

# DET-RSURV01 Radio Survey Tool

## User Guide

The DET-RSURV01 Radio Survey Tool measures radio signal strength between two locations. The tool allows you to confirm prior to installation that there is good signal strength between the planned location of a transmitter (such as a radio detector) and the planned location of a receiver (such as a radio expander).

The tool helps to reduce installation time and the risk of needing to relocate devices after installation.

The DET-RSURV01 consists of two components: a hand-held transmitter (which shows an LED indication of signal strength) and a receiver. The devices are designed to mimic the behaviour of transmitter and receiver components in an Eaton intrusion system.

The receiver can be powered using internal batteries or by an external 12Vdc power supply (sold separately). The transmitter uses an internal battery.

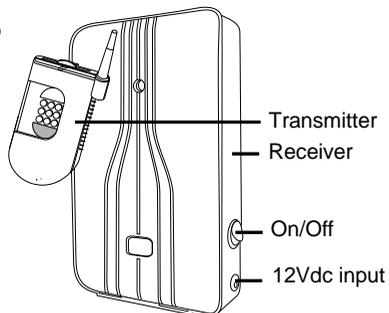


Figure 1: Radio Survey Tool

### Using the Tool

#### Step 1 – Insert Receiver Batteries

The receiver can be powered using the four supplied AA batteries or by using an external 12Vdc power supply (sold separately).

You can access the battery compartment and cradle (Figure 2) by removing the front cover of the receiver.

There is no need to remove the batteries if you decide to use an external supply.

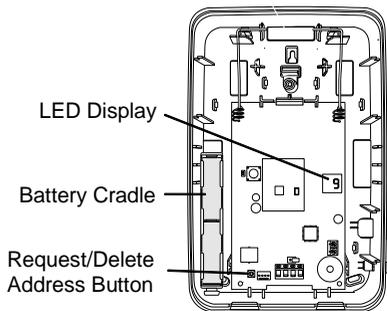


Figure 2: Receiver Internals

#### Step 2 – Position & Switch On Receiver

1. Position the receiver at the location where you are going to mount the radio expander or other device that the receiver is representing.

You can attach a tripod to the foot of the receiver, if required.

2. Switch on the receiver. You should hear a multiple-tone startup sound.

#### Step 3 – Test the Signal Strength

1. Hold the transmitter vertically at the exact location where you are going to mount the radio detector or other device that the transmitter is representing. Keep the transmitter away from your body.
2. Press the orange button on the transmitter. The red and green LEDs flash alternately while the transmitter waits for a response.
3. The signal strength is indicated by the transmitter LEDs as follows:

**Steady Green:** Good.

**Steady Green and Red:** Marginal. If possible, find a better location.

**Steady Red or no indication:** Not acceptable.

See "Pairing the Devices" if you do not obtain a steady reading.

Tip: The signal strength is also shown on the display inside the receiver (Figure 2). A reading of 9 is the highest. 5 or above is good, 3 to 4 is marginal and 2 or below is not acceptable.

## Pairing the Devices

The transmitter and receiver are supplied paired. If you replace the transmitter or you cannot obtain a steady reading of signal strength at the transmitter when both devices are in close proximity, pair the devices as follows and try again.

1. Hold down the Request/Delete Address button while switching on the receiver. The LED will show "Ln".
2. Release the button for two seconds, then hold down the button again for another two seconds. The receiver beeps at one-second intervals.
3. Press the orange button on the transmitter. The receiver beeps twice and the LED should show "9". This completes the pairing process.

If required, pairing can be removed by pressing the "Request/Delete Address" button while applying power.

## Battery Replacement

The receiver "beeps" when its batteries need to be replaced. The battery in the transmitter needs to be replaced when the orange button is pressed and only the red LED illuminates.

The receiver batteries are accessible by removing the front cover. The transmitter battery is accessible by removing the screw and cover on the back of the device.

**NOTE:** Batteries and the unit itself must be disposed of in accordance with WEEE regulations and any other local and national regulations.

## Specifications

Frequency: 868.6625MHz narrowband

Standards: ETSI EN 300 220, EN 61000 EMC, EN 60950

Operating temperature range: -10°C to +55°C

Max relative humidity: 95%

Receiver:

- External supply 12VDC (part number DET-RSURV-PSU)
- Battery type: 4 x 1.5V AA, alkaline
- Maximum current consumption: 40mA
- Weight: 530g (with batteries)
- Dimensions: 230mm (h) x 144mm (w) x 50mm (d)

Transmitter:

- Battery type: 3V Lithium CR 1/3N
- Weight: 35g
- Dimensions: 75mm (h) excluding aerial x 45mm (w) x 17mm (d)

Conformity: The DET-RSURV01 is compliant with the essential requirements of the following directives: 1999/5/EC R&TTE Directive; 2011/65/EU RoHS Directive. For a full Declaration of Conformity see <http://www.touchpoint-online.com>.

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