![interlogix logo] **interlogix**
A UTC Fire & Security Company

SuperBus 2000 RS-232 Automation Module Installation Instructions

Product summary

The SuperBus® 2000 RS-232 Automation Module allows you to connect compatible, third-party automation devices to Concord (v2.5-later), Concord 4, Concord Express (v4) and Advent panels.

For added security, you can install a magnet and reed switch (not included) for tamper protection.

The RS-232 automation module includes the following features:

- Automation ports
- Supervised, fire-rated zone inputs
- On-board status indicators
- SuperBus 2000 addressing data bus

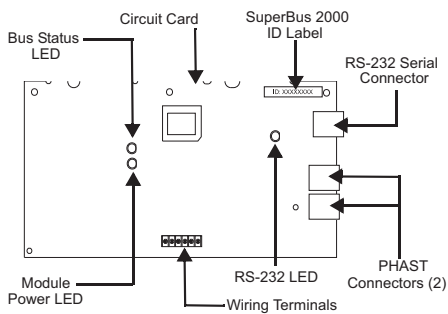**Figure 1. RS-232 Automation Module components**

Table 1. Module component descriptions

Component	Function
Power LED	Indicates module power status.
Bus LED	Indicates panel bus communication.
RS-232 Status LED	Indicates module transmit/receive.
Device ID Number	Identifies device ID numbers.

RS-232 Connector	Connects Panel to automation devices.
PHAST Connectors	N/A
Wiring Terminals	Provides power, bus, and hardware zone inputs.

Installation guidelines

- When powering bus devices and hardwired sensors from the panel, *do not* exceed the panel's total power output. Refer to specific panel *Installation Instructions* for further detail.

- The module's maximum current draw is 35mA.

- Use four-conductor, 22-gauge or larger stranded wire to connect the module to the panel.

- Mount the module within 25 feet of the automation device.

Tools and supplies needed

- Slotted and Phillips screwdrivers
- 3/8"-drive drill and drill bits
- Wire cutter/stripper
- Four-conductor, 22-gauge or larger stranded wire
- Nine-pin RS-232 serial cable
- 1/4" press-fit reed switch and magnet (not included)

Installation

Caution: To prevent damage to the panel or module, remove the panel's AC power transformer and disconnect the backup battery before installation.
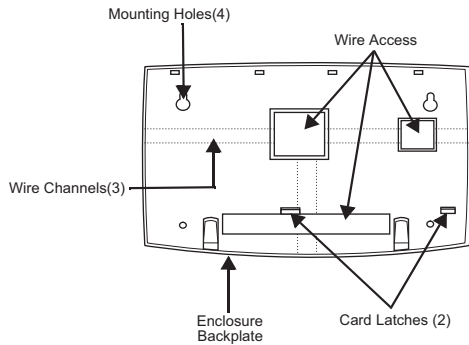
Mounting the Module on a Wall

1. Loosen cover screws and remove module cover and circuit card (see Figure 2).

Figure 2 Removing cover and circuit card

Figure 4. Wiring the RS-232 Module to an Advent panel
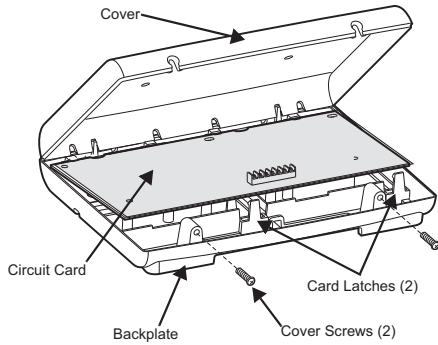
2. Place the backplate on the wall and mark the mounting holes (see Figure 3).

