

Elpas Man-Down Emergency Call Transmitter

User Guide

For P/Ns: 5-MDA00433 and 5-MDA00433-1

Introduction

The Elpas Man-Down Emergency Call Transmitter is a holster worn Active RFID Tag that delivers wireless monitoring and tracking of lone workers, correctional guards and security personal that may be subject to attack or injury in high-risk workplace environments.

The transmitter continuously transmits real-time location based security data which is received and relayed over the Elpas infrastructure to a host RTLS application or to an integrated 3rd party security platform for triggering appropriate response protocols.

The transmitter includes two emergency call buttons for manual wireless duress alerting when the user perceives a personal threat. Additional features such as an onboard tilt switch and pull cord enable automatic alerting when the protected staff member is knocked down or if the unit is grabbed from the protected worker by force. When combined with the onboard low frequency receiver the transmitter delivers precise positioning data that identifies the individual in trouble and the location of the evolving security incident.



Man-Down Emergency Call Transmitter

⚠ It is important that you understand, and follow the instructions in this document. Should you have any questions, please contact your local support representative before proceeding with the installation, operation or maintenance of these products.

Alert Types

The Man-Down Emergency Call Transmitter will transmit alert messages should the following events occur:

Manual Duress Call

Pressing the left and the right emergency call push buttons simultaneously will trigger the transmitter to emit a manual duress alert.

Man-Down

A built-in tilt sensor will cause the unit to transmit an automated Man-Down Alert when the unit is tilted by more than 60 degrees should the user be knocked down or falls to the ground. (See page 2 for further details.)

Pull Cord Detachment

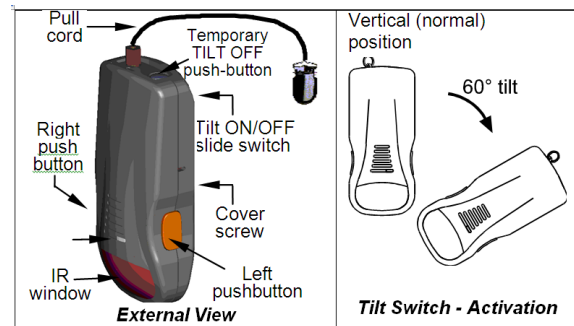
The pull cord is attached to the user's clothes and is connected to the transmitter by a detachable plastic pin.

Grabbing the transmitter from the user by force will cause the plastic pin to detach from the device triggering an automated Duress Alert.



Alert Test

Pressing either the left or right emergency call push-button, individually will trigger the transmitter to emit a Test Alert for confirming that the unit is functioning properly.



Initial Activation

The Man-Down Transmitter is shipped from the factory, with the internal battery contact (+) covered by an isolation foil to conserve battery power during shipping.

To make the unit operational, perform the following actions:

Remove the back cover using a Philips screw driver.

Open the front cover by pressing on the TEMP TILT OFF inscription located on the top edge of the transmitter.



Pull out the isolation foil that is inserted between the battery and the battery holder (+) pole.

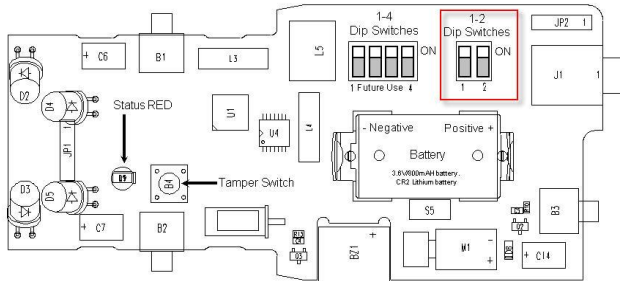
Change the DIP switches positions that control the transmitter's Feedback Beep Sounds as required. (See page 2 for further details).

Close the cover, with your fingers, until its snaps shut and secure the back cover with its screw.

Configuring Feedback Beep Sounds

DIP Switches 1 and 2 are used to configure under what conditions the Man-Down Transmitter will emit audible beep tones.

Both DIP Switches are shipped from the factory set to be **ON** (default).



DIP Switch 1

Controls whether or not the transmitter will beep upon entering a LF field.

