

FX Supervisory Controllers Modem Card Installation Instructions

Application

The modem option card (Figure 1) provides 56 Kbps auto-dial/auto-answer modem communications capability to the FX Supervisory Controllers.

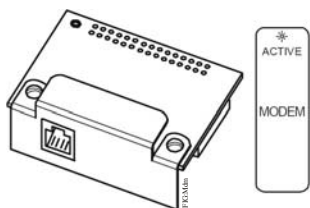


Figure 1: FX Supervisory Controllers Modem Card

For the FX20/FX60 Supervisory Controllers, the modem option card must be installed in Option Slot 1; and when installed, the modem card disables the onboard RS-232 port on FX20/FX60 Supervisory Controllers. For the FX70 Supervisory Controllers, the modem option card must be installed in Option Slot 1 or Option Slot 2; and when installed, it does not disable the onboard RS-232 port. FX22/FX62 Supervisory Controllers only have one option card slot; and when installed, the modem option card disables the onboard RS-232 port. The modem option card is not supported in any FX Supervisory Controller already fitted with a GPRS modem card.

For related information on FX Supervisory Controllers mounting and wiring, refer to the *FX Supervisory Controllers Installation Instructions* (Part No. 24-10174-77).

North American Emissions Compliance

United States

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 this 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 the user will be required to correct the interference at his/her own expense.

Canada

This Class (A) digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe (A) respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Installation

Parts Included

Unpack the modem option card and inspect the contents of the package for damaged or missing components. If damaged, notify the appropriate carrier and return any damaged components for repair or replacement.

Included in this package are the following items:

- one modem option card and connector end plate
- *FX Supervisory Controllers Modem Card Installation Instructions (Part No. 24-10174-26)*

Special Tools Needed

The following tool is required for installation:

- #2 Phillips screwdriver: used to install the modem card

Safety Precautions

The following information relates to the installation and startup of the modem option card.



WARNING: Risk of Electric Shock.

Disconnect power supply before making electrical connections. Contact with components carrying hazardous voltage can cause electric shock and may result in severe personal injury or death.

IMPORTANT: Be careful to plug any option card into its connector properly (pins aligned).

IMPORTANT: Avoid hot plug-in or removal of any option card from the FX Supervisory Controller; that is, do not remove any card with power applied. If the unit switches to battery operation, wait for all Light Emitting Diodes (LEDs) to go out.

Mounting

For the FX20/FX60, the modem option card must be mounted in Option Slot 1. If another option card already exists in Option Slot 1, move it to Option Slot 2. For the FX70, the modem option card may be mounted into either Option Slot 1 or Option Slot 2. Follow these instructions to mount the modem card:

1. Remove power from FX Supervisory Controller.
2. Remove the FX Supervisory Controller cover (FX20/FX60/FX70) or covers (FX22/FX62). For the FX20/FX60/FX70, press in the four tabs on both ends of the cover and lift off. For the FX22/FX62, first remove the right cover, then the left cover, retaining the two screws that secure each cover (Figure 2).

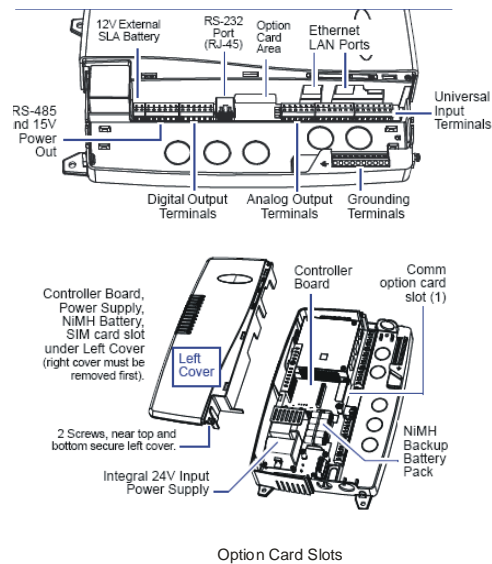


Figure 2: FX22/FX62 Option Card Slot

Note: If accessory modules are plugged into the FX20/FX60/FX70 Supervisory Controller, you may need to slide them away from the unit to access the cover tabs.

3. For the FX20/FX60/FX70, remove the battery and bracket assembly by taking out the four screws holding it in place. Set the screws aside for later.
4. Unplug the battery from the connector on the FX20/FX60/FX70 Supervisory Controller (see Figure 3).

