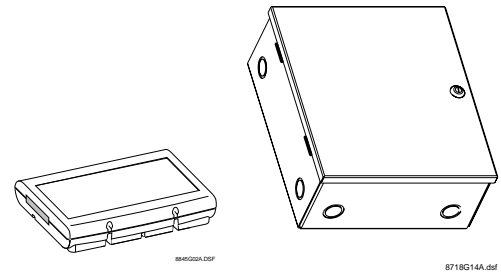


# SuperBus® 2000 Printer Module

Document Number: 466-1364 Rev. B  
February 2001



## Installation Instructions

### Product Summary

The ITI® SuperBus® 2000 Printer Module allows you to connect a parallel printer to any compatible system panel. The module allows you to print (or log) selected system events as they occur.

For additional security, a magnetic switch can be added and connected to the built-in input zone to provide module tamper protection.

Power for the module is provided by the system panel.

### Features

- Centronics™ type parallel printer output.
- Supervised, fire-rated zone input.
- On-board status indication.
- SuperBus 2000 automatic addressing data bus.
- Two case styles, 60-783 - Plastic and 60-854 - Metal

Figure 1 shows the main module components and Table 1 describes them.

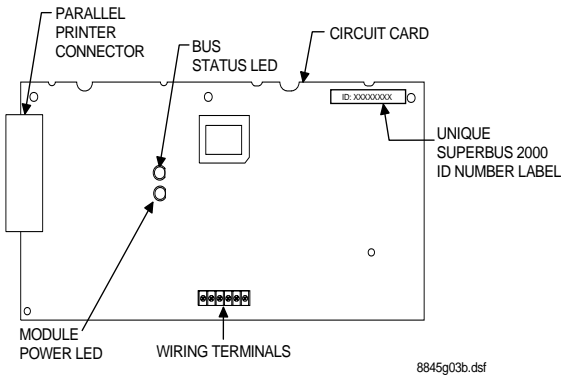


Figure 1. Module Circuit Board Components

Table 1: Module Component Descriptions

Component	Function
Parallel Connector	Provides connection to a parallel printer.
Power LED	Indicates module power status.
Bus Status LED	Flashes to indicate normal communication to the panel bus.
Unique SuperBus 2000 ID Number Label	Indicates module unique identification number.

Table 1: Module Component Descriptions

Component	Function
Wiring Terminals	Used for panel SuperBus and module zone input connections.

### Installation Guidelines

- Do not exceed the panel total auxiliary output power when using panel power for bus devices and hardwired sensors that require panel power (see the specific panel *Installation Instructions*).
- Maximum current draw of the module (from the panel) is 50 mA.
- Use 4-conductor, 18-gauge or larger wire from the module to the panel.
- For wire length limits, refer to the specific panel installation instructions.

### Tools and Supplies Needed

- Small blade and Phillips screwdrivers
- Drill and bits for screws and/or anchors
- Case tamper switch and magnet (optional)
- 25-pin “Centronics” parallel printer cable

#### Plastic case accessory kit includes:

- #6 panhead screws
- 2K Ohm EOL resistor
- Wall anchors

#### Metal case accessory kit includes:

- 1/4-inch plastic circuit board spacers (40-178)
- 6 x 32 x 1/4-inch circuit board mounting screw (40-006)
- 2K Ohm EOL resistor (49-467)
- Door key lock and keys (40-577)

### Installation

The plastic or metal cased module can be mounted on any interior wall (protected from the elements).

## Installing the Plastic Case Module

The plastic case module can be wall or gang-box mounted.



### CAUTION

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

#### To mount the plastic case module on a wall:

1. Turn off panel AC power and disconnect backup battery(s).
2. Remove the module cover and circuit card and set them aside (Figure 2).

