714N-POE Network Zone Expander Module

INSTALLATION AND PROGRAMMING GUIDE
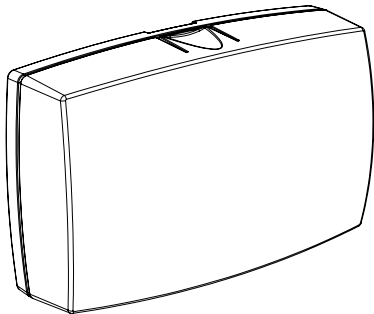

DMP

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ABOUT THE 714N-POE

The 714N-POE Network Zone Expander Module allow you to add 4 zones to XR150/XR550 Series panels using IP network capability. The 714N-POE is compatible with 1k to 10k resistors, giving a wide variety of options for takeovers.

Power Supply

714N-POE module operates at 12 VDC from a power supply. The 714N-POE can also be powered from POE.

Zone Terminals

Four input zones are provided to allow connection of nearby burglary devices.

Programming Connection

The module also provides a keypad programming connection for use with a standard DMP LCD keypad for initial setup. Programming can be completed using a keypad connected to the module or from XR150/XR550 panels.

PCB FEATURES
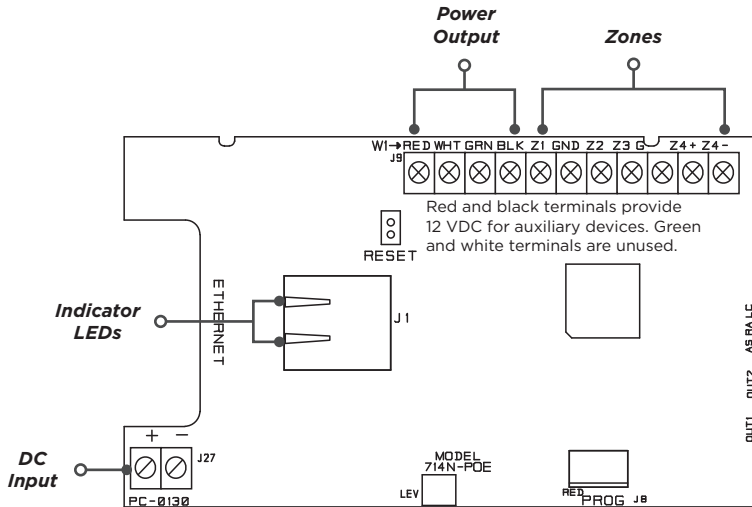
Figure 1: PCB Features

INSTALL THE 714N-POE

1 *Mount the Module*

The module comes in a high-impact plastic housing that you can mount directly to a wall, backboard, or other flat surface.

For easy installation, the back and ends of the 734 housing have wire entrances. The back also contains multiple mounting holes that allow you to mount the module on a single-gang switch box. DMP recommends mounting the 734 near the protected door. Refer to Figure 2 for mounting hole locations on the housing base.

1. Remove the PCB from the plastic housing by loosening the clips on one side and gently lifting it out of the housing base.

2. Insert the included screws in the desired mounting hole locations and tighten them to secure the housing to the surface.

