

7000 Series Thinline LCD Keypads Models 7060/7063/7070/7073

Description

The DMP Model 7060, 7063, 7070, and 7073 Thinline LCD Keypads offer the same flexible features and functionality as current DMP keypads in a stylish, sleek new design. Each keypad provides four 2-button Panic keys, AC power LED, Armed LED, 32-character display, backlit logo and keyboard with easy-to-read lettering and an internal speaker. In addition, the Models 7070 and 7073 keypads also provide four fully programmable Class B, Style A protection zones you can program for a variety of burglary and access control applications.

The Model 7063 and 7073 keypads provide a built-in proximity card reader designed to read HID 1300 Series and DMP 1400 Series proximity credentials. The Model 7073 keypad also provides a door strike relay and allows Wiegand input from HID, DMP, or other external card readers.

Installing the Keypad

The keypad housing is designed to easily install on any 4" square box, 3-gang switch box, DMP 695 and 696 backbox, or a flat surface. Figure 1 shows the keypad housing mounting hole locations.

Removing the Base

The keypad housing is made up of two parts: the front, which contains the circuit board, keyboard components, and the base. To remove the base, insert a flat screwdriver into one of the openings on the bottom and twist the screwdriver while pulling the halves apart. Repeat with the other opening.



Harness Wiring

Figure 1 shows wiring harness assignments. Observe wire colors when connecting the red, yellow, green, and black wires to the keypad bus. When wiring directly to the panel terminals, connect red to panel terminal 7, yellow to terminal 8, green to 9, and black to panel terminal 10. Use 1k Ohm EOL resistors, DMP Model 311, on keypad zones 1 through 4.

The 7060 and 7063 keypads are supplied with a 4-wire harness for panel keypad bus connection.

The 7070 and 7073 keypads are 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: two wires for each zone.

The 7073 keypad is also supplied with one 5-wire output/reader harness.

