RF3401E

BOSCH

1.0 Overview

The RF3401E Point Transmitter is a magnetic and dry contact wireless transmitter used for monitoring doors, windows, or other dry contact devices.

This device is equipped with an internal reed contact for use with an external magnet assembly and a cover/wall tamper switch. The point transmitter accepts a dual EOL resistor supervised dry contact input from an external device.

Supervision is provided by transmitting a signal to the receiver every 13 min. if there is no other activity. All transmissions from the RF3401E send battery status information.

2.0 Specifications

Table 1: Specifications	

Dimensions (H x W x D)	Transmitter:
	    76.5 mm x 35 mm x 19 mm
	    (3 in. x 1.38 in. x 0.75 in.)
	Mounting Plate:
	    76.5 mm x 35 mm x 3.2 mm
	    (3 in. x 1.38 in. x 0.13 in.)
	Magnet:
	    80 mm x 14 mm x 12 mm
	    (3.15 in. x 0.55 in. x 0.47 in.)

Operating Temperature	-30°C to +65°C (-22°F to +149°F)
Frequency Band	433.42 MHz
Maximum RF Power	< 10 mW
Operating Voltage	Supplied by a 3 VDC lithium battery
Battery Life	Minimum of five years under normal operating conditions with the recommended battery types.
Recommended Battery Types	Duracell DL 123A, Energizer EL 123AP, or Panasonic CR 123A
Compatible Receivers	RF3212E or RF3222E
Compliance	CE 0165. This point transmitter complies with EN 300683, EN 300220, and 89/336/EEC.

3.0 Mounting

3.1 Mounting Considerations

- The maximum range of the point transmitter, in open air, is approximately 300 m (984 ft). In normal residential or commercial applications, it is recommended the point transmitter be kept within 100 m (328 in.) of the receiver to which it is assigned.

- Mounting the point transmitter on metal surfaces can reduce its RF range. Mounting the point transmitter on ferrous metal (iron or steel) surfaces can affect the operation of the internal magnetic contact.

- Mount the point transmitter on the door/window frame and the magnet assembly on the moving portion. Mount the magnet assembly within 15 mm (0.59 in.) of the point transmitter and in an acceptable orientation as shown in *Figure 1*.

Figure 1: Mounting Considerations (shown without mouting plate or spacer)
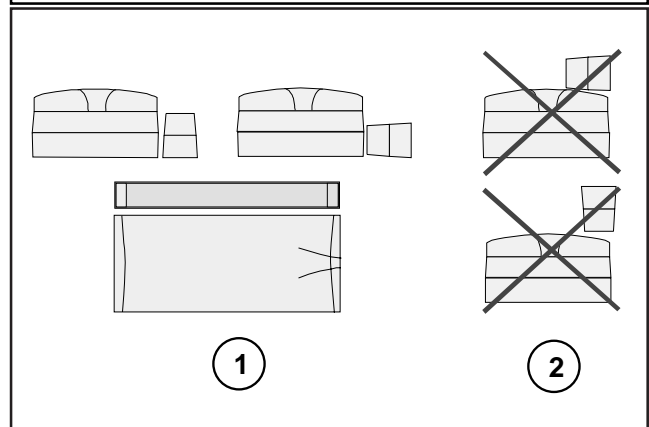
1 - Acceptable

2 - Not acceptable

3.2 Mounting the Transmitter

1. Position the mounting plate over the desired location. If connecting an external device, position the mounting plate so the wiring passes through the wire entrance (*Figure 2*).

2. Attach the mounting plate using two flathead screws (*Figure 2*).

Figure 2: Mounting Plate
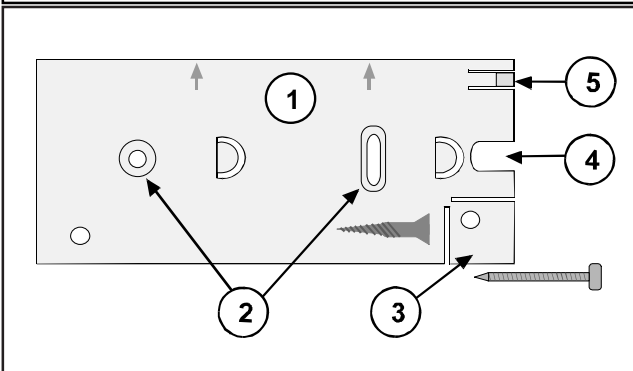
1 - Magnet

2 - Mounting holes (use two flathead screws)

3 - Wall tamper breakaway (use panhead screw)

4 - Wire entrance

5 - Release tab

> ☑ When mounting the base, note the location of the magnet.

