



# **TRXS-830 Ankle Transmitter User Guide**



Information in this documentation is subject to change without notice and does not represent a commitment on part of Elmo-Tech Ltd. The software described in this document is subject to the license agreement that is included with the product, which specifies the permitted and prohibited uses of the product. Any unauthorized duplication or use of this documentation, in whole or in part, in print, or in any other storage or retrieval system is prohibited.

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means for any purpose other than the purchaser's personal use without the permission of Elmo-Tech Ltd.

© 2002-08 Elmo-Tech Ltd. All rights reserved.

Unless otherwise noted, all names of companies, products, street addresses, and persons contained herein are part of a completely fictitious scenario and are designed solely to document the use of an Elmo-Tech product.

## **Contact Us**

---

### **Corporate Headquarters**

Elmo-Tech Ltd.

2 Ha-Barzel St.,  
P.O. Box 13236,  
61132 Tel Aviv, Israel  
Tel: 972-3-7671800  
Fax: 972-3-7671801

U.S.A Customers, call 1-800-313-1483  
E-mail: [contact@elmotech.com](mailto:contact@elmotech.com)

Visit us at: [www.elmotech.com](http://www.elmotech.com)

# Table of Contents

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Introduction.....</b>               | <b>2</b>  |
| <b>2</b> | <b>Installing the Transmitter.....</b> | <b>3</b>  |
|          | Activating the Transmitter.....        | 3         |
|          | Attaching the Transmitter .....        | 5         |
| <b>3</b> | <b>Removing the Transmitter .....</b>  | <b>7</b>  |
|          | Deactivating the Transmitter .....     | 8         |
| <b>4</b> | <b>Maintenance .....</b>               | <b>9</b>  |
|          | Cleaning the Transmitter.....          | 9         |
|          | Replacing the Transmitter Straps ..... | 11        |
| <b>5</b> | <b>Specifications.....</b>             | <b>13</b> |
|          | Transmitter Specifications .....       | 13        |
| <b>6</b> | <b>FCC Information.....</b>            | <b>14</b> |

# 1 Introduction

The TRXS-830 is an inconspicuous transmitter used in house arrest applications and is attached to the client's ankle or wrist by means of a tamper-detecting strap. The client's presence (or absence) is tracked constantly by radio transmissions between the Transmitter and the E3 Receiver Unit. When the client enters or leaves the defined home environment, the E3 Receiver Unit records the event. The E3 Receiver Unit then checks the client's stored curfew schedule to determine if the event is in violation of his or her curfew order.

## 2 Installing the Transmitter

Once the E3 Receiver Unit has been connected and is working correctly, you can calibrate and install the Transmitter (Tx). Check that you have the following equipment items before you install the Transmitter:

- ▶ Transmitter (Tx) and Strap holder
- ▶ Locking clips (male and female)
- ▶ Strap holder
- ▶ Electronic key
- ▶ Locking tool
- ▶ Screwdriver (to open the clips if necessary). It is recommended to use a 5mm flat head screwdriver

### Activating the Transmitter

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

#### To activate and calibrate the Transmitter:

1. Hold the Transmitter in your hand with the metal pins (along the strap) pointing towards you. You will need to support the underside of the strap.
2. Hold the electronic key in your other hand, with the 'OFF' button pointing towards the open or free end of the strap. The 'OFF' button must be facing away from the Transmitter body.
3. Press the electronic key down over the metal pins with the two touch points on top of the electronic key matching the metal pins on the Transmitter strap.

## E3 Receiver Unit and Transmitter Installation Guide

4. Hold the electronic key and the Transmitter strap in this position while you perform the next step.
5. Press the 'ON' on the electronic key for one second; the red LED light on the electronic key turns steadily on for two seconds. If the Transmitter successfully received the activate/calibrate commands the red light on the electronic key will flash for two seconds.



**Note:** If the Transmitter failed to receive the activate/calibrate command, the red light on the electronic key will turn off after the initial two seconds on. If the electronic key's battery is low, the red light will immediately flash for two seconds once the 'ON' button is pressed.