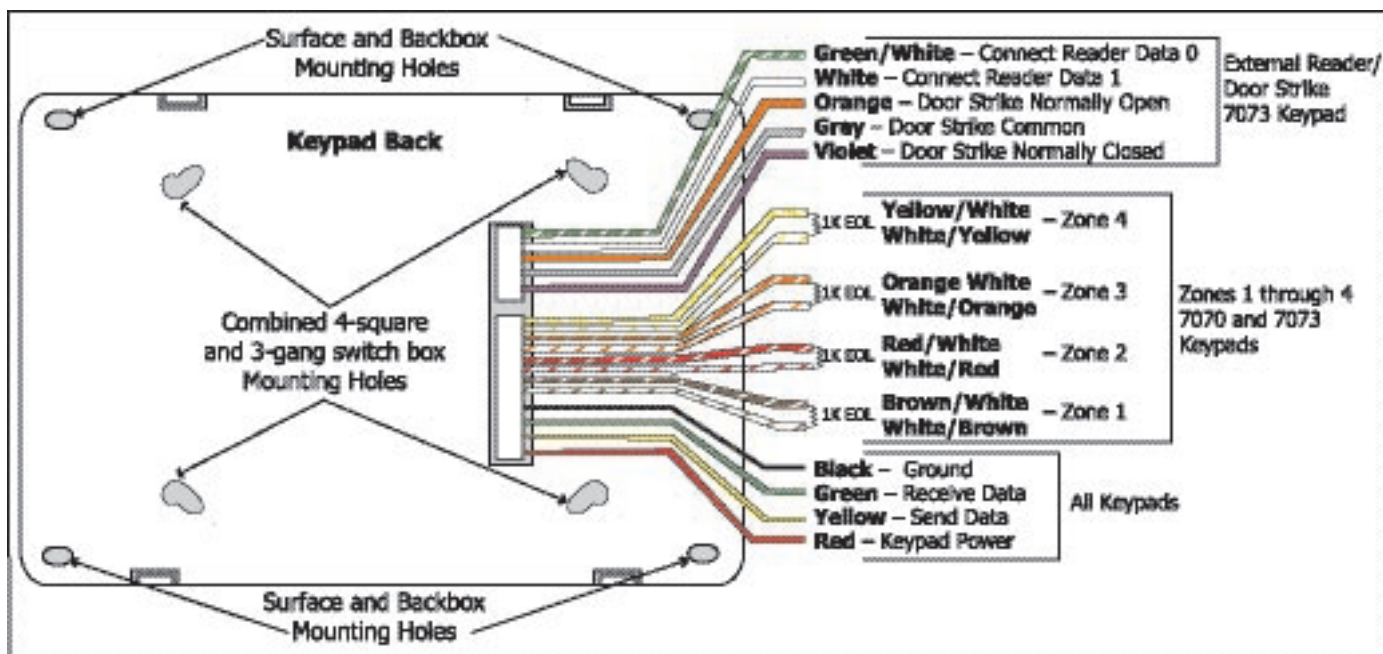


Figure 1: Keypad Back Showing Wiring Harness Assignments

Wiring Specifications

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

1. DMP recommends using 18 or 22-gauge **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.
2. 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.
3. 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.
4. Maximum voltage drop between the panel (or auxiliary power supply) and any device is 2.0 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.

Refer to the 710/710F Module Installation Sheet (LT-0310) for more information. Also see the LX-Bus/Keypad Bus Wiring Application Note (LT-2031).

Additional Power Supply

If the current draw for all keypads exceeds the panel output, you can provide additional current by adding a Model 505-12 auxiliary power supply. Connect all keypad black ground wires to the power supply negative terminal. Run a jumper wire from the power supply negative terminal to the panel common ground terminal. 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 504-24 and 505-12 Power Supply Installation Guide (LT-0453) for more information.

Keypad Bus Monitor

For UL Listed fire protective systems, the 893/893A Module must be installed in the XR500 Series or XR200 control panel to monitor the keypad bus and sound an audible trouble whenever the keypad bus fails to operate. Refer to the 893/893A Module Installation Sheet (LT-0135).

Card Readers

When a proximity credential is presented to an internal or external reader, a beep tone is heard and the Power and Armed LEDs blink. This provides both an audible and visual acknowledgement of the credential read.

Internal Access Control Reader

The 7063 and 7073 keypads provide a built-in proximity card reader designed to read HID 1300 Series and DMP 1400 Series proximity credentials.

Note: For UL Listed access control applications, the keypad must be installed within the protected area.

External Access Control Reader

To accept Wiegand data input from HID, DMP, or other external card readers, connect a 12 VDC external reader to the 7073 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 harness. Connect the Reader (Data 0) wire to the Green/White wire on the 5-wire keypad harness.

