

Healthcare Positioning Tag

User Guide – P/Ns: 5-WTA00433, 5-WTA00433-1&2, 5-WTA00433-B

Elpas
Active RFID/RTLS Solutions

Introduction

The Elpas Healthcare Positioning Tag is a miniature, unified active long-range Radio Frequency (RFID) & Infrared device that is an effective cost containment and risk management tool for acute care hospitals, geriatric care clinics; long-term nursing care facilities or pediatric units.

The Healthcare Positioning Tag is designed for patient and medical personnel identification as well as real-time monitoring and locating of patients or critical care medical personnel. The tag features a large oversized button (some models) for one-touch wireless emergency call or duress alert functionality to ensure complete 24/7 patient or personnel supervision.



The tag's all-in-one, dual technology transmitter continuously emits low power, UHF (433.92MHz) beacon type radio frequency (RF) messages as well as safe, supplemental infrared (IR) messages (optional) that identifies the real-time location of patients or medical personnel without EMF interference to hospital equipment. These same RF/IR technologies also continuously broadcast the operational status of the tag (such as its battery state or whether or not the device has been tampered with or removed). Additionally, the tag's onboard magnetic low frequency (LF) receiver (125KHz) adds chokepoint area detection so whenever a patient nears a prohibited exit/entrance covered by an Elpas LF Exciter a security intervention alarm is raised.

Made of tough non-allergenic, non-toxic ABS thermoplastic, the Healthcare Positioning Tag is shower and bath proof (IP66 rated outer casing), contains no moving parts and may be cleaned with most hospital grade non-alcohol based cleaning agents.

The tag may be worn as a bracelet using either the *WTA standard watch band or hospital wrist band and also as a necklace when attached to the *WTA pendant lanyard

It is important that you read, understand, and follow the instructions in this document. If you have questions, call your local VT support representative.

This document is intended for trained system integrators, field service or maintenance engineers that need to troubleshoot problems in the Elpas system, or to the implemented EIRIS configurations and processes.

Supported Event Transmissions

The Healthcare Positioning Tag supports Button Press events; designated B1:

Button Press Events

When the button is pressed, 4 messages are transmitted (each message about 2ms in duration), 400ms apart. B1=1.

When the button is released, B1=0. An additional 4 messages are transmitted 400ms apart prior to deactivation. In the steady state (no button press / button release) B1=0.

Technical Specifications

Radio Technology	RF (433.92MHz) and LF (125KHz)	
RF (Motion/Stationary)	Supervision messages every 10secs/60secs	
IR (Motion/Stationary)	Supervision messages every 5secs/60secs	
RF Transmission Rate upon entry into LF area	6 IR/RF transmissions (each transmission @ 2ms in duration), 0.5 seconds apart. Then every 10 seconds as when in motion.	
Button Press/Release	4 IR/RF transmissions (each @ 2ms in duration), 400ms apart	
Power Source	One 3V/280mAh Lithium Battery, type CR2430	
Battery Life	With Optional IR Transmitter	With Optional IR Transmitter
	1 Year	3 Years
(Assuming tag is in-motion 9hrs/day 7days/ week)		
Visual Indicator	Red LED specifics button press and release	
Badge ID	Unique factory programmed	

General Specifications

Construction	Black non-allergenic, non-toxic ABS thermoplastic	
Dimensions (H x W x D)	34cm x 40cm x 15cm (1.3 x 1.6 x 0.6 inches)	
Weight (assembled)	20 grams (0.75 ounces)	
Temp. and Humidity	0°C to 50°C (0°F to 122°F) Humidity: 100% non-condensing	
Housing	IP66 water rated enclosure	
Remote Management	EIRIS 4.5 (or higher) enterprise software	
Standards	EN 300 220-3, EN301 489-03, EN50130-4:95+A1(98) +A2(03), EN60950-1:01, 60601-1-1 Safety, 60601-1-2 EMC, FCC Part 15.231	
Warranty	One year limited warranty	

All specifications are subject to change without notice

Ordering Information

Part #	Description
5-WTA000433	Healthcare Positioning Tag, IR/RF/LF, 433MHz, 5/10/60
5-WTA000433-1	Healthcare Positioning Tag RF/LF, 433MHz, 10/60
5-WTA000433-2	Healthcare Positioning Tag, Disabled Button TX, IR/RF/LF, 433MHz, 10/60
5-WTA00433-B	Healthcare Positioning Tag, Disabled Button TX, RF/LF, 433MHz, 10/60
5-WTA09433	Dummy Healthcare Positioning Tag with Watch Band
Part #	Accessories
5-WTA90010	WTA Watch Band (set of 5)
5-WTA90002	WTA Pendant Lanyard (set of 5)
5-WTA90004	WTA Replacement Omega Rings (set of 20)
5-WTA90005	WTA Replacement Covers (set of 5 with 4 screws)
5-PB063011	Disposable Clincher Wrist ID Band (set of 50)
5-BC012430	3V Lithium Battery, CR 2430 (pack of 25)

Event Transmission Rates in LF Zones

Moving Badge

LF Response Time: Onboard LF receiver polls every 0.6 sec to check if the badge is in a LF zone.

