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ABOUT THE 734N-WIFI

The 734N-WIFI Wiegand Interface Module allows you add Wi-Fi network access control capability to XR150/XR550 Series panels using proximity or smart card readers. The 734N-WIFI provides a fast, safe, and secure connections to your local Wi-Fi network for AES encrypted TCP communication using a Wireless-G connection with the control panel. It also allows fast verification of user codes presented at the card reader for door access. The 734N-WIFI includes the following features:

POWER SUPPLY
The 734N-WIFI 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-WIFI 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-WIFI. You can also connect a variety of switched ground annunciators to the 734N-WIFI for remote annunciation.

INDICATOR LEDS
The 734N-WIFI 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-WIFI’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-WIFI 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-WIFI, 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-WIFI is powered from 24VDC, do not connect devices to KYPD OUT header.
INSTALL THE 734N-WIFI

1 MOUNT THE 734N-WIFI

The 734N-WIFI 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-WIFI housing have wire entrances. The back also contains multiple screw holes that allow you to mount the 734N-WIFI on a single-gang switch box. DMP recommends mounting the 734N-WIFI near the protected door.

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

1. Remove the 734N-WIFI PCB from the plastic housing.
2. Mount the plastic standoffs to the panel enclosure by pressing them into place.
3. Snap the 734N-WIFI onto the standoffs.
The 734N-WIFI 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.
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-WIFI to suppress any surges caused by energizing a magnetic lock or door strike.

Install the 333 across the 734N-WIFI **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.
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.

<table>
<thead>
<tr>
<th>ZONE #</th>
<th>RECOMMENDED DEVICE</th>
<th>RESIDENTIAL FIRE DEVICES?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Any burglary device</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Door Contact</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>REX (PIR or Button)</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Any device</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Table 1: 734N-WIFI Zone Uses*
Figure 7: 734N-WIFI Zone Terminal Wiring
6 CONNECT A CARD READER *(optional)*

The 734N-WIFI 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-WIFI on-board piezo to turn on.
Figure 8: Card Reader Wiring

- **Card Reader**
- **Shield**
- **Yellow**
- **Orange/Brown**
- **Black (GND)**
- **Green (Data 0)**
- **White (Data 1)**
- **Red (12/24VDC)**

Legend:
- **J3**
- **ON**
- **RED**
- **WHT**
- **GRN**
- **BLK**
- **LC**
- **RA**
- **AS**
- **Z1**
- **GND**
- **Z2**
- **Z3**
- **GND**
- **Z4+**
- **Z4−**
SET THE 734N-WIFI’S ADDRESS

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

Figure 9: 734N-Wi-Fi 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-WIFI has a built-in four-zone expander, three extra zones will be mapped to the 734N-WIFI automatically.

A 734N-WIFI with an address of 1 on AX500 would represent door 501 and zones 501-504. A 7734N-WIFI with an address of 2 on AX500 would represent door 505 and zones 505-508. A 734N-WIFI 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.
734N-WIFI Address Table
To set the 734N-WIFI 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.

<table>
<thead>
<tr>
<th>DEVICE/DOOR</th>
<th>ZONES</th>
<th>DEVICE/DOOR</th>
<th>ZONES</th>
<th>DEVICE/DOOR</th>
<th>ZONES</th>
<th>DEVICE/DOOR</th>
<th>ZONES</th>
<th>DEVICE/DOOR</th>
<th>ZONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11-14</td>
<td>501</td>
<td>501-504</td>
<td>601</td>
<td>601-604</td>
<td>701</td>
<td>701-704</td>
<td>801</td>
<td>801-804</td>
</tr>
<tr>
<td>2</td>
<td>21-24</td>
<td>505</td>
<td>505-508</td>
<td>605</td>
<td>605-608</td>
<td>705</td>
<td>705-708</td>
<td>805</td>
<td>805-808</td>
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<tr>
<td>3</td>
<td>31-34</td>
<td>509</td>
<td>509-512</td>
<td>609</td>
<td>609-612</td>
<td>709</td>
<td>709-712</td>
<td>809</td>
<td>809-812</td>
</tr>
<tr>
<td>4</td>
<td>41-44</td>
<td>513</td>
<td>513-516</td>
<td>613</td>
<td>613-616</td>
<td>713</td>
<td>713-716</td>
<td>813</td>
<td>813-816</td>
</tr>
<tr>
<td>5</td>
<td>51-54</td>
<td>517</td>
<td>517-520</td>
<td>617</td>
<td>617-620</td>
<td>717</td>
<td>717-720</td>
<td>817</td>
<td>817-820</td>
</tr>
<tr>
<td>6</td>
<td>61-64</td>
<td>521</td>
<td>521-524</td>
<td>621</td>
<td>621-624</td>
<td>721</td>
<td>721-724</td>
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<td>725-728</td>
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<td>11</td>
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<td>541-544</td>
<td>641</td>
<td>641-644</td>
<td>741</td>
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<td>121-124</td>
<td>545</td>
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<td>549-552</td>
<td>649</td>
<td>649-652</td>
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<td>761</td>
<td>761-764</td>
<td>861</td>
<td>861-864</td>
</tr>
</tbody>
</table>

