734N Series Wiegand Interface Modules

INSTALLATION AND PROGRAMMING GUIDE
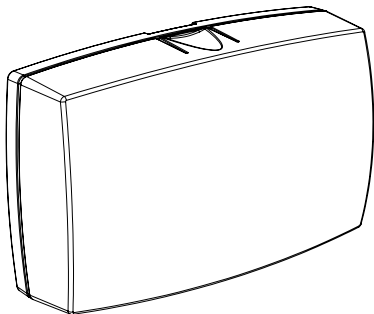
DMP

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ABOUT THE 734N SERIES

The 734N, 734N-POE, and 734N-INT Wiegand Interface Modules allow you to add IP network access control capability to XR150/XR550 Series panels (734N and 734N-POE) and XR150INT/XR550INT Series panels (734N-INT) using proximity credential or mag-stripe card readers. The modules also allow you to use the powerful built-in access control capability of DMP Panels.

POWER SUPPLY

734N Series modules operate at 12/24 VDC from the power supply supporting a door's magnetic lock or door-strike. The 734N-POE can also be powered from POE. The modules provide a 10 Amp Form C relay contact for lock control.

ZONE TERMINALS

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

ANNUNCIATORS

An on-board programmable piezo provides local annunciation at the module. You can also connect a variety of switched ground annunciators to the module for remote annunciation.

INDICATOR LEDS

734N Series modules provide three indicator LEDs. The red LED turns on for the same duration as the door strike relay. The yellow LED turns on for one second to indicate receipt of a valid Wiegand input. The green LED indicates that data is being sent to the panel.

FORM C RELAY

The Form C relay draws up to 35 mA of current. See NC/C/NO (Dry Contact Relay) and Isolation Relay for more information.

PROGRAMMING CONNECTION

The modules also provide 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 and XR150INT/XR550INT panels (734N-INT only).

PCB FEATURES
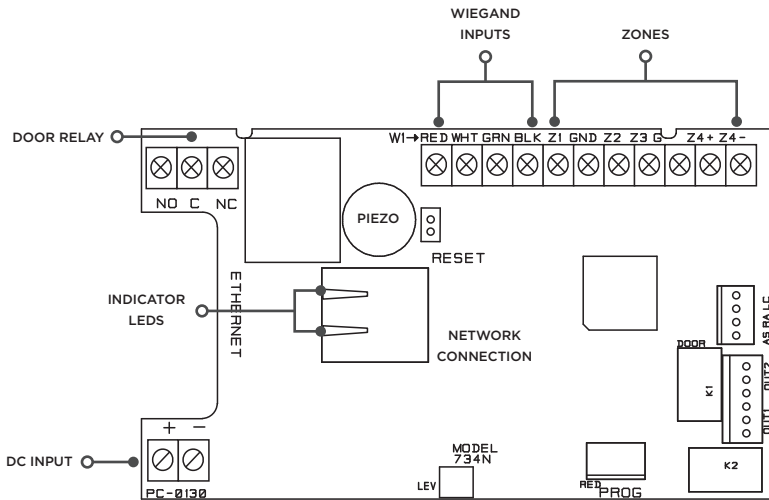
Figure 1: PCB Features

INSTALL THE 734N SERIES MODULE

1 MOUNT THE DEVICE

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

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

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

2. Use the included screws in the desired mounting hole locations to attach the remote module to the surface. See the shaded mounting hole locations in Figure 2.

3. Reinstall the circuit board in the housing base.
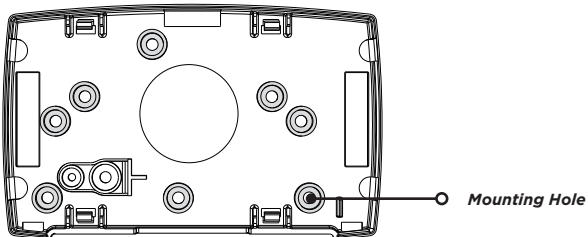
Mounting Hole

Figure 2: Mounting Hole Locations

2 WIRE THE ELECTRONIC LOCK

The module provides a Form C (SPDT) relay for controlling locks and other electronically-controlled barriers. The three relay terminals marked **NO C NC** allow you to connect the device wiring to the relay for module control.

When the 734N Series module is powered with a 12/24 V power supply, the device can power an electric strike, up to 750 mA. See Figures 3 and 4 for typical magnetic lock and door strike wiring. The 734N-POE can also be powered with POE. See Figure 5 for POE door strike wiring.

The Form C relay draws up to 35 mA of current and contacts are rated for 10 Amps (resistive) at 12/24 VDC. When connecting multiple locks to the Form C relay, the total current for all locks cannot exceed 10 Amps. If the total current for all locks exceeds 10 Amps, problems may arise and an isolation relay may be needed. See Isolation Relay for more information.

