

734N Wiegand Interface Module

INSTALLATION AND PROGRAMMING GUIDE

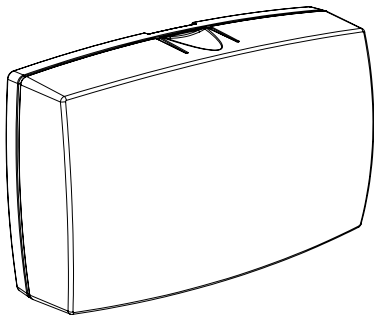


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ABOUT THE 734N

The 734N Wiegand Interface Module allows you to add IP network access control capability to XR150/XR550 Series and XR150INT/XR550INT Series panels using proximity credential or mag-stripe card readers. It also allows you to use the powerful built-in access control capability of DMP Panels. DMP panels provide access control, arming, and disarming using proximity, mag-stripe, biometric or other Wiegand-output authentication devices.

Connect a 734N to a DMP panel's keypad bus or AX-Bus™ to use the powerful built-in access control capability of DMP panels. The 734N includes the following features:

POWER SUPPLY

The 734N operates at 12/24VDC from the power supply supporting a door's magnetic lock or door-strike. It also provides a 10 Amp Form C relay contact for lock control.

ZONE TERMINALS

Zones 1, 2, and 3 on the 734N can be programmed for a variety of burglary or access control applications. Zone 4 is a class B, style A circuit that may be programmed as a fire zone.

ANNUNCIATORS

An on-board programmable piezo provides local annunciation at the 734N. You can also connect a variety of switched ground annunciators to the 734N for remote annunciation.

INDICATOR LEDs

The 734N provides 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 734N's Form C relay draws up to 35mA of current. Refer to the NC/C/NO (Dry Contact Relay) and the Isolation Relay sections in this document for more information.

PROGRAMMING CONNECTION

The 734N also provides a keypad programming connection that allows you to use a standard DMP LCD keypad for initial setup. Programming can be completed using a keypad connected to the 734N, or from XR150/XR550 or XR150INT/XR550INT Series panels.

KEYPAD IN AND OUT CONNECTIONS

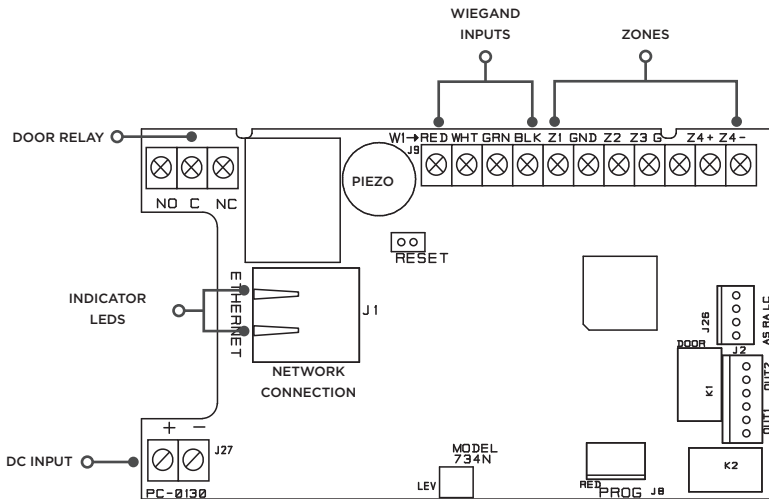
The keypad in (KYPD IN) connection receives and transmits data to the panel keypad bus or AX-Bus™.

The keypad out (KYPD OUT) connection receives and transmits data out to other keypad(s) or module(s). Install a dual connector four-position harness to allow daisy chain connection to other devices, up to the maximum number of devices supported. XR150 Series panels support up to 8 devices. XR550 Series panels support up to 16 devices.



When the 734N is powered from 24VDC, do not connect devices to KYPD OUT header.

PCB FEATURES



INSTALL THE 734N

1 MOUNT THE 734N

The 734N 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 screw holes that allow you to mount the 734N on a single-gang switch box. DMP recommends mounting the 734N near the protected door.

You can also mount the 734N in a panel enclosure by following these steps:

1. Remove the 734N PCB from the plastic housing.
2. Mount the plastic standoffs to the panel enclosure by pressing them into place.
3. Snap the 734N onto the standoffs.

2 WIRE THE ELECTRONIC LOCK

The 734N 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.

Use an additional power supply to power magnetic locks and door strikes. See Figures 2 and 3 for typical magnetic lock and door strike wiring.

