

734N Series Wiegand Interface Modules

INSTALLATION AND PROGRAMMING GUIDE

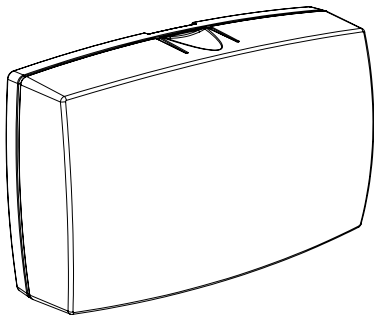


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ABOUT THE 734N SERIES

The 734N, and 734N-POE Wiegand Interface Modules allow you to add IP network access control capability to XR150/XR550 Series panels 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.



Warning: To avoid the risk of equipment damage, do not exceed 750 mA total output current for zones connected to the module.

Zone Terminals

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

Annunciators

An onboard 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 10 Amp 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.

PCB FEATURES

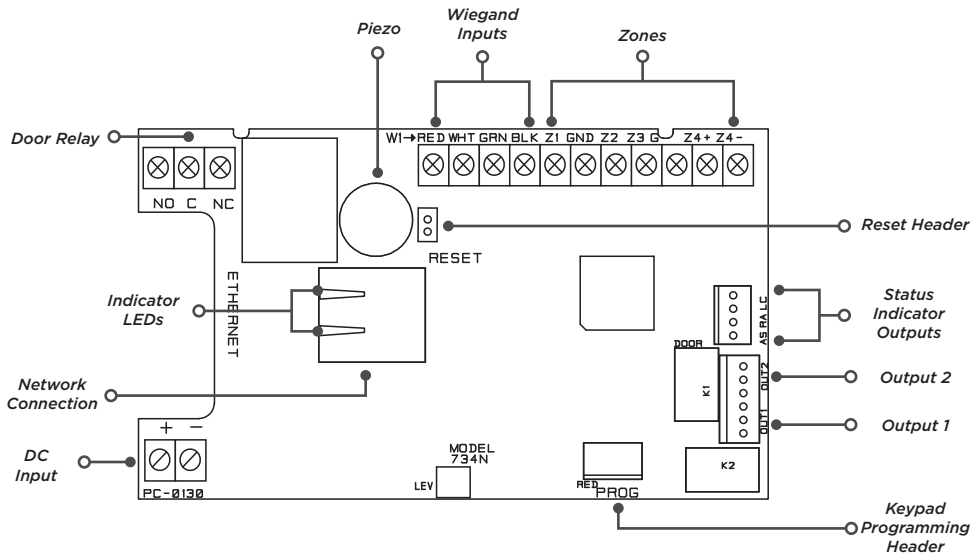


Figure 1: PCB Features

INSTALL THE 734N SERIES MODULE

1 *Mount the 734N*

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 734N 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 734N near the protected door. See 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.

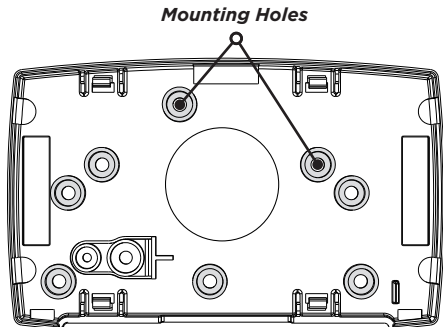


Figure 2: Mounting Hole Locations

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.

