

SuperBus 2000 RF Receiver Installation Instructions

Introduction

This is the SuperBus 2000 RF Receiver Installation Instructions for model 600-1026-90R. The receiver adds or expands panel wireless zone capacity.

The module receives information from wireless sensors and touchpads then sends the data to the panel via the SuperBus 2000 digital data bus. Power for the module is provided by the panel. You can mount the receiver module inside the panel cabinet or up to 2,800 ft. (853 m) away from the panel.

SuperBus 2000 advantages

SuperBus 2000 panels have the ability to address module unit numbers. When you power up the panel, the panel automatically reads the unique SuperBus 2000 device ID number and assigns a unit number to the module. This eliminates manually setting DIP switches and the chance of identical unit number conflicts.

SuperBus 2000 receiver features

The receiver features:

- Spatial diversity, which minimizes wireless signal nulls or dead spots.
- Compatibility with all UTC Fire & Security 319.0 MHz (crystal or SAW) learn mode wireless sensors, touchpads, and sirens.
- Backward compatibility with SuperBus panels.
- A 1,500 ft. (457 m) nominal, open-air receiving range.

[Figure 1](#) shows the receiver module components and [Table 1](#) describes them.

Figure 1. Receiver components

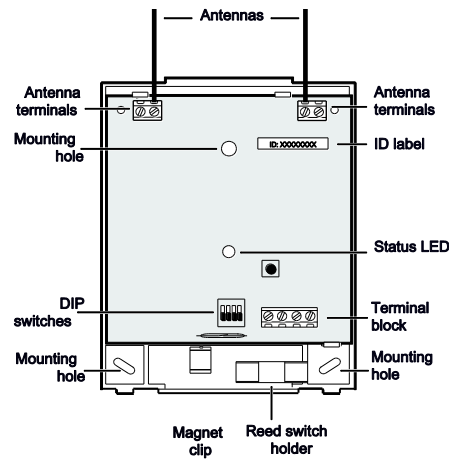


Table 1. Receiver components

| Component | Function |
|--------------------------------------|--|
| Antennas | Provide communication with wireless devices. |
| SuperBus 2000 device ID number label | Identifies unique module SuperBus 2000 device ID number (SuperBus 2000 panels). |
| Receiver status LED | On continuously when the receiver is powered. Flashes when an RF signal is received. |
| Unit number DIP switches | Used for manually setting unit numbers (SuperBus panels). |
| Terminal strip | Used for power and bus connection to panel. |

Tools and supplies

You will need the following tools and supplies to install the module:

- Screwdrivers
- Drill with bits
- Mounting screws and anchors (included)
- Two antennas (included)

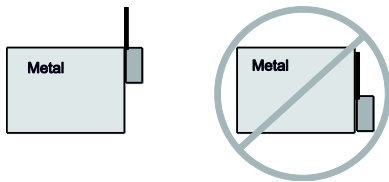
- Four-conductor, 22-gauge or larger, stranded wire
- Support standoff (included with Concord cabinet)
- 1/4 in. press-fit reed switch and magnet (not included)
- Small hammer

Installation

Use the following guidelines to install the receiver module:

- Concord systems can accommodate a maximum of 76 wireless sensors/zones.
- You can connect up to 16 SuperBus 2000 devices (SuperBus 2000 touchpads, receivers, HIMs, HOMs, and ESMs) to the Concord panel.
- Each bus device must have a different unit number.
- Leave 10 in. (25 cm) above the module for the antenna.
- Avoid areas that expose the module to moisture.
- Avoid areas with excess metal or electrical wiring, including furnace and utility rooms. If unavoidable, mount on or near metal with the antenna extending above the metallic surfaces ([Figure 2](#)).

Figure 2. Mounting near metal



- You can mount the module inside the panel cabinet or on any interior wall (protected from the elements).
- If mounting the module away from the panel, use the wire length guidelines in [Table 2](#).

Table 2. Wire length guidelines

| Wire gauge (unshielded or shielded) | Maximum wire length between module and Concord panel |
|-------------------------------------|--|
| 18 | 2,800 ft. (853 m) |
| 22 | 1,100 ft. (335 m) |

- If mounting the module inside the panel cabinet, use a support standoff included with the Concord panel.

Caution: To prevent damaging the panel or module, remove the panel AC power transformer and disconnect the backup battery before installation.