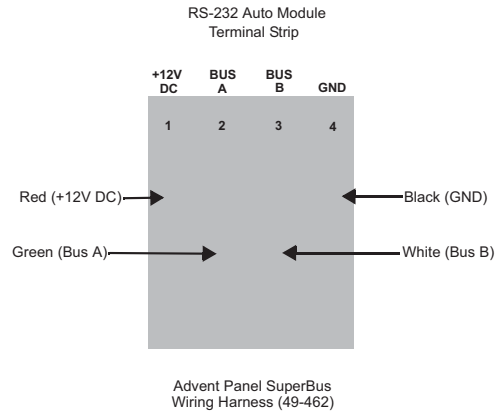**Figure 3. Wall mount hole locations**

3. Drill for the mounting holes and insert wall anchors. Next, secure the backplate to the wall with the included screws.

4. Install the circuit card on the backplate and gently press the bottom of the board until it snaps into place under the card latches (see Figure 2).

Wiring

Wiring the Module to an Advent Panel (v1.6-later)

1. Remove panel AC power and disconnect the backup battery.

2. Wire the RS-232 Automation Module to an Advent panel as illustrated in Figure 4.

3. Plug the wiring harness into the panel's bus connector.

Wiring the Module to a Concord (v2.5-later), Concord 4, or Concord Express (v4) Panel

1. Remove panel AC power and disconnect the backup battery.

2. Wire the RS-232 Automation Module to a Concord, Concord 4, or Concord Express (v4) panel as illustrated in Figure 5.

Figure 5. Wiring the RS-232 Module to a Concord, Concord 4, or a Concord Express (v4) panel
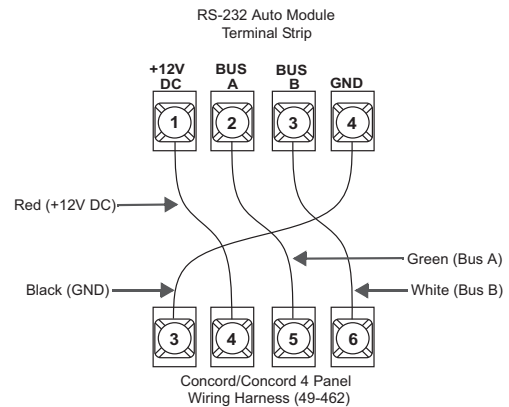
Wiring Devices to a Module

1. Connect a DB-9 serial cable to a module connector (see Figure 5). The serial cable must not exceed 25 feet in length.

    Note: The module's RS-232 port is configured as a DCE device that transmits data on Pin 2 and receives data on Pin 3 (Pin 5 serves as a signal ground). If the module's RS-232 port is configured as a DTE port, you must establish a direct connection through a DB-9 cable. Refer to specific device *Installation Instructions* for further detail.

2. Set the following communication parameters for the device's RS-232 port: 8 data bits; 9600 bps; Odd Parity, 1 stop bit.

3. Connect input devices (if used) to module zone input terminals (see Figure 5)

Installing a Cover Tamper Switch

If you are mounting the module in its own plastic and not inside a cabinet, it is recommended that you add a cover tamper switch.

Once programmed, if someone opens the module cover, the cover tamper switch opens and causes an alarm to sound.

The reed switch holder and magnet clip are located on the bottom of the backplate.

1. On the module's backplate, place the reed switch into the reed switch holder.

2. Insert the magnet into the tabs on the module cover and remove the magnet clip from the module backplate. Next, press the magnet clip over the magnet until the clip locks into place.

3. Connect the normally closed reed switch (in series with a 2k Ohm EOL resistor) to any zone input and zone common terminal. The resistor should be located inside the module cover at the reed switch.

Power Up and Bus Communication

This section describes how to power up the panel and module.

Concord (v2.5-later), Concord 4, and Concord Express (v4) Panels

1. Verify wiring between panel and module is correct.

2. Connect the panel's backup battery and restore panel AC power. Alphanumeric touchpad displays turn on. Both the Bus and Power LEDs turn on for one second. The Power LED remains on; the Bus LED flashes.

   Note: If the Power *or* Bus LEDs do not flash, remove panel AC power, disconnect the backup battery, and refer to Table 3.

