Description

The DMP 791 and 793 Easy Entry™ LCD Keypads are the industry's first burglary/fire keypads with integrated access control capability.

Each keypad provides three 2-button Panic keys, an AC power LED, an Armed LED, 32-character display, backlit keyboard with easy to read lettering, and an integral speaker. The 791 and 793 also provide four fully programmable Class B protection zones you can program for a variety of burglary, fire, and access control applications.

Installing the keypad

The Easy Entry keypads each use the same plastic housing and are designed to easily install on any 4 square box, 3-gang switch box, 695 and 696 backbox, or flat surface. The diagram below shows the mounting hole locations on the keypad base.

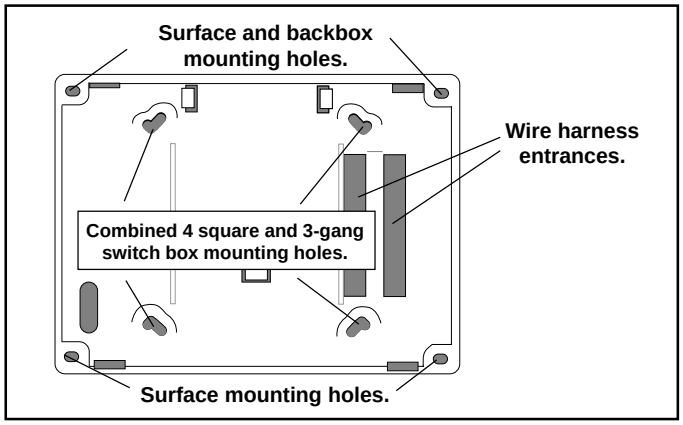
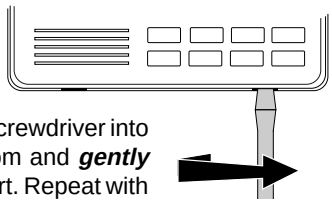


Figure 1: Base mounting locations

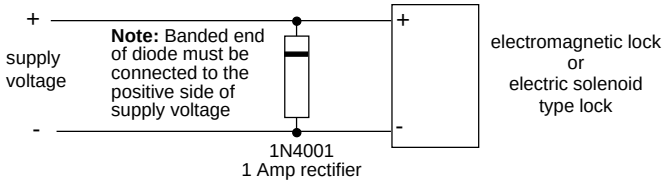
Removing the Base

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



Voltage Protection Diode

A separate clamping diode is included with each keypad in the shipping package. This diode may be installed across the power inputs of an electromagnetic lock to shunt excessive voltages away from the keypad. Install diode as shown in the diagram below.



Harness Wiring

The 791 and 793 keypads are each supplied with one 12-wire data bus/zone harness and one 5-wire output/reader harness. The harness connections and color codes are shown in Figure 3.

You can install individual keypads on wire runs of up to 500' using 22 gauge wire or up to 1,000' using 18 gauge wire.

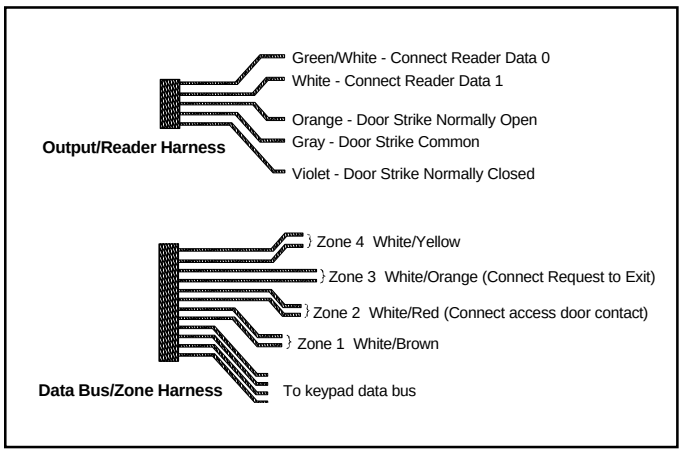


Figure 3: keypad harness wiring

2-Button Panic Keys

The Panic key function of the 791 and 793 keypads allows users to send Panic, Emergency, or Fire reports to the central station. The user must press and hold the two SELECT keys until a beep from the keypad is heard. At the beep, the panel sends an alarm report to the central station with the following zone numbers: 19 = **Panic**, 29 = non-medical **Emergency**, and 39 = **Fire.**

The Panic key function must be programmed if the Panic keys are to be used. See the back of this page for programming instructions. Install the supplied icon label below the top row of Select keys.