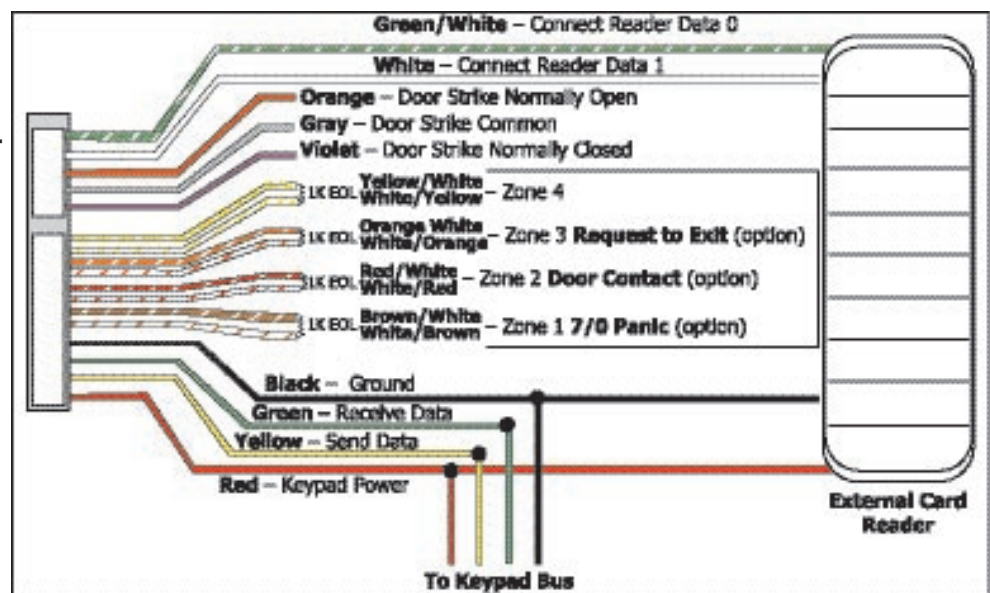


Figure 2: 12 VDC Reader Wiring for 7073 Keypad

7073 Door Strike Relay Specifications

The 7073 keypad provides one internal Form C single pole, double throw (SPDT) relay for controlling door strikes or magnetic locks. Three wires on the 5-wire harness, Violet (N/C), Gray (Com), and Orange (N/O), allow you to connect devices to the relay. The Form C relay draws up to 15mA of current and its contacts are rated for 1 Amp at 30 VDC maximum.

Wiring the 333 Suppressor

One Model 333 Suppressor is included with the 7073 keypad. Refer to Figure 3 and install the suppressor across the 5-wire output/reader harness Common (C) and Normally Open (N/O) or Normally Closed (N/C).

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 Suppressor on N/C and C wires.

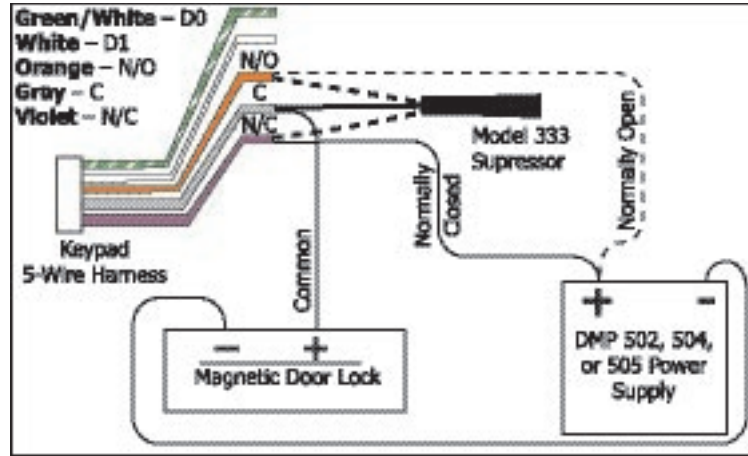


Figure 3: 7073 5-wire Harness and Suppressor Installation

7073 Door Strike Relay Operation

As soon as the user code sent from the reader is verified by the panel, the keypad door strike relay activates for 5 seconds. During this time, the access door connected to zone 2 must be opened to start the 40-second entry/exit timer and zone Soft-Shunt. See the timeline shown below.

Note: The 5-second door strike is programmable when the keypad is used on an XR200-485, XR500 Series, or XR2500F panel. Refer to the XR500 Series Programming Guide (LT-0679) or the XR200-485 Programming Guide (LT-0196).

7073 Zone 2 Door Contact with Soft-Shunt™

If the door being released by the keypad is protected, you can provide a 40-second shunt by connecting its contact to zone 2 (White/Red pair) on the keypad and enabling the Soft-Shunt feature. See ZONE 2 SHUNT in programming and 7073 Door Strike Relay Specifications in this document. As illustrated in the Figure 4 example, once the door strike relay is activated, the user has 5 seconds to open the door connected to zone 2. The zone is then shunted for 40 seconds or until the contact restores to normal. Door contacts may be N/C or N/O.

Note: The Door Strike time is programmable when the keypad is used on an XR200-485, XR500 Series, or XR2500F panel. Refer to the XR500 Series Programming Guide (LT-0679) or the XR200-485 Programming Guide (LT-0196).