Advent Panels

1. Verify wiring between the panel and module is correct.

2. Connect the panel's backup battery and restore panel AC power. Alphanumeric touchpad displays turn on.

3. Press 8 for Systems Menu.

4. Press 0 for Program Menu.

5. Enter your installer code (default setting = 0123).

6. Enter Item Number 48001 to add SuperBus devices. Each installed device is automatically learned into panel memory.

7. Press star (*) twice to return to Main Menu. Both the Bus and Power LEDs turn on for one second. The Power LED remains on; the Bus LED flashes.

   Note: If the Power *or* Bus LEDs do not flash, remove panel AC power, disconnect the backup battery, and refer to Table 3.

## Programming/Operating the Module

Refer to specific panel *Installation Instructions* for module programming and operation.

Module Wiring Terminal Connections

Table 2. RS-232 Module wiring terminal connections

Terminal	Name	Use
1	+12V DC	SuperBus DC power supply input. Maximum draw from panel at 12V DC is 35 mA.
3	Bus A	SuperBus communication connection.
4	Bus B	SuperBus communication connection.
5	GND	SuperBus common ground connection.
6	Zone 1	Zone 1 input connection.
7	ZCom	Zone input common connection.

Figure 6. RS-232 module wiring terminal connections
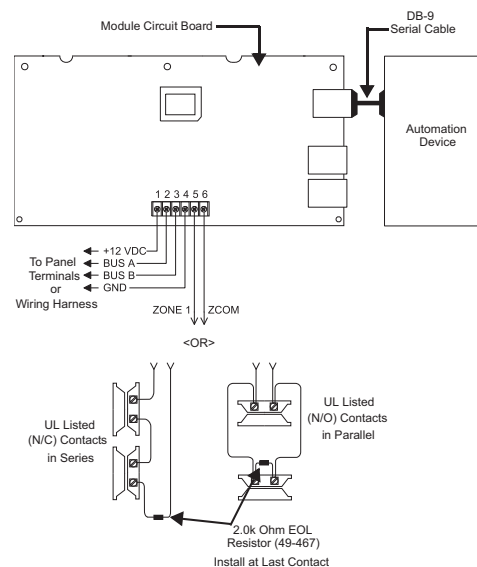
Troubleshooting

Table 3. Troubleshooting

Problem	Solution
Power LED remains off	Check for proper wiring connections.
	Ensure the panel's AC power supply and backup battery are connected.
	If the LED remains off, replace the module
Bus LED remains off	Check for proper wiring connections.
	Check for proper module programming and initialization.
Bus LED remains on	Set panel power from OFF to ON.
Bus LED flashes – devices do not function	Ensure device power is set to ON.
	Check for proper wiring connections.
	Check for proper module programming.

Specifications

Compatibility	Advent, Concord (v2.5-later), Concord 4, and Concord Express (v4) panels
Power requirements	12V DC nominal; 35 mA maximum (from panel or auxiliary power supply)
Automation port	RS-232, DCE
Panel Data Bus	Interlogix/GE auto addressing digital data bus
Dimensions	2.60" x 2.60" x 0.90" (L x W x D)
Zone Input	One supervised, fire-rated zone
Storage temperature	-30° to 140°F (-34° to 60°C)
Operating temperature	32° to 140°F (0° to 60°C)
Maximum humidity	85%, non-condensing
Dimensions	6.0" x 8.5" x 1.5" (L x W x D)
Case material	High-impact, ABS plastic
Case color	Belgian gray
Installation	Wall mount

Regulatory information

Manufacturer	UTC Fire & Security Americas Corporation, Inc. 1275 Red Fox Rd., Arden Hills, MN 55112-6943, USA

FCC compliance:

FCC Part 15 Information to the User

Changes or modifications not expressly approved by Interlogix can void the user's authority to operate the equipment.

FCC Part 15 Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

FCC Part 15 Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does not cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on), the user is encouraged to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the affected equipment and the panel receiver to separate outlets on different branch circuits.

Consult a dealer or experienced radio/TV technician for help

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 tool-free area, contact your dealer.

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