

725 24 VDC Zone Expansion Module

Description

The 725 24 VDC Zone Expansion Module allows you to increase the number of zones available on DMP panels by providing four 24 VDC Class B Style A powered zones for the connection of 2-wire smoke detectors. Each zone is supervised by a 6.8k Ohm End-of-Line resistor. The 725 interfaces to the panel using the 710F Bus Splitter/Repeater, which allows the connection of a 24 VDC power source to power the smoke detectors and isolates the 24 Volt source from the panel. Refer to the 710/710F Installation (LT-0310).

The 725 Zone Expansion Module can be installed on individual wire runs up to 2,500 feet, regardless of the gauge of wire. Up to twenty-five 725 modules can be installed on the XR100/XR500 Series or XR2500F LX-Bus, and up to eight 725 Zone Expansion Modules can be installed on the Keypad bus. Refer to the panel Installation Guide for additional information on connecting modules to the panel.

Installing the 725

The 725 easily installs into DMP enclosures using the standard 3-hole configuration. Follow the steps below to properly mount the 725 in the enclosure:

1. Mount the three plastic standoffs to the enclosure using the three included Phillips head screws.
2. Insert the screws from the outside of the enclosure through the holes and into the plastic standoff which mounts on the inside of the enclosure and tighten.
3. After securing the standoffs onto the enclosure, snap the 725 onto the standoffs.

If installing on an XR2500F, a 716 Output Expander is needed. If installing on an XR100/XR500 Series, install a Model 305 relay into K6. XR100/XR500 Series panels use a Model 431 6-wire Output Harness on J2. Use Output 1 on the panel for the sensor reset function or use a 716 Output Expander. See **Programming the Panel with a Model 305 Relay Installed**.

Addressing the 725

The 725 Zone Expansion Module has two rotary switches, labeled S1 (ONES) and S2 (TENS), that allow you to set the module address. To set the module address, use a small slotted screwdriver and turn the center arrow on each switch to the number that matches the correct address. See Figure 1.

Keypad Bus Installation

When connecting to the keypad data bus, only the switch labeled S1 (ONES) is used for addressing. S2 (TENS) must be set to 0 (zero). For XR100/XR500 Series and XR2500F panels the S2 (TENS) switch can be set to 0 or 1. S1 (ONES) must be set to a starting address that communicates the four expansion module zone status.

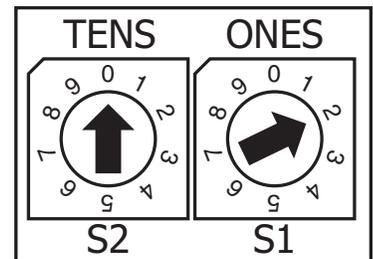


Figure 1: Setting the Address

Because the 725 is a four Zone Expansion Module, addressing the 725 to 02, as shown in Figure 1, would make the zone numbers 21, 22, 23, 24 on any panel. Setting the 725 address to 16 would enable zone numbers 161 to 164 when the 725 is connected to an XR500 Series or XR2500F keypad bus.

LX-Bus Installation

When connecting to an LX-Bus as shown in Figure 2, the two switches are set to match the last two digits of the starting zone number. For example, setting the module to address 502 (TENS = 0, ONES = 2) makes the module zone numbers 502, 503, 504, and 505 on an XR500 Series or XR2500F panel.

When using the 716 Output Expander Module to perform a sensor reset, address the 716 following the guidelines in the 716 Installation Guide (LT-0183).

Zone numbers are determined by the device address. For example, if a 725 on an LX-Bus is addressed to 520, the four zones are always zone numbers 520, 521, 522, and 523.

Wiring the 725

The 725 interfaces to the panel using the 710F Bus Splitter Repeater. The XR2500F also requires the use of a 716 Output Expander Module to perform the sensor reset. Refer to the wiring diagrams on the following pages for illustrations on how to properly wire the 725 Zone Expansion Module.

Note: Use the four included listed 6.8k Ohm EOL resistors when specified.