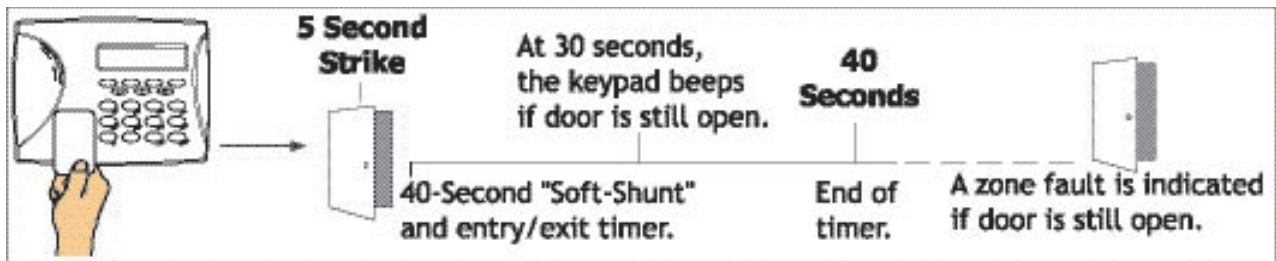


Figure 4: Door Strike Relay Operation Time Line

7073 Zone 3 Request to Exit

You can also connect a normally open PIR (or other motion sensing device) or a mechanical switch to zone 3 (White/Orange pair) on the keypad to provide a request to exit capability to the system. See ZONE 3 EXIT in this document. When zone 3 shorts, the keypad relay activates for 5 seconds. During this time, the user can open the protected door to start the 40-second Soft-Shunt entry/exit timer. If the door is not opened within 5 seconds, the relay restores the door to its locked state.

Note: A zone 3 Request to Exit is inhibited for 3 seconds after the keypad reads a card and a door strike occurs. This is to allow entry to the area and pass under a Request-to-Exit PIR.

Panic Key Options

2-Button Panic Keys

All 7000 Series keypads offer a Panic key function that allows users to send Panic, Emergency, or Fire reports to the central station. You must enable the Panic key function in Installer Options in order to use the Panic keys. See Programming Instructions later in this document. If enabled in keypad programming, the Panic key function activates as soon as you apply power to the keypad. Install the three (3) supplied icon labels below the top row of Select keys as shown in Figure 5.

The user must press and hold the two Select keys for two seconds until a beep from the keypad is heard. At the beep, the panel sends the following zone alarm reports to the central station:

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

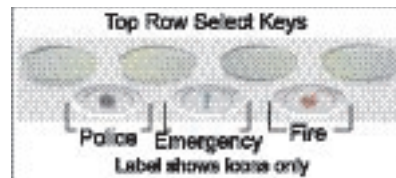


Figure 5: Panic key label placement

7/0 Panic Keys

The 7000 Series keypads also allow the user to initiate a Panic alarm by pressing the 7 and 0 (zero) keys simultaneously for one-half (1/2) second. You must enable the 7/0 Panic function in Installer Options in order to use the 7/0 Panic keys. See Programming Instructions later in this document. When pressed, all 7000 Series keypads send a Zone Short message to the panel for the first zone of the keypad address.

To produce a panic alarm, program the first zone of the keypad address as a Panic type zone. Place a 1k Ohm EOL resistor, DMP Model 311, across the White/Brown pair of zone wires on models 7070 and 7073. This allows a Zone Restore message to be sent when the keys are released.

Note: The 1k Ohm EOL resistor cannot be installed on 7060 and 7063 keypads. A Zone Restore message is not sent when the keys are released.

Internal Speaker Operation

The 7000 Series keypads emit standard tones for key presses, entry delay, and system alerts. The speaker also provides distinct burglary, fire, zone monitor, and prewarn cadences. The keypads provide an alternate prewarn with alarm cadence that occurs when the status list displays a zone alarm.

Keyboard and Logo Backlighting

The logo and keyboard light any time a key is pressed or the speaker sounds. During an alarm condition, the keyboard and logo turn Red. When all alarm conditions are cleared from the display, the Red display turns off and the keyboard and logo return to the user-selected brightness.

End-User Options

The 7000 Series Keypads provide three keypad adjustments the end-user can make through a User Options Menu. The user can also view the keypad model number and address in User Options.

On all keypads press and hold the Back Arrow (←) and COMMAND (CMD) keys for two seconds to access User Options. The keypad display changes to SET BRIGHTNESS. Use the CMD key to display the next Option or press the ← to exit the User Options function.



Backlighting Brightness

Set the keypad LCD Display brightness level, Power and Armed LEDs, and the Green keyboard and logo backlighting. Use the left Select key to lower the keyboard and logo brightness and the right Select key to raise 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.