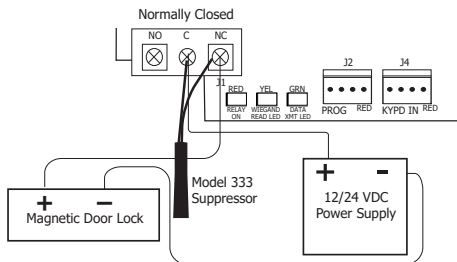


Figure 3: Typical Magnetic Lock Wiring

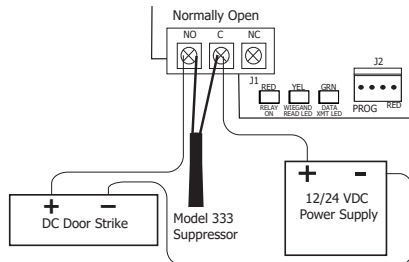


Figure 4: Typical Door Strike Wiring

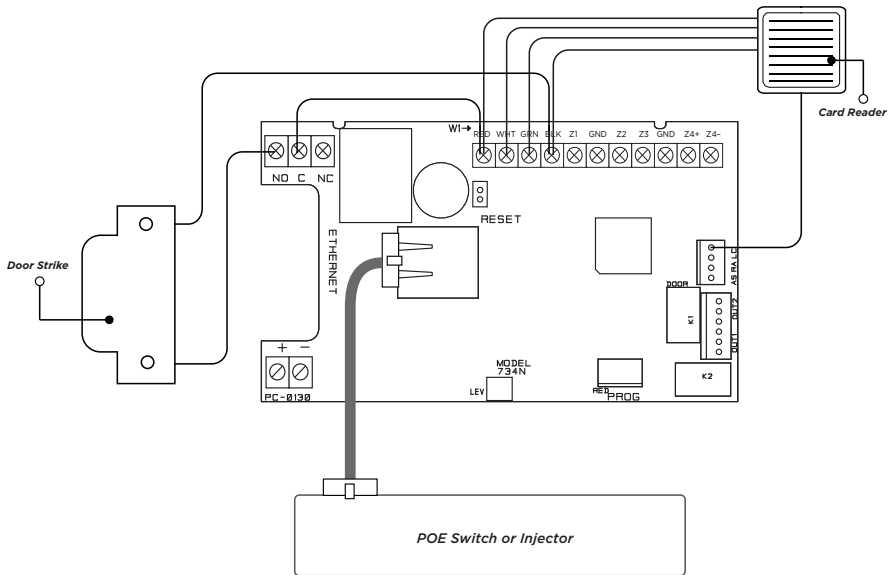


Figure 5: Typical Door Strike Wiring with POE (734N-POE only)

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 Amps 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.

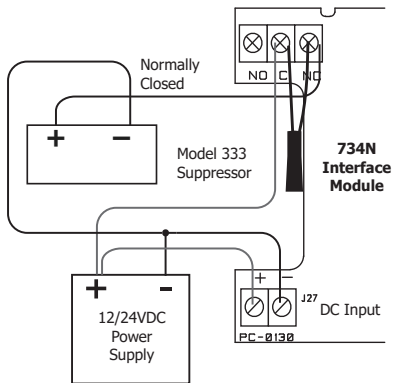


Figure 6: Magnetic Lock with an Isolation Relay

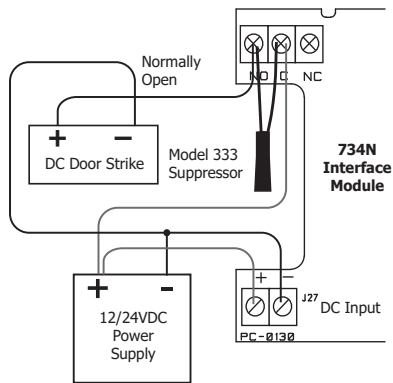


Figure 7: Door Strike with an Isolation Relay

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.

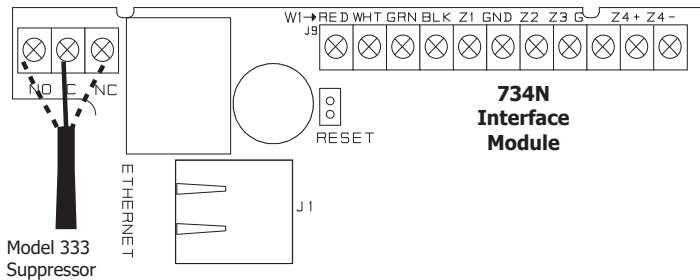


Figure 8: 333 Suppressor Installation

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.