Programming the XR2500F

After addressing both the 725 Zone Expansion Module and the 716 Output Expander, program the 725 and the 716 in XR2500F programming accordingly. In panel Programming, scroll to **SNRSR RST: 0** in **OUTPUT OPTIONS**. Press any top row Select key to clear **0**. Enter the corresponding 716 output number reset the 725 after a device latches.

If you install the 725 on the keypad bus, scroll to **DEVICE SETUP** and assign the 725 a device number and select **STD**. If you install the 725 on the LX-Bus, no additional programming is necessary. Also program the zones in **ZONE INFORMATION**.

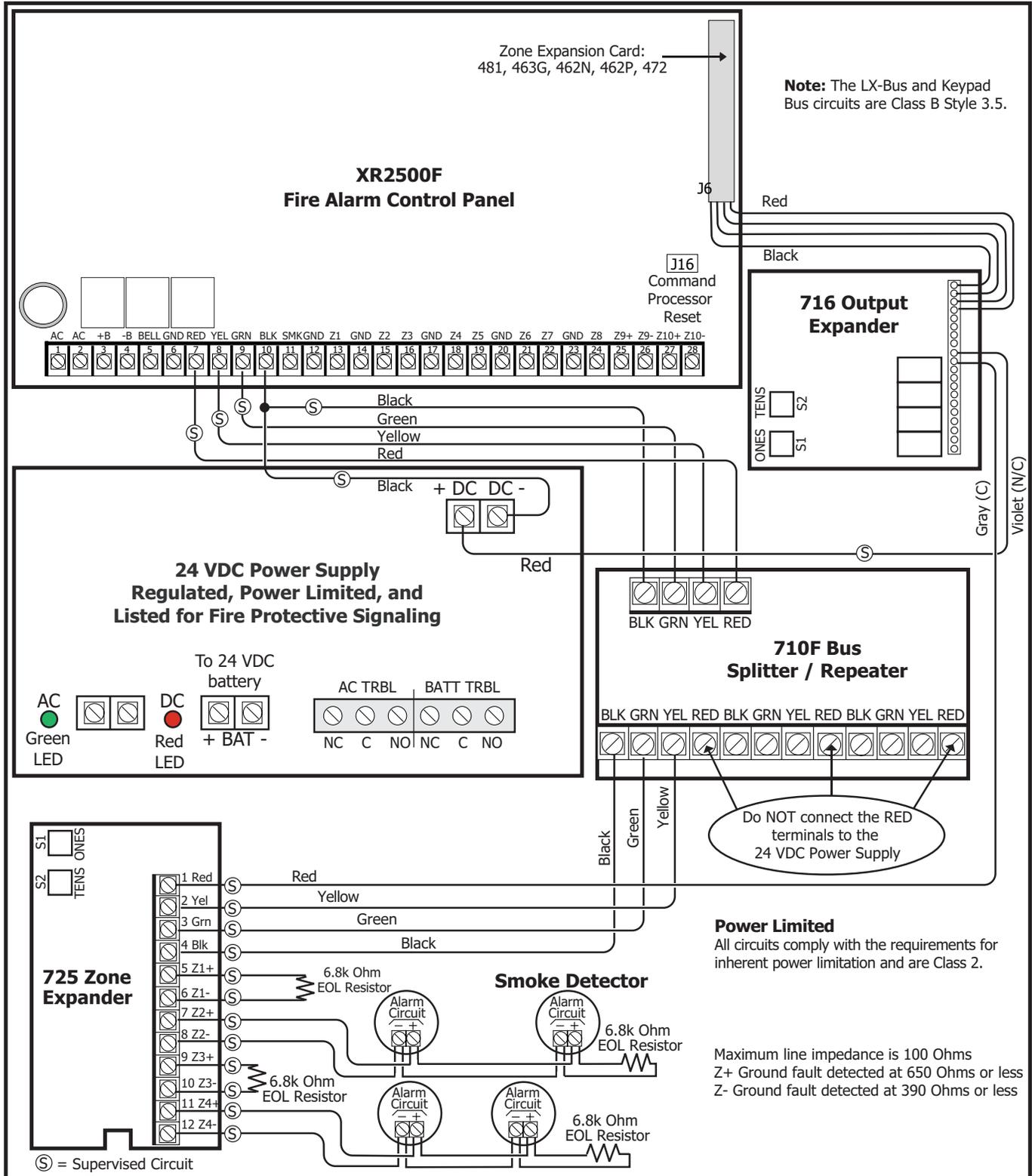


Figure 2: Wiring the 725 Zone Expander to the XR2500F Fire Command Center

Programming the Panel with a Model 305 Relay Installed

If needed, refer to Figure 4 and **Model 305 Relay Installation** on the next page. After addressing the 725 and installing a Model 305 relay into K6 on the panel, program Output 1 for Sensor Reset. In Programming, scroll to **OUTPUT OPTIONS**. Then scroll to **SNSR RST OUT: 0**. Press any top row Select key to clear **0**. Press **1** to program Output 1 to reset the 725 after a device has latched. Program the zones in **ZONE INFORMATION**.

If the 725 is installed on the keypad bus, scroll to **DEVICE SETUP** and assign the 725 a device number and select **STD**. When installing the 725 on the LX-Bus, no additional programming is necessary.