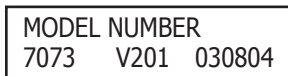
Internal Speaker Tone

Set the keypad internal speaker tone. At the SET TONE display, use the left Select key to lower the tone and the right Select key to raise the tone.



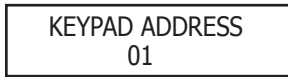
Internal Volume Level

Set the keypad internal speaker volume level for key presses and entry delay tone conditions. During alarm and trouble conditions, the volume is always at maximum level. Use the left Select key to decrease the keypad volume and the right Select key to increase the volume. Press the CMD key to display the Model Number.



Model Number

The LCD displays the keypad model number and the keypad firmware version and date. The user cannot change this information in User Options.



Keypad Address

The LCD displays the current keypad address. While in User Options, the user cannot change the keypad address. Press the Back Arrow key to exit the User Options function.

Entering Alpha Characters

You can use the keypad to enter alpha characters. To enter an alpha character, press the key that has the desired letter written below it. The keypad display shows the number on that key. To change the number to a letter, press the top row Select key that corresponds to the letter location under the key. For example, if you press key number 1, the letters for that key are A, B, and C. Press the first Select key for A, the second Select key for B, the third Select key for C, and the fourth Select key for special characters.

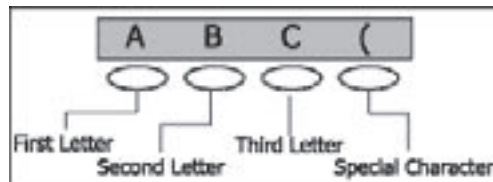


Figure 6: Entering Alpha Characters

Entering Non-Alphanumeric Characters

Each key also has a special, non-alpha character you may use. These characters are not shown on the keypad. Enter a space by pressing 9 then the third Select key. The special characters available are as follows starting with the 1 digit key to the 9 digit key: () ! ? / & \$, ' and - . * # for the 0 key.

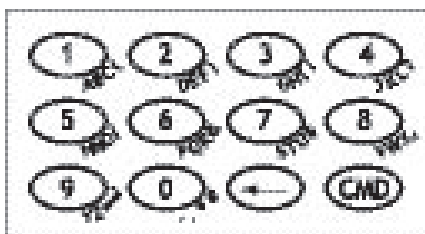


Figure 7: Keys with Non-Alpha Characters

Installer Options Menu

The 7000 Series keypads also contain Keypad Option and Keypad Diagnostic programs that allow installers and service technicians to configure and test keypad operation.

Access the Installer Menu

Access the Installer Options Menu through the User Options function. Hold down the <← and CMD keys for two seconds to display the SET BRIGHTNESS option. Immediately enter the code 3577 (INST) and press CMD. The display changes to KPD OPT (keypad options) KPD DIAG (keypad diagnostics) and STOP.

The keypad options menu allows you to set the keypad address, select supervised or unsupervised mode, change the default keypad message, enable any or all 2-button Panic keys, configure Soft-Shunt, Request-to-Exit, and 4-digit entry cards.

Note: All programming options display on all keypads, however, actual operation for some programming options is restricted to the listed keypads.

Programming Keypad Options

KPD OPT	KPD DIAG	STOP
---------	----------	------

Keypad Options (KPD OPT)

To program keypad options, press the left Select key under KPD OPT. The display changes to CURRENT KEYPAD ADDRESS: # #.

CURRENT KEYPAD ADDRESS:	01
-------------------------	----

Keypad Address

Set the keypad address from 01 to 05 with the XRSuper6 and XR20, from 01 to 08 with the XR40, XR200, XR2400F, and 01 to 16 with the XR200-485, XR500 Series, and XR2500F. The factory default address is set at 01. To change the current address, press any Select key and then enter the new address using the appropriate number keys on the keyboard. It is not necessary to enter a leading zero for addresses 01 to 09.

KEYPAD MODE:	*SUP	UNSUP
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Keypad Mode

Configure the keypad for either supervised or unsupervised operation. Keypads with zones connected to them must be supervised. Supervised keypads cannot share addresses with other keypads.

Unsupervised keypads can operate with other unsupervised keypads sharing the same address. Zones cannot be used on unsupervised keypads. To change the current setting, press the Select key under SUP or UNSUP. An asterisk appears next to the selected option.