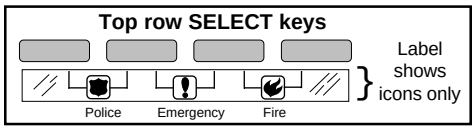


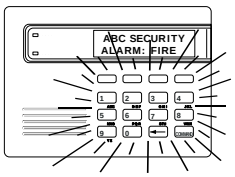
Figure 4: Panic key label placement

Internal Speaker Operation

The Easy Entry keypads emit standard tones for key presses, entry delay, and system alerts. When used with the XR200 Command Processor Panel, the speaker also provides distinct **burglary**, **fire**, **zone monitor,** and **prewarn** tones.

Keyboard Backlighting

The Easy Entry™ keyboards light anytime a key is pressed or the speaker sounds. During an alarm condition, the keyboard turns **Red** to visually alert persons on-site. The Red backlighting is turned off when all areas in the system are disarmed or when the Sensor Reset function is used. The keypad backlighting dims to medium brightness whenever the speaker is on.



Panel Compatibility

The access control capability of the 791 and 793 is compatible with the 1812, XR10 (version 103, 8/27/96), XR20, XR200, and 1912XR (version 114) Command Processor Panels.

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Power Requirements

Model	Voltage	Normal/Alarm Current	Relay On
791	8.5 to 15 VDC	100mA	135mA
793	8.5 to 15 VDC	130mA	165mA

Below are the specifications for individual readers:

MP-5365 MiniProx® Proximity Reader - 60mA at 12 VDC
PP-6005 ProxPoint™ Proximity Reader - 35mA at 12 VDC
PR-5355 ProxPro® Proximity Reader - 60mA at 12 VDC
TL-5395 ThinLine II™ Switchplate Reader - 60mA at 12 VDC
580 Magnetic Stripe Card Reader - 50mA at 12 VDC

How the Easy Entry Keypads Work

The 791 and 793 keypads allow users to present a card or token to an access control reader that in turn sends data containing their user code to the keypad. (Users can also manually enter their user code into the keypad). The keypad reads the user code, verifies its authority with the panel, and then powers its on-board Form C relay releasing a door strike or magnetic lock.

Door contact zone with Soft-Shunt™

If the door being released by the keypad is protected, you can provide a 30-second shunt by connecting its contact to zone two (White/Red pair) on the keypad and enabling the Soft-Shunt feature. See **Keypad Options** on page 3. 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 30 seconds. Door contacts may be N/C or N/O.

Zone three Request to Exit

You can also connect a normally **open** PIR (or other motion sensing device) or a mechanical switch to zone three (White/Orange pair) on the keypad to provide a request to exit capability to the system. See **Keypad Options** on page 3. When zone three is **shorted**, the keypad relay activates for five seconds. During this time, the user can open the protected door to start the 30-second "Soft-Shunt™" entry/exit timer. If the door is not opened within five seconds, the relay restores the door to its locked state.

12 VDC access control readers

To use 12 VDC readers with the 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 White data wire from the reader (Data 1) to the White wire on the 5-wire keypad harness. Connect the Green data wire from the reader (Data 0) to the Green/White wire on the 5-wire keypad harness.