ON (Default): Transmitter is configured to beep

OFF: Transmitter is configured to remain silent

Dip Switch 2

Controls whether or not the transmitter will beep upon emitting an alert.

ON (Default): Transmitter is configured to beep

OFF: Transmitter is configured to remain silent

Tilt Sensor Activation

The Man-Down Transmitter is shipped from the factory, with its Tilt Sensor Slide-Switch turned to the **OFF** position in order to prevent the transmitter from emitting false Man-Down Alerts when the transmitter is not in actual usage.

To activate the transmitter's Tilt Sensor Slide-Switch from **OFF** to its **ON** position.

Tilt Sensor Pre-Alert

When the Man-Down Transmitter is tilted by more than 60° from its normal (vertical) position a pre-alert state will exist for 15 seconds before the unit transmits a Man-Down Alert. This time period enables the user to return the transmitter to its original vertical upright position or press the Temporary Tilt-Off push-button (located top edge of the transmitter) to prevent an unintentional false alert to be transmitted. During this period the transmitter emits an audible beep and the LED indicator flashes once every 2 seconds.

If the Man-Down Transmitter is laid down, while its Tilt Sensor Slide-Switch is in the **OFF** position, when the device is returned to normal (vertical) position the device will emit 3 beeps to remind the user to reactivate the Tilt Sensor.

If the Man-Down Transmitter is laid down, while its Tilt Sensor Slide-Switch is in the **ON** position, when the device is returned to normal (vertical) position the device will emit 2 beeps indicating that fall detection is enabled.

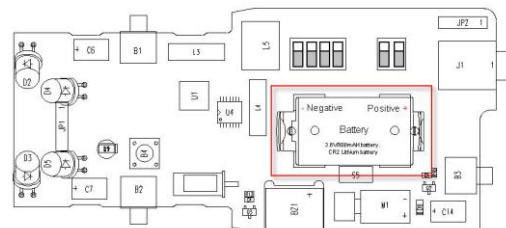
Temp Tilt-Off Push-Button

The Temp Tilt-Off Button (located on the top edge of the transmitter) is used to temporarily disable the unit's Man-Down Alert functionality for 10 seconds. When removing the transmitter, press Temp Tilt-Off Push-Button prior to putting down the unit. When the unit is returned to a vertical position, fall detection will be enabled and the device will emit 2 beeps.

Battery Replacement

Change the transmitters' status in the host RTLS application to **Inactive**. Next, remove the back cover of the transmitter (see Page 1 - Initial Activation for details)

Remove the existing battery. Dispose of used battery in accordance with local regulations. Then install a new Battery verifying that the battery poles (+) and (-) are located as marked on the battery housing.



Close the cover (see Page 1 – 'Initial Activation' for details). Finally, change the transmitters' status in the host RTLS application back to **Active**.

Status Feedback Indicators

The transmitter will automatically emit beep sounds in the following situations:

State/Condition	Transmitted Messages	LED	Beep	Vibrate
Tilt Alert automatic man-down alert	3 RF messages – B2=1 (down) If disarm button is not pressed within 15 sec 3 RF messages - Last LF & B2=1 (down)	One flash	Continuous beeps for 15 seconds	
Tilt Warning	3 RF messages - B2=1 (down) If disarm button is pressed or device is righted within 15 sec 3 RF messages - B2=0 (up)	Flashes every 2 seconds for 15 secs	Continuous beeps for 15 seconds	Vibrates
Tilt Prevented disarm is pressed	3 RF messages - B2=0 (up) If device tilted within disarmed period 3 RF messages - B2=1 (down)			
Tilt Restored	3 RF messages - B2=0 (up)		Two beeps	
Dual-Button Pressed manual duress alert	3 RF messages - Last LF & B1=1 (down)	One flash		
Dual-Button Released only if pull-cord is inserted	3 RF messages - B1=0 (up)			
Pull cord detached automatic duress alert	3 IR/RF messages - B1=1 (down) 3 RF messages - Last LF & B1=1 (down)	One flash		
Pull Cord Inserted if dual-buttons are released	3 RF messages - B1=0 (up)	Two flashes		
Single-Button Pressed alert test	3 IR/RF messages - B1=1 (down)	One flash	One beep	
Tilt Sensor Deactivated slide-switch off	3 RF messages - B2=0 (up)		One beep	
Tilt Sensor Disarmed temp tilt-off button		Continuous flash	Continuous beep	
Entering a LF Field		One flash	One beep	
Exiting a LF Field		One flash		
Tilt Sensor OFF Reminder			Three beeps	
Low Battery		One flash every 30 seconds	One beep	

