7000 Series Thinline™ and Aqualite™ Keypad

INSTALLATION AND PROGRAMMING GUIDE
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ABOUT THE KEYPAD

Thinline Series (7060, 7063, 7070, 7073, 7160, 7163, 7170, and 7173) and Aqualite Series (7060A, 7063A, 7070A, and 7073A) LCD keypads offer flexible features and functionality. Each keypad provides:

- Custom 16-character home or business name in the display
- Four 2-button panic keys
- AC Power/Armed LED
- 32-character display
- Backlit keyboard and DMP logo
- Internal speaker
- Red keyboard lighting in alarm conditions
- Simple harness connection to 4-wire keypad bus
- Optional backboxes for conduit or wall mount applications

**Models 7070/A, 7073/A, 7170, and 7173**
Provide four fully-programmable, Class B, Style A, supervised, power limited protection zones that can be programmed for a variety of burglary and access control applications.

**Models 7063/A, 7073/A, 7163, and 7173**
Provide a built-in proximity card reader designed to read proximity credentials.

**Models 7073/A and 7173**
Provide a door strike relay and allow Wiegand input from external card readers.
KEYPAD FEATURES

- Armed/Power LEDs
- Proximity Credential Reader and Backlit Logo
- Keypad Display/Status List
- Select Keys
- Panic Keys
- Command (CMD) Key
- Back Arrow Key

Figure 1: 7000 Series LCD Keypad
Figure 2: Thinline 7100 Series LCD Keypad

- **Power LED**
- **Armed LED**
- **Proximity Credential Reader and Backlit Logo**
- **32-Character Display**
- **Select Keys**
- **Command**
- **Back Arrow**

**Power LED**
- **Armed LED**
- **Select Keys**
- **Command**
- **Back Arrow**
ENTER CHARACTERS

**NUMBER PAD**

1. Choose a character from the table. Use the *Greek Characters* table if Greek was selected as the keypad language setting.

2. Identify the **Number** the character correlates with and press that number on the number pad.

3. Identify the **Select Key** for the character and press that select key on the keypad. Press that select key again for the lowercase letter (Latin characters only).

4. When the desired character displays on the keypad, return to step 1 to enter another character or press **CMD** if finished.

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>SELECT KEY</th>
<th>SELECT KEY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1</td>
<td>A B C ( [ {</td>
<td>A B Γ ( [ {</td>
</tr>
<tr>
<td>2</td>
<td>D E F ) ] }</td>
<td>Δ E Η ) ] }</td>
</tr>
<tr>
<td>3</td>
<td>G H I ! ^ ~</td>
<td>H Θ I ! ^ ~</td>
</tr>
<tr>
<td>5</td>
<td>M N O / \ `</td>
<td>Ν Ξ Ω / \ `</td>
</tr>
<tr>
<td>6</td>
<td>P Q R &amp; $</td>
<td>Π Ρ Σ &amp; $</td>
</tr>
<tr>
<td>7</td>
<td>S T U @ %</td>
<td>Τ Υ Φ @ %</td>
</tr>
<tr>
<td>8</td>
<td>V W X , =</td>
<td>Χ Ψ Ω , =</td>
</tr>
<tr>
<td>9</td>
<td>Y Z Space : _ ;</td>
<td>Space Space Space : _ ;</td>
</tr>
<tr>
<td>0</td>
<td>- + . ’ * &lt; # &gt;</td>
<td>- + . ’ * &lt; # &gt;</td>
</tr>
</tbody>
</table>

**Table 1: Latin Characters**

**Table 2: Greek Characters**
**PANIC KEY OPTIONS**

**2-Button Panic Keys**
All keypads offer a panic key function that allows users to send panic, emergency, or fire reports to the central station in an emergency. Enable the panic key function in the keypad user menu. Place the supplied icon stickers below the top row select keys. The user must press and hold the two select keys for two seconds until a beep is heard.