3. Reinstall the PCB in the housing base.
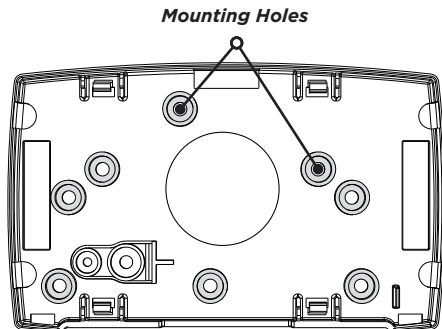
Mounting Holes

Figure 2: Mounting Hole Locations

2 *Wire the Zone Terminals*

Terminals 5-9 connect grounded zones 1 through 3. Zone 4 terminals provide a non-powered Class B, Style A zone. The valid range of EOL resistors is 1k to 10k, allowing for a wider range of takeovers. Refer to the panel programming guide for programming instructions. See Figure 3 for more information on wiring the zone terminals.
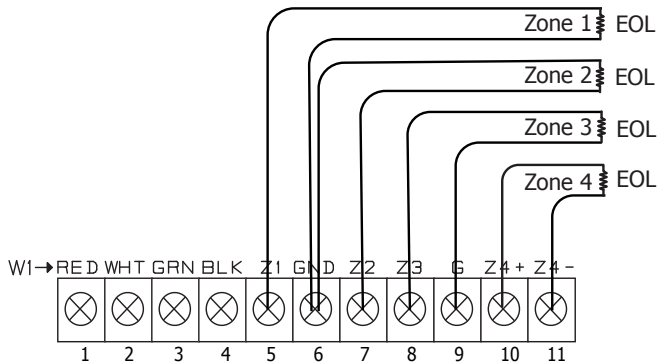
Figure 3: Zone Terminal Wiring

3 *Network Connection*

Connect an IP network cable from the LAN/WAN connection to the 714N-POE Network connector. The 714N-POE module communicates AES encrypted TCP with panels that have network installed.

Two LEDs are located on the Ethernet jack.

The green LED indicates data sent to the panel.

The yellow LED indicates the speed of the transmission. A solid yellow LED indicates the network is connected at 100 Base-T. A flashing yellow LED indicates the network is connected at 10 Base-T.

4 *Set the Module Address*

📝 **Note:** For XR Series Version 192 firmware and lower, the 714N-POE must be programmed as a network door. In Version 193 firmware and higher, the 714N-POE should be programmed as a network expander. Refer to the XR Series panel programming guide (LT-1232) as needed.

Keypad Bus Addresses

DMP XR150 panels use keypad bus addresses 2-8, while DMP XR550 panels use keypad bus addresses 2-16. Each keypad bus address can accommodate one 714N-POE. A module with an address of 2 on the keypad bus would represent Door 2 and zones 21-24. A module with a keypad address of 14 would represent Door 14 and zones 141-144.

AX-Bus Addresses (XR550 only)

DMP XR550 panels are capable of access control expansion using any of the five AX/LX-Bus headers (AX/LX500, 600, 700, 800, and 900). The 714N-POE takes up an AX-Bus address that can no longer be used for a door. The 714N-POE module shares AX-bus addresses with the 734N, which limits the number of devices to 16. A module with an address of 501 on AX500 would represent zones 501-504. A module with an address of 505 on AX500 would represent zones 505-508. A module with an address of 701 on AX700 would represent zones 701-704.

Setting the 714N-POE Addresses

Only valid zone numbers can be assigned 714N-POE in device setup. For complete keypad and AX-Bus address mapping, see the chart below.

KEYPAD BUS		AX-BUS									
DEVICE/DOOR	ZONES	DEVICE/DOOR	ZONES	DEVICE/DOOR	ZONES	DEVICE/DOOR	ZONES	DEVICE/DOOR	ZONES	DEVICE/DOOR	ZONES
N/A	N/A	501	501-504	601	601-604	701	701-704	801	801-804	901	901-904
2	21-24	505	505-508	605	605-608	705	705-708	805	805-808	905	905-908
3	31-34	509	509-512	609	609-612	709	709-712	809	809-812	909	909-912
4	41-44	513	513-516	613	613-616	713	713-716	813	813-816	913	913-916
5	51-54	517	517-520	617	617-620	717	717-720	817	817-820	917	917-920
6	61-64	521	521-524	621	621-624	721	721-724	821	821-824	921	921-924
7	71-74	525	525-528	625	625-628	725	725-728	825	825-828	925	925-928
8	81-84	529	529-532	629	629-632	729	729-732	829	829-832	929	929-932
9	91-94	533	533-536	633	633-636	733	733-736	833	833-836	933	933-936
10	101-104	537	537-540	637	637-640	737	737-740	837	837-840	937	937-940
11	111-114	541	541-544	641	641-644	741	741-744	841	841-844	941	941-944
12	121-124	545	545-548	645	645-648	745	745-748	845	845-848	945	945-948
13	131-134	549	549-552	649	649-652	749	749-752	849	849-852	949	949-952
14	141-144	553	553-556	653	653-656	753	753-756	853	853-856	953	953-956
15	151-154	557	557-560	657	657-660	757	757-760	857	857-860	957	957-960
16	161-164	561	561-564	661	661-664	761	761-764	861	861-864	961	961-964

Table 1: Device Addresses and Zone Numbers

PROGRAM THE PANEL

To access the Programmer menu, reset the panel, enter **6653** (PROG), then press **CMD**.