Transmission Rate: Bursts of 4 IR/RF supervision 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: IR/RF Data Message includes ID code of LF Exciter. Motion bit, M=1.

Motionless Badge

LF Response Time: Onboard LF receiver polls every 15 seconds to check if the badge is in a LF zone.

Transmission Rate: 4 IR/RF supervision transmissions (each transmission about 2ms in duration), 0.4 seconds apart: If the badge stays in a LF zone, then repeated at 15 second intervals.

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

Tag Activation Prior to Initial Usage

1. Orient the tag front-cover side up. Then press & hold down the green emergency call button buttons for at least 5 seconds
2. If the activation process was successful the red LED on the front of the tag will illuminate for about 3 seconds.



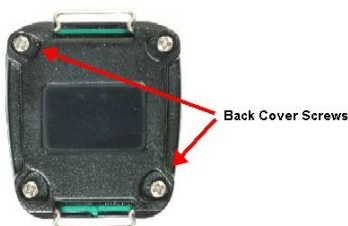
Attaching the WTA Hospital Wrist Band

1. Place the tag back-cover side up on a clear dry level surface.
2. Slide the hospital band through the two omega rings. The badge is now ready to be worn.



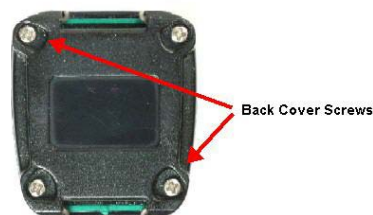
Attaching the WTA Watch Band

1. Place the tag back-cover side up on a dry level surface. Using a Phillips-type screw driver that fits the back cover screws, loosen the 4 bottom side screws.
2. Open the outer casing of the tag sufficiently so that the omega rings can be removed.
3. Insert the rigid straight bars into each half of the replacement watch band. Ensure that the back of the watch band is face up.
4. Place one side of the bar into one of the pinholes that used to hold the omega ring. Then snap the bar into the other pinhole. Repeat this step for the other half of the watchband.
5. Then carefully retighten the 4 screws into place.

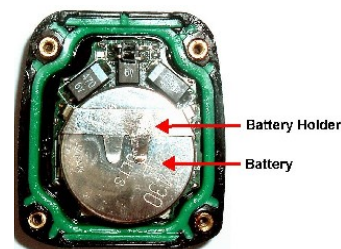


Battery Replacement

1. Purchase one new 3V lithium battery (CR2430).
2. Suspend usage of the tag using the EIRIS software.
3. Place the tag back cover side up on a dry level surface. Using a Phillips screwdriver to unscrew the 4 screws on the back of the tag. Then gently remove the back cover.



4. Slide the battery out from under the battery holder. Dispose of the worn-out battery according to recycling practices in your area.

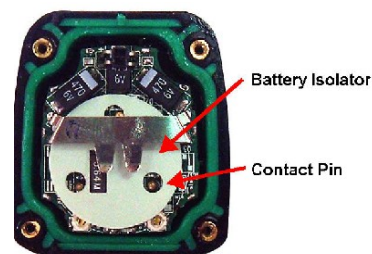


Attaching the WTA Pendant Lanyard

1. Place the tag back-cover side up on a dry level surface. Using a Phillips screw driver that fits the back cover screws, loosen the 2 bottom side (wide side) screws.
2. Open the outer casing of the tag sufficiently so that the omega ring can be removed.
3. Remove the Omega ring. Then carefully retighten the 2 screws into place.
4. Thread the Velcro retaining strap through the remaining omega ring and fasten the Velcro strap fastener into place. Finally, press the Velcro strap together to ensure that the strap is fully secured



5. Before sliding a new battery into place, ensure that the holes of the Battery Isolator is properly aligned with the three vertical contact pins.



6. Replace the battery ensuring that the positive (+) side of the battery faces up.
7. Close the back cover such that the screw holes are correctly aligned. Tighten the 4 screws snugly into place (torqued between 30-33 cN.m). Do not over-tighten as this may strip the case threads.

Standards Compliance

This device complies with Part 15 of the FCC Rules; and its operation is subject to the following two conditions:

- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: 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.

Product Warranty

Visonic Technologies Ltd. (VT or 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 VT. 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 VT, 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. VT 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.

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

VT 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 VT is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, VT'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 VT.

VT shall not, under any circumstances whatsoever, be liable for any inaccuracy, error of judgment, default, or negligence of VT, 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 VT is unable to make such repair or replacement, VT's entire liability shall be limited to the cost of a reasonable substitute product. VT shall not be responsible for any dismantling, installation, reinstallation, purchasing, shipping, insurance, or any similar charges.

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:

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

Warning!

Changes or modifications to this equipment not approved by the party responsible for compliance (Visonic Technologies Ltd.) could void the user's authority to operate the equipment

VT 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 VT, 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 VT, 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.

VT 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 VT in writing, and

VT 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 VT. 3/0

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Additional information may be found at: www.visonicttech.com



Manufactured Israel



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.