The Form C relay draws up to 35mA of current and contacts are rated for 10 Amps (resistive) at 12/24VDC. 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 the Isolation Relay section for information.

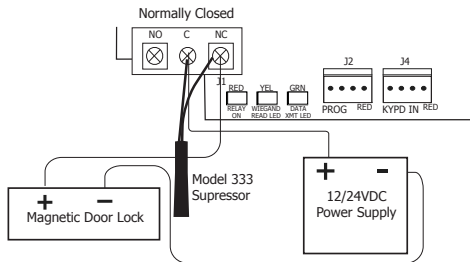


Figure 2: Typical Magnetic Lock Wiring

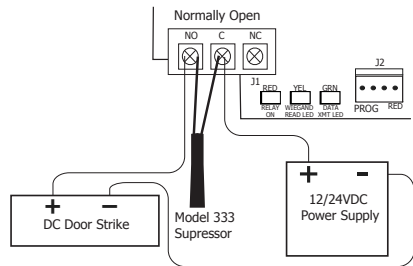


Figure 3: Typical Door Strike Wiring

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 5 and 6 for isolation relay wiring.

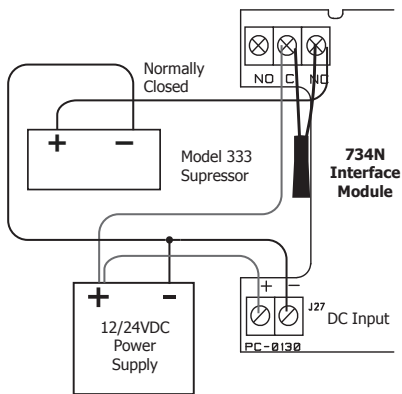


Figure 4: Magnetic Lock with an Isolation Relay

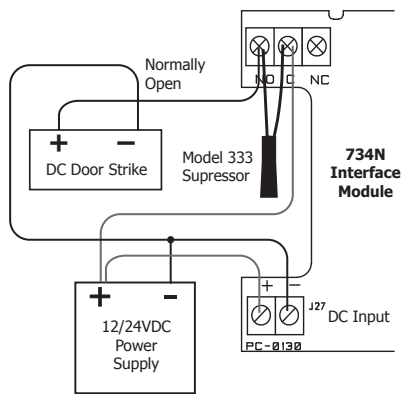


Figure 5: Door Strike with an Isolation Relay

4 INSTALL THE 333 SUPPRESSOR

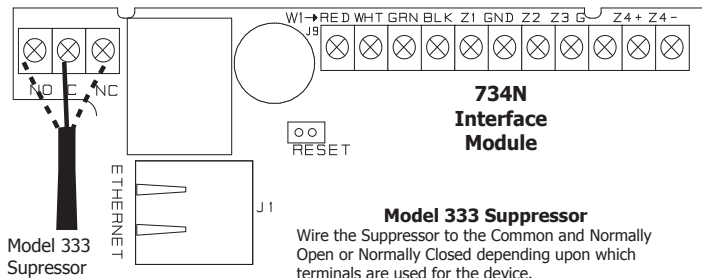
Use the included 333 suppressor with the 734N to suppress any surges caused by energizing a magnetic lock or door strike.

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 6.



**Figure 6: 333 Suppressor
Installation on the 734N**

5 WIRE THE ZONE TERMINALS

Terminals 8 through 12 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 feature and zone 3 providing request to exit functionality.

Terminals 13 and 14 connect to zone 4. Zone 4 provides a non-powered Class B ungrounded zone suitable for connection to fire devices such as heat detectors or pull stations.



Note: You must provide a mechanical means of resetting four-wire smoke detectors or other latching devices on zone 4. The panel does not drop power to the keypad bus or AX-Bus when a Sensor Reset is performed.

Use the supplied 311 1K Ohm end-of-line (EOL) resistors on each zone. Refer to the panel programming guide for programming instructions. See the table below and Figure 7 for more information on wiring the zone terminals.

