Fiber-Optic Card (PN 77788) Installation

The use of Fiber Optics allow for an optically-isolated connection between two devices. It eliminates electrical disturbance from being transferred on the communication line between devices. It also resolves potential differences due to a difference in grounding between the devices. The fiber optic cable can be run up to 500 ft.

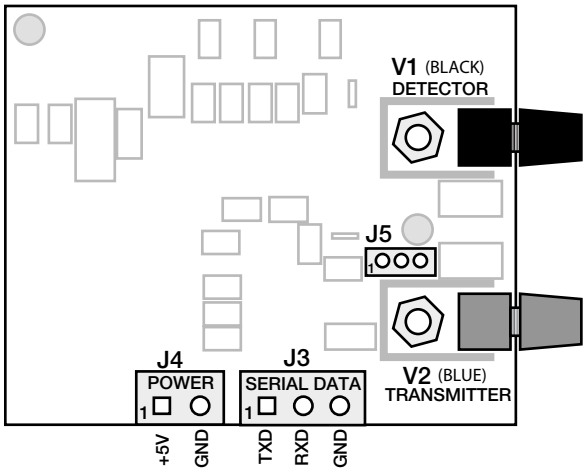

Figure 1. Fiber-Optic Option Card (PN 77788)

Power Modes

Connector J5 provides a high and low power mode for fibers of varying materials and lengths.

Power Mode	Pin	Fiber Material/Length
High	1 and 2	Any length glass fiber; 200-500 ft plastic fiber
Low	2 and 3	1-200 ft plastic fiber

Table 1. J5 Power Modes

Installing Tap and Run Connectors

Power to the fiber optic interface board is provided by tap and run connectors on the +6V and GND wires as illustrated in Figure 2 (920i shown). Attach power supply wires to connector J4 on the fiber optic interface.

The RS-232 to fiber optic interface can be installed in other devices as well. There must be a minimum of 5V of power available. The digital I/O is often used for connection, as it is a convenient place to pull power from.

WARNING: Electric Shock Hazard

Before opening the device, ensure the power cord is disconnected from the power outlet.

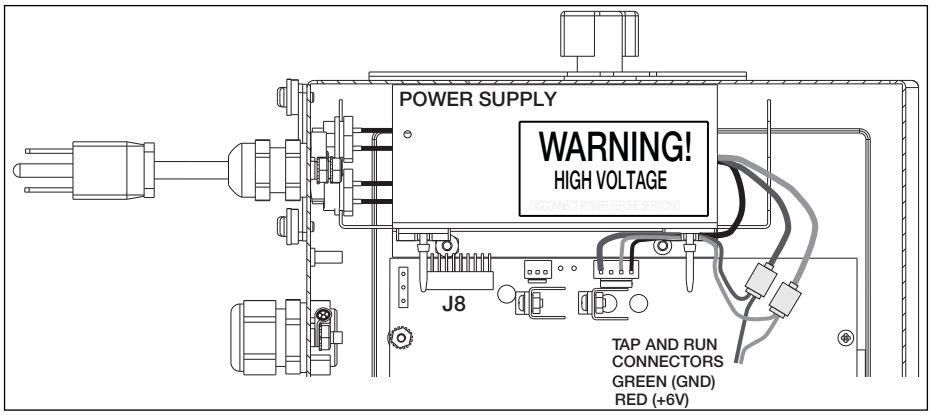

Figure 2. Tap and Run Connector Installation (PN 77788)
920i Installation Shown

To install tap and run connectors:

1. Place red wire from the device's power supply inside the run channel of the tap and run connector. The cable tie used to secure the power supply wires may need to be cut to allow sufficient slack in the wires.
2. Close the side cover of the connector until it is latched.
3. Insert the tap wire into the connector. Use the inspection port to check wire position.
4. Use a crimping tool to drive u-contact down flush with the top of the connector. Close the hinged top cover until it is latched.
5. Repeat the procedure for the green (GND) wire tap and run connector.
6. Use cable ties to secure power supply wires inside the enclosure.

Installing the Fiber-Optic Card

To install the fiber-optic interface in the 920i:

1. Position the adhesive square on the top of the device's power supply shield.
2. Press the fiber-optic interface backplate onto the adhesive square, then install the interface board onto the backplate.

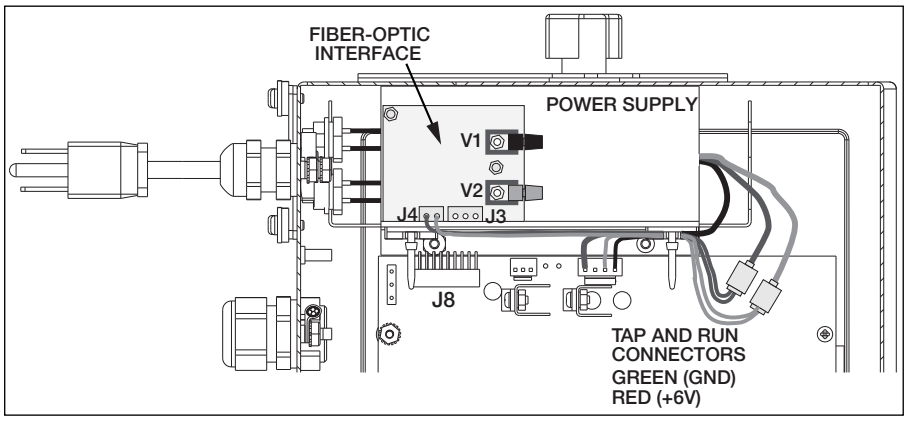

Figure 3. Install Card – 920i Shown

3. Attach power supply wires from the tap and run connectors to connector J4 on the fiber-optic card.
4. Attach fiber-optic cables to connectors V1 (detector/receive) and V2 (transmitter/send).
5. Hold cable and carefully twist connector to tighten.

NOTE: Fiber-optic cable placement is sensitive. Take care not to damage the cable when placing into connectors V1 and V2. The end must be clear for the light to travel through. To obtain a transparent cut, use a hot blade when cutting the plastic fiber cable. After installation, if communication is not functional, the placement may need to be adjusted, to focus the light on the optic receiver.

6. Attach RS-232 communications cables from connector J3 on the fiber-optic interface to any available serial port.
7. Use cable ties to secure communications cables inside the indicator enclosure.
8. Power up the device and configure the serial port for the fiber-optic card.

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