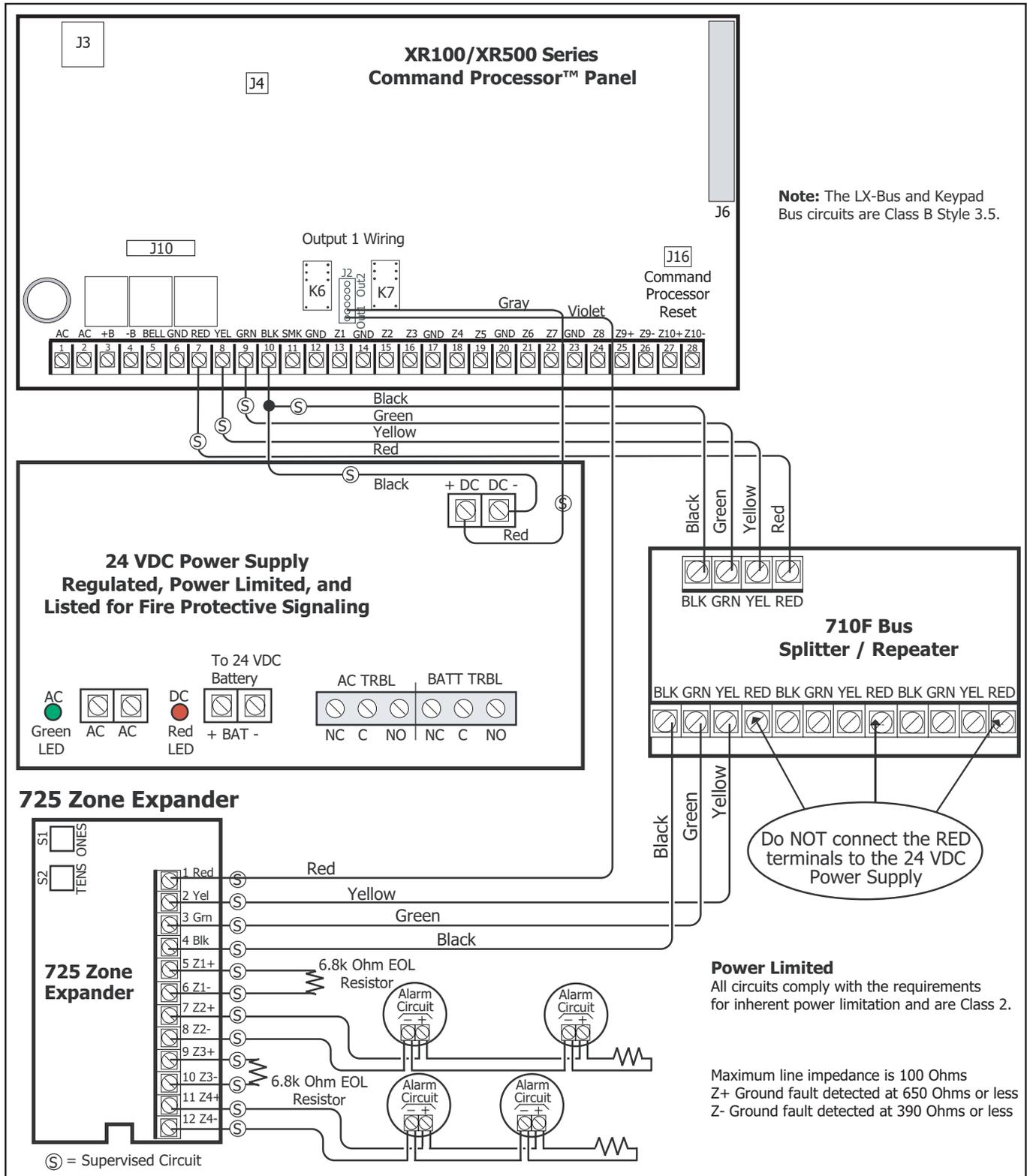


Figure 3: Wiring the 725 Zone Expander to the XR100/XR500 Series Command Processor Panel

Model 305 Relay Installation

Install the enclosed Model 305 Relay into the K6 relay socket of the panel as shown in Figure 4. Use the Model 305 relay when using Output 1 located on Output Header J2.

Be sure that the relay orientation is correct. Notice the small notch at the bottom of the relay socket. The side of the relay with the two pins should be on the same side as the notch.

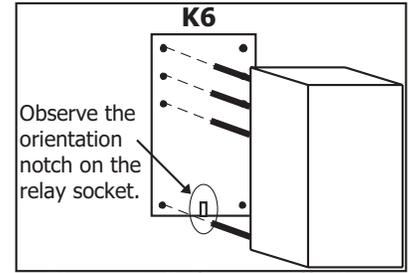


Figure 4: Relay Installation

Wiring Specifications for Keypad or LX-Bus

Refer to the following LX-Bus and Keypad bus wiring 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. All 22-gauge wire must be connected to a power-limited circuit and jacket wrapped.
2. On keypad bus 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. To increase the wire length or to add devices, install an additional power supply that is UL listed for Fire Protective Signaling, power limited, and regulated (12 VDC nominal) with battery backup.
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.
3. Maximum distance for any one bus 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. Maximum number of LX-Bus devices per 2,500 feet circuit is 40.
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 LX-Bus/Keypad Bus Wiring Application Note (LT-2031), and/or the 710/710F Installation Sheet (LT-0310).

