The Model 712-8 Zone Expansion Module allows you to increase the number of protection zones available on a DMP panel. The 712-8 provides a total of eight grounded zones.

The zone expansion module provides a terminal strip for zone inputs, two 4-pin headers for Keypad Bus or LX-Bus connections, a jumper for LX-Bus or Keypad Bus operation, and a transmit data LED to indicate panel communication.

Note: The 712-8 is listed for use in burglary applications only: No fire circuits shall be used on this device.

Compatibility

- XT30/XT50 Series panels
- XR150/XR550 Series panels

What is Included?

- One 712-8 Zone Expansion Module
- Eight 1K Ohm EOL resistors

1 MOUNT THE MODULE

The module can be mounted in a DMP enclosure using the standard 3-hole mounting pattern. Refer to Figure 2 as needed during installation.

1. Hold the plastic standoffs against the inside of the enclosure side wall.
2. Insert the included Phillips head screws from the outside of the enclosure into the standoffs. Tighten the screws.
3. Carefully snap the module onto the standoffs.

2 WIRE THE MODULE

Use 18 to 22 gauge wire to connect the 712-8 directly to the Keypad Bus or use a dual-ended 4-wire harness to connect directly to the LX-Bus. This connection allows the module to communicate with the panel and receive 12 VDC power. For more information about wiring, refer to Wiring Specifications. Refer to Figure 3 when wiring the module.

Connect to the LX-Bus

1. Place a jumper across the top two KEYPAD/LX-BUS pins.
2. Connect one end of a 4-wire harness to the top header on the module.
3. At the panel, connect the other end of the 4-wire harness to the LX-Bus.

Connect to the Keypad Bus

1. Place a jumper across the bottom two KEYPAD/LX-BUS pins.
2. Connect a 4-wire harness to the top header on the module.
3. At the panel, connect the wires to the corresponding Keypad Bus terminals.
ADDRESS THE MODULE

To communicate the status of the eight zones, the module responds to two addresses on the Keypad Bus and eight addresses on the LX-Bus. You can set the module starting address to any bus address from 0 to 15. The module automatically responds to this address, the next address on the Keypad Bus, and the next seven addresses on the LX-Bus.

To change the current address, move the slide switches to the appropriate address positions according to Figure 4.

**Keypad Bus Addressing**

The module can be set to the following keypad addresses according to panel model: 1 through 8 for XT30/XT50 and XR150 Series panels, or 1 through 15 for XR550 Series panels. Additionally, the eight zones on the module occupy two keypad addresses.

For example, if the module is set to address 2, the first four expansion zones occupy address 2 and respond as zones 21-24. The last four expansion zones occupy address 3 and respond to the panel as zones 31-34. For more information about Keypad Bus addressing, refer to Table 1.

**Note:** Because the 712-8 is supervised, both addresses must be selected in Device Setup of the XR150/XR550 Series programming when used on the Keypad Bus.

**LX-Bus Addressing**

When connecting to the LX-Bus, the module must be addressed to match the last two digits of the first zone being used. The next seven zone addresses are automatically used to communicate expander zones 2 through 8 status.

For example, on an XR150 panel using LX-Bus 1 if you set the module address to 8, the eight zones on the expander respond as zones 508 to 515. When connected to an XR550 panel using LX-Bus 2, the zones respond as 608 to 615. For more information about LX-Bus addressing, refer to Table 2.

**Note:** Only two 712-8 Modules can be connected to each LX-Bus.
**ADDITIONAL INFORMATION**

**Wiring Specifications**

DMP recommends using 18 or 22 AWG for all LX-Bus and Keypad Bus connections. The maximum wire distance between any module and the DMP Keypad Bus or LX-Bus circuit is 1,000 feet. To increase the wiring distance, install an auxiliary power supply, such as a DMP Model 505-12. Maximum voltage drop between a 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.

To maintain auxiliary power integrity when using 22-gauge wire on Keypad Bus circuits, do not exceed 500 feet. When using 18-gauge wire, do not exceed 1,000 feet. Maximum distance for any bus circuit is 2,500 feet regardless of wire gauge. Each 2,500 foot bus circuit supports a maximum of 40 LX-Bus devices.

For additional information refer to the LX-Bus/Keypad Bus Wiring Application Note (LT-2031) and the 710 Bus Splitter/Repeater Module Installation Guide (LT-0310).

**Connecting to Other Modules**

Using a 4-wire connector as an extension of the Keypad Bus or LX-Bus, you can easily connect the 712-8 to multiple modules on the same bus. Observe wire colors when making connections. For more information about wiring connections, refer to Figure 3.

**Data LED**

The LED on the 712-8 flashes each time the module responds to a poll from the panel. If there is a problem with the panel, system programming, or the connection between the panel and module, the LED stops flashing and a system trouble message displays on the keypad.

**Compliance Listing Specifications**

**UL Commercial Burglary**

The 712-8 Zone Expansion Module must be mounted inside the control unit enclosure or other Listed enclosure.

**ULC Commercial Burglary (XR150/XR550 Series Panels)**

If the 712-8 is installed in another enclosure, a DMP Model 307 Clip-on Tamper Switch programmed as a 24-Hour zone is required.

The 712-8 zones can only be used in Low Risk applications. Medium or High Risk applications must use panel zone inputs.
**FCC INFORMATION**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.874 in.) from all persons. It must not be located or operated in conjunction with any other antenna or transmitter.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

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### 712-8 ZONE EXPANSION MODULE

**Specifications**

- **Operating Voltage**: 8.0 to 14.5 VDC
- **Current Draw**
  - **Normal**: 17 mA + 1.6 mA per active zone
  - **Alarm**: 17 mA + 2.0 mA per active zone
- **Dimensions**: 4.50” W x 2.50” H
  - 11.43 cm W x 5.08 cm H
- **Weight**: 8.0 oz (23.0 kg)

**Compatibility**

- XT30/XT50 Series Panels
- XR150/XR550 Series Panels

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**Certifications**

- **FCC Part 15**
  - Underwriters Laboratory (UL) Listed
  - ANSI/UL 365: Police Station Connected Burglar
  - ANSI/UL 609: Local Burglar Alarm Units and Systems
  - ANSI/UL 1023: Household Burglar Alarm System Units
  - ANSI/UL 1076: Proprietary Burglar Alarm Units
  - ANSI/UL 1610: Central Station Burglar Alarm Units
  - ANSI/UL 1635: Digital Burglary
  - ULC Subject-C1023: Household Burglar
  - ULC/ORD-C1076: Proprietary Burglar
  - ULC S304: Central Station Burglar