Note: Unsupervised addresses cannot be used when Device Fail Output has a programmed value other than zero.

DEFAULT KEYPAD MSG:

Default Keypad Message

Enter a custom message of up to 16 characters to appear on the keypad display top line whenever that line is not used for any other purpose. Press any Select key to clear the current display and use the data entry keys to enter a new custom display.

ARM PANIC KEYS:	*PN	*EM	*F1
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Arm Panic Keys

Use this option to configure the top row Select keys as 2-button Panic keys. To enable or disable a Panic, press the Select key under the appropriate display: PN (Panic), EM (Emergency), and F1 (Fire). Once the panic is enabled, an asterisk displays next to the description. Refer to the Panic Key Options section earlier in this document.

7/0 PANIC ENABLE:	NO	YES
-------------------	----	-----

7/0 Panic

Use this option to configure the 7 and 0 keys as a 2-button Panic feature. To enable the 7/0 Panic, select YES. To disable the option, select NO. Default is NO. To operate, simply press and hold the 7 and 0 keys for one-half (1/2) second. Refer to the Panic Key Options section earlier in this document.

ACTIVATE ZONE 2 SHUNT:	NO	YES
------------------------	----	-----

Zone 2 Shunt (7073 only)

Select YES to enable the Soft-Shunt™ option on zone 2 as described earlier in this document. This zone provides the Soft-Shunt™ for door contacts. This zone must be programmed into the panel.

ACTIVATE ZONE 3
EXIT: **NO** YES

Zone 3 Exit (7073 only)

Select YES to enable the Request to Exit feature on zone 3 as described earlier in this document. When shorted, this zone activates the keypad relay. No panel programming is required.

4 DIGIT ENTRY
CARDS: **NO** YES

Entry Cards

Select YES to enable the 4-Digit Entry Cards function on Home/Away or All/Perimeter arming systems that require 4-digit user codes. Home/Away operation is available on the XRSuper6, XR20, XR40, and XR200 Command Processor™ panels.

The table below shows the various compatible panel types and required operating modes for the arming/disarming feature as well as the appropriate 4 or 5-digit code configuration for each panel.

Operation	XRSuper6	XR20/ XR40	XR200/ XR2400F	XR200-485/ XR500 Series/XR2500F
Arms H/A	4-digit	4-digit	4-digit	N/A
Disarms H/A	4-digit	4-digit	4-digit	N/A
Arms A/P	N/A	N/A	N/A	N/A
Disarms A/P	4-digit	4-digit	5-digit	N/A
Arms Area(s)	N/A	N/A	N/A	N/A
Disarms Area(s)	N/A	4-digit*	5-digit*	5-digit

* During entry delay only.

ALL?: NO YES
DELAY: **2**

All? No Yes Wait Time (7063 and 7073 only)

Select the number of seconds 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 the YES or the AWAY key. Select zero (0) to disable this feature. The delay can be one to nine (1-9) seconds. The delay also occurs when any credential is presented for arming the Home/Sleep/Away system. After a card is presented, HOME SLEEP AWAY displays. The keypad waits the programmed number of seconds before automatically selecting AWAY.

Accessing Keypad Diagnostics

If necessary, refer to Access the Installer Menu on the previous page.

KPD KPD
OPT DIAG STOP

Keypad Diagnostics (KPD DIAG)

The Keypad Diagnostic option allows you to check the display segments, check the keyboard backlighting, and test individual keys.

Press the Select key under KPD DIAG. The keypad lights all display segments and illuminates the keyboard in green. A few seconds later the keypad turns the display off and illuminates the keyboard in red. The keypad then alternates between these two states for approximately two minutes. Press COMMAND at any time to continue.

PRESS KEY TO
TEST

Test Individual Keys

The display changes to PRESS KEY TO TEST. This option allows you to test each key on the keyboard to ensure it is operating properly. Press and hold each key for about two seconds. The key number being held appears in the display. Verify the correct number displays before testing the next key.

Z1 OPEN Z2 OPEN
Z3 OPEN Z4 OPEN

Zone Test (7070 and 7073 only)

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.

Note: The Zone Test displays on 7060 and 7063 keypads, but is not operational.