RF Transmissions in LF Fields

For Moving Transmitter

LF Response Time: Onboard LF receiver polls every 250ms to check if the badge is in a LF zone

Transmission Rate: 3 RF event transmissions (each transmission about 2ms in duration), at 0.4 second intervals.

If the badge stays in a LF zone, then repeated at 2 seconds intervals.

Transmitted Message Type: RF Data Message includes ID code of LF Exciter. Motion bit, M=1.

For Motionless Transmitters

LF Response Time: Onboard LF receiver polls every 250ms to check if the badge is in a LF zone

Transmission Rate: 3 RF supervision transmissions (each transmission about 2ms in duration), 0.4 seconds apart:

If the badge stays in a LF zone for more than 10 minutes, then repeated at 15 second intervals.

Transmitted Message Type: RF Data Message includes ID code of LF Exciter. Motion bit, M=0

Cleaning & Disinfection Procedures

Use an appropriate antibacterial disinfectant such as Dispatch® Hospital Cleaner Disinfectant with Bleach from Caltech Industries, Inc (<http://www.caltechind.com>) to clean the Man-Down Emergency Call Transmitter.

Since 'Cleaning Procedures' may vary according to facility guidelines, thus the procedures given below are for illustrative purposes only:

Option 1 – Using Dispatch Disinfectant Spray

1. Lightly wet a disposable towel with Dispatch spray
2. Do not saturate the towel
3. Wipe the outer surfaces of the sensor
4. Next wipe the sensor with a dry disposable towel
5. Allow the sensor to air dry
6. Return the clean sensor to inventory or usage
7. Dispose of used towels per facility policies

Option 2 – Using Dispatch Disinfectant Towels

1. Open a new Dispatch pre-moistened towel
2. Wipe the outer surfaces of the sensor
3. Next wipe the sensor with a dry disposable towel
4. Allow the sensor to air dry
5. Return the clean sensor to inventory or usage
6. Dispose of used towels per facility policies

Product Specifications

Signaling Technologies	RF (433MHz) IR (800nm) LF (125KHz)
RF (Motion/Stationary)	Supervision messages every 10 seconds / 60 seconds
IR (Motion/Stationary)	Supervision messages every 10 seconds / 60 seconds
RF Under LF	6 IR/RF transmissions (each transmission about 2ms in duration), 0.5 seconds apart; every 2 seconds; after 10 minutes returns to 10 seconds when in motion
Alert Messages Button Press/Tilt-Activated Pull-Cord Disconnected Low Battery	3 IR/RF transmissions (each transmission about 2ms in duration), 400ms apart
Power Source	3.6V/800mAH battery. CR2 Lithium battery
Average Battery Life	Three years
Status Indicators	Red LED: Button Press, Low Battery
Badge ID	Unique, factory-programmed ID
Construction	ABS plastic
Dimensions (H x W x D)	Without holster: 120 x 52 x 36mm (4.7 x 2.0 x 1.4 in) With holster: 140 x 77 x 50mm (5.5 x 3.0 x 1.9 in)
Weight	Without holster: 110 grams (3.9 ounces) with battery With holster: 165 grams (5.8 ounces) with battery
Operating Environment	Temp: 0°C to 50°C (0°F to 122°F) Humidity: 100% non-condensing
Remote Management	Eiris 4.8 (or higher) Software Eiris Configurator 4.8 (or higher) Software ELC Programmer V2.0
Standards	IC, FCC & CE compliant
Warranty	1 year limited warranty (excluding battery)

Compatible Accessories

Part Number	Description
1-9970-0	Belt Holster
5-MDA90001	3.6V/800mAH battery. CR2 Lithium battery (5 pcs)

Product offerings and specifications are subject to change without notice.

