462FM 9600 Baud Modem Card

Description

The 462FM 9600 Baud Modem Card allows you to remotely connect to an XR200 or XR200-485 panel and upload/download panel information at 9600 baud using a standard, Hayes compatible modem. Because the 462FM card can share a phone line with the panel, there is no need for an additional phone line. While providing fast upload and download capabilities, the 462FM card also provides an LX-Bus™ for the addition of 100 protection zones and 100 relay outputs. Transmit and Receive LEDs on the 462FM verify communication.

Note: You **must** have an XR200 version 108 (2/6/01) or XR200-485 version 201 (12/27/00) or higher to use the 462FM.

Compatibility

The 462FM 9600 Baud Modem Card is compatible with the XR200 (version 108 2/6/01) and the XR200-485 (version 201 12/27/00) panels. Because the 462FM is designed to operate on a Digital Dialer system, the 462N Network Interface Card is not compatible with the 462FM card. For the cards to function properly, do not use the two cards on the same panel. Also, the 462FM is not compatible with the SCS-105 Single Line Receiver. Use a standard, Hayes compatible modem in your computer for proper communication.

The 462FM can be used with an 895 Voice Module if you are using an XR200 panel. You must connect the 895 to the panel's phone line and use a separate phone line for the 462FM Card. You cannot share a phone line between the panel and the 462FM card when using an 895. Refer to **Setting the Jumpers** to correctly set the 462FM to use a separate phone line from the panel.

For proper 462FM operation, do not install an Answering Machine Bypass Relay in K2 on the panel. If the relay is already installed, simply remove the relay from K2.

Installing the 462FM

The 462FM card easily installs onto the panel using the J6 connector.

Ground Yourself Before Handling the Panel! Touch any grounded metal, such as the enclosure, before touching the panel to discharge static.

Remove All Power From the Panel! Remove all AC and Battery power from the panel before installing or connecting any modules, cards, or wires to the panel.

Align the 50 pin connector of the 462FM with the J6 connector on the panel. Press the 462FM onto the J6 connector while applying even pressure to both sides.

Note: When using the 462FM card with other interface cards on the 460 Expansion Card, place the 462FM where there is enough room for the two phone cables to fit into the connectors.

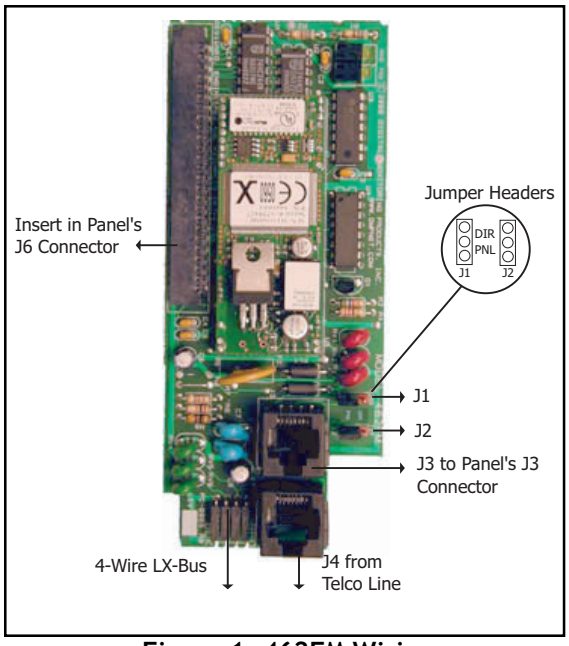


Figure 1: 462FM Wiring

Wiring the 462FM

Connect the incoming telco phone line from the RJ jack to J4 of the 462FM. Connect the included RJ phone cable between the 462FM's J3 connector and the panel's J3 phone line connector. See Figure 1.

Note: The RJ phone cable used between the panel and the 462FM is a straight-thru cable. When you hold the two connectors of one cable side by side the wire colors should be in the same position. For example, the blue wire should be located on the far left position on both ends.

If you are using a separate phone line for the 462FM card, do not connect J3 of the 462FM to the panel. Connect one telco line to the panel's J3 phone line connector and a second line to the 462FM's J3 connector. Set the two jumpers, J1 and J2, according to the instructions below.

