

714-8INT/714-16INT ZONE EXPANDERS

Installation Guide

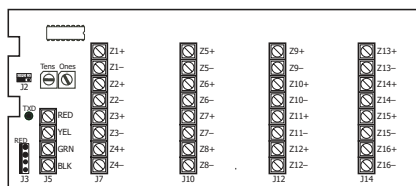


Figure 1: 714-8INT/714-16INT Zone Expander

DESCRIPTION

The 714-8INT and 714-16INT provide an additional eight or sixteen supervised zones for connecting burglary and nonpowered fire alarm initiating devices to the panel.

The zone expanders provide terminal strips, a jumper for LX-Bus or Keypad Bus designation, a transmit data LED to indicate panel communication.

Compatibility

- XT30INT Panels
- XR150INT/XR550INT Series Panels

What is Included?

- One 714-8INT or 714-16INT Zone Expander
- Sixteen or thirty-two 1K Ohm Resistors
- One Model 340 Enclosure with Lock and Key



1 PROGRAM THE PANEL

Refer to the panel programming guide as needed.

1. Reset the panel. If you are using an XT panel, enter **665** (PRO) at a keypad; if you are using an XR panel, enter **6653** (PROG) at a keypad. Press **CMD**.
2. In **ZONE INFORMATION**, program the expansion zones as any of the panel's burglary or fire zone types. You can also program zones as an Arming (**AR**) zone type when they are being used with key switches.
3. Press **CMD** until **STOP** displays. Press a top row select key or area to save programming.

2 MOUNT THE ENCLOSURE

Mount the enclosure in a secure, dry place. It is not necessary to remove the zone expander circuit board when installing the enclosure.

The enclosure can be surface or flush mounted using the holes provided. Each of the four sides have dual 1/2 in. and 3/4 in. conduit knockouts for running wires out of the enclosure.

3 WIRE THE ZONE EXPANDER

The zone expanders provide a 3-pin header with jumper used to determine the connection type.

To connect the expander to the Keypad Bus, place the jumper across the two leftmost pins.

To connect the expander to the LX-Bus, place the jumper across the two rightmost pins. For more information, refer to Figure 2.

Connect to the LX-Bus

To wire the expander, join the red, yellow, green, and black wires to a 4-wire harness and connect it to the LX-Bus.

Connect to the Keypad Bus

1. Connect the red, yellow, green, and black wires to panel Terminals 7, 8, 9, and 10 respectively.
2. Observe polarity and wire the zones.



Note: You may use the header instead of the terminal to connect the expander to the panel.