NETWORK CONNECTION

Connect an IP network cable from the LAN/WAN connection to the 734N Network connector. The 734N Series module communicates AES encrypted TCP with panels that have network installed.

Two LED's 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.
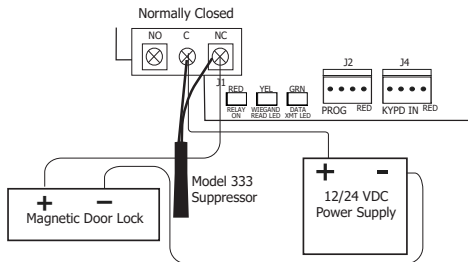
**Figure 3: Typical
Magnetic Lock Wiring**
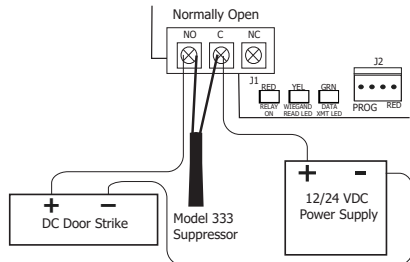
**Figure 4: Typical Door Strike
Wiring with Power Supply**
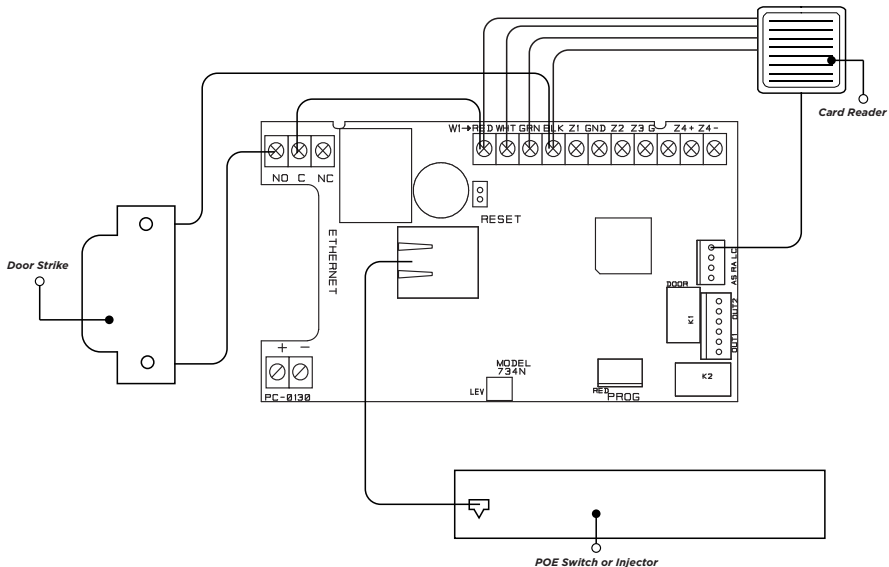
**Figure 5: Typical Door Strike Wiring
with POE (734N-POE only)**

3 ISOLATION RELAY *(optional)*

The Form C relay can control a device that draws less than 10 Amps of current. If a device draws more than 10 Amp of current, or the sum of all devices controlled by the Form C relay exceeds 10 Amps, an isolation relay must be used. Refer to Figures 6 and 7 for isolation relay wiring.
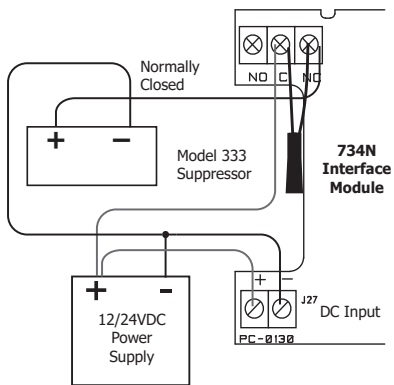
Figure 6: Magnetic Lock with an Isolation Relay
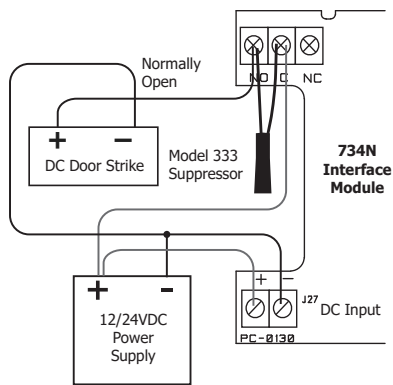
Figure 7: Door Strike with an Isolation Relay

4 INSTALL THE 333 SUPPRESSOR

Use the included 333 suppressor with the 734N Series module to suppress any surges caused by energizing a magnetic lock or door strike.