INPUT WIEGAND

Input Wiegand (7063 and 7073 only)

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 the CMD key once to return to the Installer Options screen. Press the Select key under STOP to exit the Installer Options function.

Additional Programming for 7063 and 7073 Thinline Keypads

The 7063 and 7073 keypads allow users to present a proximity credential to the built-in proximity reader located in the keypad backlit logo area. Users can also manually enter their user code into the keypad. The keypad verifies the user code and its authority with the panel. Additionally, the 7073 activates its on-board Form C relay releasing a door strike or magnetic lock. To provide added flexibility, the 7073 Keypad allows connection of an external Wiegand output compatible reader.

Programming Cards into the System

This programming feature operates on 7063 and 7073 keypads only. Access the User Menu in one of two ways. When MENU? NO YES displays, choose YES and present your proximity credential to the reader or manually enter your user code into the keypad.

From the User Menu, select USER CODES?. Choose ADD. At the ENTER CODE: - display, present the credential to the reader. The keypad works by reading the 4 or 5-digit user code from the data sent by the access control reader. For more information, refer to Entry Cards in the programming section of this document and the following User's Guide section on adding, deleting, and changing user codes.

7063 and 7073 User's Guide

There are three different sections: Keypad Arming and Disarming, Keypad Door Strike, and Keypad Entry Delay. All of the examples displayed assume that CLOSING CODE is YES in panel programming.

Note: Figures 8 through 11 show the user presenting their card to the keypad. When an external reader is connected to a 7073 keypad, the user presents their card to the reader rather than to the keypad.

Keypad Arming and Disarming Area system Arming and Disarming

Press CMD, the keypad displays ARM DISARM. Press the Select key under either option. The keypad displays ENTER CODE: -. Present your card to the keypad or to an external reader connected to the 7073 keypad. Once validated by the system, all areas assigned to your code arm or disarm automatically and the 7073 keypad Door Strike relay activates.

