



Security Escort Personnel Transmitter

SE-TRM-433T01



BOSCH

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Installation Manual

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1 Copyright, Safety and Warranty

1.1 Copyright information

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The software is intended for use only with the hardware specified in this manual and in the absence of other software. Concurrent use with other software or with hardware not specified may cause the program to function improperly or not at all. BOSCH SECURITY SYSTEMS may not provide support for systems operating under such conditions.

All efforts have been made to ensure the accuracy of the contents of this manual. The above notwithstanding, BOSCH SECURITY SYSTEMS assume no responsibility for any errors in this manual or their consequences.

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Other product and company names mentioned herein may be the trademarks of their respective owners.

1.2 Important safety notes

1. **Read, Follow, and Retain Instructions** – All safety and operating instructions must be read and followed properly before putting the unit into operation. Retain instructions for future reference.
2. **Consider all Warnings** – Adhere to all warnings on the unit and in the operating instructions.
3. **Accessories** – Use only accessories recommended by the manufacturer or those sold with the product. Accessories not recommended by the manufacturer shall not be used, as they may cause hazards.
4. **Installation Precautions** – Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to persons and damage to the unit. Mount the unit according to the manufacturer's instructions.
5. **Service** – Do not attempt to service this unit by yourself. Opening or removing covers may expose you to dangerous voltages or other hazards. Refer all servicing to qualified service personnel.
6. **Damage Requiring Service** – Disconnect the unit from the main AC or DC power source and refer servicing to qualified service personnel under the following conditions:
 - When the power supply cord or plug is damaged.
 - If liquid has been spilled or an object has fallen into the unit.
 - If the unit has been exposed to water and/or inclement weather (rain, snow, etc.).
 - If the unit does not operate normally, when following the operating instructions. Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may result in damage, and require extensive work by a qualified technician to restore the unit to normal operation.
 - If the unit has been dropped or the cabinet damaged.
 - If the unit exhibits a distinct change in performance, this indicates that service is needed.
7. **Replacement Parts** – When replacement parts are required, the service technician shall use replacement parts that are specified by the manufacturer. Unauthorized substitutions may result in fire, electrical shock or other hazards.
8. **Safety Check** – Upon completion of service or repair work on the unit, ask the service technician to perform safety checks to ensure that the unit operates properly.
9. **Power Sources** – Operate the unit only from the type of power source indicated on the label. If unsure of the type of power supply to use, contact your dealer.
 - For units intended to operate from battery power, refer to the operating instructions.
 - For units intended to operate with External Power Supplies, use only the recommended approved power supplies.
10. **Lightning** – For added protection during a lightning storm, or when this unit is left unused for long periods of time, disconnect the unit from power. This will prevent damage to the unit due to lightning and excessive power line surges.
11. **Restricted Access Locations** are required for the installation.

1.3 Safety precautions

	Disposal Your Bosch product has been developed and manufactured using high-quality materials and components that can be reused. This symbol means that electronic and electrical devices that have reached the end of their working life must be disposed of separately from household waste. In the EU, separate collecting systems are already in place for used electrical and electronic products. Please dispose of these devices at your local communal waste collection point or at a recycling center.
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1.4 FCC/IC information

This device complies with Part 15 FCC Rules and Industry Canada's license-exempt RSSs. 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 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.

2 Introduction

The Security Escort Personnel Transmitters are security transmitters designed to work with the Security Escort system. When an alarm is initiated, a signal identifying you and your location is sent to the Security Escort Central Console. The Central Console displays your location on a map along with related information.

3 System Overview

During an emergency, a person presses and holds the alarm button to produce an alarm. Generally the system sounders, strobes, or sirens activate within two seconds.

The alarm signal transmits to the receivers which relay the alarm signal to the transponder or coordinator, and to the central console. The central console shows the person's location on a map, along with a photograph, name and vital information such as a medical condition or disability.

The transmitter is available in the following model.

Transmitter Model	Description
SE-TRM-433T01	Personnel Transmitter, 433 MHz

4 Installation and Setup

This section provides information for system planners and configurators.