Install the 333 across the 734N **C** (common) and **NO** (normally open) or **NC** (normally closed) terminals.

If the device being controlled by the relay is connected to the **NO** and **C** terminals, install the suppressor on the **NO** and **C** terminals.

Conversely, if the device is connected to the **NC** and **C** terminals, install the 333 Suppressor on **NC** and **C** terminals.

The suppressor wire is non-polarized. Install the suppressor as shown in Figure 8.
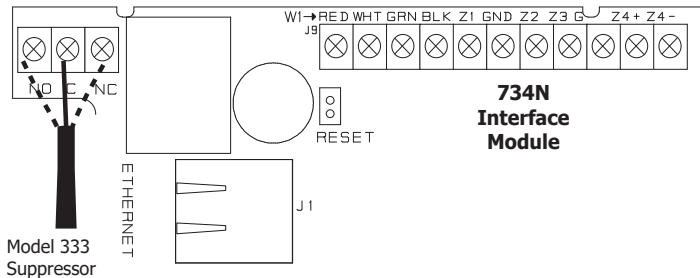
Figure 8: 333 Suppressor Installation

5 WIRE THE ZONE TERMINALS

Terminals 5-9 connect grounded zones 1 through 3. These zones have a grounded side and cannot be used for fire-initiating devices. Zones 2 and 3 can also be used for access control with Zone 2 providing a bypass option and Zone 3 providing Request to Exit functionality. Zone 4 terminals provide a non-powered Class B, Style A zone. Use the supplied DMP Model 311 1K Ohm End-of-Line resistors on each zone. Refer to the panel programming guide for programming instructions. See Figure 9 for more information on wiring the zone terminals.

Auxiliary Outputs 1 & 2

The module controls Auxiliary Outputs 1 and 2 when the Activate Zone 2 Bypass programming option is enabled and the Zone 2 Bypass Time is set. When the door contact (Zone 2) is opened while the door strike is activated, the Zone 2 Bypass Time starts. If the door has not closed at the end of the timer, Aux Output 1 is turned on and the timer starts again. If the door is still open at the end of the second timer, Aux Output 2 is turned on. Aux Outputs 1 and 2 turn off when the door contact is closed. Use the Model 431 Relay Harness for connection of Output 1 and Output 2.
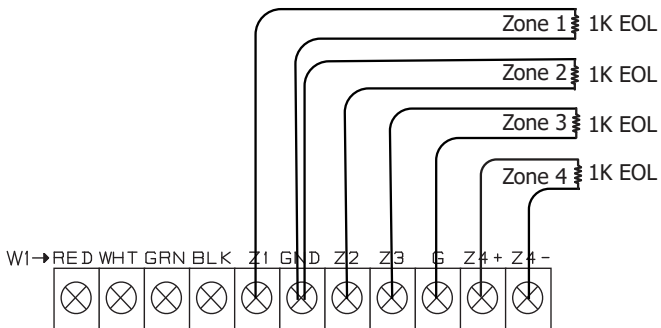
Figure 9: Zone Terminal Wiring

Annunciator Header

The 4-pin header located on the far right of the circuit board is used to wire the Armed Status, Remote Annunciation, and the Remote LED Control. The open collectors supply a ground for a maximum current of 50 mA at 30 VDC. Connect a Model 300 4-wire harness to the 4-pin header for connection of the following indicators:

AS (Armed Status)

Armed Status provides an unsupervised switched ground for a visual or audible armed status indicator that turns on when the burglary areas are armed, such as **SYSTEM ON** or **ALL SYSTEM ON**. Connect the wire from the 4-wire harness to an Armed Status output.

RA (Remote Annunciation)

Remote Annunciation provides an unsupervised switched ground for a remote annunciator that turns on when the Zone 2 Bypass timer expires. Connect the wire from the 4-wire harness to a remote annunciator. The remote annunciator silences when the RA restores. The remote annunciator (RA) switched ground operates even if the speaker is programmed not to operate.

LC (Remote LED Control)

Remote LED Control provides an unsupervised switched ground for a visual indicator that turns on when the relay activates. Connect the wire from the 4-wire harness to an LED. The LED turns on for the duration the door strike relay is on. HID readers optionally provide a connection for LED reader control.

6 CONNECT A CARD READER *(optional)*

The 734N Series module provides direct 12/24 VDC, 200 mA output to the reader on the **RED** terminal connection. Figure 10 shows a reader with wire colors **RED**, **WHT**, **GRN**, and **BLK** connecting to terminals 1, 2, 3, and 4.

The green wire carries Data Zero (D0), and the white wire carries Data One (D1). The red wire connects 12/24 VDC, 200 mA maximum power and the black wire is ground.