6. Place the Transmitter on its side, on a non-metal table and wait for about thirty seconds.

To deactivate the Transmitter, simply follow the instructions from steps 1 to 6 above, but instead of pressing the 'ON' button on the electronic key to activate/calibrate the Transmitter, press the 'OFF' button.

### Attaching the Transmitter

To attach the Transmitter to the offender:

1. Place a strap holder over the short strap (strap with 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). Check that the closed end of the clip fits with the edge of the strap.



3. Wrap the Transmitter around the Offender's wrist/ankle at its narrowest point.

4. Lay the long strap over the female clip ensuring that all pins on the short strap are protruding through the long strap.



5. Slide the strap holder over the end of the long strap in order to hold it in place.



**Note:** The Transmitter must fit tightly around the Offender's wrist/ankle, but not squeezing. It is also permissible to wear a sock underneath the ankle Transmitter. Try to mount the Transmitter over the sock before it is fastened.

## E3 Receiver Unit and Transmitter Installation Guide

6. Cover the female clip with the male clip ensuring that the pins on the male clip fit correctly into the female clip (the grooves on the side of each clip must match).



7. Ask the Offender to stand up and move around to ensure that the Transmitter is comfortable.
8. Fasten the two clips using the specially designed locking tool. An audible clicking sound should be heard, indicating that the clips are closed properly.



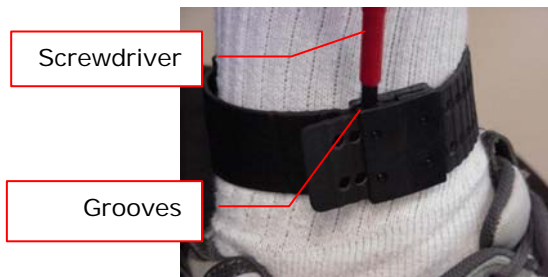
**Note:** Once the Transmitter has been activated and attached to the offender's wrist or ankle and the relevant offender is within the defined reception range of the E3 Receiver Unit, the E3 Receiver Unit locks onto and starts to monitor the Transmitter.



## 3 Removing the Transmitter

To remove the Transmitter:

1. Check the following signs to see if the clips have been tampered with:
  - ▶ Cracks on the clips
  - ▶ Broken pins
  - ▶ Sign of adhesive or glue
2. Being careful not to damage or cut the strap, use a screwdriver to break the disposable clips.



3. Collect all the fragments of the broken clip. Do not leave any disposable items.

## Deactivating the Transmitter

Deactivating the Transmitter is essential to preserving the unit's internal battery.

### To deactivate (turn off) the Transmitter:

1. Hold the Transmitter in your hand with the metal pins (along the strap) pointing towards you. You will need to support the underside of the strap.
2. Hold the electronic key in your other hand, with the 'OFF' button pointing towards the open or free end of the strap. The 'OFF' button must be facing away from the Transmitter body.
3. Press the electronic key down over the metal pins with the two touch points on top of the electronic key matching the metal pins on the Transmitter strap.
4. Hold the electronic key and the Transmitter strap in this position while you perform the next step.
5. Press the 'OFF' on the electronic key for one second; the red LED light on the electronic key turns steadily on for two seconds. If the Transmitter successfully received the deactivate command the red light on the electronic key will flash for two seconds.



**Note:** If the Transmitter failed to receive the deactivate command, the red light on the electronic key will turn off after the initial two seconds on. If the electronic key's battery is low, the red light will immediately flash for two seconds once the 'ON' button is pressed.

6. Pack the Transmitter into its original packaging and place into the carrying case.

## 4 Maintenance

### Cleaning the Transmitter

The Transmitter is made of a single mold, especially designed to protect the integrity of the electronic circuits during daily use and while it is being cleaned.

The following cleaning methods are approved by Elmo-Tech:

- ▶ Manual Cleaning – using a soft brush and approved cleaning product.
- ▶ Using a Dishwasher – together with an approved cleaning product.