ZONE #	RECOMMENDED DEVICE	RESIDENTIAL FIRE DEVICES?
1	Any burglary device	No
2	Door Contact	No
3	REX (PIR or Button)	No
4	Any device	Yes

Table 1: 734N Zone Uses

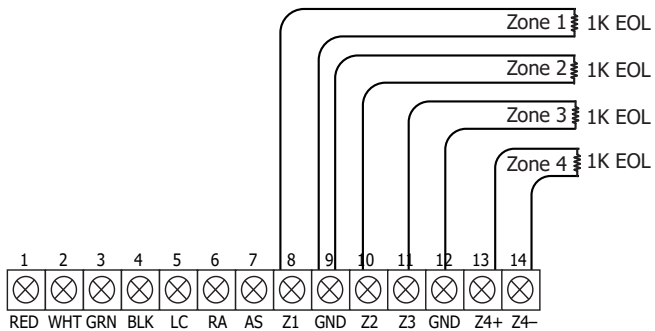


Figure 7: 734N Zone Terminal Wiring

6 CONNECT A CARD READER *(optional)*

The 734N provides direct 12/24VDC, 200mA output to the reader on the **RED** terminal connection. Figure 8 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 12/24VDC, 200mA 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 terminal 5 to have the green LED stay on for the duration of the relay activation.

Card Reader Annunciation

Connect the yellow wire to terminal 6 to have the remote annunciator turn on anytime the panel instructs the 734N on-board piezo to turn on.

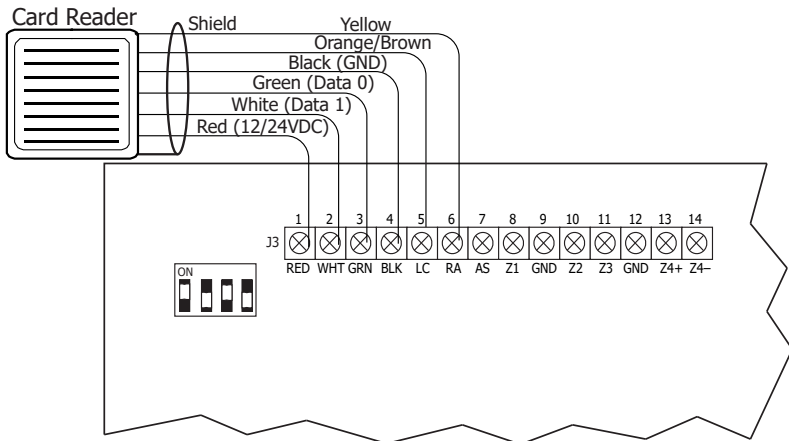


Figure 8: Card Reader Wiring

7 SET THE 734N'S ADDRESS

To set the 734N address, move the DIP switches on the PCB to the appropriate positions. See the following sections, Figures 9 and 10, and Table 2 to determine how to set keypad bus or AX-Bus addresses.

Keypad Bus Addresses Explained

Each keypad bus address can accommodate one door output and four expansion zones.

A 734N with an address of 2 on the keypad bus would represent door 2 and zones 21-24. A 734N with a keypad address of 14 would represent door 14 and zones 141-144.

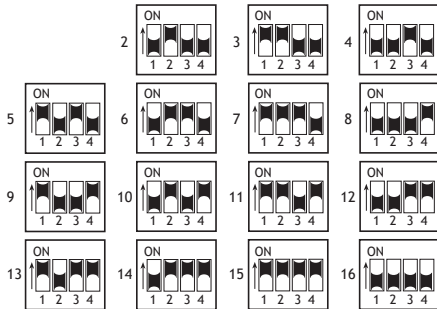


Figure 9: 734N Keypad Bus Addresses

AX-Bus Addresses Explained

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 one door output and one expansion zone. Because the 734N has a built-in four-zone expander, three extra zones will be mapped to the 734N automatically.

A 734N with an address of 1 on AX500 would represent door 501 and zones 501-504. A 734N with an address of 2 on AX500 would represent door 505 and zones 505-508. A 734N with an address of 1 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.

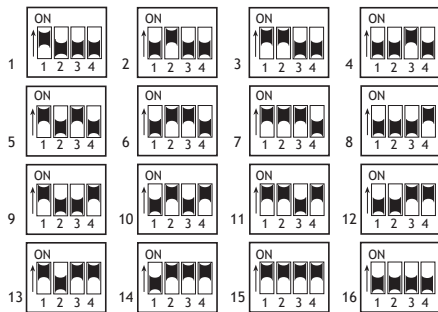


Figure 10: 734N AX-Bus Addresses

734N Address Table

To set the 734N address, move the DIP switches to the appropriate positions. See Figures 9 and 10 for how to place the DIP switches for keypad bus and AX-Bus addresses.

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 2: Device Addresses and 734N Zone Numbers

PROGRAM THE 734N

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



Do not connect a keypad using a standard Model 330 harness if using a 24 volt power supply! Damage to the keypad could occur.