Model 340INT Enclosure

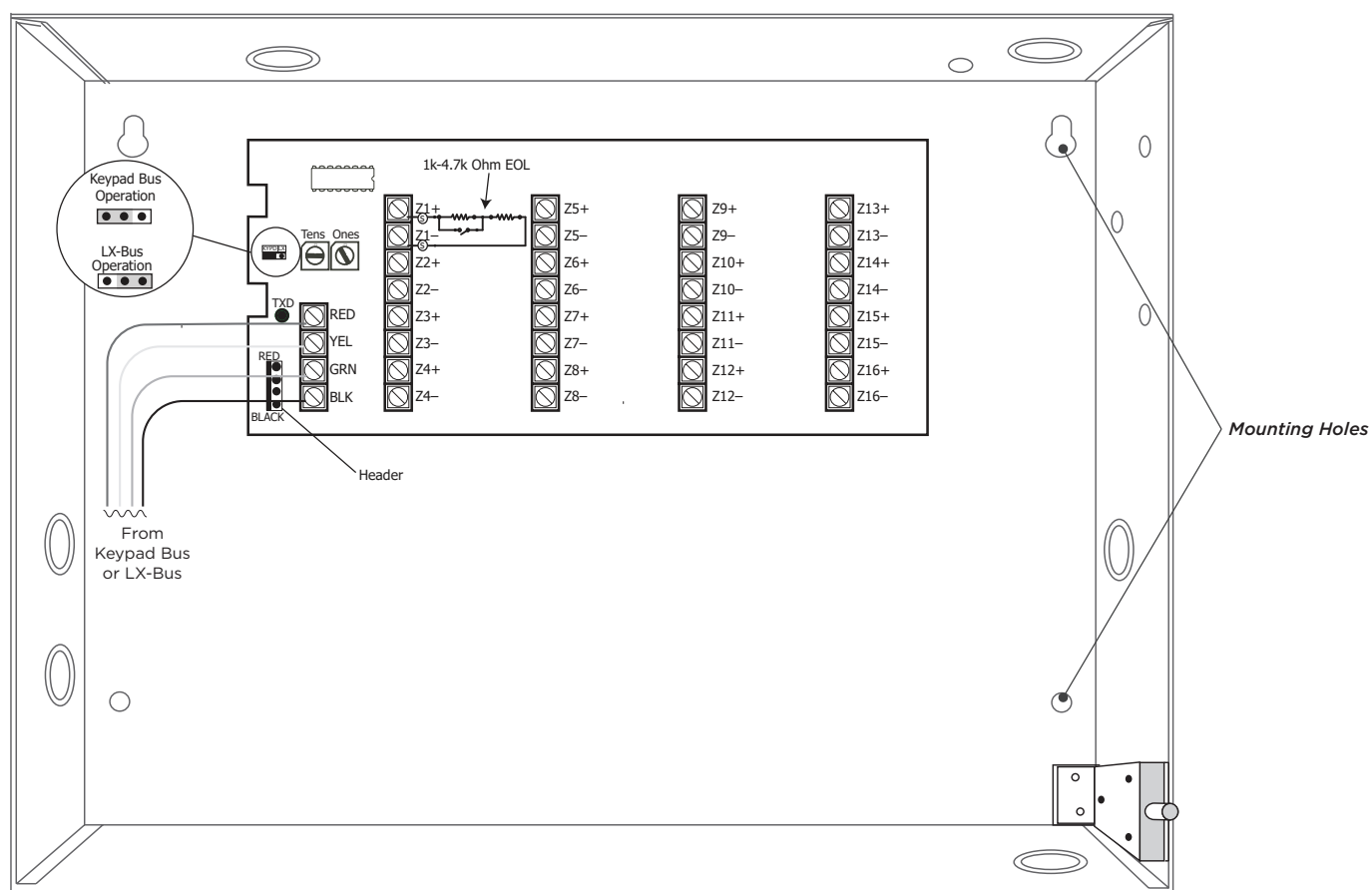


Figure 2: Zone Expander Wiring



Note: The zone expander can use single, dual, or triple end-of-line resistors. Refer to the panel programming guide for information about setting the resistance value.

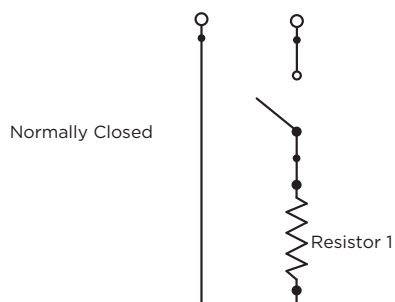


Figure 3: Single EOL Resistor

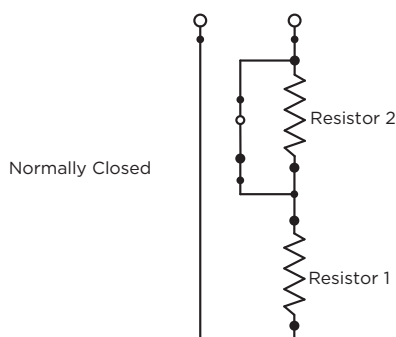


Figure 4: Dual EOL Resistors

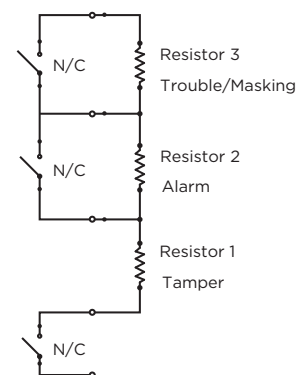


Figure 5: Triple EOL Resistors

1K OHM EOL ZONE RESISTOR		3.3K OHM EOL ZONE RESISTOR		4.7K OHM EOL ZONE RESISTOR	
ZONE STATE	ZONES	ZONE STATE	ZONES	ZONE STATE	ZONES
Normal	1k Ohms	Normal	3.3k Ohms	Normal	4.7k Ohms
Open	2k Ohms	Open	6.6k Ohms	Open	9.4k Ohms
Tamper	>2k Ohms	Tamper	>6.6k Ohms	Tamper	>9.4k Ohms

Table 1: Zone State Specifications

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SET THE ZONE EXPANDER ADDRESS

714-8INT/714-16INT Point Zone Expanders use two rotary switches (TENS and ONES) to set the address.

For keypad bus addresses, the ONES switch must be set to a starting address that communicates the status of the first four zones (Z1 through Z4) on the expansion module. The next consecutive keypad address is automatically used to communicate theV status of the next four zones (Z5 through Z8), etc. For example, when you set the TENS switch to 0 and the ONES switch to 2, the first four expander zones respond as zones 21 through 24. Expander zones 5 through 8 respond as panel zones 31 through 34, zones 9 through 12 respond as panel zones 41 through 44, and zones 13 through 16 respond as panel zones 51 through 54. Refer to Table 2.

For LX-Bus addresses, set the switches to match the second two digits of the first panel zone being used. The next 15 zone addresses communicate the status of the expander zones 2 through 16. For example, if you set the TENS switch to 3 and the ONES switch to 2, the sixteen zones on the expander respond as panel zones 532 to 547 when connected to LX500. When connected to LX600, the zones respond as 632 to 647. Refer to Table 3.