Wall mounting

You will need to wall-mount the module if one of the following applies:

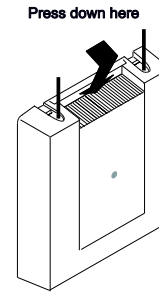
- If you use the Concord panel with the plastic enclosure, the receiver does not fit inside the enclosure and you will need to wall mount the receiver.

- If you want to locate the receiver in a different location than the panel enclosure to pick up other sensors, you will need to wall mount the receiver.

To mount the module on a wall, do the following:

1. Remove the panel AC power transformer and disconnect the backup battery.
2. Press down on the center of the top of the cover and pull the cover away from the backplate. Set the cover aside ([Figure 3](#)).

Figure 3. Removing the cover



Caution: You must be free of static electricity before handling circuit boards. Wear a grounding strap or touch a bare metal surface to discharge electricity.

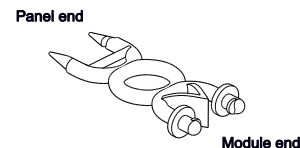
3. Hold the backplate against the mounting surface and mark the three mounting holes ([Figure 1](#)). Remember to leave at least 10 in. (25 cm) above the base for the antennas.
4. Drill holes and insert the appropriate anchors.
5. Secure the backplate to the wall with the included panhead screws.

Mounting in a Concord panel cabinet

To mount the module in a Concord panel cabinet, do the following:

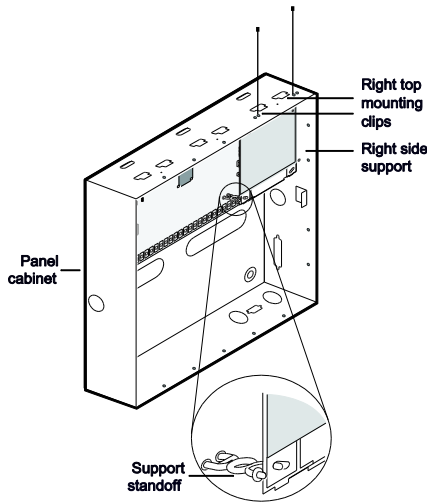
1. Remove the panel AC power transformer and disconnect the backup battery.
2. Remove and discard the module cover ([Figure 3](#)).
3. Insert a support standoff ([Figure 4](#)) supplied with the panel into the panel circuit board location shown in [Figure 5](#).

Figure 4. Support standoff



4. Slide the module backplate into the two top mounting clips located on the top right side of the cabinet and onto the right side support on the cabinet ([Figure 5](#)).

Figure 5. Mounting the module in the cabinet



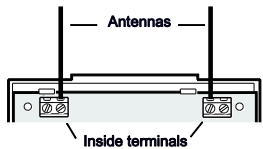
5. Push the lower left corner of the module onto the support standoff (Figure 5).

Antenna installation

To connect the antenna to the module, do the following:

1. Loosen the inside terminals of the left and right antenna terminal block (Figure 6).

Figure 6. Antenna installation



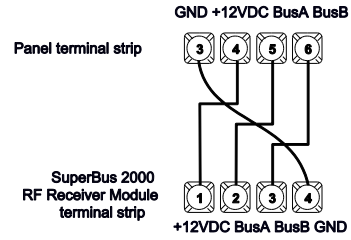
2. Insert an antenna into each inside terminal. If you are mounting the module in a Concord panel cabinet, insert the antennas through cabinet top holes.
3. Tighten the antenna terminal screws.

Wiring

To wire the receiver module to a Concord panel, do the following:

1. Disconnect the panel power transformer and backup battery.
2. Wire the panel power and bus terminals as shown in Figure 7.

Figure 7. Wiring



Optional cover tamper switch

If you are mounting the module in its own plastic enclosure, you may want to add cover tamper detection.

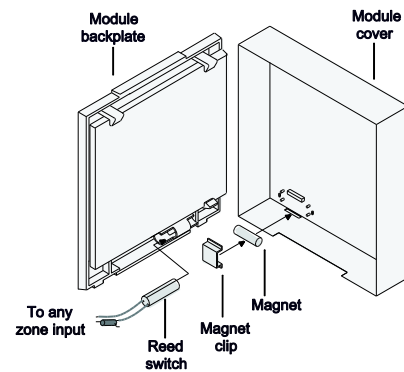
To do this, install a 1/4 in. press-fit reed switch on the module backplate and wire the switch to any unused panel, HIM, or SnapCard zone input terminals. Once programmed, if someone opens the module cover, the tamper switch opens and causes an alarm.