- **Panic** (left two select keys)—Zone 19 + Device Address
- **Emergency Non-Medical** (center two select keys)—Zone 29 + Device Address
- **Fire** (right two select keys)—Zone 39 + Device Address

**7/0 Panic Keys**
All keypads allow the user to initiate a panic alarm by pressing the 7 and 0 (zero) keys at the same time for one-half (1/2) second. Enable the 7/0 Panic function in Installer Options. When enabled, all keypads send a Zone Short message to the panel for the first zone of the keypad address. When the keys are released, a Zone Restore message can be sent from the initiating keypad. To produce a panic alarm, program the first zone of the keypad address as a panic type (PN) in panel programming. Place a 1k Ohm end-of-line (EOL) resistor, DMP Model 311, across the white/brown pair of zone wires on models 7070/A, 7073/A, 7170, and 7173. A Zone Restore message sends when the keys are released. The 1k Ohm EOL resistor is not required on 7060/A, 7063/A, 7160, and 7163 keypads.
**USER OPTIONS MENU**

To access the Options menu, press and hold the back arrow and CMD keys for 2 seconds.

**Backlighting Brightness**
Adjust the LCD display brightness level, power and armed LEDs, the green keyboard, and the logo backlighting. At **SET BRIGHTNESS**, use the left select key to decrease the brightness and the right select key to increase the brightness. If the brightness level is lowered, it reverts to maximum intensity whenever a key is pressed. If no keys are pressed, and the speaker has not sounded for 30 seconds, the user-selected brightness level restores.

**Internal Speaker Tone**
Adjust the keypad internal speaker tone. At **SET TONE**, use the left select key to decrease the tone and the right select key to increase the tone.

**Internal Volume Level**
Adjust the keypad internal speaker volume for key presses and entry delay tone conditions. During alarm and trouble conditions, the volume is always at maximum level. At **SET VOLUME LEVEL**, use the left select key to decrease the volume and the right select key to increase the volume.

**Model Number**
Display the keypad model number, firmware version, and date.

**Keypad Address**
Display the current keypad address.
INSTALL THE KEYPAD

1 REMOVE THE COVER

The keypad housing is made up of two parts: the cover, which contains the circuit board and components, and the base.

To separate the keypad cover from the base, insert a flathead screwdriver into one of the slots on the bottom of the keypad and gently lift the screwdriver upward. Repeat with the other slot. Gently separate the cover from the base and set the cover containing the keypad components aside. See Figure 3.

Figure 3: Separate the Keypad Housing
2 WIRE THE KEYPAD

Each keypad model has specific wiring assignments. All zones are supervised. Use 1k Ohm EOL resistors, DMP Model 311 on keypad zones 1-4. Locate the keypad model below and refer to Figure 5 to wire the keypad.

Models 7060/A, 7063/A, 7160, and 7163
Supplied with a 4-wire harness for panel keypad bus connection.

Models 7070/A, 7073/A, 7170, and 7173
Supplied with a 12-wire data bus/zone harness. Four wires connect to the keypad bus. The remaining eight wires are for the four zone inputs, four wires for each zone.

Models 7073/A and 7173
Supplied with a 5-wire output/reader harness and a 12-wire data bus/zone harness.

Firmly grasp the wires near the base and hold the outside edges of the keypad housing. Line up the red and yellow wires with the guides on the board to inset the connector into the J5 keypad terminal. Observe wire colors when connecting the red, yellow, green, and black wires to the keypad bus. See Figure 4.

- Connect red wire to panel terminal 7
- Connect yellow wire to panel terminal 8
- Connect green wire to panel terminal 9
- Connect black wire to panel terminal 10

![Figure 4: Wiring Harness](image-url)
**Additional Power Supply**
If the current draw for all keypads exceeds the panel output, provide additional current by adding a Model 505-12 auxiliary power supply.