4.1 Removing the Cover

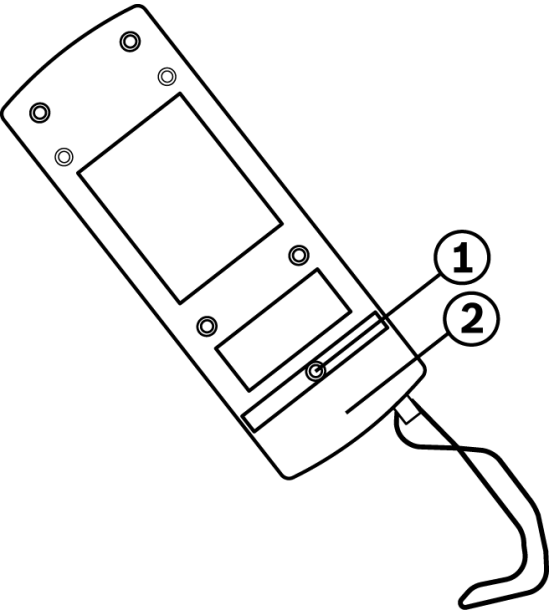


Figure 4.1: Back of Transmitter

1	Retaining Screw	2	Lower Part
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Instructions

1. Remove the belt clip, if used.
2. Remove the retaining screw on the back of the enclosure.
3. Use a flat-head screwdriver to pry the lower part of the front cover away from the enclosure.

4.2 Battery

The transmitter uses a CR2 3 V lithium battery. The Central Console indicates when the battery is low and needs replacement. Refer to *Enabling and Disabling Features, page 10* for battery polarity. The battery’s life depends on usage and enabled features.



Caution!

Replacement of the battery with an incorrect type is subject to the risk of explosion. Batteries must not be disposed of in household waste to avoid the risk of explosion.

