

# SuperBus 2000 RF Transceiver Module Installation Instructions

## Description

The SuperBus 2000 RF Transceiver Module expands the RF reception range of compatible GE control panels when located in the vicinity of sensors on the fringe of panel reception. The transceiver works with all UTC Fire & Security wireless sensors and touch-pads. It receives signals from wireless sensor and touchpads, then sends the data to the panel via the SuperBus 2000 digital data bus.

A tamper switch activates an alarm if the cover is removed while the system is armed. Power for the module is provided by the panel.

## Installation

The module comes as a kit that is assembled in the field. Installation consists of the following tasks:

- Mounting
- Wiring
- Power up

### Installation guidelines

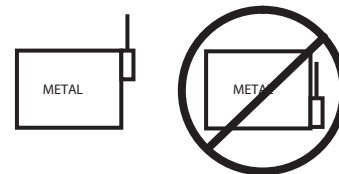
Observe the following guidelines when installing the transceiver module:

- Allow at least 9 inches (22.9 cm) of clearance above the enclosure for the antennas.
- Up to 4 SuperBus 2000 RF Transceiver Modules can be connected to Concord 4/Concord Express V4 panels (see model numbers in *Specifications* on page 3). Use the wire length guidelines in the following table.

Wire gauge (shielded or unshielded)	Maximum wire length between module and panel
22 AWG (0.65mm)	1,000 feet (305 m)
18 AWG (1.02 mm)	2,500 feet (762 m)

- The module must be installed in its own plastic enclosure. It cannot be installed inside the panel's enclosure.
- Avoid mounting locations that are likely to expose the module to moisture.
- Avoid areas with excessive metal or electrical wiring including furnace and utility rooms. If unavoidable, mount on or near metal with the antenna extending above the metallic surfaces as shown in Figure 1 below

Figure 1: Mounting on or near metal



### Tools and supplies

To complete the installation, you will need the following tools and supplies:

- Screwdrivers
- Drill with bits
- Mounting screws and anchors (included) • 4-conductor, 22-gauge (0.65 mm) or larger, stranded wire

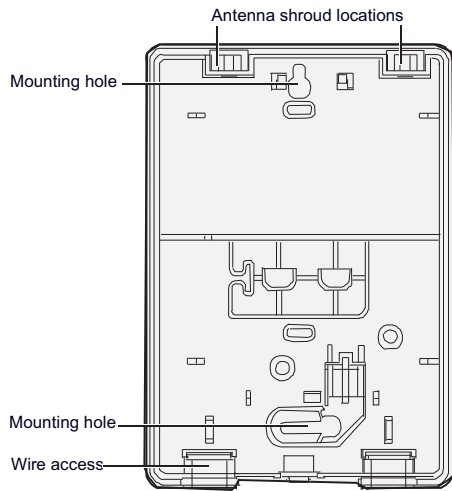
### Mounting

The module can be mounted on any interior wall (protected from the elements). To mount the module, do the following:

1. Remove the module back plate from the packaging.
2. Hold the base against the mounting surface and mark the two mounting holes and the wire access hole as shown in Figure 2 on page 2. Remember to leave at least 9 inches (22.9 cm) above the back plate for the antennas.

**Note:** The wire access hole is molded into the plastic so that you can access the wire, yet keep it hidden behind the back plate.

**Figure 2: Back plate**



3. Drill holes and insert the appropriate anchors (included).
4. Run a 4-conductor, 22- or 18-gauge (0.65 or 1.02 mm) stranded wire cable from the module wire access hole location (Figure 2 above) to the panel.

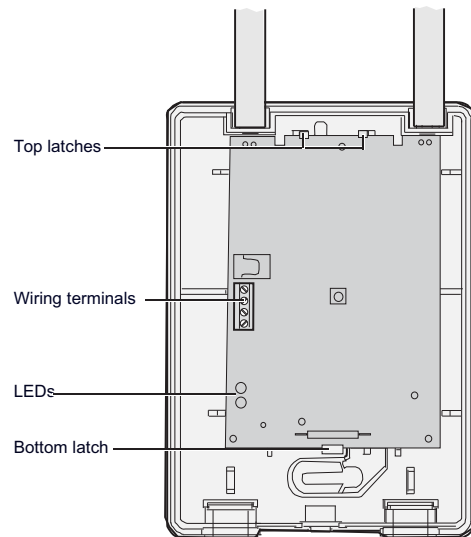
**Note:** For models 600-1025-01-43 and 600-1033-01-8A, the cable length must be less than 3 m (9.8 ft.) for CE compliance.