1. Connect all keypad black ground wires to the power supply negative terminal.
2. Run a jumper wire from the power supply negative terminal to the panel common ground terminal.
3. Connect all keypad power (+12 VDC) wires to the power supply positive terminal.
   - Do not connect the power supply positive terminal to any panel terminal. Refer to the 505-12 Power Supply Installation Guide if needed (LT-0453).

**Keypad Bus Monitor**
For listed fire protective systems, the 893A Module or 277 Trouble Sounder must be installed on the XR150/XR550 Series panel to monitor the keypad bus. It should be programmed to sound when the keypad bus fails to operate.
**Green/White** - Connect Reader Data 0
**White** - Connect Reader Data 1
**Orange** - Door Strike N/O
**Gray** - Door Strike C
**Violet** - Door Strike N/C

**Yellow/White** - Zone 4
**White/Yellow** - Zone 3
**Orange White** - Zone 2
**White/Orange** - Zone 1
**Red/White** - All Keypads
**White/Red** - All Keypads
**Brown/White** - All Keypads
**White/Brown** - All Keypads

**Black** - Ground
**Green** - Receive Data
**Yellow** - Send Data
**Red** - Keypad Power

---

*All zones are supervised and suitable for fire applications.
*Maximum zone line impedance is 100 Ohms.
*Ground fault detected at 1420 Ohms or less.

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**Figure 5: Keypad Back Showing Wiring Harness Assignments**
3 *WIRE FOR ACCESS CONTROL*

**Internal Access Control Reader**
The 7063/A, 7073/A, 7163, and 7173 keypads provide a built-in proximity card reader that is compatible with most standard 125 kHz proximity credentials. An external 13.56 MHz proximity reader can be connected and will be compatible with 13.56 MHz proximity credentials. For a list of publicly supported card formats, see Public Card Formats.

*Note:* Some proximity credentials are not compatible with DMP proximity keypads. Test the intended proximity credentials with the application before installation. DMP does not guarantee compatibility with credentials not purchased from DMP.

**External Access Control Reader**
To accept Wiegand data input from other external card readers, connect a 12 VDC external reader to a 7073/A or 7173 keypad. Connect the red and black power wires from the reader to the power wires from the panel. These connect in parallel with the keypad power wires. Connect the reader (Data 1) wire to the white wire on the 5-wire keypad cable. Connect the reader (Data 0) wire to the green/white wire on the 5-wire keypad cable. See Figure 6.
**Figure 6: Access Control Wiring**

- **Green/White** - Connect Reader Data 0
- **White** - Connect Reader Data 1
- **Orange** - Door Strike Normally Open
- **Gray** - Door Strike Common
- **Violet** - Door Strike Normally Closed

*Only the green/white, white, black, and red wires connect to the external card reader.*
4 WIRE THE ELECTRONIC LOCK

The 7073/A and 7173 keypads provide one internal programmable Form C single pole, double throw (SPDT) relay for controlling door strikes or magnetic locks. Three wires on the 5-wire harness, violet normally closed (N/C), gray common (COM), and orange normally open (N/O), allow you to connect devices to the relay. The Form C relay draws up to 15 mA of current and the contacts are rated for 1 Amp at 30 VDC maximum.

5 WIRE THE 333 SUPPRESSOR

One Model 333 Suppressor is included with the 7073/A and 7173 keypads. If the device being controlled by the relay is connected to the N/O and C wires, install the suppressor on the N/O and C wires. If the device is connected to the N/C and C wires, install the 333 on N/C and C wires. See Figure 7.
Figure 7: 5-Wire Harness and 333 Suppressor Installation
Door Strike Relay Operation
When the user code sent from the reader is verified by the panel, the keypad door strike relay activates for five seconds. During this time, the access door connected to Zone 2 must be opened to start the programmed entry/exit timer and Zone Bypass if programmed and used. The five second door strike is panel programmable when the keypad is used on an XR150/XR550 Series panel.

