481 Zone Expansion Interface Card

Description

The 481 Expansion Interface Card allows you to expand the XR500 Series, or XR2500F panel by up to 100 additional hardwire zones. The 481 provides one supervised, power limited 4-wire LX-Bus™ connection that supports combinations of the 711, 714, and 715 Zone Expanders, 716 Output Expanders, and 717 Graphic Annunciator Modules.

You can also connect the single point 5845LX ShatterPro Glassbreak Detector, 6155LX SharpShooter PIR, 521LX/521LXT Smoke Detector, and the 867 Addressable Notification Module to the LX-Bus. The 481 can also be used in conjunction with the 463G, 462N, 462P, and 472 interface cards.

The XR500 Series panel can support up to 500 protection zones on multiple LX-Buses when using the 461 Interface Adaptor Card and two or more 481 Expansion Interface Cards.

Installation Safety

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.

Installing the 481 Card and Connecting Devices

1. Remove AC and battery power from the panel before installing the 481 card.
2. Align the 481 card 50 pin connector with the J6 connector and press the card onto the connector while applying even pressure to both sides of the board.
3. Connect the included 4-wire LX-Bus wiring to the harness as shown in Figure 1. All four wires are used.
4. Insert the harness connector into the 4-pin LX-Bus header on the bottom of the 481 card.
5. Restore power to the panel.

Note: Do not use shielded wire when using the LX-Bus. Do not connect the wires from the 481 Expansion Interface Card to panel terminals.
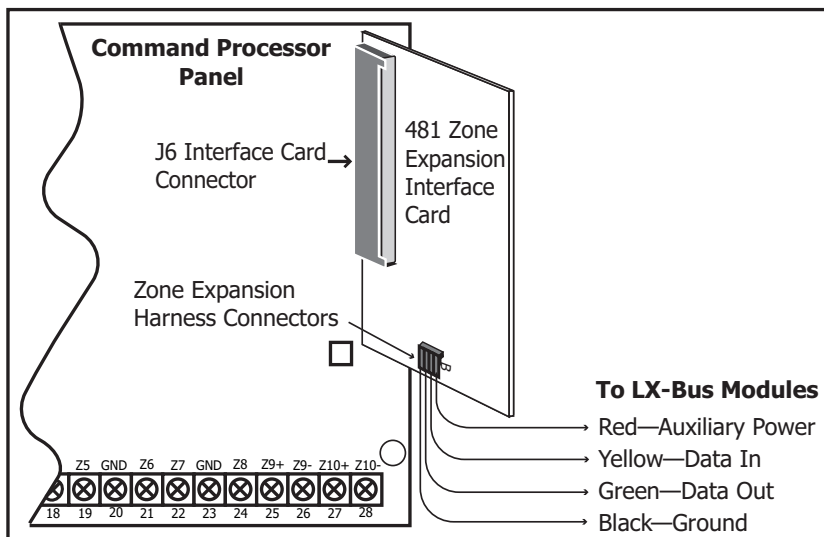

Figure 1: 481 Wiring Diagram

Tips for Using an Optional Power Supply

- Locate a regulated, power limited auxiliary power supply at the LX-Bus wire run far end.
- Connect the negative wire from the power supply to the LX-Bus common (black) wire.
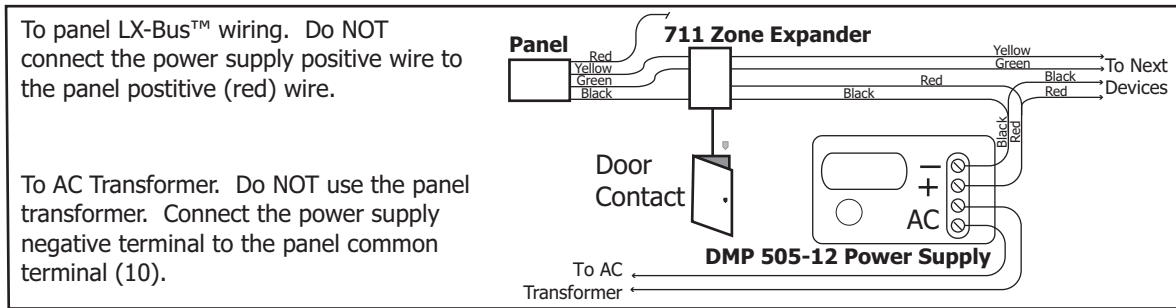- Never use the panel transformer for the power supply.

To panel LX-Bus™ wiring. Do NOT connect the power supply positive wire to the panel postitive (red) wire.

To AC Transformer. Do NOT use the panel transformer. Connect the power supply negative terminal to the panel common terminal (10).

Panel **711 Zone Expander**
Red Yellow Green Black
Yellow Green Black Red To Next Devices
Red Black Black Red

Door Contact

− + AC
DMP 505-12 Power Supply

To AC Transformer

Figure 2: Power Supply located at the End of the LX-Bus

Wiring Specifications for Keypad and LX-Bus

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

1. DMP recommends using 18 or 22-gauge **unshielded** wire for all keypad and LX-Bus circuits. **Do Not** use twisted pair or shielded wire for LX-Bus and keypad bus data circuits. To maintain auxiliary power integrity when using 22-gauge wire do not exceed 500 feet. When using 18-gauge wire do not exceed 1,000 feet. Install an additional power supply to increase the wire length or add devices.

2. Maximum distance for any one circuit (length of wire) is 2,500 feet regardless of the wire gauge. 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. As wire distance from the panel increases, DC voltage on the wire decreases.

3. Maximum number of devices per 2,500 feet circuit is 40.
   Note: Each panel allows a specific number of supervised keypads. Add additional keypads in the unsupervised mode. Refer to the panel installation guide for the specific number of supervised keypads 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, add an auxiliary power supply at the end of the circuit. When voltage is too low, the devices cannot operate properly.

For additional information refer to the panel's Installation Guide, the 710 Installation Sheet (LT-0310), and/or the LX-Bus/Keypad Bus Wiring Application Note (LT-2031).

Compliance Listing Specifications

UL Commercial Fire
Any Auxiliary Power Supplies must be regulated (12 VDC Nominal), power limited and listed for Fire Protective Signaling Service.

The LX-Bus is rated Class B, Style 3.5.

Specifications

Primary Power	12 VDC from panel
Current Draw	15mA
Dimensions	5.25" H X 2.25" W
Panel Compatibility	XR500 Series and XR2500F panels

Accessories
461 Interface Adaptor Card

Certifications

California State Fire Marshall (CSFM)

New York City (FDNY COA #6167)

ANSI/UL 365	Police Connected Burglar
ANSI/UL 609	Local Burglar
ANSI/UL 864	Fire Protective Signaling
ANSI/UL 985	Household Fire Warning
ANSI/UL 1023	Household Burglar
ANSI/UL 1076	Proprietary Burglar
ANSI/UL 1610	Central Station