transmitter body

If it is determined that the straps are defective, they can be replaced using the snake eye screwdriver included in your tool kit.

### Deactivating and Removing Equipment (End of Service)

Before any equipment is removed from the offender's location, the E3 receiver should receive an End of Service (EOS) command. This will happen automatically on the offender's program end date as recorded on the Details tab (see the softare chapter). A manual EOS can also be sent by the monitoring center from the E3 software. The device must recive the End of Service command before it can be reassigned to a new offender.

### **Disconnecting an E3 Receiver**

- 1. Call the monitoring center to confirm that the device has received the End of Service command.
- 2. Unplug the power cord from the wall and the back of the receiver.
- 3. Unplug the telephone cord from the back of the receiver (landline only).
- **4.** Pack the device and cables into the carrying case

### **Removing the Transmitter**

- 1. Insert a the tip of a flathead screwdriver into the grooves of the clip and gently pry the clip open. Take care not to damage or cut the strap.
- 2. Collect all the fragments of the broken clip. Do not leave broken clips or other equipment at the offender's home.



- 3. Deactivate (turn off) the transmitter by pressing the contact points on the MRD to the metal pins on the strap and pressing the OFF button. Make sure that the MRD is positioned so that the OFF button is closest to the free end of the strap (away from the transmitter).
- 4. Hold the MRD in position as the red LED illuminates for 2 seconds and then blinks for two seconds. Note: If the command failed, the the MRD LED will shut off without blinking. If the MRD battery is low, the LED will blink as soon as the button is pressed.
- 5. Pack the transmitter into the carrying case
  - ▲ If desired, the E3 Receiver and Transmitter can be cleaned after use by wiping with an alcohol based
  - One or both straps can be replaced if there is excessive wear or visible damage to the strap.

### E3 RF Offender Guidelines

### **General Guidelines**

Be sure to inform offenders of the following guidelines

#### Offenders should never:

- ▲ Touch or move the E3 Receiver Unit once it has been installed
- ▲ Place any objects on top of the E3 Receiver Unit
- ▲ Disconnect the power cord from the E3 Receiver Unit
- ▲ Attempt to open the E3 Receiver Unit
- ▲ Exit the confinement area without obtaining permission
- ▲ Attempt to open the Transmitter strap
- ▲ Cut or break the Transmitter strap or clip

#### E3 RF Landline Guideines

The telephone line must not have any of the following services:

- Answering Machine
- ▲ Fax Machine
- ▲ Fax\Internet Modem
- ▲ ADSL Internet
- Call Forwarding
- ▲ Call Waiting

#### **Inbound Calls**

- ▲ When offenders receive a call, the phone rings up to six times before the E3 Receiver automatically answers and disconnects the call
- ▲ While using the phone, the receiver may emit short audio tones indicating that the E3 Receiver needs to call the monitoring center computer. When this occurs, offenders should hang up as soon as possible to enable the E3 Receiver to make its call. Failure to give up the line could result in a violation.

#### **Outbound Calls**

▲ If offenders try to perform an outbound call and hears sharp modem/fax sounds, they should immediately hang up the phone. This indicates that the E3 Receiver needs to call the monitoring center computer. Failure to give up the line will result in a violation.

# ElmoTech E3 Software

The ElmoTech E3 software is used to enroll offenders and manage their profiles, assign and activate equipment, administer breath alcohol tests, and create an offender's confinement schedules for breath alcohol tests and radio frequency devices.

### Logging In

Logging into the softare is a two step process:

- 1. Logging into the server by establishing a windows Remote Desktop Connection
- 2. Logging into the E3 ElmoTech software using the login provided to you by the monitoring

### **Update Remote Desktop (first time only)**

Before logging in for the first time, you need to ensure that you have the most up to date version of Remote Desktop.

- 1. Visit <a href="http://support.microsoft.com/kb/969084">http://support.microsoft.com/kb/969084</a>
- 2. Select the appropriate update for your version of windows.



Select the appropriate update

### **Launch Remote Desktop (Option 1)**

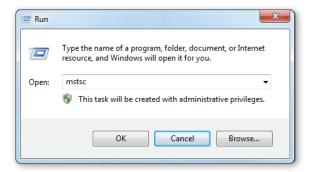
- 1. Click Start.
- Select All Programs > Accessories > Communications > Remote Desktop Connection



Select Remote Desktop Connection

### **Launch Remote Desktop (Option 2)**

- 1. Click Start.
- 2. Select Run.
- **3.** Type **mstsc** in the available field.
- 4. Click OK.