Compliance Listing Specifications

UL Commercial Fire

The 725 Zone Expansion Module operates on 24 VDC power supplied by a 24 VDC Power Supply listed for Fire Protective Signaling.

Heat detectors, 4-wire smoke detectors, manual pull stations and other fire initiating devices that do not require compatibility listing by UL can be connected to the 725 Zone Expansion Module in most applications.

All fire device installations must be in accordance with the manufacturer's instructions, NFPA standards, and the requirements of the Authority Having Jurisdiction (AHJ).

See the panel installation guide for details for selecting compatible 2-wire smoke detectors.

The smoke detector compatibility identifier is B.

Specifications Current Draw Operating 8mA + 4mA per active zone Maximum 8mA + 4mA per active zone + 30mA per smoke in alarm + 48mA per shorted device Operating Voltage 24 VDC EOL Resistor 6.8k Ohm EOL resistor	Panel Compatibility XR100/XR500 Series and XR2500F Command Processor™ Panels
	Accessories 710F Fire Bus Splitter/Repeater Module 2-wire smoke detectors (24 VDC)
Listings and Approvals California State Fire Marshal (CSFM) New York City (FDNY COA #6055) Underwriters Laboratories (UL) Listed ANSI/UL 864 Fire Protective Signaling	INTRUSION • FIRE • ACCESS • NETWORKS 2500 North Partnership Boulevard Springfield, Missouri 65803-8877
 800-641-4282 www.dmp.com Made in the USA	LT-0266 1.01 © 2008 Digital Monitoring Products, Inc.  8441 