The wire colors may be different depending on the reader being installed. Refer to the literature provided with the reader for wire coding, wire distance, cable type (such as shielded), and other specifications.

Card Reader LED Operation

To provide visual indication of a valid card read, the card reader can be wired to illuminate the green LED for the duration of the door strike.

Connect the orange or brown wire to **LC** to have the green LED stay on for the duration of the relay activation.

Card Reader Annunciation

Connect the yellow wire to **RA** to have the remote annunciator turn on anytime the panel instructs the 734N on-board piezo to turn on.
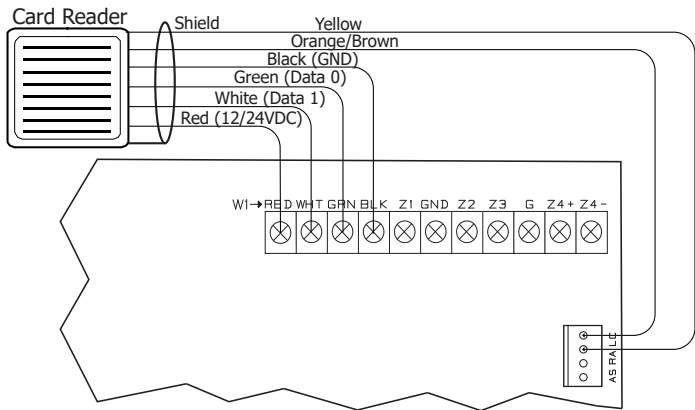
Figure 10: Card Reader Wiring

ADDRESSING THE 734N

Keypad Bus Addresses

DMP XR550 Series panels use keypad bus addresses 1 through 16. XR150 Series panels can only use keypad bus addresses 1 through 8. Each keypad bus address can accommodate 1 door output and 4 expansion zones. 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). An AX-Bus address can accommodate 1 door output and 1 expansion zone. Because the 734N Series module has a built-in 4-zone expander, 3 extra zones must be mapped to the 734. A module with an address of 501 on AX500 would represent Door 501 and zones 501-504. A module with an address of 505 on AX500 would represent Door 505 and zones 505-508. A module with an address of 701 on AX700 would represent Door 701 and zones 701-704.

Note: Hardwired zone expanders and addressable points and modules do not communicate on an AX-Bus. AX-Bus doors do not have programmable device or communication types and do not have assignable display areas.

Setting the 734N Series Addresses

Only valid door numbers can be assigned 734N in device setup. For complete keypad and AX-Bus address mapping, see the chart below.

DEVICE/ DOOR	ZONES	DEVICE/ DOOR	ZONES	DEVICE/ DOOR	ZONES	DEVICE/ DOOR	ZONES	DEVICE/ DOOR	ZONES	DEVICE/ DOOR	ZONES
1	11-14	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 734N Zone Numbers

PROGRAM THE 734N SERIES MODULE

When you program the 734N Series module, you must use a keypad connected to the programming header and set to address 1. For 12 V applications, connect the keypad to the module using a Model 330 4-wire harness. For 24 V applications, connect the keypad to the module using a Model 330-24 4-wire programming harness with in-line resistor.

⚠️ **Warning**: Do not connect a keypad using a standard Model 330 harness if using a 24 V power supply! Damage to the keypad could occur.

You can also program the module from an XR150/XR550 Series panel or XR150INT/XR550INT Series panel (734N-INT only). Initial programming of device and communication must be performed with a keypad. Afterwards, device programming and 734N 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.

While the 734N Series module is in programming mode, it will not be able to communicate with the panel.

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.

```
734N 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 **CMD** to enter the Diagnostic Menu. Press **6653** (PROG) then **CMD** to enter the Programming Menu.

```
INITIALIZE ALL?
          NO  YES
```

INITIALIZATION OPTION

These options can set the 734N Series 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

After selecting **YES** to clear the Access Options, 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.

```
734N
COMMUNICATION
```

COMMUNICATION MENU

Press any select key or area to enter the Communication menu. Press **CMD** to advance to the Access Options menu. Press the back arrow to display the 734N Initialization menu.

```
734N
DHCP?   NO   YES
```

734N 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.

```
734N IP ADDRESS
192.168.0.201
```

734N 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

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 734N 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

734N PASSPHRASE

You must enter an 8-16 character alphanumeric passphrase to encrypt communication with the panel. The 734N passphrase must match the 734N passphrase entered in Network Options programming of the panel. The passphrase is blank by default.

734N
ACCESS OPTIONS

ACCESS OPTIONS

Press any select key or area to enter the Access Options menu. Press **CMD** to advance to the Stop options. Press the back arrow to display the Communication menu.