The reed switch holder and magnet clip are located at the bottom of the backplate (Figure 1).

To install the tamper reed switch, do the following:

1. Slide the reed switch into the reed switch holder located on the module backplate as shown in Figure 8.

Figure 8. Installing the reed switch



2. Insert the magnet into the nibs on the module cover. Remove the magnet clip from the module backplate and press the magnet clip down over the magnet until it clicks in place (Figure 8).
3. Connect the normally closed reed switch (in series with a 2.0 Kohm EOL resistor) to the desired panel, HIM, or SnapCard zone input terminals. The resistor should be located at the reed switch inside the module housing.

Power up the panel and receiver module

In order to enter panel program mode to verify unit numbers, an alphanumeric touchpad must be connected to all Concord panels.

To power up the panel and receiver module, do the following:

1. Verify that all wiring at the panel, touchpad, and receiver is correct.
2. Connect the panel backup battery and plug in the panel AC power transformer.
3. Verify that the receiver module status LED ([Figure 1](#)) is on.

Note: If the receiver module LED is not on, unplug the panel AC transformer, disconnect the backup battery and see [Troubleshooting](#).

4. If desired, enter panel program mode to verify unit number exists. Refer to your panel documentation for more information.

Replace module cover/close cabinet

If you mounted the receiver module on a wall, replace the cover.

If you mounted the receiver module in a Concord panel cabinet, close the cabinet door.

Programming

Refer to your panel documentation for learning wireless devices into panel memory.

Deleting the receiver

Refer to your panel documentation for instructions on how to delete bus devices.

Testing

Test the receiver module at the desired location to evaluate performance in the particular environment. Verify that the receiver module LED flashes when wireless devices are activated. For complete testing procedures, refer to your panel documentation.

Troubleshooting

The receiver module status LED stays off

- Check for incorrect wiring connections.
- Make sure the panel AC power transformer is plugged in and the backup battery is connected.
- If the LED still remains off, replace the module.

The receiver module status LED stays lit, but doesn't blink when wireless devices are tripped (limited or no wireless operation).

- Verify that the panel recognizes the module by entering program mode (refer to your panel documentation).
- Check for incorrect wiring connections.
- Check receiver antenna connections.
- Check for receiver antenna proximity to metal obstructions such as ducting or AC wiring.
- If the LED still doesn't flash, replace the module.

The receiver module status LED stays lit and blinks when wireless devices are tripped, but the system doesn't respond.

- Make sure that the wireless zone capabilities of the module and panel have not been exceeded. Removing one of two receiver modules connected to a panel after wireless devices are learned can cause this problem.
- If the system still doesn't respond, replace the module.

Specifications

| | |
|-----------------------|---|
| Compatibility | Interlogix Euro Concord panels, 319.0 MHz (crystal and SAW) learn mode wireless sensors and touchpads |
| Wireless zones | Maximum panel capacity |
| Power required | 12 VDC nominal 30 mA maximum draw (from panel) |
| Storage temperature | -30 to 140°F (-34 to 60°C) |
| Operating temperature | 32 to 140°F (0 to 60°C) |
| Maximum humidity | 90% relative humidity noncondensing |
| Wireless signal range | 1,500 ft. (457 m) nominal, 2,000 ft. (609 m) typical open air (may vary with application) |

Dimensions (L x w x H) 5.25 x 4.125 x 1 in. (133 x 105 x 25 mm)

Regulatory information

Manufacturer European representative for manufacture (EMC):
UTC Fire & Security, Kelvinstraat 7,
6003 DH Weert, Nederland

Certification



The European directive Waste Electrical and Electronic Equipment (WEEE) aims to minimize the impact of electrical and electronic equipment waste on the environment and human health. For proper treatment, recovery, and recycling, return the equipment marked with this symbol to your local supplier upon the purchase of equivalent new equipment, or dispose of it in designated collection points. For more information, visit www.recyclethis.com.

Note: The frequency of this device is designated for the Military and/or Air Traffic Control Band. Permission to use this product has only been received in Ireland and this device must not be sold in other countries.

Contact information

For contact information, see www.utcfireandsecurity.com or www.interlogix.com.

For technical support, toll-free: 888.437.3287 in the US including Alaska, Hawaii, Puerto Rico, and Canada. Outside the toll-free area, contact your dealer.

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