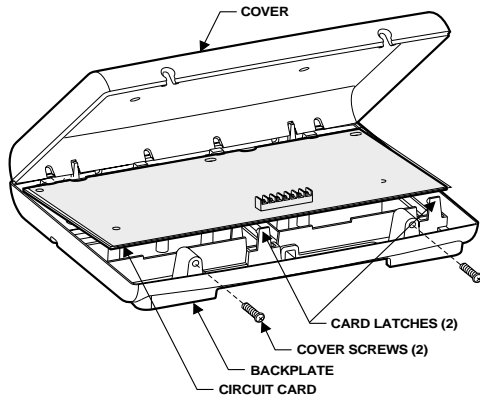


Figure 2. Removing Plastic Case Cover and Circuit Card

3. Place the module on the wall and mark the mounting holes locations (Figure 3).

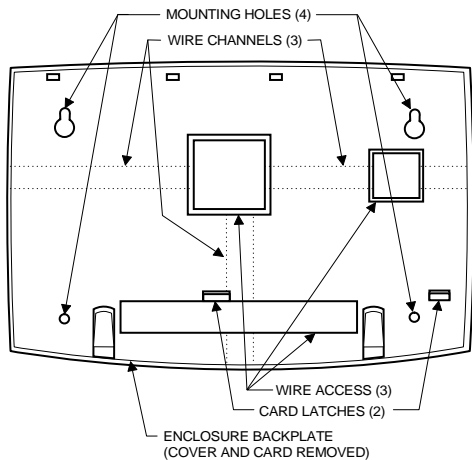


Figure 3. Plastic Case Mounting Holes

4. Drill the holes and insert the appropriate anchors.
5. Secure the back plate to the wall with panhead screws.
6. Snap the circuit card back into the back plate.

## Installing the Metal Case Module

#### To mount the metal case module:



### 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.

1. Remove the metal case cover and module circuit board and set them aside.
2. Hold the case against the mounting surface and mark the four (larger) mounting holes (Figure 5).
3. Drill the mounting holes in the wall and insert the appropriate anchors.
4. Remove case wiring knockouts as necessary.
5. Remove case rectangular connector knockout.
6. Secure the case to the wall with panhead screws.

## Mounting the Module Board into the Metal Case

#### To mount the board into the metal case:

1. Snap the included 1/4 inch plastic spacers into the back of the circuit board as shown in Figure 4.
2. Slide the board into the three board slots in the left side of the enclosure as shown in Figure 5. Make sure the connector fits through the case knockout.
3. Secure the board to the enclosure with the included button head machine screw.

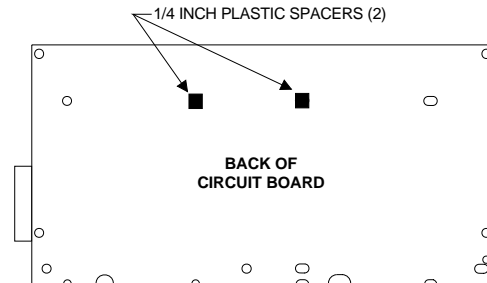
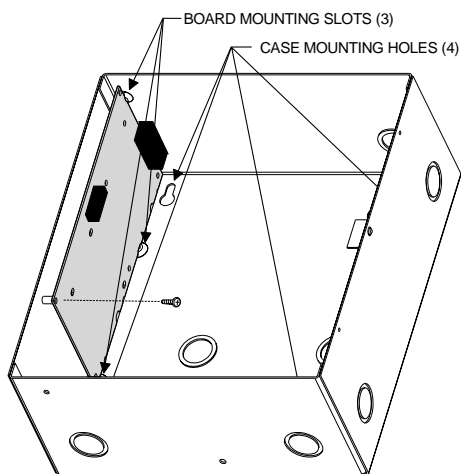


Figure 4. Installing the Board Mounting Spacers



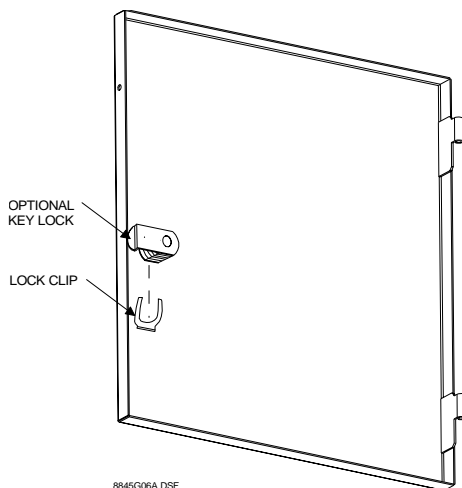
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Figure 5. Mounting the Board into Metal Case

## Mounting the Optional Key Lock

To mount the optional key lock into the metal case:

1. Remove the lock knockout from the panel door.
2. With the key in the lock, insert the lock into the knockout hole as shown in Figure 6.
3. Slide the lock clip onto the lock body as shown.



