

# EN1223D EchoStream® Double-Button Water-Resistant Pendant Transmitter

## Installation and Operation Manual

### 1 Overview

The Inovonics EN1223D double-button water-resistant pendant transmitter is our smallest, lightest, and most versatile pendant.

**Note:** For UL installations, refer to the *EN4216MR Installation and Operation Manual*, the *EN4232MR Installation and Operation Manual*, or the *EN7285 Installation Instructions*.

#### 1.1 Inovonics Wireless Contact Information

If you have any problems with this procedure, contact Inovonics Wireless technical services:

- E-mail: support@inovonics.com
- Phone: 1.800.782.2709, option 2

#### 1.2 Transmitter External Components



Figure 1 Transmitter external components

A Transmit LED B Activation buttons C Reset button

#### 1.3 Transmitter Internal Components

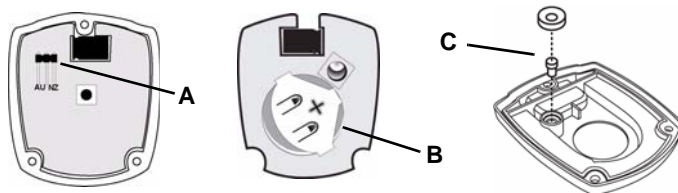


Figure 2 Transmitter internal components

A Frequency band selection pins B Battery C Reset button plunger assembly

#### 1.4 What's In The Carton

- One EN1223D EchoStream double-button water-resistant pendant transmitter
- One breakaway neck cord
- One beltclip attachment
- Three housing screws
- One frequency band selection jumper
- One CR2450 coin cell battery

## 2 Installation and Startup

### 2.1 Installation Notes

- These products are designed to be maintained by professional security technicians
- Products are intended for indoor use
- All products should be manually tested weekly (see "Test the Transmitter" on page 2)

### 2.2 Initial Setup

#### Battery Installation

1. Remove the rear housing cover to expose the side of the board that holds the battery.

**Caution:** Carefully separate the rear housing cover, ensuring the reset button plunger assembly does not fall out of the housing (Figure 2).

2. Slide the battery under the battery holder, ensuring that it is fully inserted and that the positive terminal (+) faces up (Figure 2).

### Select the Frequency Band

EchoStream products are able to use a range of radio frequencies, and must be configured for your geographic area. This product ships with a default frequency range of 902-928 MHz for use in North America. If you are using the product in North America, skip to step 6; if you are using the product in Australia or New Zealand, you will need to configure the transmitter.

To configure the transmitter:

3. Turn the board over to access the side with the frequency band selection pins (Figure 2).
4. Place the frequency band selection jumper on the appropriate frequency band selection pins.
  - Place the jumper on the left two pins, marked AU, to set the frequency range to 915-928 MHz for Australia.
  - Place the jumper on the right two pins, marked NZ, to set the frequency range to 921-928 MHz for New Zealand.
5. Seat the board in the housing with the battery side facing the rear housing cover.
6. Replace the front housing cover.
7. Insert the three housing screws, tightening them to 1.25 inch-pounds torque.

**Note:** If you do not have a torque driver, tighten to a snug fit, being careful not to overtighten.

**Note:** Tighten the housing screws evenly to help ensure a good seal and maintain water-resistance.

**Caution:** Over-tightening the housing screws can result in microcracks in the plastic, gaps in the gasket material, and/or stripping of the bushing. Any of these conditions can compromise the water-resistance of the device.

### Register the Transmitter

The transmitter must be registered and supervised. When supervised, the transmitter will send a check-in message to the receiver or gateway every three minutes.

Each transmitter has a unique factory-programmed identification number. Refer to the receiver or gateway's installation instructions for details on registering and setting up supervision.

8. When prompted by the receiver or gateway to reset transmitter, press the reset button (Figure 1).

**Caution:** The transmitter should be tested after registration to ensure operation. See "Test the Transmitter" on page 2.

## 3 Operate the Transmitter

To send an alarm, press both activation buttons simultaneously for at least one second. Alarm signals are transmitted multiple times and are indicated by the blinking transmission LED. When the buttons are released, the transmitter sends an alarm restoral signal as indicated by another short series of blinking transmission LED lights.

### 3.1 Wear the Transmitter

The EN1223D can be worn in three ways:

- Around the neck with neck chain attachment (included)
- On a belt with the beltclip attachment (included)
- On the arm with optional wristband accessory (ACC623S or ACC623L, sold separately)

**Caution:** The neck chain included with the EN1223D is designed with a breakaway feature for user safety. Substitution of a stronger cord or chain may result in injury to the wearer.