Table 2: Device Addresses and 734N-WIFI Zone Numbers
PROGRAM THE 734N-WIFI

When you program a 734N-WIFI, you can use a keypad connected to the 734N-WIFI 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-WIFI from an XR150/XR550 Series panel. If you choose to program the 734N-WIFI 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-WIFI.

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

734N PROGRAMMING
VER VVV MM/DD/YY

PROGRAM START DISPLAY
When you connect the keypad to the 734N-WIFI 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-WIFI module programming memory back to factory defaults. Press any select key or area to enter the initialization menu.
**INITIALIZE CONFIRM OPTION**

After selecting **YES** to clear the Access Options, the 734N-WIFI 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 access the programming options in the Communication menu.

**734N DEVICE NO:**

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

**734N-Wi-Fi DHCP**

Select **YES** to use dynamic IP address information for the 734N-WIFI IP Address, Subnet Mask, and Gateway Address. Select **NO** to enter static IP information.
734N-WIFI IP ADDRESS
Enter the IP address of the 734N-WIFI. Default is 192.168.0.201.

SUBNET MASK
Enter the local subnet mask assigned to the 734N-WIFI. Default is 255.255.255.0.

GATEWAY ADDRESS
Enter the local gateway address assigned to the 734N-WIFI. Default is 192.168.0.1.

PANEL IP ADDRESS
Enter the IP address of the panel. Default is 0.0.0.0.

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 734N-WIFI uses to send communication to the panel. This must be the same port that is programmed in the 734N-WIFI Listen Port in Network Options programming of the panel. The Panel IP port cannot be the same as the panel network programming port.
734N-WIFI PASSPHRASE

Enter an 8-16 character alphanumeric passphrase to encrypt communication with the panel. The 734N-WIFI passphrase must match the 734N-WIFI passphrase entered in Network Options programming of the panel. A passphrase is required for communication to occur with the panel. The default is blank.

SERVICE SET IDENTIFICATION (SSID)

Enter up to 32 characters for the SSID from the wireless router to identify the wireless LAN. The SSID is blank by default. When an SSID is entered for the first time or changed, the 734N-WIFI searches for the SSID entered to ensure communication. The keypad then displays either the SSID FOUND or SSID NOT FOUND. While the SSID is being computed, PROCESSING displays.

WIRELESS SECURITY TYPE

Select the security type based on the wireless router programming. The default wireless security type is WPA2-PSK. Press any select key to display the other security options. (WEP64, WEP128, WPA2-PSK, WPA2-PSK, None)
**WIRELESS NETWORK KEY**
This option displays only if a security option other than NONE is chosen. Enter the key provided from the wireless router’s programming. WEP64 requires a key of 10 characters and WEP128 requires 26 characters, both using a combination of the number 0-9 and the letters A-F.

WPA/WPA2-PSK uses a custom key that allows up to 32 characters. The default is blank.

Processing the wireless key may take up to 35 seconds depending on the selected wireless security type.

**ACCESS OPTIONS**
Press any select key or area to enter the programming options in the Access Options menu.

**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-WIFI module is protected (contact installed), a programmable bypass entry/exit timer can be provided by connecting its contact wiring to the 734N-WIFI 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-WIFI ends the bypass and indicates the open or short zone condition to the panel.

**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](image)
**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-WIFI 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
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 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
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-WIFI 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.
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-WIFI converts 17 bits of the 26 to 45-bit data string into a 5-digit number.

```
0 1 1 1 0 1 0 1 1 0 1 1 0 1 0 1 0 0 0 1 1 0 0 1 1 1
```

- **First Bit** Received Position = 0
- **Site Code** Position = 1 Length = 8
- **User Code** Position = 9 Length = 16
- **Last Bit** Received Position = 25

In this example the Wiegand Code Length = 26 bits.