After completing each of the following steps, press **CMD** to advance to the next option. Refer to the panel programming guide as needed.

DEVICE SETUP

Device Setup
Advance to **DEVICE SETUP**, then press any select area or top row key to enter the setup menu.

DEVICE SETUP
DEVICE NO: -

Device Number
Set the module address. For information about valid addresses, refer to Table 1.

DEVICE SETUP
UNUSED

Device Name
Press any select area or top row key, then enter a name for the module.

DEVICE SETUP
TYPE: **EXP**

Device Type
Press any select area or top row key, then select **EXP** as the device type.

Note: Panels with firmware lower than Version 193 (12/19/19) requires Device Type to be **DOOR** and COMM Type to be **NET**.

PROGRAM THE MODULE

When you program the 714N-POE module, you must use a keypad connected to the programming header and set to address 1.

You can also program the module from an XR150/XR550 Series panel. Initial programming of device and communication must be performed with a keypad. Afterwards, device programming and 714N-POE options may be programmed from the panel's programming interface. The panel's programming overrides any programming performed from a keypad connected to the module.

Reset Header

To reset the module when first installing the system, short the two pins on the reset header before applying power to the module.

To reset the module while the system is operational, short the two pins on the reset header for one or two seconds without powering down the system.

714N PROGRAMMING
VER VVV MM/DD/YY

Program Start Display
When you connect the keypad to the module, the version number and release date display. Press **6653** (PROG) then **CMD** to enter the Programming Menu.

INITIALIZE ALL?
NO YES

Initialization Option
These options can set the 714N-POE module programming memory back to factory defaults. Press any select key or area to enter the initialization menu.

```
ARE YOU SURE?
            YES   NO
```

Initialize Confirm Option
The module displays **SURE? YES NO** for confirmation to clear the memory. This is a safeguard against accidentally erasing the programming. No memory is cleared from the programming until you answer **YES** to the **SURE?** option. Selecting **NO** leaves communication options unchanged.

```
      714N
   COMMUNICATION
```

Communication Menu
Press any select key or area to enter the Communication menu. Select NET as the communication type.

```
714N
DHCP?       NO   YES
```

714N DHCP
Select **YES** to use dynamic IP address information for the module's IP Address, Subnet Mask, and Gateway Address. Select **NO** to enter static IP information.

```
714N IP ADDRESS
192.168.0.201
```

714N IP Address
Enter the static IP address of the module if the DHCP is set to **NO**. Default is **192.168.0.201.**

```
SUBNET MASK
255.255.255.0
```

Subnet Mask
Enter the local subnet mask assigned to the module. Default is **255.255.255.0**.

```
GATEWAY ADDRESS
192.168.0.1
```

Gateway Address
Enter the local gateway address of the module. Default is **192.168.0.1**.

```
PANEL IP ADDR
192.168.0.1
```

Panel IP Address

Enter the IP address of the panel. Default is **192.168.0.1**.

Note: This IP address must match the address programmed in the panel at the Local IP Address option in Network Options. The DHCP programming in the panel must be set to **NO**.

```
PANEL IP PORT
2002
```

Panel IP Port

Enter the port number that the module uses to send communication to the panel. This must be the same port that is programmed in the 714N-POE Listen Port in Network Options programming of the panel. The panel IP port cannot be the same as the panel network programming port. Default is **2002**.

```
734N
PASSPHRASE
```

714N-POE Passphrase

You must enter an 8-16 character alphanumeric passphrase to encrypt communication with the panel. The passphrase for the 714N-POE must match the 734N passphrase entered in Network Options programming of the panel. If no 734N has been installed, a passphrase is still required for the 714N-POE to communicate with the panel. The passphrase is blank by default.