5 Enabling and Disabling Features

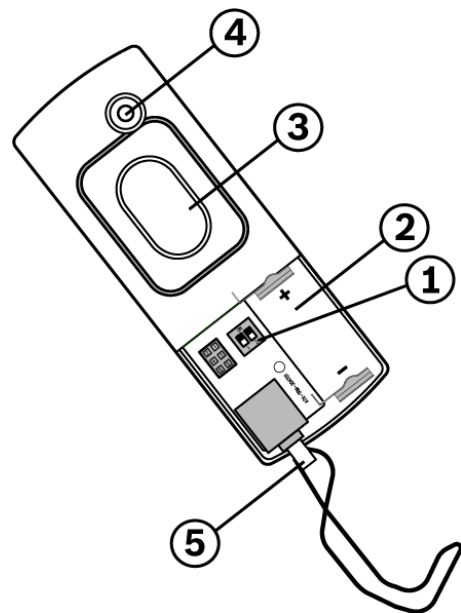


Figure 5.1: Components of the transmitter

1	Dip Switch for Radio Frequency	4	Test Button
2	Battery Compartment (3 V)	5	Lanyard
3	Alarm Button		

5.1 Wearing the Transmitter

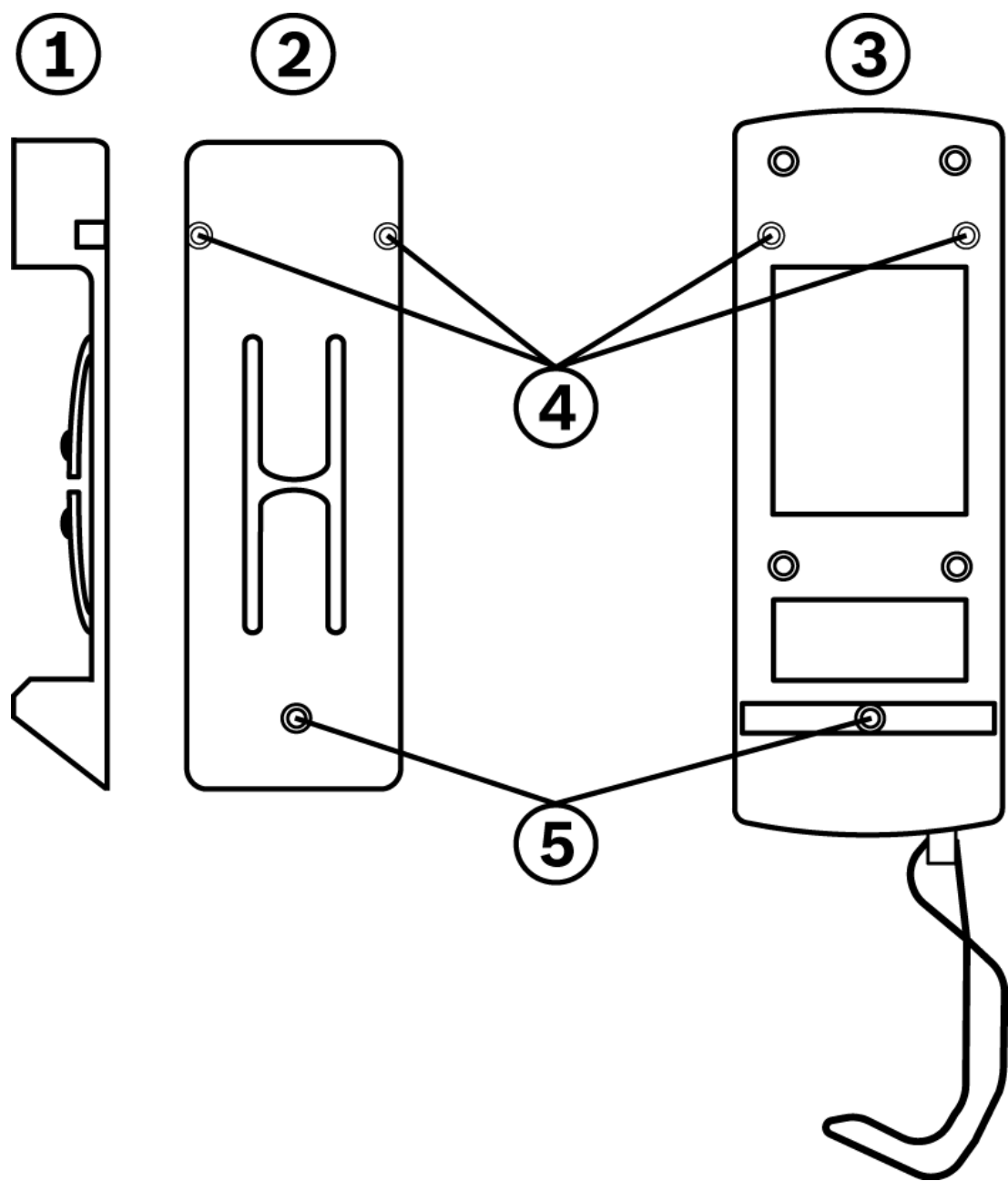


Figure 5.2: Belt Clip Attachment

1	Side view of clip	4	Screw holes (mandatory)
2	Clip	5	Screw holes (optional)
3	Back of transmitter		

This transmitter includes a clip you can wear over a pocket/belt, or firmly fixed to a belt. To wear it over a pocket/belt, secure the clip to the transmitter at the two top positions (no. 4) using the screws provided. To fix the transmitter firmly on a belt, secure the clip to the transmitter at the two top positions (no. 4), and at the bottom location (no. 5) using the screw that secures the battery door.

The clip is designed to be worn on a security type utility belt. If worn on a thin belt, be aware that a loose fit may trigger a Man-down Alarm (if enabled) when you move too much.

5.2 Selecting Transmitter Radio Frequency

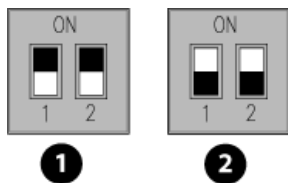


Figure 5.3: Dip Switch Selection

Setting	SW1	SW2	Transmitter Model
			SE-TRM-433T01
1	OFF	OFF	433.42 MHz (default)
2	ON	ON	For factory reset

For SE-TRM-433T01, only RF 433.42 MHz is supported, where both dip switches 1 and 2 are set to the OFF position as default. Configuring the dip switch to other settings will disable the alarm communication between the transmitter and the receiver.



Notice!

Remove the battery before setting the dip switches. **Changes to the dip switches should be performed by administrators only.**

The transmitter emits 3 beep tones if RF is set as 433.42 MHz.

The transmitter emits 2 slow consecutive beep tones every 1 second if dip switch is set for factory reset.

5.3 Factory Reset

Factory reset should be performed by administrators only. Set both dip switches 1 and 2 to the ON position. While pressing the Test and Alarm buttons, the transmitter resets after inserting the battery. If reset is successful, there will be 3 slow consecutive beep tones every 1 second. After a successful reset, select the transmitter RF by setting the dip switches. If reset is unsuccessful, there will be 2 slow consecutive beep tones every 1 second. Refer to the following list of values that are being set for the respective features following the factory reset.