3. If using the wall tamper feature, use a panhead screw in the wall tamper breakaway (*Figure 2*).

4. From the point transmitter bottom (*Figure 3*), remove the wall tamper breakout with a small tool.
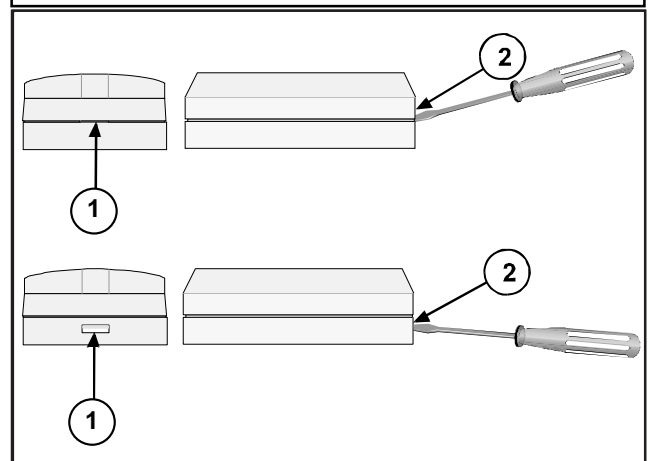
Figure 3: Point Transmitter
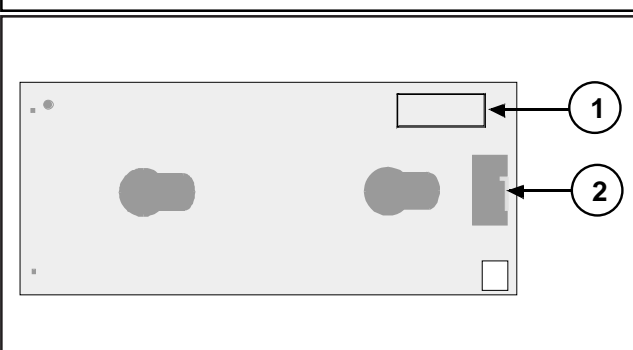
The ID label removed to show detail.

1 - Wall tamper breakout area

2 - Wire entrance

5. Tear off the loose portion of the ID label when programming the control panel (refer to *Section 5.0 Panel Programming*).

6. Depending on which case your transmitter comes with (*Figure 4*), open the transmitter cover by inserting a small flat-blade screwdriver into the slot at the end of the transmitter. Then push in with the screwdriver until the latch opens.

Figure 4: Open the Point Transmitter

1 - Insert screwdriver and push here.

2 - Push in.

7. Slide the point transmitter over the mounting place to lock it into place (Figure 5). If connecting an external device, pull its wiring through the wire entrance of the point transmitter as the point transmitter slides onto the mounting plate.
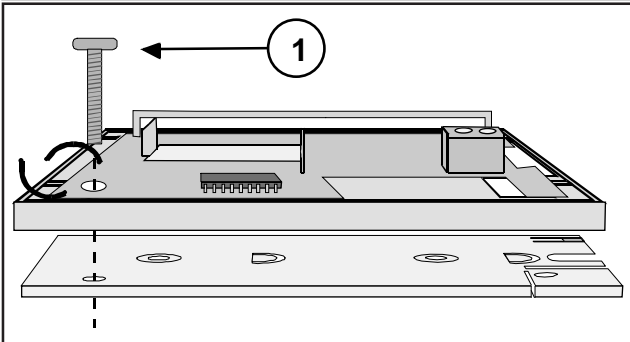
Figure 5: Slide the Point Transmitter onto the Mounting Plate
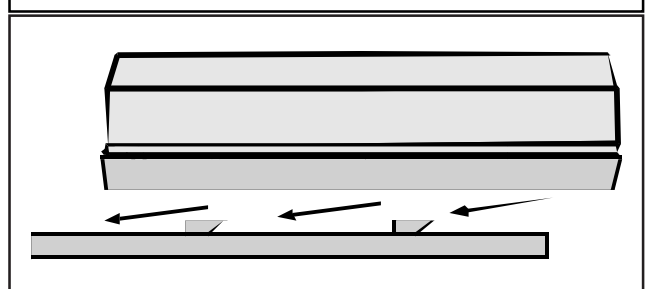
8. Make the wiring connections for any external device. Refer to *Section 4.0 Setting Up* opens.

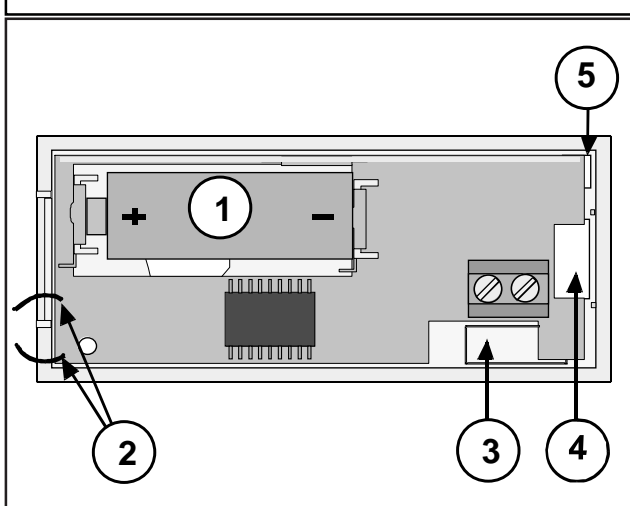9. If the installation requires additional security,

Figure 6: Mount for Extra Security

1 - Security screw

use an additional panhead screw to mount the point transmitter (*Figure 6*).