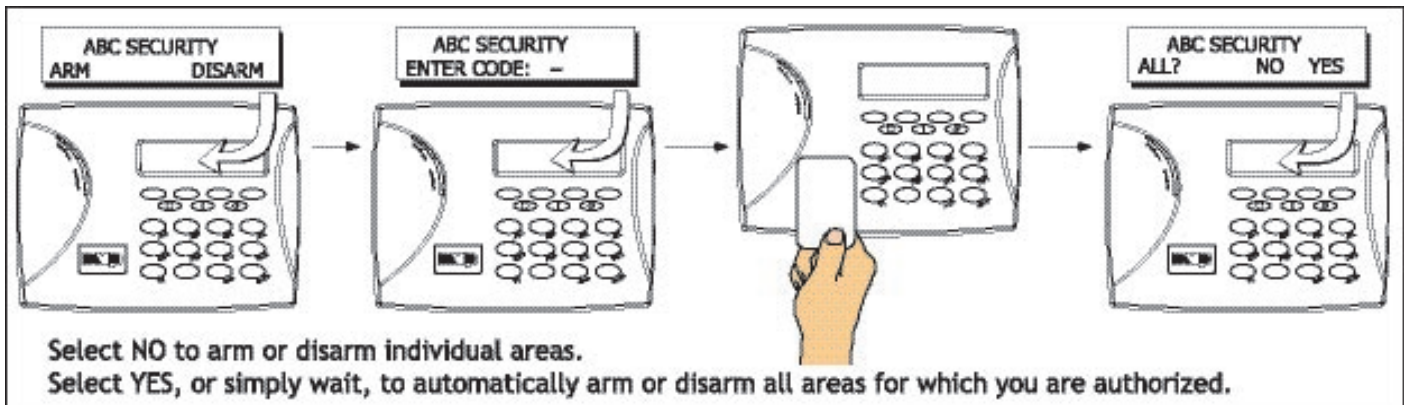


Figure 8: Area Arming and Disarming

All/Perimeter System Arming and Disarming

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

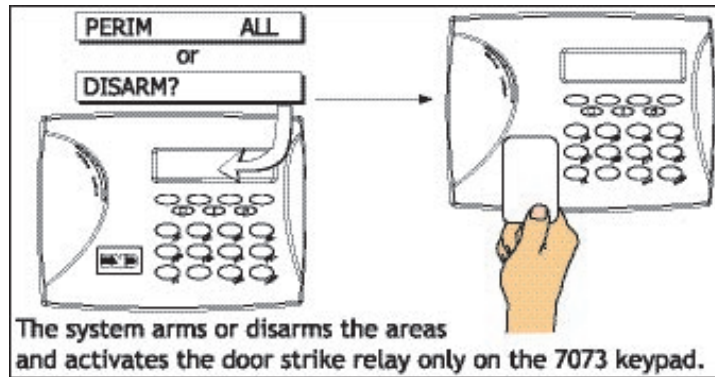


Figure 9: All Perimeter Arming and Disarming

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. If the system is disarmed when you present your card, once the card is validated, all areas are armed in the AWAY mode.

Keypad Door Strike

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 Door Strike relay when arming and disarming.

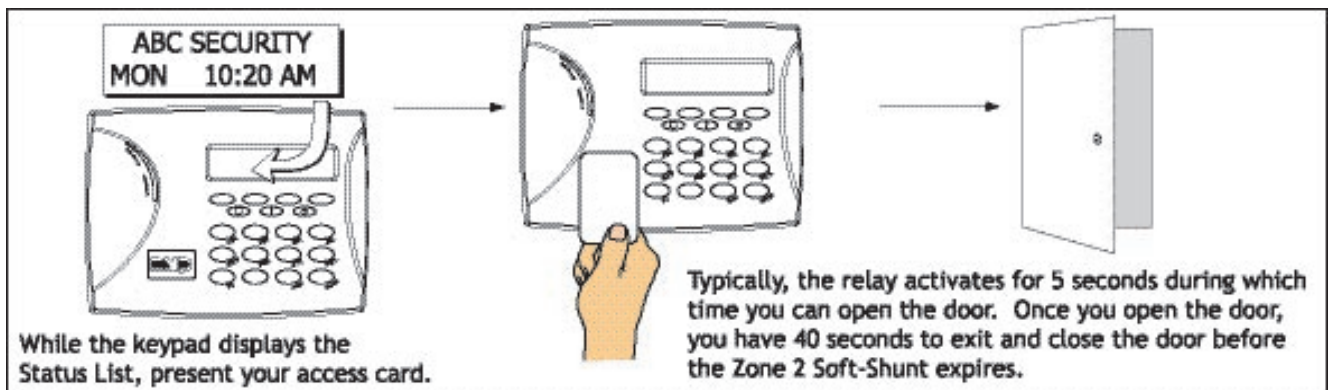


Figure 10: Present Access Card

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 Door Strike relay. Area systems provide a delay to allow selected areas only to be disarmed. See Keypad Arming and Disarming.



Figure 11: Entry Delay

Keypad Specifications

MODEL	NORM/STANDBY CURRENT	ALARM CURRENT	4-ZONES	INTERNAL PROX READER	WIEGAND INPUT	INTERNAL FORM C DOOR STRIKE RELAY
7060	72mA	87mA				
7063	85mA	100mA		X		
7070	72mA + 1.6mA per active zone	87mA + 2mA per active zone	X			
7073	85mA + 1.6mA per active zone	100mA + 2mA per active zone	X	X	X	X

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.

Specifications

Operating Voltage 12 VDC Nominal
Dimensions 7" W x 5.25" H x 0.5" D

Compatibility

The 7000 Series keypads are compatible with the following Command Processor™ panels:
XRSuper6/XR20/XR40
XR200/XR200-485/XR2400F
XR500 Series/XR2500F

Listings and Approvals

Underwriters Laboratories (UL) Listed
FCC Part 15
RFID Reader FCC ID: CCKPC0086

Accessories

Backboxes
695 or 696 4" square mounting box
777 protective keypad cover
777S keypad cover spacer

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

Proximity Credentials
1306 HID Prox Patch™
1306PW HID Prox Patch™
1326 HID ProxCard II® Card
1346 HID ProxKey II® Access Device
1351 HID ProxPass®
1386 HID ISOProx II® Card
1410 DMP Proximity Card
1415 DMP Proximity PVC Photobadge
1420 DMP Proximity Key Fob



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