Default Setting	
Feature	Value
Transmitter Profile	Security
Man-down	Disabled
Supervision Tracking	Disabled
Lanyard	Disabled
Auto-tracking Interval	7 secs

Default Setting	
Feature	Value
Supervision Tracking Interval	90 secs
Man-down Pre Beep Duration	5 secs

Tab. 5.1: Factory Reset Features

5.4 Configuring the Transmitter

All factory reset features can be configured wirelessly on the transmitter via the coordinator/receiver using the Central Console software. Enroll transmitter to the Central Console software before configuration.

Using the Central Console software, enable or disable the features accordingly and send the configuration to the transmitter. Please refer to the *Security Escort Technical Reference Manual* for further details.

5.5 Testing the Transmitter

Test your transmitter by standing within sight of a receiver. While holding down the Test button, press the Alarm button until the transmitter emits 3 short beep tones.

A test transmission is sent to the Central Console, lighting the green LED on a receiver or the strobe on an outdoor siren-strobe. There might be a brief delay of 2 to 3 seconds before the flashing light appears.

A successful test transmission will light up the green LED on a receiver; retest if otherwise.

5.6 Activating Configuration Mode

Configuration mode on the transmitter is activated by entering the test mode. Note that this mode is unavailable if Man-down or Lanyard snatch alarms are triggered and active.

While holding down the Test button, press the Alarm button and release. The transmitter is in configuration mode once it emits 3 short and fast beep tones, every 3 seconds.

5.7 Exiting Configuration Mode

The transmitter exits configuration mode automatically once the configuration has been transferred successfully to the transmitter. If no coordinator/receiver is present, exit the configuration mode by pressing the Test button.

The transmitter enters operational mode once it exits the configuration mode.



Caution!

The Security Escort system is not a substitute for safe behavior. Do not take personal risks believing that the system will protect you.

6 Basic Transmitter Features

This section provides information of the various features of the transmitter.

6.1 Features for Transmitter Profiles

The table below lists the various transmitter profiles and their features:

Features	Transmitter Profiles		
	User	Maintenance	Security
Man-down	x	x	x
Supervision Tracking (Silent)	x	x	x
Auto-tracking	x		x
Lanyard Snatch Alarm	x		
Lanyard Snatch Alarm (Silent)			x
Manual Alarm	x	x	
Manual Alarm (Silent)			x

By default, all features emit a series of mixed tones unless otherwise stated as silent.

6.2 Transmitting a Manual Alarm

Initiate an alarm by pressing and holding the Alarm button for 1 second.

This emits a series of mixed tones for 2 seconds and sends an alarm signal to the Central Console. If alarm is activated within sight of a receiver, the red LED on the receiver lights up. After initiating a manual alarm, the Auto-tracking feature sends your latest location to the Central Console every 7 seconds (configurable).

Reset the transmitter after a manual alarm by performing a test mode as described in *Testing the Transmitter*, page 13.

6.3 Man-down Alarm

Whenever you are in a prone position (60° from upright) for more than 5 seconds (configurable), the transmitter sends an alarm signal. There is no alarm signal if transmitter is restored within 5 seconds.

If alarm is activated within sight of a receiver, the red LED lights up.

Reset the transmitter after a Man-down Alarm by returning the transmitter to the upright position and performing a test mode.

6.4 Lanyard Snatch Alarm

Initiate an alarm by pulling the lanyard off the transmitter.

This emits a series of mixed tones for 2 seconds, followed by short beeps at 250 millisecond intervals. The transmitter sends an alarm signal to the Central Console. If activated within sight of a receiver, the red LED of the receiver lights up.

To reset the transmitter after a Lanyard Snatch Alarm, reinsert the lanyard pin and perform a test mode.

6.5 Auto-tracking

The Auto-tracking feature sends the latest location to the Central Console every 7 seconds (configurable) after an alarm is triggered.

7 Upgrading Transmitter Firmware

Transmitter firmware can be upgraded wirelessly via a dedicated coordinator using the Utility Tool of the Security Escort software.

For more information on the usage of Utility Tool, please refer to the *Security Escort Technical Reference Manual*.

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