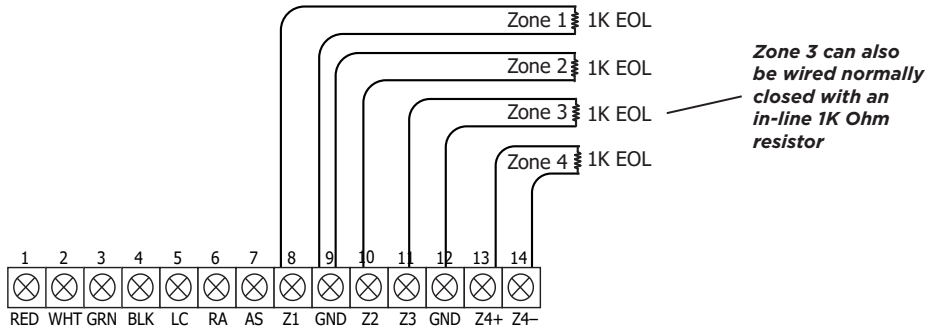


Figure 9: Zone Terminal Wiring

6 *Connect a Card Reader*

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 onboard piezo to turn on.

Status Indicator Outputs

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 the included Model 300 4-wire harness to the 4-pin header for connection of the following indicators:

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 LC Terminal 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.

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 RA Terminal 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.

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 a wire from the AS Terminal to an armed status indicator.

Wiegand Card Reader

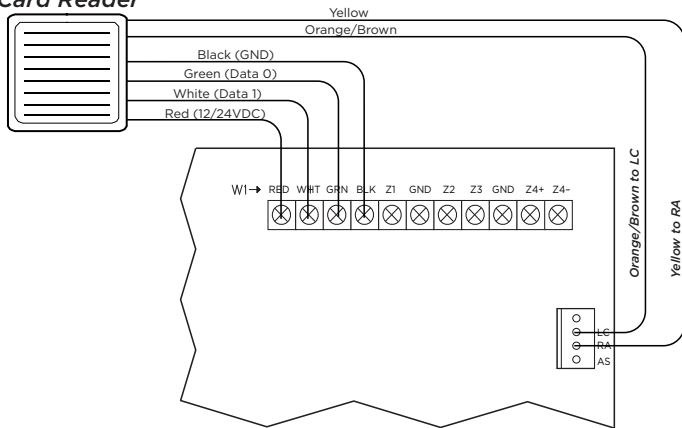


Figure 10: Card Reader Wiring

7 *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 LEDs are located on the Ethernet jack.

- The green LED indicates that data is being 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.

8 *Set the 734N Address*

Keypad Bus Addresses Explained

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 Explained (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 734N. 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.

734N Address Table

Only valid door numbers can be assigned 734N in device setup. For complete keypad and AX-Bus address mapping, see Table 1.

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

9 *Connect the Power Supply*

The device can also be powered by a 12 VDC plug-in power supply (Model 376L) or a 12 VDC external power supply (Model 505-12). When using a plug-in power supply, mount the device near a wall outlet.

1. Remove the housing cover.
2. Install the supplied jumper on the two pins next to EXT on the power source header.
3. Wire the power supply to the DC power terminals by following the power supply-specific instructions below.
4. Snap the cover into place.

Plug-In Power Supply

Connect the black wire with the white stripe to the positive (+) terminal and the solid black wire to the negative (-) terminal. Plug the power supply into an unswitched 110 VAC outlet.

External Power Supply

Use 22 AWG wire to connect the DC power terminal block on the device to the DC power terminal on the 505-12 power supply PCB. Connect the transformer to an unswitched 120 VAC 1.5 Amp power source.