### **Connect to the Remote Desktop Server**

1. Type elmotech.securealert.com



- 2. Click Connect.
- **3.** Once you've connected to the server, login using the following username and password:
  - Username: elmotech\vendor
  - Password: SaVe001!



Enter the login information and click the arrow

### Log In to the ElmoTech E3 Software

Upon logging in to the remote desktop server, the system automatically launches the ElmoTech E3 software login screen.



Enter your username and password to login.

# **Enrolling a New Offender**

1. Click the List drop-down button

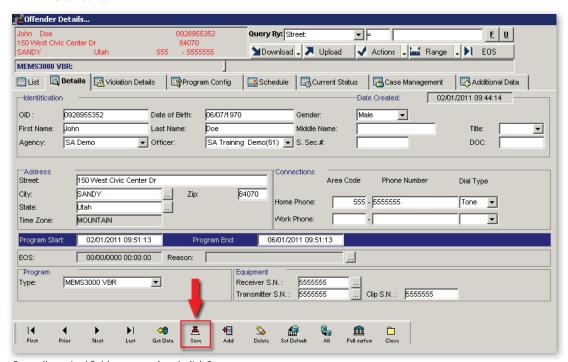


- 2. Click Add
- **3.** Complete all required fields (see the table below)

Fields	Description
OID	Offender Identification Number. Enter a number used to identify the offender (e.g., the offender's case number). Must be unique to each offender.
First/Last Name	Enter the offender's name.
Officer	Select the supervision officer from the drop-down menu.
Address Fields	Enter the offender's address. Note that you must select the State, before you can select the correct city.
Phone Number	If the device uses a landline, the home number is the number used to communicate with the device and must be entered before selecting the Program Type.
	If the device is celluar, select the Program Type first. Then, enter the correct contact phone number for the offender.
Program Start/ End dates	Defaults to a 4 month period that begins with today's date. The device automatically performs an End of Service on the Program End date.
Program Type	Select the type of device that will be assigned to the offender (e.g., MEMS3000 VB).
Equipment Fields	Click the button to select the device(s) that will be assigned to the offender.  Devices are identified by unique serial numbers.

Required fields and their definitions. All other fields are preselected or not required.

4. Click Save.



Once all required fields are completed, click Save.

### Downloading Information to the Receiver

Clicking the Save button only saves changes in the E3 software. To activate and send program information to the receiver, send a download command to the device.

The software indicates when a receiver has not been activated by displaying the enrollment information in red. Once a device has been activated, the text turns black.



To activate the device, click the Download drop-down at the top of the screen and select Download Now.



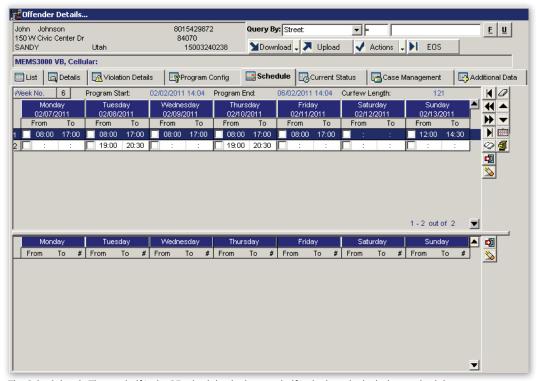
Note: The receiver should be installed at the offender's home before it is activated. To do this from the offender's location, install the receiver, then call the SecureAlert monitoring center and request that they send a download command to the receiver.

- 3. The offender's phone will ring when the software communicates to the receiver and the receiver will automatically answer after 6 rings (landline only).
- To refresh what is being displayed in the software, click the Get Data button.



# **Configuring Offender Schedules**

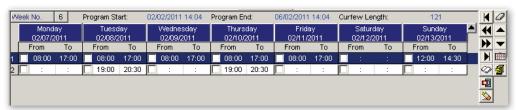
The Schedules tab in the E3 software is used to establish when breath alcohol tests will be administered and any exceptions to offenders' home confinement (for RF devices).