Zone 2 Door Contact with Bypass
If the door being released by the 7073/A and 7173 keypad is protected, you can provide a programmed bypass time by connecting its contact to Zone 2 (white/red pair) on the keypad and enabling the bypass feature. Door contacts may be N/C or N/O.

Zone 3 Request to Exit
You can also connect a N/O PIR (or other motion sensing device) or a mechanical switch to Zone 3 (white/orange pair) on the 7073/A and 7173 keypad to provide Request to Exit (REX) capability. When Zone 3 shorts, the keypad relay activates for 5 seconds. During this time, the user can open the protected door to start the programmed Bypass entry/exit timer. If the door is not opened within five seconds, the relay restores to its locked state. A Zone 3 REX is inhibited for three seconds after the keypad reads a card and a door strike occurs. This is to allow area entry and pass under a REX PIR.
PROGRAM THE KEYPAD

Keypad Options and Keypad Diagnostic menus allow install and service technicians to configure and test keypad operation. To access the installer options:

1. Hold down the back arrow and CMD keys for two seconds.
2. At SET BRIGHTNESS, enter 3577 (INST) and press CMD.

The display changes to KPD OPT KPD DIAG and STOP. The Keypad Options menu allows you to set the keypad address, select Supervised or Unsupervised mode, change the default keypad message, selectively enable the 2-button Panic keys, Bypass, REX, and set entry card options.

All programming options display on all keypads. However, actual operation for some programming options is restricted to the appropriate model.

KEYPAD OPTIONS

<table>
<thead>
<tr>
<th>KPD</th>
<th>KPD OPT</th>
<th>DIAG</th>
<th>STOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT KEYPAD ADDRESS: 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Keypad Options
To program keypad options, press KPD OPT.

Current Keypad Address
Set the current keypad address from 01 to 08 for XT30/XT50/XR150 Series panels or 01 to 16 for XR550 Series panels. The default address is 01. To change the current address, press any select key and enter the new address. Do not enter a leading zero for addresses 01 to 09.
**Keypad Mode**

Keypads with programmed zones must be supervised and cannot share an address with other keypads. Unsupervised keypads can operate together sharing the same address, but cannot be used when Device Fail Output has a programmed value other than zero. To select a keypad mode, press the select key under **SUP** or **UNSUP**. An asterisk appears next to the selected option.

**Default Keypad Message**

Enter a custom message of up to 16 characters to appear at the top of the keypad display. Press any select key, enter a new message, and press **CMD**.

**Arm Panic Keys**

Use this option to configure the select keys as two-button panic keys. To enable or disable a panic option, press the select key under the desired name: **PN** (panic), **EM** (emergency), and **FI** (fire). Press the select key again to disable the panic option. Once the panic option is enabled, an asterisk displays next to the selected option(s).

**7/0 Panic**

Press the fourth select key to choose **YES**, configuring the 7 and 0 keys as two-button panic keys. Select **NO** to disable the option. Default is **NO**.
Activate Zone 2 Bypass (7073/A, 7173 only)
Select YES to activate the zone 2 bypass operation. Selecting NO allows standard zone operation on zone 2. The default is NO.

Zone 2 Bypass Time (7073/A, 7173 only)
Enter the number of bypass seconds to elapse before the bypass timer expires. Range is 20-250 seconds. Press any select key to enter the number of seconds. Once the door strike relay is activated, the user has five seconds to open the door connected to zone 2. The zone is then bypassed for the programmed time or until the contact restores to normal. Ten seconds prior to the expiration of the bypass time, the keypad beeps if the door is still open. If the door remains open when the timer expires, a zone open/short is sent to the panel for zone 2. Default is 40 seconds.

Relock on Zone 2 Fault? (7073/A, 7173 only)
Select NO to leave the relay on when zone 2 faults to an open or short condition during bypass. Select YES to turn the relay off when zone 2 faults open or short during bypass. Default is NO.
Activate Zone 3 Exit (7073/A, 7173)
Select YES to enable the Request to Exit feature on zone 3. When zone 3 shorts, the keypad relay activates. During this time, the user can open the protected door to start the programmed bypass entry/exit timer. If the door is not opened within the time programmed in the Zone 3 REX Strike Time, the relay restores the door to its locked state. No panel programming is required.