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Figure 6. Optional Key Lock Mounting

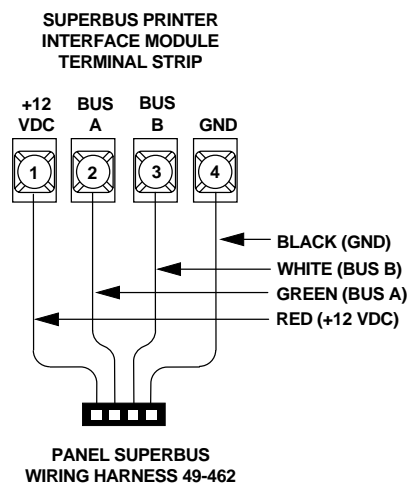
## Advent Panel Wiring

This section describes how to wire the module to the Advent panel and how to connect hardwire sensors to the module. Refer to Figure 8 and Table 2 for wiring examples and connection descriptions.

To wire the module to the panel:

1. Make sure power is turned off to the panel.

2. Make sure the AC power and backup battery(s) are disconnected from the panel.
3. Wire the module to the panel SuperBus wiring harness as shown in Figure 7.
4. Plug the wiring harness into the panel SuperBus connector.



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Figure 7. Advent Panel SuperBus Wiring

To connect a device to the module:

1. Attach the appropriate parallel printer cable to the connector on the module (Figure 8).
2. Connect an input device (if used) to the module zone wiring terminals (Figure 8).

## Installing a Case Tamper Switch

If the module is visible, you may want to add case tamper detection. Then, if someone opens the cover, the switch opens and causes an alarm. To add module case tampering, install a magnet in the cover and a reed switch into the back plate or case. Wire the switch to the module or one of the panel zone inputs. See Figure 8 or panel *Installation Instructions*.

## Power Up and Bus Communication

This section describes how to power up the panel and the module and get them communicating with each other.

To power up the panel and the module:

1. Verify that all wiring at the panel and the module are correct.
2. Reconnect the panel batteries and apply AC power. The module power LED should be on.

On initial power up, the panel automatically adds (learns) the module into panel memory.

After a few seconds, the module bus status LED should flash to indicate successful communication with the panel.

If the module does not communicate with the panel, the module must be manually added (learned) into panel memory. Refer to the panel *Installation Instructions* for adding/deleting SuperBus modules.

## Programming/Operating the Module

Refer to the panel *Installation Instructions* for module input/output programming and operation.