The Schedule tab. The top half is the RF schedule, the bottom half is the breath alcohol test schedule.

### Enter the Offender's RF Schedule (E3 RF and MEMS3000 VBR Only)

The default RF schedule is an always on confinement zone which means that the offender's transmitter must be within range of the recevier all day, every day. Exceptions to the schedule can be entered in the From and To fields for each day of the week for the duration of the offender's program (indicated on the Details tab).

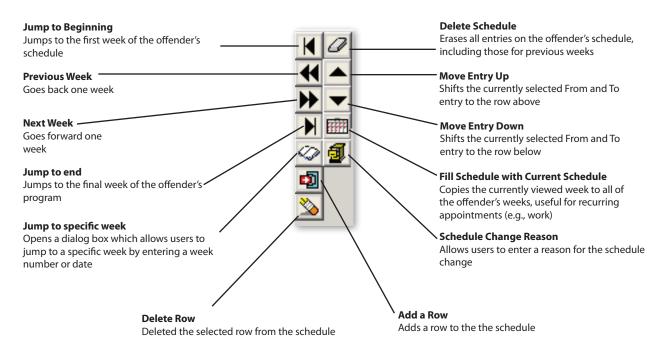


The RF section of the Schedule tab.

- The schedule pictured above allows the offender to leave from 8 AM to 5 PM Monday through friday for work and Tuesdays, Thursdays and Sundays for Alcoholics Anonymous meetings.
- From and To entries must be in 4 digit/24 hour format (e.g., 08:00).
- The checkboxes next to the schedules indicate that the offender *must* be out during the specified time. Leaving the boxes unchecked indicates that the offender *may* be out (not required).
- Remember to save all schedule changes and send a download command to the receiver once the schedule is completed.

Note: The RF schedule is unique for each calendar day. Creating a schedule for one day of the week does not automatically cause the schedule to recur (e.g., creating a schedule for a specific Monday does not adjust the schedule for all Mondays.)

#### Offender RF Schedule Controls at a Glance



### Enter the Offender's Breath Alcohol Test Schedule (MEMS3000 Only)

The breath alcohol test section of the Schedule tab allows users to enter how many tests will be administered to an offender per day and how they will be distributed throughout the day. This portion of the Schedule tab is different than the RF section in that it is a recurring weekly schedule and is not tied to specific dates.

	Mo	onday		Tu	esday		Wed	nesday		Thu	ırsday		Fi	riday		Sat	urday		Su	ınday		▲	<b>©</b>
	From	To	#	From	To	#	From	To	#	From	To	#	From	To	#	From	To	#	From	To	#		<u>\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}</u>
1	06:30	07:30	2	06:30	07:30	2	06:30	07:30	2	06:30	07:30	2	06:30	07:30	2	08:00	10:00	3	08:00	10:00	3		_
2	17:45	19:30	2	17:45	19:30	2	17:45	19:30	2	17:45	19:30	2	17:45	19:30	2	12:00	21:00	6	12:00	21:00	6		
3	22:00	22:00	1	22:30	22:30	1	21:30	21:30	1	22:00	22:00	1	20:00	23:00	2	22:15	22:15	1	22:00	22:00	1		

The MEMS3000 section of the Schedule tab.

- Enter From and To times to designate when tests will be administered.
- The third column (#) indicates how many tests will be administered during the specified interval, with a maximum of 9
- Tests are randomized within each time interval.
- It is a good practice to create several small intervals spaced evenly throughout the day rather than one long interval. This facilitates even coverage throughout the day.

Note: In the event that an offender fails a breath alcohol test, the software will automatically send 3 additional tests every 10 minutes in order to measure the rate that the alcohol burns off. This is to

prevent/reduce false positives (e.g., mouthwash).

Note: Because it could take 30 minutes to complete all 4 tests, you can only schedule 1 test for every 30 minutes (e.g., you can only schedule 4 tests in a 2 hour window).

Remember to save all schedule changes and send a download command to the receiver once it is installed in the offender's home.

### Tip: Copy and Paste

You can copy and paste an offender's schedule from one day to the next.

- 1. Hold the Control (Ctrl) key on the keyboard and click the blue bar at the top of the day that you would like to copy.
- 2. The copied day turns gray.
- **3.** Hold the Shift key on the keyboard and click another day to paste the copied schedule.