Zone 3 REX Strike Time (7073/A, 7173)
Enter the number of REX seconds to elapse. Range is 5-250 seconds. Press any select key to clear the keypad display and enter the number of seconds. The default is 5.

ALL? NO YES (7063/A, 7073/A, 7163, 7173)
Select the number of seconds (1-9) the keypad should wait when an area system displays ALL? NO YES during arming/disarming or a HOME/SLEEP/AWAY system waits during arming only. If NO or YES, or HOME, SLEEP, or AWAY is not manually selected before the delay expires, the keypad automatically selects YES or AWAY. Select zero (0) to disable this feature. The delay also occurs when any credential is presented for arming the Home/Sleep/Away system. Default is 2.
CUSTOM CARD FORMAT

Note: Custom card format programming options are only available on 7063/A, 7073/A, 7163, and 7173 keypads.

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.
Card Format Number
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 keypad. 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**
Press any select area to rename the card format. Press **CMD** to save and advance.

**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 8.

```
01110101101101010001100111
```

- **First Bit**
  - Received Position = 0
  - Length = 8

- **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 8: Wiegand Data Stream Bit Location**
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 Position and Length
Define the user code start bit position and length. Press select area 2 to clear the user code position and enter a number between 0-255. Press CMD to save. Default is 9.

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

Require Site Code
Press the top row 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 Display
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**.

Number of User Code Digits
The keypad 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 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.

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.
Keypad Language

Define the keypad’s language. Default is **ENGLISH**.

Press any select key to change the language options.

Press select key 1 to select English. Press select key 2 to select Spanish. Press select key 3 to select French. Press select key 4 to select Dutch.

Press **CMD** to advance the language options.

Press select key 1 to select Greek. Press select key 2 to select Czech.
**ADDITIONAL PROGRAMMING**

Users can manually enter their user code into the keypad which then verifies the user code and its authority with the panel. The 7073/A and 7173 activate the on-board Form C relay releasing a door strike or magnetic lock. To provide added flexibility, the keypad allows connection of an external Wiegand output compatible reader.

**Proximity Credential Compatibility**

DMP keypads with internal proximity readers are compatible with most standard 125 kHz proximity credentials. An external 13.56 MHz proximity reader can be connected and will be compatible with 13.56 MHz proximity credentials. For a list of publicly supported card formats, see Public Card Formats.

**Note:** Some proximity credentials are not compatible with DMP proximity keypads. Test the intended proximity credentials with the application before installation. DMP does not guarantee compatibility with credentials not purchased from DMP.

**Program a Credential**

1. Access the User Menu by pressing **CMD** until **MENU? NO YES** displays. Choose **YES**, and present your proximity credential to the reader or manually enter your user code at the keypad.
2. Press **CMD** until **USER CODES?** displays.
3. Press any select key. Choose **ADD**.
4. At **ENTER CODE: -**, present the credential to the reader. The keypad works by reading the user code from the data string sent by the access control reader.
TEST THE KEYPAD

Test the keypad to ensure alarm backlighting, individual shortcut keys, and any programmed zones work. To begin testing, access the Installer Options menu. Hold down the back arrow and CMD keys at the same time until SET BRIGHTNESS displays. Enter 3577 and press CMD.

**Keypad Diagnostics**
Press the select key under KPD DIAG. The keypad lights all display segments and illuminates the keyboard in red. The display backlighting then changes to green. The keypad alternates between these two states for approximately two minutes. Press CMD at any time to begin testing individual keys.