```
ACTIVATE ZONE 2
BYPASS?    NO  YES
```

ACTIVATE ZONE 2 BYPASS

Select **YES** to activate the zone 2 bypass operation. Selecting **NO** allows standard zone operation on zone 2. The default is **NO**.

If the door being released by the 734N Series module is protected (contact installed), a programmable bypass entry/exit timer can be provided by connecting its contact wiring to the 734N Series module zone 2. When the on-board Form C relay activates and the user opens the door connected to zone 2, the zone is delayed for the number of seconds programmed in **ZONE 2 BYPASS TIME** allowing the user to enter/exit during an armed period.

If zone 2 does not restore (door closed) within the programmed time, the piezo sounds every other second during the last ten seconds. If zone 2 restores prior to the end of the programmed time, the piezo silences. If the zone does not restore before the programmed time, the module ends the bypass and indicates the open or short zone condition to the panel.

```
ZONE 2 BYPASS
TIME:        40
```

ZONE 2 BYPASS TIME

Enter the number of seconds to elapse before the bypass timer expires. The range is from 20-250 seconds. Press any select key or area to enter the number of seconds. The default is **40**. Figure 11 shows how the bypass option works.
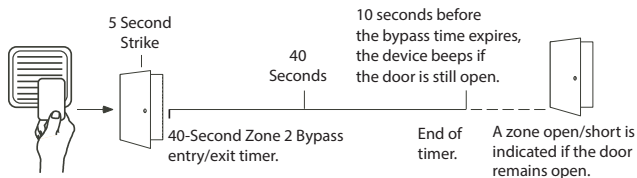

Figure 11: Zone 2 Bypass Timeline

```
RELOCK ON ZONE 2
CHANGE?   NO  YES
```

RELOCK ON ZONE 2 CHANGE

Selecting **YES** turns the relay off when zone 2 changes state. Selecting **NO** leaves the relay on when zone 2 changes state. Turning off the relay at Door Closed allows a long strike time to be automatically ended and relocks the door. The default is **NO**.

ACTIVATE ZONE 3 REQUEST TO EXIT

```
ACTIVATE ZONE 3
REX?        NO  YES
```

Selecting **YES** activates the zone 3 Request to Exit (REX) option. Selecting **NO** allows standard zone operation on zone 3. Default setting is **NO**.

Connect a motion sensing device or a mechanical switch to zone 3 to provide REX capability to the system.

When zone 3 shorts, the on-board Form C relay activates for the programmed number of seconds. See Zone 3 REX Strike Time. During this time, the user can open the protected door to start the programmed zone 2 bypass entry/exit timer. After the programmed number of seconds, the relay restores the door to its locked state

The 734N Series module provides a bypass-only option for REX on zone 3. When zone 3 opens from a normal state, only a bypass occurs: the on-board relay does not activate. This bypass-only option uses two methods of REX.

The first REX device provides the programmed bypass entry/exit timer. The second REX unlocks the door.

ZONE 3 REX STRIKE TIME

```
ZN 3 REX STRIKE
TIME:            5
```

Enter the number of REX seconds to elapse. Range is from 5-250 seconds. Press any select key or area to enter the number of seconds. The default is **5**.

ACTIVATE ON-BOARD SPEAKER

Select **YES** to enable the onboard piezo for local annunciation, such as alarm and trouble annunciations. Select **NO** to turn the speaker off for all operations. This does not affect remote annunciator open collector (RA) operation. The default is **NO**.

ANY CARD FORMAT

Select **YES** to allow all card reads to activate the door strike relay. The door strike relay is activated for the length of time programmed in **ZN 3 REX TIME**. No user code information is sent to the panel. Default is **NO**.

CUSTOM CARD DEFINITIONS

```
CARD FORMATS
FORMAT NO:        -
```

CARD FORMATS

Select the slot number (1-7) that you would like to program a custom non-DMP card format into. Select 8 if you would like to program a DMP card format. See Public Card Formats for a list of card formats that can be used with the 734N Series module. Other private or custom formats may also be compatible. Please contact the credential supplier or manufacturer for the bit structure. Press **CMD** to advance.

Note: If you select slot 1 and you are upgrading from XR panel version 182 or earlier, **FORMAT NAME** will automatically be named **SINGLE CARD FORMAT** and **WIEGAND CODE LENGTH** will default to 45.

```
FORMAT NAME
*UNUSED*
```

FORMAT NAME

Press any select key or area to rename the card. Press **CMD** to save.