**Figure 12: Wiegand Data Stream Bit Location**
CUSTOM CARD DEFINITIONS

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 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 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

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.

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 \texttt{aaa} correspond to site code one, letters \texttt{bbb} to site code two and so on to \texttt{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 \texttt{CMD}.

**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. 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.

**NUMBER OF USER CODE DIGITS**

The 734N-WIFI 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:**

<table>
<thead>
<tr>
<th># decoded</th>
<th>1234567</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 digits</td>
<td>0001234567</td>
</tr>
<tr>
<td>5 digits</td>
<td>34567</td>
</tr>
<tr>
<td>4 digits</td>
<td>3456</td>
</tr>
</tbody>
</table>

**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-WIFI 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.

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

**NO COMM WITH PNL**

**LAST**

**REMOVE KEYPAD**
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).
CERTIFICATIONS

FCC Part 15 ID: CCKPC0136
Industry Canada: 5251A-PC0136
Electronic Emission
This device complies with CFR47 Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

FCC Frequency Interference
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to CFR47 Part 15. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment, notwithstanding use in commercial, business and industrial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

**FCC Radiation Exposure**
To comply with FCC Radio Frequency exposure requirements in section 1.1307, a minimum separation distance of 20 cm. is required between the antenna and all occupational persons, and a minimum separation distance of 20 cm. is required between the antenna and all public persons.

**Antenna Installation**
WARNING: It is installer’s responsibility to ensure that when using the authorized antennas in the United States (or where FCC rules apply); only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden in accordance to FCC rules CFR47 part 15.204. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation is required of equipment with connectors to ensure compliance with health and safety issues.
INDUSTRY CANADA INFORMATION

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna provided with the maximum permissible gain and required antenna impedance. Antenna types not included, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

This device complies with Industry Canada Licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.
## ACCESSORIES

### PROXIMITY READERS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-300</td>
<td>Cascade Proximity Reader</td>
</tr>
<tr>
<td>P-500</td>
<td>Alps Proximity Reader</td>
</tr>
<tr>
<td>P-640</td>
<td>Patagonia Proximity Reader with Keypad</td>
</tr>
<tr>
<td>MP-5365</td>
<td>MiniProx™ Proximity Reader</td>
</tr>
<tr>
<td>MX-5375</td>
<td>MaxiProx® Proximity Reader</td>
</tr>
<tr>
<td>PP-6005B</td>
<td>ProxPoint® Plus Proximity Reader</td>
</tr>
<tr>
<td>PP-5355</td>
<td>ProxPro Proximity Reader with Keypad</td>
</tr>
<tr>
<td>PR-5455</td>
<td>ProxPro® II Proximity Reader</td>
</tr>
<tr>
<td>TL-5395</td>
<td>ThinLine II® Proximity Reader</td>
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### PROXIMITY CREDENTIALS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>PSC-1</td>
<td>Standard Light Proximity Card</td>
</tr>
<tr>
<td>PSK-3</td>
<td>Proximity Key Ring Tag</td>
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<tr>
<td>PSM-2P</td>
<td>ISO Imageable Proximity Card</td>
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<tr>
<td>1306</td>
<td>Prox Patch™</td>
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<tr>
<td>1326</td>
<td>ProxCard II® Card</td>
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<tr>
<td>1346</td>
<td>ProxKey III® Access Device</td>
</tr>
<tr>
<td>1351</td>
<td>ProxPass®</td>
</tr>
<tr>
<td>1386</td>
<td>ISOProx II® Card</td>
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</table>
# PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Primary Power</strong></td>
<td>8.5 VDC to 28.5 VDC</td>
</tr>
<tr>
<td><strong>Current Draw</strong></td>
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</tr>
<tr>
<td>Standby</td>
<td>346 mA + 1.6 mA per active zone</td>
</tr>
<tr>
<td>Alarm</td>
<td>348 mA + 10 mA with Annunciator ON + 2 mA per faulted zone</td>
</tr>
<tr>
<td>Form C Relay</td>
<td>35 mA at 12/24 VDC</td>
</tr>
<tr>
<td><strong>Zones</strong></td>
<td>5 VDC, 2 mA max</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>4.5”W x 2.75”H x 1.75”D</td>
</tr>
<tr>
<td></td>
<td>11.43W x 7H x 4.45D</td>
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