**Test Individual Keys**
The display changes to PRESS KEY TO TEST. This option tests each key on the keyboard to ensure it is operating properly. Press and hold each key for two seconds. The key number being held appears in the display. Verify the correct number displays before testing the next key.
Zone Test (7070, 7073/A, 7170, 7173)
This option allows the keypads to display the current electrical status of the four protection zones. The status is shown as OPEN, SHRT, or OKAY. The zone test displays on the other keypads but is not operational.

Input Wiegand (7063/A, 7073/A, 7163, 7173)
This option tests the internal and external reader input from proximity credentials. The display shows OKAY each time a good proximity read is received.

Exiting the Installer Options
When done, press CMD once to return to the Installer Options screen. Press the select key under STOP to exit the Installer Options function.
This section covers 7063/A, 7073/A, 7163, and 7173 keypads and contains three sections:

- Keypad Arming and Disarming
- Keypad Access Control
- Keypad Entry Delay

All of the examples displayed assume that **CLOSING CODE** is **YES** in panel programming.

Figures 9 through 12 show the user presenting a card to the keypad. When an external reader is connected to a 7073/A and a 7173 keypad, the user presents a card to the reader rather than to the keypad.
**KEYPAD ARMING AND DISARMING**

**Area System Arming and Disarming**

1. Press **CMD** until the keypad displays **ARM DISARM**.
2. Press the select key under the preferred option.
3. The keypad displays **ENTER CODE: -**. The user presents their card to the reader.

Once validated by the system, all areas assigned to that code arm or disarm automatically and the 7073/A and 7173 keypad door strike relay activates. See Figure 9.

Select NO to arm or disarm individual areas.
Select YES, or simply wait, to automatically arm or disarm all areas for which you are authorized.

**Figure 9: Area Arming and Disarming**
**All/Perimeter System Arming and Disarming**

Present the card to the reader or press **CMD**, the keypad displays **DISARM?** or **PERIM ALL** (when arming). Press the select key under the desired option. The keypad displays **ENTER CODE: -**. Present the card to the reader. Once validated by the system, the selected areas arm or disarm automatically. On 7073/A and 7173 keypads, the Door Strike relay then activates.

**Home/Away System Arming and Disarming**

Present your card to the reader. If the system is armed, once the card is validated, all areas are disarmed and the keypad displays **ALL SYSTEM OFF**. If the system is disarmed when you present your card, once the card is validated, **HOME SLEEP AWAY** displays. Manually select **HOME, SLEEP, AWAY** or after a short time-out, all areas automatically arm in the **AWAY** mode.

![Image of a keypad with options for arming and disarming]

The system arms or disarms the areas and activates the door strike relay on the 7073 or 7073A keypad.

**Figure 10: All Perimeter Arming and Disarming**
**KEYPAD ACCESS CONTROL**

**Area and All/Perimeter Door Strike**

From the Status List, present your card to the reader. Once the system validates the card, the Door Strike relay activates. Home/Away systems only activate the 7073/A, and 7173 Door Strike relay when arming and disarming.

While the keypad displays the Status List, present your access card.

Typically, the relay activates for 5 seconds during which time you can open the door. Once you open the door, you have 40 seconds to exit and close the door before the Zone 2 Bypass expires.

**Figure 11: Present Access Card**
**KEYPAD ENTRY DELAY**

**All Systems**
Once the entry delay starts, the keypad sounds an entry tone and displays **ENTER CODE: -**. Present your card to the reader. Once validated, the system disarms all areas accessible by you and activates the 7073/7073A/7173 Door Strike relay. Area systems provide a delay to allow selected areas only to be disarmed. See Keypad Arming and Disarming.

Entry delay starts.
The System disarms the area and activates the Door Strike Relay.

**Figure 12: Entry Delay**
WIRING SPECIFICATIONS

When planning a keypad bus installation, keep in mind the following specifications:

- DMP recommends using 18 or 22 AWG unshielded wire for all keypad and LX-Bus circuits. Do not use twisted pair or shielded wire for LX-Bus and keypad bus data 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. Install an additional power supply to increase the wire length or add devices.
- Maximum distance for any one 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 devices per 2,500 feet circuit is 40.