### Capturing Enrollment Reference Picture (MEMS3000 Only)

Once the MEMS3000 reciver is installed and activated, the offender must complete a breath alcohol test with an officer present, so that an enrollment reference picture can be saved in the E3 Software. This picture is used by the monitoring center for identity verification for all future breath alcohol tests.

### Administering the Enrollment Picture command from the E3 Software

- 1. Select the correct offender on the List tab.
- 2. Click the Actions drop-down.
- 3. Select Enrollment Alc./Pic.

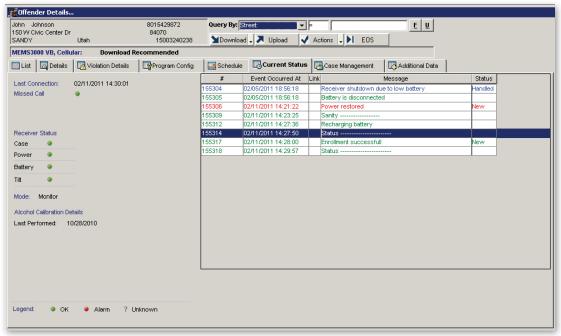


Note: It is a good practice to call the monitoring center to request that they complete the previous steps for you while you're at the offender's home.

- **4.** Once the command reaches the receiver, the receiver will emit and audio siren.
- **5.** The offender should press Start.
- 6. The device beeps and the Blow and Face the Mirror LEDs illuminate on the front panel.
- 7. The offender blows into the breath alcohol test straw.
- **8.** During the test, the camera flash triggers and a picture is taken for video ID.
- The device beeps when the test is completed and the Test Completed LED illuminates on the front panel.

#### **Current Status Tab**

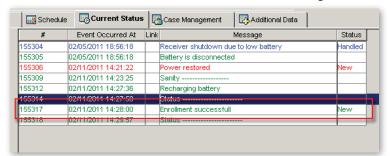
The Current Status tab makes it easy to quickly assess the status of the receiver and see all recent event messages pertaining to the offender's device, including breath alcohol test results. For descriptions of the most common event messages, see the hardware sections of this guide.



The Current Status tab displays event messages pertaining to the device.

### **Saving the Enrollment Picture**

1. On the Current Status tab, double-click the event message "Enrollment Sucessfull" to open the event.



Note: The Status column indicates whether an event has been Handled by the SecureAlert Monitoring center. In this example, the event is New because it hasn't been opened yet.

2. The Event Picture displays on the left.



Save the picture as the offender's enrollment picture by clicking Save as New. Note: Even though this is an enrollment picture request, a breath alcohol test is conducted and results are displayed on the right side of the screen.

### Tip: Breath Alcohol Test Pictures

All Pictures should clearly display the offender's face without obstruction. Offenders should refrain from wearing appearance altering clothing while taking breath alcohol tests (e.g., sunglasses, hats).

Offenders may not touch or obstruct view of the straw while the test is being administered.





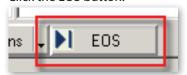




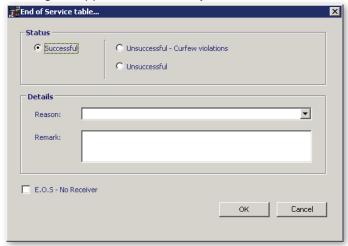
## **Deactivating Equipment (End of Service)**

Before equipment is removed from the offender's location, the receiver should receive an End of Service (EOS) command from the E3 Software. This will happen automatically on the offender's program end date as recorded on the Details tab (see Enrolling a New Offender section of this quide). A manual EOS can also be sent from the software.

- 1. Select the correct offender on the List tab.
- 2. Click the EOS button.



3. A dialog box appears which allows you to select the Status of the receiver and include additional details.



- 4. Select Successful if the offender has completed his/her program successfully. Select Unsuccessful if the service is being terminated for an equipment failure or if it is being terminated early due to offender violations. The selection made in the status section changes the options available from the reason drop-down.
- 5. The Remark section is optional.
- 6. Click OK to send the EOS command to the receiver.
- 7. Click Get Data at the bottom of the screen, to refresh the Current Status tab and ensure that the EOS was communicated successfully.

### **Exiting the Software**

It is important that you properly exit the E3 software by clicking the Exit button in the software (rather than closing the remote desktop window).

