

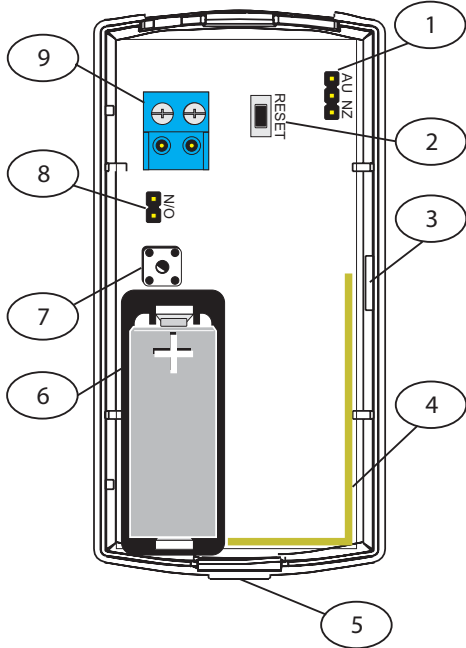
# Universal Transmitter with EOL Resistor

ISW-EN1210EOL

## Overview

The ISW-EN1210EOL is a universal transmitter with an end of line (EOL) resistor. A 2.2 kΩ resistor (supplied) is required to operate this transmitter.

**Figure 1: Transmitter Components**



- 1 - Frequency Band pins
- 2 - RESET button
- 3 - Circuit board tab
- 4 - Antenna
- 5 - Housing release tab
- 6 - Battery
- 7 - Tamper switch with spring
- 8 - N/O-N/C pins
- 9 - Input terminal

## 1.0 Installation and Setup

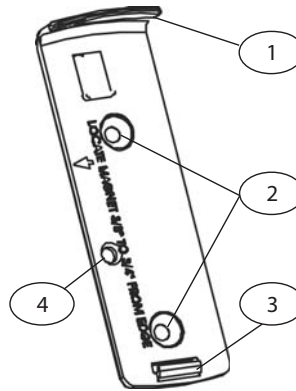
### 1.1 Install the Mounting Bracket

1. Pry the top lip (refer to *Figure 2*) of the mounting bracket up, and lift the bracket off the transmitter.
2. Mount the bracket on the wall with two of the supplied screws.



The third mounting screw, installed under the battery, is optional. Refer to *Section.1.5 Install the Battery*.

**Figure 2: Mounting Bracket**

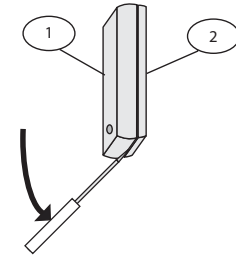


- 1 - Top lip
- 2 - Mounting screw holes (mounting bracket)
- 3 - Bottom catch
- 4 - Mounting screw hole (housing base, under the battery)

### 1.2 Open the Housing

1. Use a small flat-blade screwdriver to press the housing release tab (refer to *Figure 1*) on the bottom of the transmitter.
2. Separate the housing cover from the housing base. Refer to *Figure 3*.

**Figure 3: Open the Housing**



1 - Housing cover

2 - Housing base

### 1.3 Mount the Transmitter on the Bracket

Clip the transmitter housing onto the bracket:

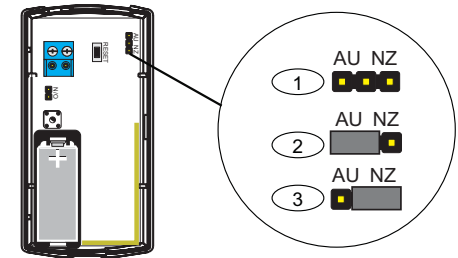
1. Hook the transmitter housing onto the bottom catch (refer to *Figure 2*).
2. Press the top of the transmitter housing into place under the top lip of the bracket.

### 1.4 Configure the Transmitter

#### 1.4.1 Select the Frequency Band

1. Select the appropriate frequency band for your geographic area.
2. Place a jumper on the appropriate Frequency Band pins (refer to *Figure 4*).

**Figure 4: Frequency Band Settings**



- 1 - North America (902 MHz to 928 MHz) (**default**)
- 2 - Australia (915 MHz to 928 MHz)
- 3 - New Zealand (921 MHz to 928 MHz)

### 1.4.2 Select the Input Type

Use the N/O-N/C pins to select either normally open (N/O) or normally closed (N/C) operation for the circuit connected to the transmitter's input terminal.