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. 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
VER VVV MM/DD/YY

734N
ZONE: 1 -OKAY

734N
ZONE: 2 -OPEN

734N
ZONE: 3 -SHORT

MENU? NO YES

Version 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.

Zone Status Display

Enter a zone number to display its status. To display another zone, enter the zone number and press **CMD**.

Diagnostic: Menu

Select **YES** to display Panel Communication Connect Status. Select **NO** to return to Version Display.

CONNECT STATUS

Connect Status

To display the status of connection with the panel, select any top row key.

CONNECT STATUS
NOT CONNECTED

Not Connected: The 734N cannot establish a connection to the panel over the network.

CONNECT STATUS
BAD PASSPHRASE

Bad Passphrase: The passphrase programmed into the 734N does not match the passphrase programmed into the panel.

CONNECT STATUS
DEVICE NOT PROG

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

CONNECT STATUS
DUPLICATE DEVICE

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

CONNECT STATUS
XMIT TIME XXX mS

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

734N
PROGRAMMER

Programming Menu

Press CMD to enter programming and display initialization options.

734N
INITIALIZATION

Initialization Options

These options set the 734N Series module programming memory back to factory defaults. Press any select key or area to enter the initialization menu.

INITIALIZATION
COMMS? NO YES

Initialization: Communication

Select **YES** to set the 734N Series communication programming back to factory defaults. Select **NO** to leave communication options unchanged.

INITIALIZATION
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.

INITIALIZATION
ACCESS? NO YES

INITIALIZATION
SURE? YES NO

734N
COMMUNICATION

734N DEVICE NO:
7

Initialization: Access

Select **YES** to set the 734N Series access programming back to factory defaults. Select **NO** to leave access options unchanged.

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.

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 Device Number

Enter a device number from 2-16 for the 734N Series module. This device number must also be programmed in the panel. Default is **7**.

734N
DHCP? NO YES

734N IP ADDRESS
192.168.0.201

SUBNET MASK
255.255.255.0

GATEWAY ADDRESS
192.168.0.1

PANEL IP ADDR
192.168.0.1

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

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

Subnet Mask

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

Gateway Address

Enter the local gateway address of the module. Default is **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 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 onboard 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.

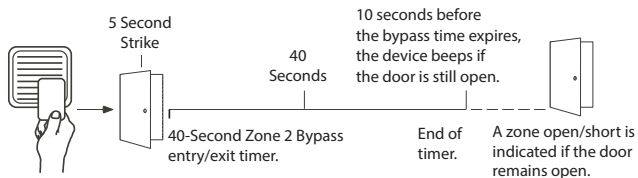


Figure 11: Zone 2 Bypass Timeline

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 allows a long strike time to be automatically ended upon zone 2 change and relocks the door. The default is **NO**.

ACTIVATE ZONE 3
REX? **NO** YES

Activate Zone 3 Request to Exit

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. Zone 3 can be used to activate the strike relay and bypass or activate bypass only. For zone wiring details, refer to Figure 8.

Activate Strike Relay and Bypass

Wire zone 3 as normally open with a 1K Ohm EOL resistor.

When zone 3 shorts, the onboard 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.

Activate Bypass Only

Wire zone 3 as normally closed with an in-line 1K Ohm resistor.

When zone 3 opens from a normal state, only a bypass occurs: the onboard relay does not activate.

ZN 3 REX STRIKE
TIME: **5**

Zone 3 REX Strike Time

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

ACTIVATE ONBOARD
SPEAKER? **NO** YES

Activate Onboard 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**.

CARD FORMATS
DMP CUSTOM ANY

Card Formats

Select **DMP** to allow credentials that use a 26-45 bit data string. The menu advances to **REQUIRE SITE**.

Select **CUSTOM** to disable DMP format and program slots 1-8 as needed. The menu advances to **FORMAT NO**.

Select **ANY** to allow all Wiegand 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. The menu advances to **NO COMM WITH PNL**.

The default card format is **DMP**.