Not all products include all features

Standards Compliance

This device complies with Part 15 of the FCC Rules and RSS-210 of Industry and Science Canada. 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 Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Warning!

Elpas is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Product Warranty

Elpas Solutions Ltd. (the Company), and its affiliates, warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by Elpas. The Company's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

This warranty does not apply to repairs or replacement caused by improper installation, Product misuse, failure to follow installation or operating instructions, alteration, abuse, accident, tampering, repair by anyone other than Elpas, external causes, and failure to perform required preventive maintenance. This warranty also does not apply to any products, accessories, or attachments used in conjunction with the Product, including batteries, which shall be covered solely by their own warranties, if any. Elpas shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, resulting from a malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Product.

ELPAS MAKES NO EXPRESS WARRANTIES EXCEPT THOSE STATED IN THIS STATEMENT. ELPAS DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. ELPAS'S SOLE RESPONSIBILITY FOR WARRANTY CLAIMS IS LIMITED TO REPAIR OR TO REPLACE AS SET FORTH IN THIS STATEMENT.

Elpas shall have no liability for any death, personal injury, property damage, or other loss whether direct, indirect, incidental, consequential, or otherwise, based on a claim that the Product failed to function. However, if Elpas is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, the company's maximum liability shall be limited to the purchase price of the Product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive liability of Elpas.

Elpas shall not, under any circumstances whatsoever, be liable for any inaccuracy, error of judgment, default, or negligence of Elpas, its employees, officers, agents, or any other party, or of the purchaser or user, arising from any assistance or communication of any kind regarding the configuration, design, installation, or creation of security system involving the Product, that being the responsibility of the purchaser or user. If Elpas is unable to make such repair or replacement, the company's entire liability shall be limited to the cost of a reasonable substitute product. Elpas shall not be responsible for any dismantling, installation, reinstallation, purchasing, shipping, insurance, or any similar charges.

Elpas shall have no liability for any damages, including without limitation, any direct, indirect, incidental, special, or consequential damages, expenses, costs, profits, lost savings or earnings, or other damages arising out of the use of the Product or the removal, installation, reinstallation, repair or replacement of the Product or any related events. In the event that there is any liability against Elpas, such liability shall be limited to the purchase price of the Product which amount shall be fixed as liquidated damages.

The purchaser and user understand that this Product may be compromised or circumvented by intentional acts; that the Product will not in all cases prevent death, personal injury, property damage, or other loss resulting from burglary, robbery, fire or other causes; and that the Product will not in all cases provide adequate warning or protection. The purchaser and user also understand that a properly installed and maintained alarm may reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such events will not occur or that there will be no death, personal injury, property damage, or other loss as a result of such events.

By purchasing the Product, the purchaser and user shall defend, indemnify and hold Elpas, its officers, directors, affiliates, subsidiaries, agents, servants, employees, and authorized representatives harmless from and against any and all claims, suits, costs, damages, and judgments incurred, claimed, or sustained whether for death, personal injury, property damage, or otherwise, because of or in any way related to the configuration, design, installation, or creation of a security system involving the Product, and the use, sale, distribution, and installation of the Product, including payment of any and all attorney's fees, costs, and expenses incurred as a result of any such events.

The purchaser or user should follow the Product installation and operation instructions and test the Product and the entire system at least once each week. For various reasons, including but not limited to changes in environmental conditions, electric, electronic, or electromagnetic disruptions, and tampering, the Product may not perform as expected. The purchaser and user are advised to take all necessary precautions for the protection and safety of persons and property.

This statement provides certain legal rights. Other rights may vary by state or country. Under certain circumstances, some states or countries may not allow exclusion or limitation of incidental or consequential damages or implied warranties, so the above exclusions may not apply under those circumstances and in those states or countries.

Elpas reserves the right to modify this statement at any time, in its sole discretion without notice to any purchaser or user. However, this statement shall not be modified or varied except by Elpas in writing, and Elpas does not authorize any single individual to act on its behalf to modify or vary this statement.

Any questions about this statement should be directed to

Elpas.



W.E.E.E. Product Recycling Declaration

For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier.

This product is not to be thrown away with everyday waste - Directive 2002/96/EC Waste Electrical and Electronic Equipment.