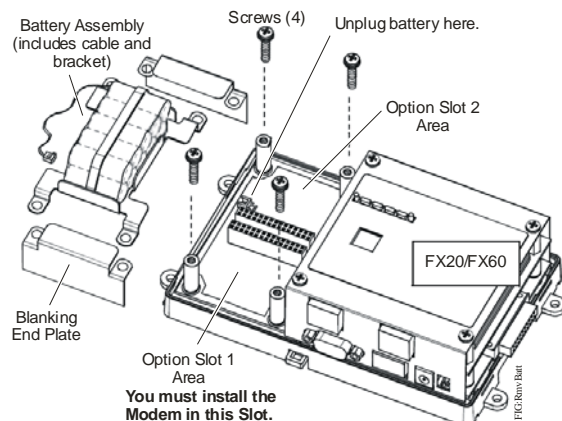


Figure 3: Removing Battery Assembly

5. For the FX20/FX60/FX70 controller, remove the Option Slot blanking end plate. Retain the blanking end plate in case you need to remove the option card at a later date.

6. Carefully insert the pins of the modem card into the Option Slot socket. The mounting holes on the modem card should line up with the standoffs on the FX Supervisory Controller. If they do not, the connector is not properly aligned. Press until the modem card is completely seated.
7. Place the custom end plate that came with the modem card over its connector (see Figure 4).

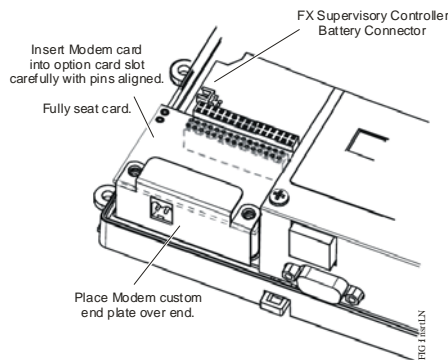


Figure 4: Inserting Modem Card

8. For the FX20/FX60/FX70 controller, plug the battery cable into the battery connector on the FX Supervisory Controller (see Figure 4 for location).
9. For the FX20/FX60/FX70 controller, set the battery and bracket assembly back over the option card slots, with the mounting holes aligned with the standoffs.
10. For the FX20/FX60/FX70 controller, place the four screws through the battery bracket, through the end plates, and into the standoffs on the FX Supervisory Controller (Figure 5). Hand-tighten these screws with a screwdriver.

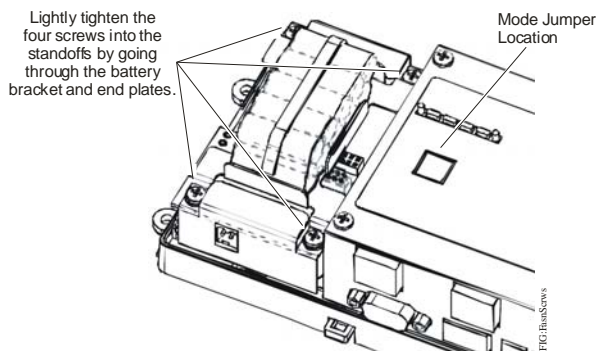


Figure 5: Refastening Screws

11. Replace the FX Supervisory Controller cover or covers. If accessory modules were unplugged, plug them back into the FX Supervisory Controller as before, and secure (**Error! Reference source not found.**).

Wiring

Connect a standard RJ-11 telephone cable to the connector on the modem card, and the other end to a working Public Switched Telephone Network (PSTN) dial-up telephone receptacle.

Operation

LED

A single LED is visible on the top of the modem option card. To see it, remove the cover from the FX Supervisory Controller. The LED operates as follows:

- **ACTIVE (green):** When lit, the modem is connected to another modem (a carrier signal is detected). When ACTIVE is lit, the FX Supervisory Controller serial port LEDs (on the lower base board) indicate transmit and receive activity.

Serial Shell Notes

If a modem option card is installed, and you move the FX Supervisory Controller's mode jumper to the **Serial Shell** position (see Figure 5), the FX Supervisory Controller's onboard RS-232 port becomes active immediately following a reboot. This allows an RS-232 connection to the serial shell for debugging purposes. For the FX20/FX22/FX60/FX62, the modem card is inoperative during this period. The modem card in an FX70 remains operational during this period.

To re-enable the modem, reposition the mode jumper to the **Normal** position, and reboot the FX Supervisory Controller.

COM Port Assignments

The modem card's COM port assignment and location depends on the model of FX Supervisory Controller. Table 1 describes the COM Assignments.

Table 1: COM Assignments for Modem Card

Supervisory Controller	COM Assignment
FX20/FX60 Option Slot 1	COM1 (disables onboard RS-232 port)
FX70 Option Slot 1	COM3
FX70 Option Slot 2	COM4
FX22/FX62	COM1 (disables onboard RS-232 port)

Repair Information

If the modem option card fails to operate within its specifications, replace the unit. For a replacement option card, contact the nearest Johnson Controls® representative.



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