Figure 7: RF3401E Internal Details

Cover removed to show detail.

1 - Battery

2 - Tamper switch wires

3 - Wall tamper breakout area

4 - Wire entrance

5 - Release tab

10. Install a recommended battery (see *Section 2.0 Specifications* on page 2). Observe proper polarity (*Figure 7*).
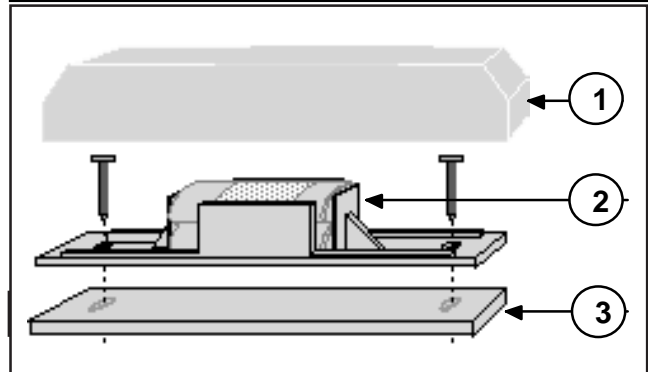
11. Close the cover.

12. Release the point transmitter from the base by disconnecting any external wiring and removing the security screw (if used). Then press the release tab (*Figure 7*) with a small

3.3   Mounting the Magnet Assembly

1. Mount the magnet base using two panhead screws (*Figure 8*).

2. Snap on the magnet cover.

Figure 8: Magnet Assembly

1 - Cover

2 - Base

3 - Spacer

The spacer is optional. Use for alignment as needed.

tool and slide the point transmitter off the mounting plate.

## 4.0   Setting Up Magnetic or External Contacts

The RF3401E can monitor its internal reed contact or an external dry contact.

> ☑ If using the RF3222E Receiver, the RF3401E can only monitor the magnetic contact or the external contact.
>
> If using the magnet, do **not** use an external device.
>
> If using an external device, remove the reed switch (*Figure 9*).
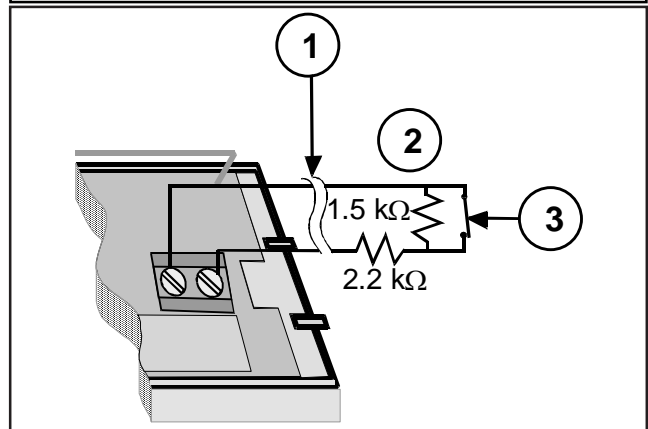
Figure 9: Remove the Reed Switch
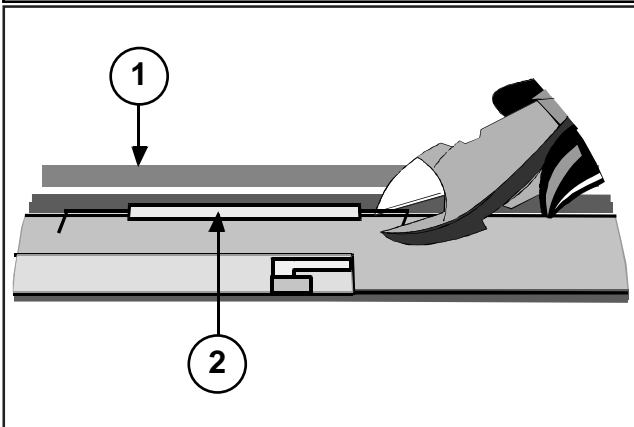
1 - Antenna

2 - Reed switch

4.1   Typical External Contact Wiring

One set of external normally closed (NC) contacts (*Figure 10*) can be monitored. Make sure your control panel supports the intended loop condition.

Figure 10: Typical NC Wiring

1 - Up to 6 m (19 ft.)

2 - Non-polarized

3 - Normally closed (NC) contact

The contact input is supervised using dual 1.5 kΩ and 2.2 kΩ End-of-Line (EOL) resistors. This allows the control panel to identify wire tamper conditions (opens or shorts). The maximum cable length for external wiring is 6 m (19 ft).

5.0   Control Panel Programming

A two-piece ID sticker (*Figure 11*) is located on the housing of the RF3401E. Enter the number printed on the sticker into the control panel to program the point transmitter. Refer to your control panel's *Programming Guide* for programming information on wireless type devices.

Figure 11: ID Number

1 - ID number

2 - Bar code

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