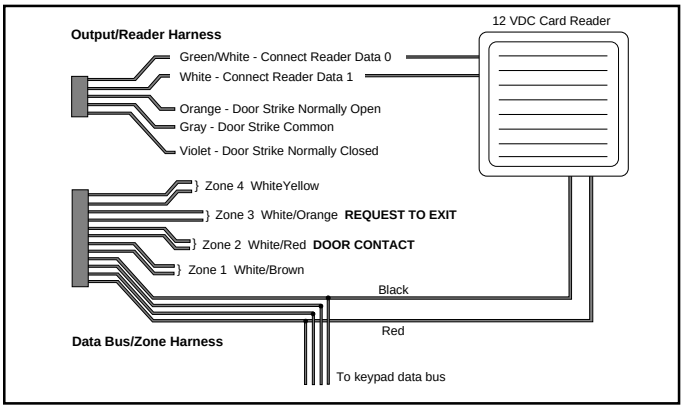


Figure 5: 12 VDC reader wiring

End User Options

The 791 and 793 Easy Entry™ Keypads provide three adjustments to the keypad that can be made by the end user through a User Options Menu. Below is a description of the adjustments and instructions on their operation.

To access the **User Options** portion of the keypad, press and hold the ARROW and COMMAND keys for two seconds. The keypad display changes to **SET BRIGHTNESS**.

Backlighting brightness

This option allows the user to set the brightness level of the keypad's Liquid Crystal Display (LCD), AC LED, and the Green keyboard backlighting.

NOTE: If the brightness level is lowered, it reverts to maximum intensity whenever a key is pressed. If no keys have been pressed, and the speaker has not sounded for 30 seconds, the user selected brightness level is restored.

At the **SET BRIGHTNESS** display, use the left SELECT key to lower the keypad brightness. Use the right SELECT key to increase the brightness. Press COMMAND to go to **SET TONE**.

Internal speaker tone

This option allows the user to set the tone of the keypad's internal speaker. At the **SET TONE** display, use the top left SELECT key to make the tone lower. Use the right SELECT key to make the tone higher. Press COMMAND to go to **SET VOLUME LEVEL**.

Volume level

This option allows the user to set the volume level of the keypad's internal speaker for normal operation. During alarm, trouble, and prewarn conditions, the volume is always at maximum level.

At the **SET VOLUME LEVEL** display, use the top left SELECT key to lower the keypad volume. Use the right SELECT key to raise the keypad volume. Press the ARROW key to exit the **User Options** function. After the volume is set, the keypad model is displayed.

Installer Options Menu

The Easy Entry keypads also contain a **Keypad Options** and **Keypad Diagnostic** program that allows installers and service technicians to configure and test the keypad operation.

How to get in

You can only access the **Installer Options Menu** through the User Options function. After holding down the ARROW and COMMAND keys for two seconds and getting the **SET BRIGHTNESS** display, enter the code 3577 (INST) and press COMMAND. The display now changes to **KPD OPT** (keypad options) **KPD DIAG** (keypad diagnostics) and **STOP**.

Keypad Options (KPD OPT)

This option allows you to:

- set the keypad address
- select supervised or unsupervised mode
- change the default keypad message
- individually arm the 2-button Panic keys
- select Soft-Shunt, Request to Exit, and 4-digit entry cards

To enter, press the left SELECT key under **KPD OPT**. The display changes to **CURRENT KEYPAD ADDRESS: # #**.

Set the CURRENT KEYPAD ADDRESS:

You can set the keypad address from 00 to 16. 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's not necessary to enter a leading zero for addresses 01 to 09.

Select Supervised or Unsupervised KEYPAD MODE:

You can configure the keypads for either supervised or unsupervised operation. 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.

Change the DEFAULT KEYPAD MESSAGE:

You can enter a custom message of up to 16 characters that appears on the top line of the keypad display whenever that line is not being 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. See your Command Processor™ programming guide for instructions on entering alpha characters.

ARM PANIC KEYS:

You can use this option to configure the top row of 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 **FI** (Fire). Once the panic is enabled, an asterisk appears next to the description. Refer to the **2-Button Panic Keys** section on the front of this document.

ACTIVATE ZONE 2 SHUNT: NO YES

Select YES to enable the Soft-Shunt™ feature on zone two.

ACTIVATE ZONE 3 EXIT: NO YES

Select YES to enable the Request to Exit feature on zone three.

4 DIGIT ENTRY CARDS: NO YES

Select YES to enable the 4-Digit Entry Cards function on Home/ Away, or other systems that require 4-digit user codes.