TEST THE 714N-POE SERIES MODULE

714N-POE
VER VVV MM/DD/YY

714N-POE MENU
When you connect the keypad to the module, the version number and release date display. Press **CMD** to enter the Diagnostic Menu.

Diagnostics Menu

MENU?   NO YES

Select **YES** to display Panel Communication Connect Status. Select **NO** to return to "714N-POE Menu".

CONNECT STATUS

Connect Status
To display the status of connection with the panel, press any top row key or select area.

NOT CONNECTED

Not Connected: The 714N-POE cannot establish a connection to the panel over the network.

BAD PASSPHRASE

Bad Passphrase: The passphrase programmed into the 714N-POE does not match the passphrase programmed into the panel.

DEVICE NOT PROG

Device Not Programmed: The device number is not programmed into the panel.

DUPLICATE DEVICE

Duplicate Device: There is another device on the network with the same device number.

```
XMIT TIME XXX MS
```

Transmit Time: The speed of the last transmission and acknowledgment in milliseconds.

Zone Status Display

```
734N
ZONE: 1   -OKAY
```

Enter a zone number then press **CMD** to display its status. To display another zone, enter the zone number and press **CMD**. If the zone number entered isn't programmed, the keypad displays **INVALID ZONE NO**.

```
734N
ZONE: 2   -OPEN
```

```
734N
ZONE: 3   -SHORT
```

714N-POE NETWORK SPECIFICATIONS

The 714N-POE was designed to have minimum impact on network performance.

If required, all of the traffic between the module panel can be completely isolated from the rest of the existing network by connecting all of the 714N-POE modules and the panel to the same switch, then connecting the switch to the remainder of the network. As a result, all traffic between the modules and the panel is confined to the switch they are connected to, while still allowing the panel to communicate with the central station through the normal network.

The 714N-POE is a single. purpose network device. The module establishes outbound panel communication using the TCP/IP protocol that remains open indefinitely. No inbound communication is allowed. This prevents attackers from making any type of connection with the modules through the network.

All communication between the 714N-POE and the control panel is encrypted using 128-bit AES encryption. This is the same encryption standard approved and used by the U.S. government, including the National Security Agency for encrypting secret information.

The socket can be closed by the 714N-POE or panel after a time-out. The connection is re-established by the 714N-POE after the time-out.

A pair of supervision packets are sent every 5 seconds:

- The payload for each packet is 18 bytes and the total traffic, including overhead, is approximately 2 kB per minute for each 714N-POE.
- Non-Supervision messages have a payload range of 18-50 bytes.

714N-POE encryption has not been evaluated by UL.

COMPLIANCE LISTING SPECIFICATIONS

Commercial Burglary (XR550 Series Panels)

When using the zones of the 714N-POE in a listed application, place the module in a listed enclosure and connect a DMP Model 307 Clip-on Tamper Switch to the enclosure programmed as a 24-Hour zone. The 714N-POE zones can be used in a Low Risk application.

COMPATIBILITY

XR150/XR550 Series Panels

PRODUCT SPECIFICATIONS

Primary Power	8.5 VDC to 28.5 VDC if 12 VDC
Current Draw	
Standby/Alarm	75 mA at 12 VDC
When powered from POE	
Standby/Alarm	25 mA
Output Voltage (POE)	12 VDC
Maximum Power Draw (POE)	12.95 W
Available Output Current	750 mA
Zones	5 VDC, 2 mA max
Dimensions	4.5 W x 2.75 H x 1.75 D in
	11.43 W x 7 H x 4.45 D cm
Weight	8 oz (0.23 kg)

CERTIFICATIONS

FCC Part 15

Underwriters Laboratory (UL Listed)

ANSI/UL 294 Access Control System Units
ANSI/UL 609 Local Burglar Alarm Units And Systems
ANSI/UL 1076 Proprietary Burglar Alarm Units And Systems
ANSI/UL 1610 Central Station Burglar-Alarm Units

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.

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:

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

Information furnished is believed to be accurate and reliable.
This information is subject to change without notice.