

Installation Instructions for the RF3224 RF Receiver

1.0 General Information

The RF3224 RF Receiver allows the use of wireless devices when using the D6412 Control Panel.

2.0 Specifications

Table 1: Specifications	
Dimensions (H x W x D)	10.8 cm x 15.2 cm x 3.1 cm (4.25 in. x 6.0 in. x 1.2 in.)
Operating Temperature	0°C to +65°C (+32°F to +150°F) For UL Listed requirements, the temperature range is 0°C to +49°C (+32°F to +120°F)
Frequency	304.00 MHz
Power Requirements	12 VDC, 30 mA, nominal
Compatible Control Panels	D6412, D4412, DS7240, and DS7220
Compliance	This device complies with Part 15 of the FCC Rules and the RSS-210 of Industry and Science Canada. Operation is subject to: <ul style="list-style-type: none"> The device not causing harmful interference, and The device accepting any interference received, including interference that may cause undesirable operation. <p>Changes or modifications not expressly approved by Bosch Security Systems can void the user's authority to operate the equipment.</p>

3.0 Mounting

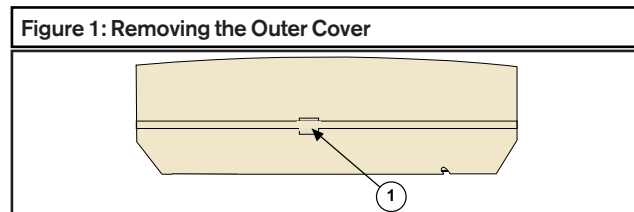
3.1 Mounting Considerations

- Whenever possible, mount the receiver centrally to all wireless sensors.
- Mount the receiver vertically with at least 25 cm (10 in.) clearance above it for the antennas.
- Avoid mounting the receiver in areas with significant metal or electrical wiring, such as furnace rooms and utility rooms. If unavoidable, mount the receiver with the antennas extending above any metal surface.
- Avoid mounting the receiver in areas where it may be exposed to moisture.
- Reception distances are generally improved with higher mounting locations and with no metal objects near the antennas.

3.2 Wall Tamper Setup

To enable the wall tamper switch, follow the procedure below. If not using the wall tamper, go to *Section 3.3 Mounting the Receiver*.

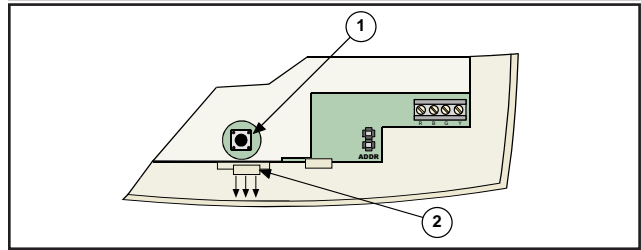
- Remove the receiver's outer cover and set it aside (see *Figure 1*).



1 - Insert screwdriver here and press in.

- Press the latch to remove the inner cover (see *Figure 2*).

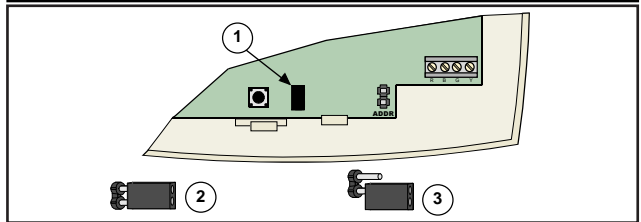
Figure 2: Removing the Inner Cover



- 1 - Cover tamper
- 2 - Press latch to remove inner cover.

- Move the wall tamper jumper as shown in *Figure 3*.

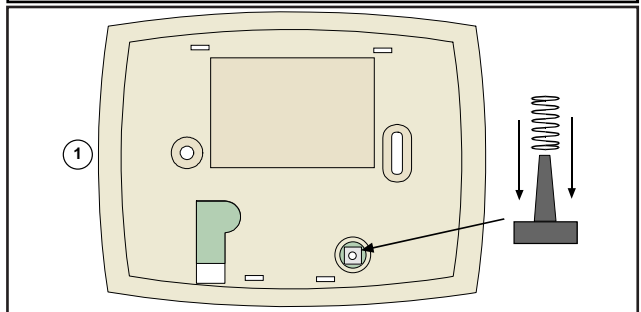
Figure 3: Wall Tamper Jumper



- 1 - Wall tamper jumper
- 2 - Wall tamper disabled (default position)
- 3 - Wall tamper enabled (jumper left on pin for storage only)

- Replace the inner cover.
- Place the spring from the hardware packet over the shaft of the tamper switch located on the back of the receiver (see *Figure 4*).

Figure 4: Installing the Tamper Spring



- 1 - Rear of receiver

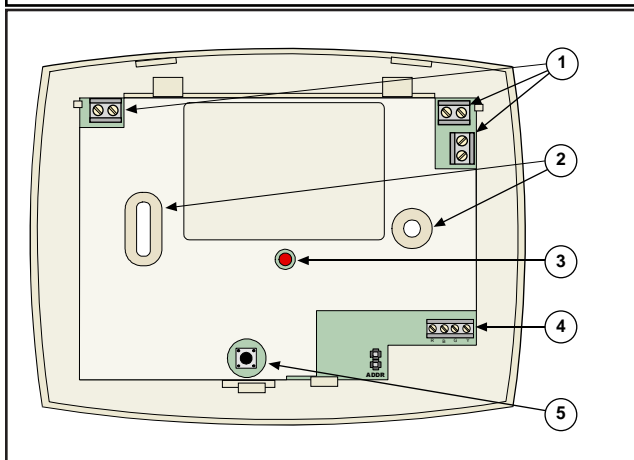
Note: Gently press the spring onto the tapered shaft. Do not force it down onto the shaft.