Setting the Jumpers

When sharing a phone line with the panel, set both jumpers (J1 and J2) on the lower pins labeled PNL. If you are using a separate phone line for the 462FM, set both jumpers on the higher pins, labeled DIR. Refer to the inset in Figure 1.

Note: Both jumpers must be set identically for the 462FM to function properly.

Programming the Panel

When sharing a phone line with the panel, set **Service Receiver** to **Yes** in **Remote Options** of the panel's programming. Also, set the panel's **Armed Rings** and **Disarmed Rings** to zero (**0**). This allows the 462FM to seize the phone line before the panel. No further programming is necessary.

Ring Count

The 462FM has a default ring count of 1. The ring count can be set in Remote Link version 1.01 (3/9/01) or higher. Refer to the Remote Link User's Guide (LT-0565) or Remote Link's help file for more information.

LX-Bus™ Expansion Capability

The 462FM card also provides a 4-wire LX-Bus™ for the addition of 100 protection zones and 100 relay outputs. You may attach any combination of LX-Bus devices up to the LX-Bus capacity of 100 zones.

462FM Harness connects to **LX-Bus Wiring**	
Red →	Auxiliary power
Yellow →	Yellow
Green →	Green
Black →	Common

Connecting devices to the 462FM

The 462FM card contains a 4-wire LX-Bus harness to which you may connect hardwire LX-Bus devices, such as zone expansion modules, 740 Series keypads, and other LX-Bus devices. The harness plugs into the 4-pin header located on the bottom of the 462FM card.

Note: Do not connect the 4 wires from the 462FM Card to the panel terminals. The 4 wires must be connected to LX-Bus devices.

Connect the 4-wire LX-Bus wiring to the harness using the color guide to the right. All four wires are used. For additional LX-Bus wiring and device connection information, refer to the 710 Bus Splitter/Repeater Module Installation, LT-0310.

Note: Do not use shielded wire for the LX-Bus.

Wiring Specifications

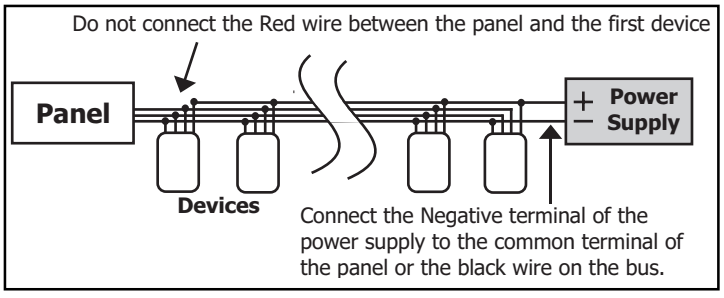
When planning an LX-Bus/keypad bus installation, keep in mind the following four specifications:

1. You can install **individual keypads** on wire runs of up to 500 feet using 22 gauge wire or up to 1,000 feet using 18 gauge wire. To increase the wire length or add additional devices, a power supply is required.
2. **Maximum distance** for any one keypad bus circuit (length of wire) is 2,500 feet regardless of the gauge of wire. This distance can be in the form of one long wire run or multiple branches with all wiring totaling no more than 2,500 feet.
3. **Maximum number of devices** per 2,500 feet circuit is 40. (**Note**: Each panel allows a specific number of supervised keypads. Additional keypads can be added in the unsupervised mode. Refer to the panel's installation guide for the specific number of supervised keypads that are allowed.)
4. **Maximum voltage drop** between the panel (or auxiliary power supply) and any device is 2.0 VDC. If the voltage at any device is less than the required level, an auxiliary power supply should be added at the end of the circuit.

Refer to the 710 Module Installation Sheet (LT-0310) for more information. Also see the Trouble-Free LX-Bus/Keypad Bus Wiring Application Note (LT-2031).

Tips for Using an Optional Power Supply

- Locate the auxiliary power supply at the far end of LX-Bus wire run.
- Connect the negative wire from the power supply to the common wire of the LX-Bus.
- Never use the panel's transformer for the power supply.



Specifications

Operating Current 265mA

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