You can also program the 734N from an XR150/XR550 Series panel. If you choose to program the 734N from the panel, all future programming should be performed through the panel. The panel's programming overrides any programming performed from a keypad connected to the 734N.

While the 734N is in programming mode, it will not be able to communicate with the panel. Keep in mind, before programming the 734N, obtain the Service Set Identification (SSID), the Wireless Security Type, and the Wireless Network Key from the router or a network administrator.

734N PROGRAMMING
VER VVV MM/DD/YY

PROGRAM START DISPLAY

When you connect the keypad to the 734N module, the version number and release date display. Press CMD to enter the Programming Menu.

INITIALIZE ALL?
NO YES

INITIALIZATION OPTION

These options can set the 734N 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 734N 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 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 NO:
7

734N DEVICE NUMBER

Enter a device number from 2-16 for the 734N. The device number must also be programmed as a device in the panel. Default is 7.

734N
DHCP? NO YES

734N DHCP

Select YES to use dynamic IP address information for the 734N UP Address, Subnet Mask, and Gateway Address. Select NO to enter static UP information.

734N IP ADDRESS
192.168.0.201

734N IP ADDRESS

Enter the static IP address of the 734N 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 734N. Default is 255.255.255.0.

GATEWAY ADDRESS
192.168.0.1

GATEWAY ADDRESS

Enter the local gateway address of the 734N. Default is 192.168.0.1.

PANEL IP ADDR
0.0.0.0

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 734N 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.

734N PASSPHRASE

734N PASSPHRASE

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 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 module is protected (contact installed), a programmable bypass entry/exit timer can be provided by connecting its contact wiring to the 734N 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 734N 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 to 250 seconds. Press any top row select key or area to enter the number of seconds. The default is **40** seconds. Figure 11 shows how the bypass option works.

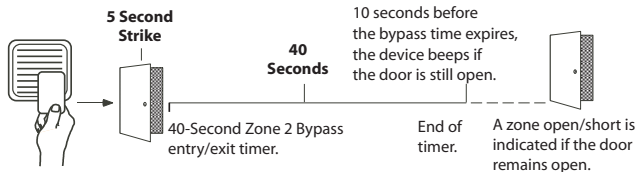


Figure 11: Zone 2 Bypass Timeline using default time

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

ACTIVATE ZONE 3
REX? **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

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 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.

ZN 3 REX STRIKE
TIME: **5**

ZONE 3 REX STRIKE TIME

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

ACTIVATE ONBOARD
SPEAKER? **NO** YES

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**.

CARD OPTIONS:
DMP

CARD OPTIONS

Typically, an access card contains data bits for a site code, a user code, and start/stop/parity bits. The starting position location and code length must be determined and programmed into the 734N Module. Select **DMP** to indicate the reader sends a 26-45 bit data string. To select the **DMP** option, press the first select key or area under DMP. Default is **DMP**.

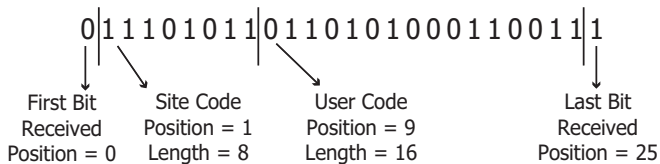
CARD OPTIONS:
DMP CUSTOM ANY

Select **CUSTOM** if using a non-DMP card.

Select **ANY** 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.



Note: When set to DMP, the 734N converts 17 bits of the 26 to 45-bit data string into a 5-digit number.



In this example the Wiegand Code Length = 26 bits.

Figure 12: Wiegand Data Stream Bit Location

CUSTOM CARD DEFINITIONS

WEIGAND CODE
LENGTH: **26**

WIEGAND CODE LENGTH

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

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

SITE CODE
POS: ppp LEN: xx

SITE CODE POSITION AND LENGTH

Enter the site code start position in the data string. Then enter the number of characters the site code contains.

ppp is the bit position in the string that indicates the site code start position. Press the second select key or area to enter a number between 0-255. Default is **1**. Press the CMD key to save the entry.

xx represents the total number of site code bits used. Press the fourth select key or area to enter a number between 1-16. Default is **8**. Press the CMD key to save the entry.

USER CODE
POS: ppp LEN: xx

USER CODE POSITION AND LENGTH

Define the user code start bit position and number of user code bits as follows:

PPP is the bit position in the string that indicates the user code start position. Press the second select key or area to enter a number between 0-255. Default is **9**. Press the CMD key to save the entry.