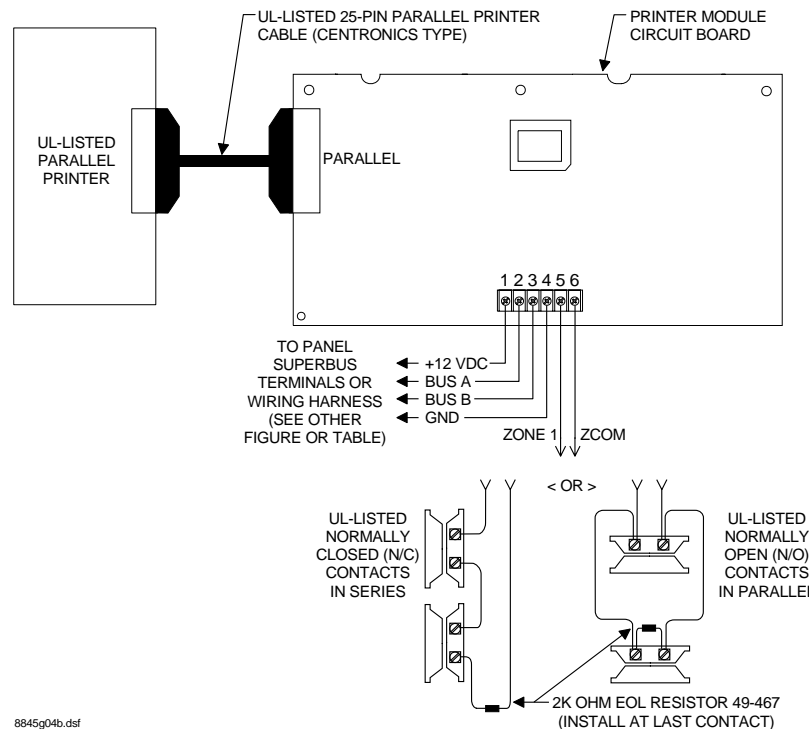


Figure 8. Advent Panel/Module Wiring

## Module Wiring Terminal Connections

Table 2: SuperBus 2000 Printer or Automation Module Terminal Connections

Terminal	Name	Used for
1	+12V DC	SuperBus DC power supply input. 12 VDC @ 50 mA maximum draw from panel.
2	BUS A	SuperBus communication connection
3	BUS B	SuperBus communication connection
4	GND	SuperBus common ground connection.
5	ZONE 1	Zone 1 input connection.
6	ZCOM	Zone input common connection.

## Testing

To test the module:

1. Verify that all wiring at the panel and the module is correct.
2. Connect panel AC power and backup battery(s).
3. Press \* twice to return to the normal mode of operation and test for proper parallel printer operation with the selected system events.

## Troubleshooting

**Module POWER LED stays off.**

1. Check SuperBus wiring and connections.
2. Check module and panel power.

**Module BUS STATUS LED stays off.**

1. Check SuperBus wiring and connections.

2. Check for proper panel/SuperBus module programming and initialization.

#### Module BUS STATUS LED stays on.

1. Reinitialize panel and module by turning panel power off and on.
2. Module circuit failure. Replace the module.

#### Module BUS STATUS LED blinks, but no printer operation.

1. Check that the printer power is on.
2. Check module and device cables and connections.
3. Check panel/module programming.
4. Check that module is learned into panel.

## Specifications

**Compatibility:** ..... Advent panels (60-562-01, 60-562-02, 60-562-03, 60-562-04, 60-562-05, and 60-562-06).

**Power Requirements:** 12 VDC nominal, 50 mA maximum draw from panel.

**Panel Data Bus:** ..... ITI SuperBus auto addressing digital data bus.

**Parallel Printer Port:** Centronics type (DB-25, female connector).

**Zone Input:** ..... One supervised, fire-rated zone.

#### Temperature:

Operating: ..... 32° to 120° F (0° to 49° C). Up to 140° F or 60° C under temporary conditions.

Storage: ..... -30° to 140° F (-34° to 60° C).

**Maximum Humidity:** 90% relative humidity, noncondensing.

#### Dimensions:

60-783 (plastic): ..... 6.0" x 8.5" x 1.5" (L x W x D).

60-854 (metal): ..... 11.25" x 9.75" x 4.63" (L x W x D).

#### Case Material:

60-783 ..... High-Impact, ABS plastic.

60-854 ..... 16 Gauge Steel.

#### Case Color:

60-783 ..... Belgian gray.

60-854 ..... "Fire" red.

**Installation:** ..... Wall mount.

## Approvals/Listings:

UL 365: Police Connected Burglar Alarm Units and Systems

UL 609: Local Burglar Alarm Units and Systems

UL 864: Control Units for Fire-Protective Signaling Systems (60-854 only)

UL 985: Household Fire Warning System Units

UL 1023: Household Burglar Alarm System Units

UL 1610: Central Station Burglar Alarm System Units

UL 1637: Home Health Care Signaling Equipment

ULC Canada Commercial Burglary Warning System (applied for)

CSFM California State Fire Marshall

DOD Sensitive Compartment Information Fac. (applied for)  
FM Factory Mutual (applied for)

MEA New York City Material Equipment Acceptance (applied for)

Complies with NFPA 72 for National Fire Alarm Code

## Notices

#### FCC Part 15 Information to the User

Changes or modifications not expressly approved by Interactive Technologies, Inc. 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.

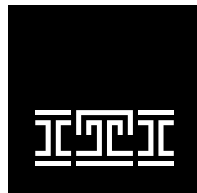
#### FCC Part 15 Class B

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 cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try 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 the dealer or an experienced radio/TV technician for help.



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