Note: Each panel allows a specific number of supervised keypads. Add additional keypads in the unsupervised mode. Refer to the panel installation guide for the specific number of supervised keypads allowed.

- Maximum voltage drop between the panel (or auxiliary power supply) and any device is 2 VDC. 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.
## KEYPAD SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>NORMAL/STANDBY CURRENT</th>
<th>ALARM CURRENT</th>
<th>FOUR ZONES</th>
<th>INTERNAL PROX READER</th>
<th>WIEGAND INPUT</th>
<th>INTERNAL DOOR STRIKE RELAY</th>
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</thead>
<tbody>
<tr>
<td>7060/A, 7160</td>
<td>72 mA</td>
<td>87 mA</td>
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<tr>
<td>7063/A, 7163</td>
<td>85 mA</td>
<td>100 mA</td>
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<tr>
<td>7070/A, 7170</td>
<td>72 mA+1.6 mA per active zone</td>
<td>87 mA+2 mA per active zone</td>
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<tr>
<td>7073/A, 7173</td>
<td>85 mA+1.6 mA per active zone</td>
<td>100 mA+2 mA per active zone</td>
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## PUBLIC CARD FORMATS

<table>
<thead>
<tr>
<th>CARD FORMAT</th>
<th>WIEGAND CODE LENGTH</th>
<th>SITE CODE POSITION</th>
<th>SITE CODE LENGTH</th>
<th>USER CODE POSITION</th>
<th>USER CODE LENGTH</th>
<th>USER CODE DIGITS</th>
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<tbody>
<tr>
<td>H10301 26 BIT</td>
<td>26</td>
<td>1</td>
<td>8</td>
<td>9</td>
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<tr>
<td>H10302 37 BIT W/O FAC</td>
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<td>0</td>
<td>1</td>
<td>1</td>
<td>35</td>
<td>11</td>
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<tr>
<td>H10304 37 BIT W/FAC</td>
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<td>1</td>
<td>16</td>
<td>17</td>
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<tr>
<td>FARPOINTE 39 BIT</td>
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<td>17</td>
<td>18</td>
<td>20</td>
<td>7</td>
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<tr>
<td>CORPORATE 1000 35 BIT</td>
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<td>2</td>
<td>12</td>
<td>14</td>
<td>20</td>
<td>6</td>
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<tr>
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<td>22</td>
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## READERS AND CREDENTIALS

<table>
<thead>
<tr>
<th>125 KHZ PROXIMITY READERS</th>
<th>125 KHZ PROXIMITY CREDENTIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-300   Cascade Proximity Reader</td>
<td>PSC-1 Standard Light Proximity Card</td>
</tr>
<tr>
<td>P-500   Alps Proximity Reader</td>
<td>PSK-3 Proximity Key Ring Tag</td>
</tr>
<tr>
<td>P-640   Patagonia Proximity Reader with Keypad</td>
<td>PSM-2P ISO Imageable Proximity Card</td>
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<tr>
<td>MP-5365 MiniProx™ Proximity Reader</td>
<td>1306 Prox Patch™</td>
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<tr>
<td>MX-5375 MaxiProx® Proximity Reader</td>
<td>1326 Proxcard II® Card</td>
</tr>
<tr>
<td>PP-6005B Proxpoint® Plus Proximity Reader</td>
<td>1346 Proxkey III® Access Device</td>
</tr>
<tr>
<td>PP-5355 Proxpro Proximity Reader with Keypad</td>
<td>1351 Proxpass®</td>
</tr>
<tr>
<td>PR-5455 Proxpro® II Proximity Reader</td>
<td>1386 Isoprox II® Card</td>
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<tr>
<td>TL-5395 Thinline II® Proximity Reader</td>
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<tr>
<td>13.56 MHZ SMARTCARD READERS</td>
<td>13.56 MHZ SMARTCARD CREDENTIALS</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------</td>
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<tr>
<td>DELTA3</td>
<td>DC1-1</td>
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<tr>
<td>FARPOINTE SMARTCARD READER</td>
<td>FARPOINTE CLAMSHELL SMARTCARD</td>
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<tr>
<td>DELTA5</td>
<td>DM1-3</td>
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<tr>
<td>FARPOINTE SMARTCARD READER</td>
<td>FARPOINTE IMAGEABLE SMARTCARD</td>
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<td>DELTA5.3</td>
<td>DE2</td>
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<tr>
<td>FARPOINTE SMARTCARD READER</td>
<td>FARPOINTE MIFARE® DESFIRE® EV1</td>
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<td>DELTA6.4</td>
<td>SMARTCARD</td>
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<tr>
<td>FARPOINTE SMARTCARD READER</td>
<td>DK1-3</td>
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<tr>
<td></td>
<td>FARPOINTE KEY FOB SMARTCARD</td>
</tr>
</tbody>
</table>
COMPLIANCE SPECIFICATIONS