5. Secure the back plate to the wall with the pan head screws provided.
6. To assemble the antenna shrouds, attach the proper number of sections together, then attach the top cap.
7. Install each antenna shroud on top of the back plate (Figure 2 above).
8. Remove the transceiver circuit board from the anti-static bag.

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

9. To install the circuit board onto the back plate (Figure 3 below), insert the antennas into the antenna shrouds, then gently slide the top of the circuit board under the two top latches, and snap the circuit board in at the bottom latch to secure it in place.

**Figure 3: Circuit board and back plate**

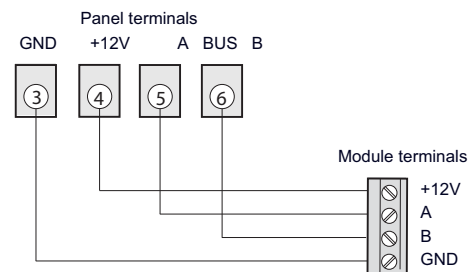


## Wiring

To wire the transceiver module to Concord 4 and Concord Express V4 panels, do the following:

1. Unplug the panel power transformer and disconnect the backup battery.
2. Wire the module to the panel power and bus terminals as shown in Figure 4 below.

**Figure 4: Module to panel wiring connections**



## Power up

To power up the system and verify bus communication, do the following:

1. 1. Verify that all wiring at the panel, touchpad, and transceiver is correct.
2. 2. Connect the panel backup battery and plug in the panel AC power transformer. The panel automatically learns the transceiver bus ID number.

- The red LED should turn on to indicate bus communication with the panel.
- The green LED should turn on to indicate that power is present and it should flicker off and on each time a wireless sensor RF packet is received.

**Note:** If the green LED is not on, unplug the panel AC power transformer, disconnect the backup battery, and proceed to Troubleshooting.

## Troubleshooting


Problem	Action
Green and red LEDs are off	<ol style="list-style-type: none"> <li>1. Check that the panel is powering up.</li> <li>2. Check/correct module to panel wiring.</li> </ol>
Green LED is on, red LED is off	Check/correct bus (A and B) wiring connections of module and panel.
System is not responding to wireless sensor signals	<ol style="list-style-type: none"> <li>1. Check that the green LED flickers when a wireless sensor is tripped.</li> <li>2. Check that the transceiver is learned into the panel memory.</li> </ol>

## Specifications

Models	600-1025-01-95R, 600-1025-01-43, and 600-1033-01-8A
Frequency	
600-1025-01-95R	319.5 MHz
600-1025-01-43	433.92 MHz
600-1033-01-8A	868 MHz AM
Panel compatibility	
600-1025-01-95R	UL approved Concord 4, Concord 4 Commercial, and Concord Express V4, model numbers 600-1021-95R, 600-1040, and 600-1022-95R
600-1025-01-43	CE approved European panel models 60-840-43-242/482/MAX and 60-868-43-482/MAX
Sensor compatibility	
600-1025-01-95R	All 319.5 MHz sensors
600-1025-01-43	All 433 MHz sensors
600-1033-01-8A	All 868 MHz AM sensors
Current required (without daughter board)	
Typical	45mA
Maximum	100mA
Voltage	8 to 15 VDC
Wireless range	1,000 feet (305 m)
Operating temperature	32 to 120°F (0 to 49°C)
Storage temperature	-30 to 140°F (-34 to 60°C)

Maximum relative humidity	85% noncondensing
Dimensions	3.2 x 4.6 x 0.6 inches (8.1 x 11.7 x 1.5 cm)
Features	Antenna tamper, jam detect, wall tamper, cover tamper
Enclosure	600-1029

## Regulatory information

Manufacturer	UTC Fire & Security Americas Corporation, Inc. 1275 Red Fox Rd., Arden Hills, MN 55112-6943, USA
Listings	UL (985, 1023, 1610), FCC ID (B4Z-875-TCVR), CUL (C1023-1974, S545-M89), IC: 867-875CVR 600-1025-01-95R
FCC compliance	This device complies with FCC Rules Part 15. Operation is subject to the following two conditions: 1. This device may not cause harmful interference. 2. This device must accept any interference that may be received, including interference that may cause undesired operation. Changes or modifications not expressly approved by UTC Fire & Security can void the user's authority to operate the equipment.
Certification	 600-1025-01-43 600-1033-01-8A

## Contact information

For contact information, see [www.utcfireandsecurity.com](http://www.utcfireandsecurity.com) or [www.interlogix.com](http://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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# Concord Firmware Installation Addendum

## Introduction

This is a Concord Firmware Installation Addendum (20070131-concord-fw-add) for several GE Concord panel documents. This document includes information on this product that did not make it into these manuals. Where information differs between the documents, this document supersedes the manuals.