```
WEIGAND CODE
LENGTH:          26
```

WIEGAND CODE LENGTH

When using a custom credential, enter the total number of bits to be received in Wiegand code including parity bits.

$$0|11101011|0110101000110011|1$$

First Bit	Site Code	User Code	Last Bit
Received	Position = 1	Position = 9	Received
Position = 0	Length = 8	Length = 16	Position = 25
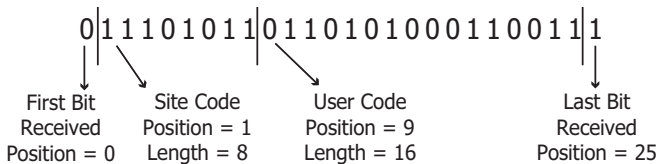
In this example the Wiegand Code Length = 26 bits.

Figure 12: Wiegand Data Stream Bit Location

Press any select key or area to enter a number between 1-255 to equal the number of bits. Default is **26** bits.

An access card contains data bits for a site code, user code, and start/stop/parity bits. The starting position, location, and code length must be determined and programmed into the keypad. See Figure 12.

```
SITE CODE
POS: 1    LEN: 8
```

SITE CODE POSITION AND LENGTH

Enter the site code start position and length in the data string. Press select area 2 to clear the site code start position and enter a number between 0-255. Press **CMD** to save. Default is **1**.

Press select area 4 to clear the site code length and enter a number between 1-24. Press **CMD** to save. Default is **8**.

```
USER CODE
POS: 9      LEN: 16
```

USER CODE POSITION AND LENGTH

Define the user code start bit position and length. Press select area 2 to clear the user code position and enter a number between 0-255. Press **CMD** to save. Default is **9**.

Press select area 4 to clear the user code length and enter a number between 16-64. Press **CMD** to save. The default is the DMP value of **16**.

```
REQUIRE SITE
CODE:      NO  YES
```

REQUIRE SITE CODE

Press the select key or area under **YES** to use a site code and press **CMD** to view the site code entry display. Press **NO** to advance to **NO OF USER CODE DIGITS**. Default is **NO**.

In addition to user code verification, door access is only granted when any one site code programmed at the **SITE CODE ENTRY** option matches the site code received in the Wiegand string.

```
SITE CODE 1:
```

SITE CODE

You can program up to eight 8-digit site codes. The site code range is 0-16,777,214.

In the keypad display, enter site code 1 and press **CMD**. The display will ask for site code 2 followed by site code 3 and so on. When you have selected the site code you want to change, press **CMD.**

```
NO OF USER CODE
DIGITS:        5
```

NUMBER OF USER CODE DIGITS

The 734 Series module recognizes user codes from 4-12 digits long. Press any select key or area to enter a user code digit length. This number must match the user code number length being programmed in the panel. Default is **5**.

All bits are read and converted into a decimal number string. The number string is left padded with '0' if needed for long user code lengths. When selecting '4' the right digit is dropped and the next four sent.

Example:	# decoded	1234567
	10 digits	0001234567
	5 digits	34567
	4 digits	3456

```
NO COMM WITH PNL
OFF  SITE  ANY  ON
```

NO COMMUNICATION WITH PANEL

Define the relay action when communication with the panel has not occurred for 5 seconds. Default is **OFF**. Press any select key or area to change the default relay action:

Press the first select key or area to choose **OFF** (Relay Always Off). The relay does not turn on when any Wiegand string is received. **OFF** does not affect any REX operation. If communication is lost during a door strike, the relay remains on for the door strike duration but turns off at the end of the door strike timer.

Press the second select key or area to choose **SITE** (Accept Site Code). Door access is granted when the Wiegand site code string received matches any site code programmed at **SITE CODE DISPLAY**. Refer to **REQUIRE SITE CODE** for more information.

Press the third select key or area to choose **ANY** (Any Wiegand Read). Access is granted when any Wiegand string is received.

Press the fourth select key or area to choose **ON** (Relay Always On). The relay is always on.

Press **CMD** to display the next action.