#### To clean the Transmitter manually:

1. Remove the Transmitter from its carrying case.
  2. If there are clips on the Transmitter, remove the 'female' and 'male' parts before cleaning.
  3. Remove the strap holder from the Transmitter.
  4. Hold the Transmitter by the end of the long strap and either:
    - ▶ Spray the Transmitter with 3MTM Citrus Base cleaner, or an alcohol based equivalent.
- Or
- ▶ Using a damp cloth or towel, clean the Transmitter with soapy water.

## E3 Receiver Unit and Transmitter Installation Guide

5. Using a dry cloth or towel, dry the outside of the Transmitter and place it on a towel with its inner side facing up.
6. Using a soft brush, gently brush the inner side of the Transmitter along the tracks.
7. After cleaning, wash the Transmitter in clean water.
8. Using a dry cloth or towel, dry the Transmitter thoroughly.
9. Place the strap holder back onto the short strap of the Transmitter.
10. Place the Transmitter back into its carrying case.

### To clean the Transmitter using a dishwasher:

1. Remove the Transmitter from its carrying case.
2. If there are clips on the Transmitter, remove the 'female' and 'male' parts before cleaning.
3. Remove the strap holder from the Transmitter.
4. Place the Transmitter into the dishwasher machine.
5. Use a pH neutral or slightly acidic cleaning agent.



**Note:** Elmo-Tech recommends Hepi dishwashing Products by Thurn-produckte (<http://www.thurn-produkte.de/>).

6. Choose the shortest cycle, at a maximum temperature of 52°C.
7. Once the Transmitter is dry, place the strap holder back onto the short strap of the Transmitter.
8. Place the Transmitter back into its carrying case.

## Replacing the Transmitter Straps

After some time and depending on the wear and tear of the Transmitter, the straps on the Transmitter will need to be replaced. Any of the following points could justify replacing a Transmitter strap:

- ▶ Visible damage to one or both straps
- ▶ Strap tamper alarm generated, with no visible damage to the Transmitter
- ▶ Transmitter will not calibrate



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

Check that you have the following equipment items before you replace the Transmitter straps:

- ▶ 1 Transmitter body
- ▶ 1 pair of replacement straps (long/medium non-pins side and long/medium pins side)
- ▶ Screwdriver
- ▶ Extra screws
- ▶ Extra strap clips (male and female)
- ▶ Electronic key

### To replace the Transmitter straps:

1. Using the screwdriver, open the screw(s) that holds the strap clasp to the Transmitter and remove the strap clasp.
2. Gently shake the strap loose from the Transmitter body, being extra careful not to damage the metal pins on the Transmitter body.
3. Position the new strap over the Transmitter body. Notice that the two small holes on the strap have to lie exactly over the two metal pins.
4. Gently place the strap down over the metal pins and press down along the seam of the strap, snugly fitting the entire strap to the Transmitter body.
5. Put the strap clasp back in place with the wider side pointing in-wards.
6. Close the screw (s) with the screwdriver. It has to be closed firmly, but not too tight since this can damage the strap.
7. Test the new strap by performing a calibration. Refer to the chapter about Installing the Transmitter.



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

## 5 Specifications

### Transmitter Specifications

- ▶ Transmitter size:  
5.5 x 4.2 x 1.5 cm  
(2.2 x 1.65 x 0.67 in)
- ▶ Fully adjustable / reusable straps
- ▶ Shock resistant
- ▶ Battery operational life:  
18 / 36 months
- ▶ Waterproof to 4.5 m (15 ft)
- ▶ Transmitter weight:  
50 g (1.75 oz)
- ▶ Disposable locking clip
- ▶ Multi tamper protection
- ▶ Battery shelf life: 2-3 years
- ▶ Frequency: 318MHz

## 6 FCC Information

**TRXS-830 FCC ID:** LSQ-TRXS-830

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

The device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

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

This device 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 device 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 device 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.

**CAUTION:** Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.