XX represents the total number of user code bits used. Press the fourth select key or area to enter a custom number. Custom numbers can only be a number between 16-40. Press the CMD key to save the entry. Default is **16**.

REQUIRE SITE
CODE: **NO** YES

REQUIRE SITE CODE

Press the top row select key or area under **YES** to use a site code and press the **CMD** key to view the site code entry display. 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.

aaa bbb ccc ddd
eee fff ggg hhh

SITE CODE DISPLAY

You can program up to eight three-digit site codes. the site code range is 0-999. Any previously programmed site codes display. Dashes represent blank site codes and indicate where digits display on the keypad.

In the keypad display, the letters **aaa** correspond to site code one, letters **bbb** to site code two and so on to **hhh** representing site code eight.

Press the first top row select key or area to display the **>** character next to the site code 1. Press the first select key or area again to move to the bottom line. Press the second select key or area to move between site codes two and six and so on. When you have selected the site code you want to change, press **CMD**.

ENTER SITE CODE
127 ___ ___ DEL

ENTER SITE CODE

Press the first top row select key or area to enter a site code number. Use the keypad digits to enter the three-digit site code number.



Note: A card with a site code greater than three digits cannot be used. Use only cards with three-digit site codes.

Press the fourth top row select key or area to delete the site code number displayed and return to the site code display. Repeat these steps to change, delete, or add other site codes.

ENTER SITE CODE
127 ___ ___ DEL

NUMBER OF USER CODE DIGITS

The 734N module recognizes user codes from four to twelve 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. 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

NO COMM WITH PNL
OFF SITE ANY ON

NO COMMUNICATION WITH PANEL

This option defines the relay action when communication with the panel has not occurred for five seconds. Default is **OFF**. Press any top row select key or area to change the default relay action.

Choose the action required when the 734N cannot establish communication with the panel:

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, 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 1-8. For details refer back to the REQUIRE SITE CODE option.

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 the CMD key to display the next action.

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.

NO COMM WITH PNL
LAST

REMOVE KEYPAD

REMOVE KEYPAD

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

KEYPAD BUS WIRING SPECIFICATIONS

Refer to the following Keypad bus/AX-Bus/LX-Bus wiring specifications.

DMP recommends using 18 or 22-gauge unshielded wire for all keypad and AX-Bus/LX-Bus circuits. Do not use twisted pair or shielded wire for AX-Bus/LX-Bus and keypad bus data circuits. All 22-gauge wire must be connected to a power-limited circuit and jacket wrapped.

On keypad bus circuits, to maintain auxiliary power integrity when using 22-gauge wire do not exceed 500 feet. When using 18-gauge wire do not exceed 1,000 feet. To increase the wire length or to add devices, install an additional power supply that is listed for Fire Protective Signaling, power limited, and regulated (12/24VDC nominal) with battery backup.



Note: Each panel allows a specific number of supervised keypads. Add additional keypads in the unsupervised mode.

Maximum distance for any one bus circuit (length of wire) is 2,500 feet regardless of the wire gauge. This distance can be in the form of one long wire run or multiple branches with all wiring totaling no more than 2,500 feet. As wire distance from the panel increases, DC voltage on the wire decreases. Maximum number of AX-Bus/LX-Bus devices per 2,500 feet circuit is 40 feet.

Maximum voltage drop between the panel (or auxiliary power supply) and any device is 2.0VDC. If the voltage at any device is less than the required level, add an auxiliary power supply at the end of the circuit. When voltage is too low, the devices cannot operate properly.

For additional information refer to the panel's Installation Guide, the 710 Installation Sheet (LT-0310), and/or the LX-Bus/Keypad Bus Wiring Application Note (LT-2031).

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 XR100/XR500, XR150/XR350/XR550 or the XR150INT/XR350INT/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 e-mail 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. What this means is that 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.

Packet Communication Outline:

- 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.

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 24VDC power source.

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)

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 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

INTERNATIONAL CERTIFICATIONS

Security Grade: 3

Environmental Class: II



Intertek

INTERTEK (ETL) LISTED

EN 50130-4

EMC Product Family Standard: Immunity Requirements for Component 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

EXPORT CONTROL

The 734N 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
Current Draw	
Standby	346 mA (Includes 200 mA for proximity reader) +1.6 mA per active zone
Alarm	348 mA (Includes 200mA for proximity reader) +10 mA with Annunciator ON +2 mA per faulted zone
Form C Relay	35 mA at 12/24 VDC
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

ACCESSORIES

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

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