KEYPAD BUS ADDRESS	SWITCHES		ZONE NUMBERS	
	TENS	ONES	XT30INT AND XR150INT SERIES	XR550INT SERIES
1	0	1	11 to 14	11 to 14
2	0	2	21 to 24	21 to 24
3	0	3	31 to 34	31 to 34
4	0	4	41 to 44	41 to 44
5	0	5	51 to 54	51 to 54
6	0	6	61 to 64	61 to 64
7	0	7	71 to 74	71 to 74
8	0	8	81 to 84	81 to 84
9	0	9	N/A	91 to 94
10	1	0	N/A	101 to 104
11	1	1	N/A	111 to 114
12	1	2	N/A	121 to 124
13	1	3	N/A	131 to 134
14	1	4	N/A	141 to 144
15	1	5	N/A	151 to 154
16	1	6	N/A	161 to 164

Table 2: Keypad Bus Addresses and Corresponding Zone Numbers

SWITCH		XR150INT/XR550INT SERIES		XR550INT SERIES							
TENS	ONES	LX500	ZONES	LX600	ZONES	LX700	ZONES	LX800	ZONES	LX900	ZONES
0	0	500	500 - 515	600	600 - 615	700	700 - 715	800	800 - 815	900	900 - 915
0	1	501	501 - 516	601	601 - 616	701	701 - 716	801	801 - 816	901	901 - 916
0	2	502	502 - 517	602	602 - 617	702	702 - 717	802	802 - 817	902	902 - 917
0	3	503	503 - 518	603	603 - 618	703	703 - 718	803	803 - 818	903	903 - 918
0	4	504	504 - 519	604	604 - 619	704	704 - 719	804	804 - 819	904	904 - 919
...
8	0	580	580 - 595	680	680 - 695	780	780 - 795	880	880 - 895	980	980 - 995
8	1	581	581 - 596	681	681 - 696	781	781 - 796	881	881 - 896	981	981 - 996
8	2	582	582 - 597	682	682 - 697	782	782 - 797	882	882 - 897	982	982 - 997
8	3	583	583 - 598	683	683 - 698	783	783 - 798	883	883 - 898	983	983 - 998
8	4	584	584 - 599	684	684 - 699	784	784 - 799	884	884 - 899	984	984 - 999

Table 3: LX-Bus and Corresponding Zone Numbers

ADDITIONAL INFORMATION

Wiring Specifications

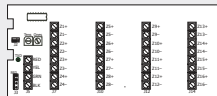
DMP recommends using 18 or 22 AWG for all LX-Bus and Keypad Bus connections. The maximum wire distance between any module and the DMP Keypad Bus or LX-Bus circuit is 304.8 meters. To increase the wiring distance, install an auxiliary power supply, such as a DMP Model 503INT. Maximum voltage drop between 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 152.4 meters. When using 18-gauge wire, do not exceed 304.8 meters. Maximum distance for any bus circuit is 762 meters regardless of wire gauge. Each 762 meters 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 \(LT-0310\)](#).

LED Operation

The LED on the zone expanders flashes each time the zone expander responds to a poll from the panel. If there is a problem with the hardware, panel programming, or the green data wire between the panel and the zone expander, the LED stops flashing and System Trouble appears in the keypad display.

714-8INT/714-16INT ZONE EXPANDERS



Specifications

Operating Voltage	8.8 to 15.0 VDC
Operating Current	
Average	20 mA + 1.6 mA per zone
Alarm	20 mA + 2 mA per zone
Dimensions	
340 Enclosure	31.75 cm W x 24.13 cm H x 7.24 cm D

Ordering Information

714-8INT	714-8INT in gray Model 340 Enclosure
714-8PCB-INT	714-8INT PCB Only
714-16INT	714-16INT in gray Model 340 Enclosure
714-16PCB-INT	714-16INT PCB Only

Accessories

340-G	Panel Enclosure, gray
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Compatibility

XT30INT Series Panels
XR150INT/XR550INT Series Panels

Certifications

Security Grade: 3

Environmental Class: II

Intertek (ETL) Listed

EN 50130-4:2011+A1:2014	Alarm systems. Electromagnetic compatibility. Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems.
EN 50130-5:2011	Alarm systems. Environmental test methods.
EN 50131-1:2006+A1:2009	Alarm systems. Intrusion and hold-up systems. System requirements.
EN 50131-3:2009	Alarm systems. Intrusion and hold-up systems. Control and indicating equipment.
EN 61000-3-2:2006+A1+A2	Electromagnetic compatibility (EMC)—Part 3-2: Limits—Limits for harmonic current emissions.
EN 61000-3-3:2013	Electromagnetic compatibility (EMC)—Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection.
EN 61000-6-4:2007	Emission standard for industrial environments.



Designed, engineered, and
manufactured in Springfield, MO
using U.S. and global components.

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