CUSTOM CARD DEFINITIONS

CARD FORMATS
FORMAT NO: -

Card Format Number

Notice: If you see CARD OPTIONS, refer to LT-0737C.

Select the slot number (1-8) that you want to program for a custom non-DMP card format. The format that is programmed into slot 1 is the default format. In the event that a card with an unrecognized format is used, that card will be read in the format that is programmed in slot 1. To restrict card reads to specific formats, only program slots 2-8.

See Public Card Formats for some publicly available card formats that can be used with the 734N. Other private or custom formats may also be compatible. Please contact the credential supplier or manufacturer for the bit structure.



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

WIEGAND CODE
LENGTH: **26**

Format Name

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

Wiegand Code Length

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

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.

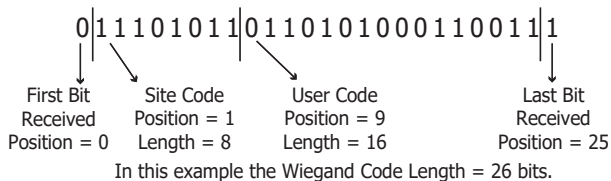


Figure 12: Wiegand Data Stream Bit Location

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. Default is **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 734N module recognizes user codes from 4-12 digits long. Press any top row 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. The device will recommend a number of user code digits based on the user code length. Default is **5**.

All bits are read and converted into a decimal number string. The number string is left padded with 0 (zero) if needed for long user code lengths.

Example:	# decoded	1234567
	10 digits	0001234567
	4 digits	4567

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.

734N
STOP

Stop

Press any select key to initiate the stop routine. When programming is saved successfully, the version number displays. Remove the keypad harness to disconnect the keypad from the module.

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 SERIES NETWORK SPECIFICATIONS

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

If required, all of the traffic between the modules and the panel can be completely isolated from the rest of the existing network by connecting all of the modules and the panel to the same switch, then connecting the switch to the remainder of the network. All traffic between the modules 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 modules is multi-faceted. Most importantly, 734N Series modules are single purpose network devices. All of the ports in the TCP/IP stack used in the modules are disabled and allow no inbound connections. This prevents a potential intruder from making any type of connection with the modules through the network. The modules communicate with the control panel by establishing an outbound only connection to the panel. All communication between the modules 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 Series encryption has not been evaluated by UL.

Packet Communication

- The module establishes panel communication using the TCP/IP protocol.
- At start up, the module opens a TCP/IP connection that remains open indefinitely.
- The socket can be closed by the module or panel after a time-out.
- The connection is re-established by the module 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 Series module.
 - 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 mm²) for patch cords; 24 AWG (0.21 mm²) for horizontal or riser cable.

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

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 supported by the PSE.

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

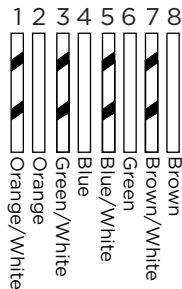


Figure 13: Cat 5 568-B Wiring

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

Level I

Level IV

ANSI/UL 609

ANSI/UL 1076

ANSI/UL 1023

ANSI/UL 1610

ULC S304

ULC/ORD-C1076

ULC Subject-C1023

Access Control System Units

Destructive Attack, Line Security, and Standby Power
Endurance

Local Burglar Alarm Units And Systems

Proprietary Burglar Alarm Units And Systems

Household Burglar-Alarm System Units

Central Station Burglar-Alarm Units

Central And Monitoring Station Burglar Alarm

Proprietary Burglar

Household Burglar

734N-POE

ANSI/UL 294

Level I

Level IV

ANSI/UL 609

ANSI/UL 1076

ANSI/UL 1610

Access Control System Units

Destructive Attack, Line Security, and Standby Power
Endurance

Local Burglar Alarm Units And Systems

Proprietary Burglar Alarm Units And Systems

Central Station Burglar-Alarm Units

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
Total 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

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.