**Note:** The optional wristband accessory is not part of the UL listing.

### 3.2 Water Exposure

All EchoStream water-resistant pendants meet IP54 certification standards for dust and water ingress protection, ensuring that:

- Ingress of dust particles does not interfere with the satisfactory operation of the device
- There is no harmful effect to the device caused by:
  - Vertically dripping water (when device is tilted up to 15° from normal position)
  - Spraying water (falling at angles up to 60° from vertical)
  - Splashing water (from any direction)

## End User Recommendations

IP54 certification is classified as water-resistant, but not waterproof. The products are not designed for submersion in water. As such, we offer the following recommendations for end users:

Usage Situation	OK to Use?	Cautions
Shower	Yes	Do not spray water directly on the device at distances of less than 12 inches; avoid spraying water at high pressure
Bath	Yes	Do not submerge the device
Rain	Yes	Avoid extended exposure; wear the device under a sleeve, shirt, or jacket
Water Exercise	No	Do not use the device during these activities

**Note:** Dust and water ingress protection is not part of the UL listing.

## 3.3 Battery Replacement

Replacement batteries can be purchased from Inovonics using the following part numbers

- BAT609 for a single battery
- BAT609-25 for a 25-count bulk pack

To replace the batteries:

1. Remove the three housing screws on the back of the transmitter.
2. Remove the rear cover to expose the side of the board which holds the battery.

**Caution:** Carefully separate the rear housing cover, ensuring the reset button plunger assembly does not fall out of the housing (Figure 2).

3. Remove the depleted battery.
4. Slide the new battery under the battery holder, ensuring that it is fully inserted and that the positive terminal (+) faces up (Figure 2).
5. Replace the rear housing cover.
6. Replace the three housing screws, tightening them to 1.25 inch-pounds torque.
7. Once the unit has been sealed, press the reset button located on the rear housing to complete the configuration (Figure 1).

**Note:** If you do not have a torque driver, tighten to a snug fit, being careful not to strip the housing.

**Note:** Tighten the housing screws evenly to help ensure a good seal and maintain water-resistance.

**Caution:** Over-tightening the housing screws can result in microcracks in the plastic, gaps in the gasket material, and/or stripping of the bushing. Any of these conditions can compromise the water-resistance of the device.

## 4 Test the Transmitter

The transmitter should be tested weekly and after registration to ensure operation.

To test the transmitter:

1. Press both activation buttons simultaneously for at least one second and ensure the transmit LED lights and the alarm is received by the receiver or gateway.
2. Press the reset button and ensure the transmit LED lights.

## 5 Specifications

Dimensions: 5.6 x 4.8 x 1.8 cm (2.2 x 1.9 0.72")

Operating temperature: 0 to 60°C (32 to 140°F); 0 to 49°C (32 to 120°F) for UL installations

Operating environment: Water-resistant, non-submersible

Certifications: IP54 Dust and Water Resistance (IEC 60529)

Typical battery life: 1-2 years

Battery type: Renata CR2450, Panasonic CR2450

Power requirement: 3 VDC, 60 mA

UL listings: UL 1023, ULC/ORD-C1023-74

Compatible receiver: EN4216MR, EN4232MR, EN7285

**Note:** Specifications and data are subject to change without notice.

## 6 Television and Radio Interference

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:

- 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.

## 7 FCC Part 15 and Industry Canada Compliance

This device complies with part 15 of the FCC Rules and 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.

## 8 US Patent Numbers

- 7,154,866
- 7,554,932
- 7,746,804

## 9 Warranty and Disclaimer

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

Inovonics Wireless Corporation ("Inovonics") warrants its products ("Product" or "Products") to conform to its own specifications and to be free of defects in materials and workmanship under normal use for a period of thirty-six (36) months from the date of manufacture. Within the warranty period, Inovonics will repair or replace, at its option, all or any part of the warranted Product. Inovonics will not be responsible for dismantling and/or reinstallation charges. To exercise the warranty, the User ("User", "Installer" or "Consumer") must work directly through their authorized distributor who will be given a Return Material Authorization ("RMA") number by Inovonics. Details of shipment will be arranged directly through the authorized distributor.

This warranty is void in cases of improper installation, misuse, failure to follow installation and operating instructions, alteration, accident or tampering, and repair by anyone other than Inovonics.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express, or implied. There is no warranty by Inovonics that Inovonics product will be merchantable or fit for any particular purpose, nor is there any other warranty, expressed or implied, except as such is expressly set forth herein. In no event shall Inovonics be liable for an incidental, consequential, indirect, special, or exemplary damages, including but not limited to loss of profit, revenue, or contract, loss of use, cost of down time, or interruption of business, nor any claim made by distributor's customers or any other person or entity. This warranty will not be modified or extended. Inovonics does not authorize any person to act on its behalf to modify or extend this warranty. This warranty will apply only to Inovonics Products. Inovonics will not be liable for any direct, incidental, or consequential damage or loss whatsoever, caused by the malfunction of Product due to products, accessories, or attachments of other manufacturers, including batteries, used in conjunction with Inovonics Products.