![Inovonics logo]

EN1223D EchoStream® Double-Button Water-Resistant Pendant Transmitter
Installation and Operation Manual

1 Overview
The Inovonics EN1223D double-button water-resistant pendant transmitter is small, light and versatile.

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

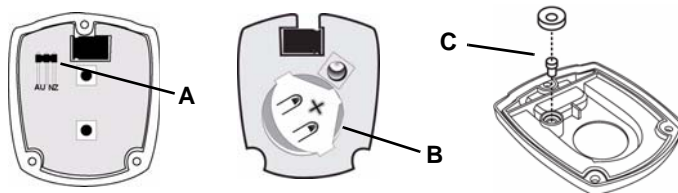## 1.3 Transmitter Internal Components

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).
3. Press the reset button.

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 7; if you are using the product in Australia or New Zealand, you will need to configure the transmitter.

To configure the transmitter:
4. Turn the board over to access the side with the frequency band selection pins (Figure 2).
5. 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.
6. Seat the board in the housing with the battery side facing the rear housing cover.
7. Replace the rear housing cover.
8. Insert the three housing screws, tightening them to 1.25 inch-pounds torque.
9. Press the reset button.

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.
10. 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.
UL listed compatible receivers: 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 RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

8 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.

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

9 US Patent Numbers
- 7,154,866.
- 7,554,932.
- 7,746,804.
- Other patents pending.