The transmitter is shipped set for normally closed, with no jumper on the N/O selection pins.

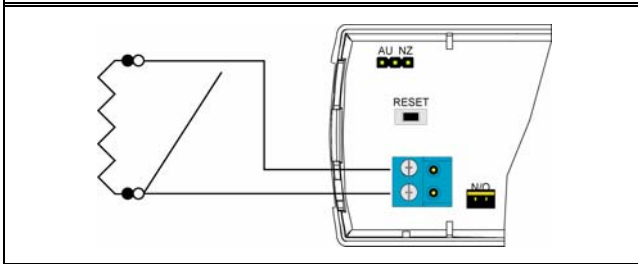


If you change the transmitter's input setting after initial installation, press the RESET button for the new setting to be effective. Do not touch the Frequency Band pins.

#### Set for Normally Open Operation

1. Place a jumper on the selection pins to select normally open (N/O).
2. Connect the 2.2 kΩ resistor in parallel with the N/O contact (refer to Figure 5).

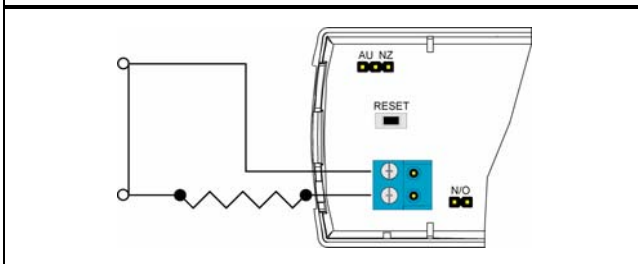
**Figure 5: Wiring for Normally Open (N/O) Operation**



#### Set for Normally Closed Operation

1. Remove the jumper from the selection pins.
2. Connect the 2.2 kΩ resistor in parallel with the N/C contact (refer to Figure 6).

**Figure 6: Wiring for Normally Closed (N/C) Operation**



### 1.5 Install the Battery



- You can secure the transmitter with a third mounting screw located under the battery (Figure 2).
- Accessing this mounting screw on an active transmitter requires opening the housing and removing the circuit board (refer to Section 2.0 Remove the Circuit Board).

1. Install the new battery.
2. Press the RESET button to complete the configuration. Refer to Figure 1.

### 1.6 Register the Transmitter

You must register the transmitter with the system in order for the transmitter to be monitored and supervised. When the transmitter is supervised, it sends a check-in message to the serial receiver or network coordinator every 3 min. Each transmitter has a unique factory-programmed identification number.

Refer to the receiver's documentation for details on registering a transmitter.

1. When prompted by the receiver to reset the transmitter, press the RESET button on the transmitter.



When pressing the RESET button, do not touch the Frequency Band pins. Touching the Frequency Band pins while pressing the RESET button can inadvertently set the transmitter to the wrong frequency band.

2. Replace the cover on the mounted transmitter.
3. Test the transmitter by activating each of the conditions and ensuring an appropriate response.

### 2.0 Remove the Circuit Board

1. Remove the transmitter cover. Refer to Section 1.2 Open the Housing.
2. Insert a small flat-blade screwdriver between the edge of the circuit board and the edge of the housing near the circuit board tab (refer to Figure 1).
3. Press the handle of the screwdriver downward, lifting the circuit board on one side.
4. Remove the circuit board from the housing.

To install the circuit board, place the edge of the circuit board under the circuit board tab and snap the other side of the circuit board into place.

### 3.0 Replace the Battery

1. To remove the transmitter from the mounting bracket, pry the top lip of the mounting bracket up and lift the transmitter from the bracket.
2. Remove the housing cover from the housing base. Refer to Section 1.2 Open the Housing.
3. If the transmitter is installed with three mounting screws, remove the circuit board. Refer to Section 2.0 Remove the Circuit Board.

If the transmitter is installed with only two mounting screws, removal of the circuit board is not necessary.

4. To replace the battery, use a small screwdriver to push the old battery out of the battery holder.



Removing the battery causes a tamper condition.

5. Install a new battery.
6. Press the RESET button to initialize the transmitter. Refer to Figure 1.

### 4.0 Specifications

External contacts	Normally open (N/O) or normally closed (N/C)
Distance, external contact to ISW-EN1210EOL	6.1 m (20 ft) maximum
Typical Battery Life	3 to 5 years
Battery type	Panasonic® CR123A or equivalent
Operating Temperature	-20° to +60°C (-4° to +140°F)
Relative humidity	Up to 90% (non-condensing)

### Trademark

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