```
NO COMM WITH PNL
LAST
```

Press the first select key or area to choose **LAST** (Keep Last State). The relay remains in the same state and does not change when communication is lost.

REMOVE KEYPAD

The **REMOVE KEYPAD** option continually displays with no time out while the keypad remains connected to the 734N Series module after programming is finished. After five seconds, the module piezo continually sounds if the keypad remains connected and programming is finished. Remove the keypad harness to disconnect the keypad from the module and silence the alarm.

PUBLIC CARD FORMATS

CARD FORMAT	WIEGAND CODE LENGTH	SITE CODE POSITION	SITE CODE LENGTH	USER CODE POSITION	USER CODE LENGTH	USER CODE DIGITS
H10301 26 BIT	26	1	8	9	16	5
H10302 37 BIT W/FAC	37	1	16	17	19	6
H10304 37 BIT W/O FAC	37	0	0	1	35	12
FARPOINTE 39 BIT	39	1	17	18	20	7
CORPORATE 1000 35 BIT	35	2	12	14	20	6
CORPORATE 1000 48 BIT	48	2	22	24	23	7

734N NETWORK SPECIFICATIONS

The 734N was designed to have minimum impact on network performance. The 734N is supervised in the panel by exchanging two data packets every five seconds. The payload of the data packets exchanged between the XR150/XR550 or the XR150INT/XR550INT Series and the 734N is a very small 18 bytes. The total traffic for all supervision, including network overhead, is roughly two kilobytes per minute per 734N. This would be equivalent to a very small email message.

If required, all of the traffic between the 734N(s) and the panel can be completely isolated from the rest of the existing network by connecting all of the 734N modules and the panel to the same switch, then connecting the switch to the remainder of the network. All traffic between the 734N and the panel would then be confined to the switch where they are connected, while still allowing the panel to communicate with the central station through the normal network.

The security of the 734N is multi-faceted. Most importantly, the 734N is a single purpose network device. All of the ports in the TCP/IP stack used in the 734N are disabled and allow no inbound connections. This prevents a potential intruder from making any type of connection with the 734N through the network. The 734N communicates with the control panel by establishing an outbound only connection to the panel. All communication between the 734N 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.

734N encryption has not been evaluated by UL.

Packet Communication

- The 734N module establishes panel communication using the TCP/IP protocol.

- At start up, the 734N opens a TCP/IP connection that remains open indefinitely.

- The socket can be closed by the 734N or panel after a time-out.

- The connection is re-established by the 734N 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 kilobytes per minute for each 734N.

   - Non-Supervision messages have a payload range of 18-50 bytes.

COMPLIANCE LISTING SPECIFICATIONS

UL ACCESS CONTROL

The access relay must be configured as fail-safe or fail-secure as determined by the local Authority Having Jurisdiction (AHJ). This system is not intended to be used in place of listed panic hardware.

For listed installations, the 734N or 734N-POE must be installed within the protected area.

The power supply must be a listed commercial burglary/household fire, power limited, Class 2 with a compatible voltage range for the product. The 734N requires a 12 or 24 VDC power source. The 734N-POE can be powered by a 12 or 24 VDC or UL 294 listed POE switch.

For UL Access and Commercial Burglary, the 734N-POE must be installed inside a UL listed DMP metal enclosure such as a Model 341. Refer to Mount the Device for mounting instructions.

POE power to be supplied by a UL 294 Listed, power limited, injector providing 44-57 VDC and 15.40 W for maximum output (POE).

POE power to be supplied by a UL 294 Listed, power limited, injector providing 50-57 VDC and 30.0 W for maximum output (POE+).

POE power to be supplied by a UL 294 Listed POE+ Midspan or Endspan providing 44-57 VDC and 30 W for maximum output.

This product is not intended for outside wiring as covered by Article 800 in the National Electrical Code, NFPA 70.

Category 5e cabling is minimum performance category recommended. The performance category utilized should match the transmission speed required at the installation site.

Compliance with IEEE 802.3 (at or af) specifications was not verified as part of UL 294B.

The equipment is intended to comply with the following sections of the National Electrical Code, ANSI/NFPA 725.121.