ULC Commercial Burglary for XR150/XR550 Series Panels
The keypad zones cannot be used for ULC listed applications.

Specifications
Operating Voltage 12 VDC
Thinline/Aqualite Dimensions 7” W x 5.25” H x 0.5” D

Compatibility
All keypads are compatible with all DMP panels.

ACCESSORIES

Backboxes
695 or 696 Keypad Backbox 777 protective keypad cover

Keypad Wiring Harness
300 4-wire harness 300-5 5-wire harness
300-12 12-wire harness 300-512 12-wire harness, 5 ft. long
330 4-wire dual end harness
# CERTIFICATIONS

California State Fire Marshall (CSFM)

FCC Part 15 RFID Reader FCC ID: CCKPC0086—Thinline and Aqualite

Industry Canada ID: 5251A-PC0086—Thinline and Aqualite

New York City (FDNY COA #6167)—Only for keypads with zones

Underwriters Laboratory (UL) Listed

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
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<tr>
<td>ANSI/UL 294</td>
<td>Access Control System Units</td>
</tr>
<tr>
<td>Level I</td>
<td>Destructive Attack and Line Security</td>
</tr>
<tr>
<td>Level IV</td>
<td>Endurance and Standby Power</td>
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<tr>
<td>ANSI/UL 365</td>
<td>Police Connected Burglar</td>
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<tr>
<td>ANSI/UL 609</td>
<td>Local Burglar</td>
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<tr>
<td>ANSI/UL 1023</td>
<td>Household Burglar</td>
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<tr>
<td>ANSI/UL 1076</td>
<td>Proprietary Burglar</td>
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<tr>
<td>ANSI/UL 1610</td>
<td>Central Station Burglar</td>
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<tr>
<td>ANSI/UL 1635</td>
<td>Digital Burglar</td>
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<tr>
<td>ANSI/UL 985</td>
<td>Household Fire Warning</td>
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<tr>
<td>ANSI/UL 864</td>
<td>Fire Protective Signaling</td>
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<td>Household Fire</td>
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<td>ULC/ORD-C1076</td>
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<tr>
<td>ULC S304</td>
<td>Central Station Burglar</td>
</tr>
</tbody>
</table>
FCC INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

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

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

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

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

This device complies with Industry Canada License-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.

This system has been evaluated for RF Exposure per RSS-102 and is in compliance with the limits specified by Health Canada Safety Code 6. The system must be installed at a minimum separation distance from the antenna to a general bystander of 7.87 inches (20 cm) to maintain compliance with the General Population limits.

L'exposition aux radiofréquences de ce système a été évaluée selon la norme RSS-102 et est jugée conforme aux limites établies par le Code de sécurité 6 de Santé Canada. Le système doit être installé à une distance minimale de 7.87 pouces (20 cm) séparant l'antenne d'une personne présente en conformité avec les limites permises d'exposition du grand public.