## Issue

UTC Fire & Security has identified a firmware issue with version 4.01 and 4.02 Concord 4 panels when used with an external receiver or external transceiver. Wireless devices appear to be properly learned into the panel via external receivers or transceivers; however, zones learned into them do not produce alarms at the panel or to the central station.

Do not use the following part numbers with Concord 4 unless you have a panel with software version 4.10 or greater:

- 60-764-01-95R-MAX
- 60-764-01-95R-16Z
- 60-764-01-95R-32Z
- 60-821-95
- 600-1025-01-95R

## Solution

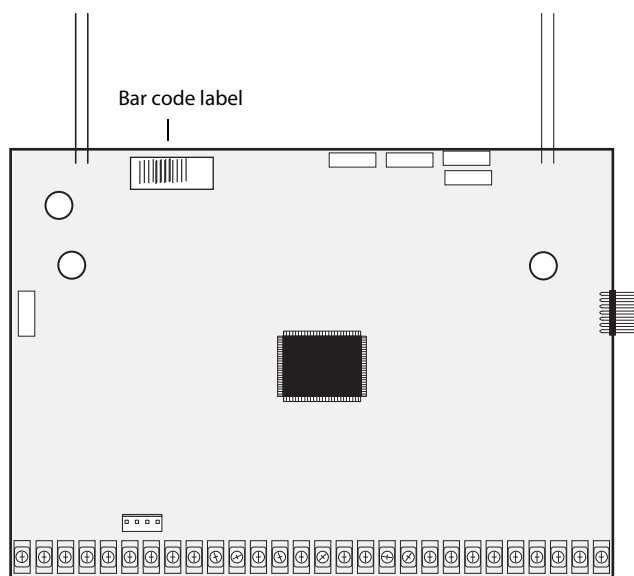
Concord 4 panels with v4.10 and above contain changes, implemented in December 2006, that make the panels compatible with the external receivers and transceivers. Use the bar code label on the Concord 4 circuit board to identify the firmware version. (See "Bar code label" below.)

If you do not need an external wireless receiver or transceiver, the Concord 4 panel, with its onboard wireless receiver, works without issue.

## Bar code label

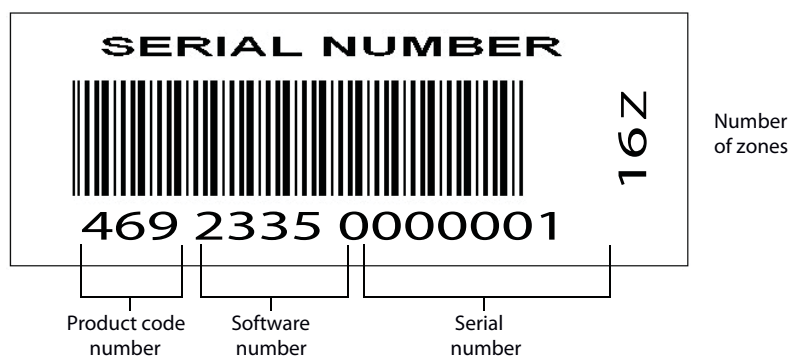
Locate the bar code label on the panel circuit board (Figure 1 on page 2).

Figure 1: Bar code label location



Use the bar code label serial number (Figure 2 below) to identify version 4.10 Concord 4 panels.

Figure 2: Bar code label number



The product code and software numbers for version 4.10 Concord 4 panels will be:

- 469 2335 (Concord 4 Residential)
- 491 2336 (Concord 4 Commercial)
- 504 2337 (Concord 4 Monitronics)

Any other product code and software numbers will indicate versions 4.01 and 4.02 Concord 4 panels.

## Contact information

For contact information, see [www.utcfireandsecurity.com](http://www.utcfireandsecurity.com) or [www.interlogix.com](http://www.interlogix.com).

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