3.3 Mounting the Receiver

- Determine the mounting location of the receiver.
- If not already done, remove the outer cover from the receiver and set it aside (see *Figure 1*).
- Place the receiver base on the wall at the desired mounting location and mark the two mounting holes (see *Figure 5*).
- Drill holes and install anchors (supplied), if necessary.
- Secure the receiver base to the wall with screws (supplied).
- Insert an antenna into the outside terminal on two of the antenna connectors as shown in *Figure 6*. Tighten screws to secure the antennas.

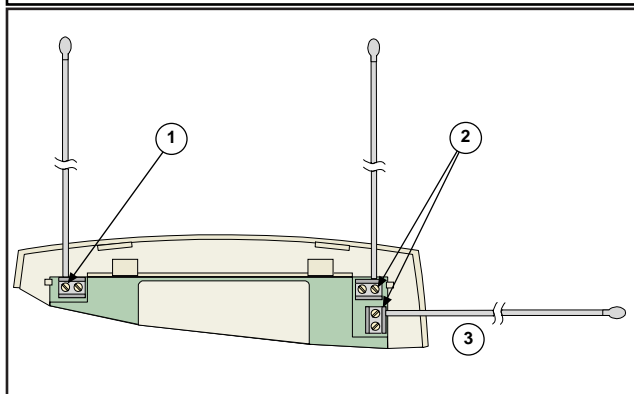


Figure 5: Receiver with Outer Cover Removed



- 1 - Antenna connectors
- 2 - Mounting holes
- 3 - LED
- 4 - Bus and power connector
- 5 - Cover tamper switch

Figure 6: Connecting Antennas



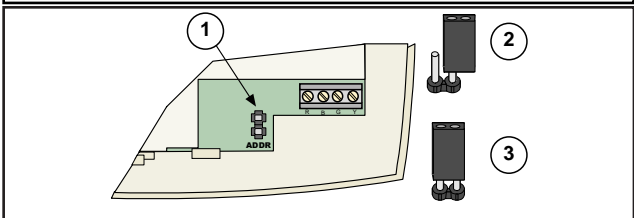
- 1 - Mount one antenna here and point it upwards.
- 2 - Mount second antenna at one of these locations.
- 3 - Preferred location (provides polar diversity)

3.4 Setting Receiver Options

Note: Changing these settings requires removing the power to the receiver and then reapplying for the changes to take affect.

Set the receiver address option as required (see *Figure 7*).

Figure 7: Address



- 1 - Address
- 2 - Receiver #1 (default). Jumper left on pin for storage only.
- 3 - Receiver #2

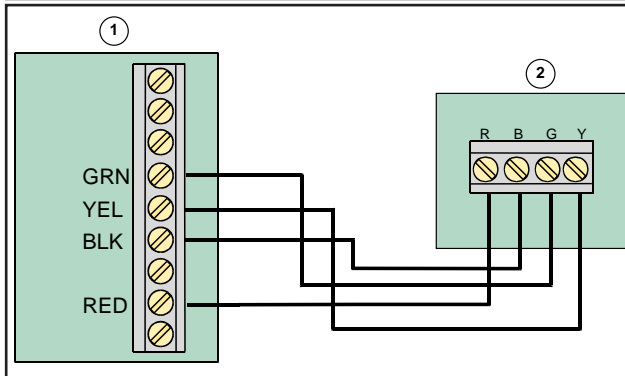
4.0 Wiring and Power Up

4.1 Wiring the Receiver to the Control Panel

1. Disconnect power from the control panel.
2. Connect the D6412 Option Bus terminals to the RF3224 receiver terminals as shown in *Figure 8*, using a minimum of 22 AWG (0.8 mm diameter) wire. The wire length between the receiver and the control panel should not exceed 300 m (1000 ft.). Adding supplementary devices to the bus may reduce the maximum distance. Shielded cable is not required. Do not use twisted pair wire.

Note: Fire systems installed under NFPA 72 or UL Listed Fire Systems require the use of #18 AWG (1.2 mm) or larger wire.

Figure 8: Connecting to the Option Bus



- 1 - D6412
- 2 - RF3224

3. Replace the outer cover.
4. Apply power to the control panel. The red LED at the center of the receiver illuminates.

4.2 LED Status

Table 2 describes the status of the receiver based on the LED condition.

Table 2: LED Status

LED Condition	Meaning
On	The receiver functions normally.
Off	A power failure occurred or the receiver is not wired correctly.
Turns on Momentarily	The receiver acknowledged receiving a message from a compatible transmitter.
Flashes Rapidly	The receiver is being programmed with zone and transmitter IDs from the D6412 Control Panel. This condition occurs upon initialization (power up) of the system or when new zone information is programmed into the system. The rapid flashing lasts for less than 1 minute.

5.0 Panel Programming

For programming information, refer to the *D6412 Control Panel Reference Guide*.