The minimum conductor gauge permitted to connect between the PSE or power injector and the PD shall be 26 AWG (0.13 mm^2) for patch cords; 24 AWG (0.21 mm^2) for horizontal or riser cable.

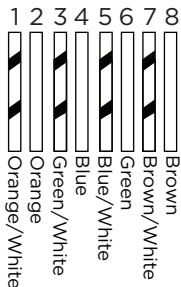Use Cat 5 568-B wiring for connections. See Figure 13.

Figure 13: Cat 5 568-B Wiring

The equipment shall be provided with information concerning the power sourcing equipment (PSE) connector configuration (for example, Alternative A or Alternative B or both), and the maximum power class supporte by the PSE.

The 734N-POE is compatible with the Altronix Netway 1.

ULC COMMERCIAL BURGLARY (XR150/XR550 SERIES PANELS)

When using the zones of the 734N 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 734N Access Control features have not been investigated by ULC.

The 734N zones can be used in a Low Risk application. For Medium or High Risk applications, refer to the Dual Zone Protection diagram in the XR150/XR550 Canadian Installation Guide.

CERTIFICATIONS

FCC Part 15

California State Fire Marshal (CSFM)

NIST AES Algorithm Certificate #1937

UNDERWRITERS LABORATORY (UL LISTED)

734N

ANSI/UL 294	Access Control System Units
Level I	Destructive Attack, Line Security, and Standby Power
Level IV	Endurance
ANSI/UL 609	Local Burglar Alarm Units And Systems
ANSI/UL 1076	Proprietary Burglar Alarm Units And Systems
ANSI/UL 1023	Household Burglar-Alarm System Units
ANSI/UL 1610	Central Station Burglar-Alarm Units
ULC S304	Central And Monitoring Station Burglar Alarm
ULC/ORD-C1076	Proprietary Burglar
ULC Subject-C1023	Household Burglar

734N-POE

ANSI/UL 294	Access Control System Units
Level I	Destructive Attack, Line Security, and Standby Power
Level IV	Endurance
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

INTERNATIONAL CERTIFICATIONS

Security Grade: 3

Environmental Class: II

INTERTEK (ETL) LISTED*

EN 50130-4	EMC Product Family Standard: Immunity Requirements for Componenets of Fire, Intruder and Social Alarm Systems
EN 50130-5	Environmental Standards
EN 50131-1:2006+A1	Intrusion and Hold-up Systems
EN 50131-3:2009	Control and Indicating Equipment
EN 50133-1:1997	Access Control Systems
EN 61000-3-2	Limits - Limits for Harmonic Current Emissions (Equip.Input Current up to and Including 16 A per Phase) Includes A1 & A2 July 1, 2009
EN 61000-3-3	Limitations of Voltage Fluctuations & Flicker in Low-Voltage Supply Systems for Equip with Rated Current Less Than or Equal to 16 A per Phase & Not Subject to Conditional Connection
EN 61000-6-4	Generic Standards - Emissions Standard for Industrial Environments

*These listings are for the 734N-INT only.

EXPORT CONTROL

The 734N Series module uses AES encryption and any export beyond the United States must be in accordance with Export Administration Regulations.

PRODUCT SPECIFICATIONS

Primary Power	8.5 VDC to 28.5 VDC if 12/24 VDC
	Reader Output at 12 VDC: 10.12 - 13.13 VDC
	Reader Output at 24 VDC: 20.23 - 26.28 VDC

Current Draw

Standby	346 mA at 12 VDC (includes 200 mA for proximity reader)
	+1.6 mA per active zone
Alarm	348 mA at 12 VDC (includes 200 mA for proximity reader)
	+10 mA with Annunciator ON
	+2 mA per faulted zone
Form C Relay	35 mA at 12/24 VDC
Output 1 and 2	12.5 mA at 12 VDC

When powered from POE

Standby	243 mA (includes 200 mA for proximity reader)
	+1.6 mA per active zone
Alarm	273 mA (includes 200 mA for proximity reader)
	+10 mA with Annunciator ON
	+2 mA per faulted zone

Output Voltage (POE)	12 VDC
Maximum Power Draw (POE)	12.95 W
Available Output Current	750 mA
Zones	5 VDC, 2 mA max
Dimensions	4.5W x 2.75H x 1.75D in
	11.43W x 7H x 4.45D cm
Weight	8 oz .23 kg

READERS AND CREDENTIALS

125 KHZ PROXIMITY READERS	
P-300	CASCADE PROXIMITY READER
P-500	ALPS PROXIMITY READER
P-640	PATAGONIA PROXIMITY READER WITH KEYPAD
MP-5365	MINIPROX™ PROXIMITY READER
MX-5375	MAXIPROX® PROXIMITY READER
PP-6005B	PROXPOINT® PLUS PROXIMITY READER
PP-5355	PROXPRO PROXIMITY READER WITH KEYPAD
PR-5455	PROXPRO® II PROXIMITY READER
TL-5395	THINLINE II® PROXIMITY READER

125 KHZ PROXIMITY CREDENTIALS	
PSC-1	STANDARD LIGHT PROXIMITY CARD
PSK-3	PROXIMITY KEY RING TAG
PSM-2P	ISO IMAGEABLE PROXIMITY CARD
1306	PROX PATCH™
1326	PROXCARD II® CARD
1346	PROXKEY III® ACCESS DEVICE
1351	PROXPASS®
1386	ISOPROX II® CARD

13.56 MHZ SMARTCARD READERS*	
DELTA3	FARPOINTE SMARTCARD READER
DELTA5	FARPOINTE SMARTCARD READER
DELTA5.3	FARPOINTE SMARTCARD READER
DELTA6.4	FARPOINTE SMARTCARD READER

13.56 MHZ SMARTCARD CREDENTIALS*	
DC1-1	FARPOINTE CLAMSHELL SMARTCARD
DM1-3	FARPOINTE IMAGEABLE SMARTCARD
DE2	FARPOINTE MIFARE® DESFIRE® EV1 SMARTCARD
DK1-3	FARPOINTE KEY FOB SMARTCARD

*Delta Proximity Readers and Credentials not evaluated by UL.