ALL? NO YES DELAY: 2

Select the number of seconds the keypad should wait when an area system displays **ALL? NO YES** during arming or disarming. If the **NO** or **YES** is not pressed before the delay expires, the keypad will automatically select the **YES** key. Select zero (0) to disable this feature. The delay can be one to nine (1-9) seconds.

Keypad Diagnostics (KPD DIAG)

This option allows you to:

- check the display segments
- check the keyboard backlighting
- test individual keys

Press the SELECT key under **KPD DIAG**. The keypad lights all segments of the display and illuminates the keyboard in Green. A few seconds later the keypad turns off the display 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. The display changes to **PRESS KEY TO TEST**. This option allows you to test each key on the keyboard to ensure it's operating properly. Press and hold each key for about two seconds. The number of the key being held appears in the display. Verify it's the correct number before testing the next key.

Zone test

This option allows the keypads to display the current electrical status of the their four protection zones. The status is shown as either **OPEN**, **SHRT**, or **OKAY**.

INPUT WIEGAND

This option tests the reader input from access cards. The display shows **OKAY** each time a good card is read.

Exiting the Installer Options

When done, press the COMMAND key once to return to the Installer Options screen. Press the SELECT key under **STOP** to exit the Installer Options function.

Programming Cards into the System

From the User Menu, select **USER CODES?**. Choose **ADD**. At the **ENTER CODE: -** display, present the user's card 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 keypad user's guide section on adding, deleting, and changing user codes.

Additional Power Supply

If current draw for all keypads exceeds the panel's output, you can provide additional current by adding an auxiliary power supply. Connect all keypad common wires to the negative terminal of the power supply. Run a jumper wire from the power supply's negative terminal to the common terminal of the panel. Connect all keypad power (+12 VDC) wires to the positive terminal of the power supply. Do NOT connect the positive terminal of the power supply to any terminal of the panel.

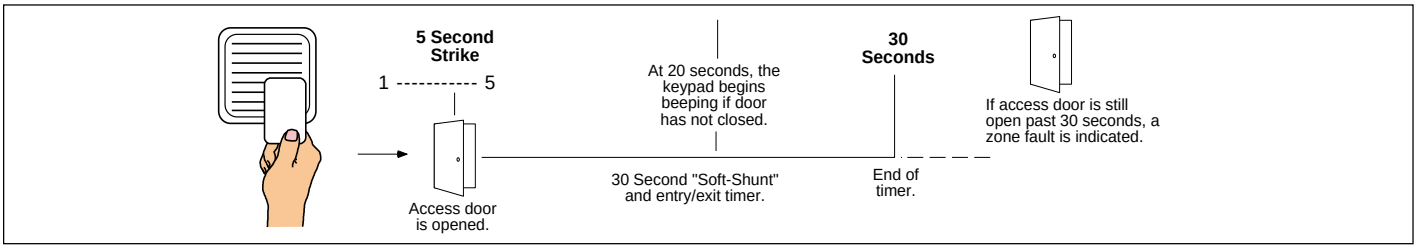
Door Strike Relay Specifications

The Easy Entry keypads provide one internal Form C (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 35mA of current and its contacts are rated for 1 Amp at 24 VDC or 0.5 Amps at 120 VAC.

Door Strike Relay Operation

As soon as the user code sent from the reader has been verified by the panel, the keypad Door Strike relay activates for five seconds. (**Note:** The length of the five second delay is programmable when the keypad is used on an XR200-485 system.) During this time, the access door (connected to zone #2) must be opened to start the 30 second entry/exit timer and zone soft shunt. See the timeline shown below.

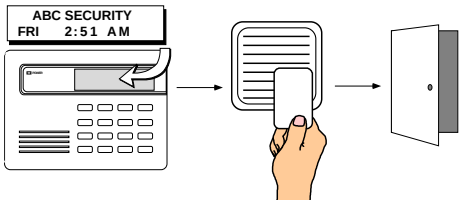


User's Guide

There are three different operating modes: Door Strike, Arming and Disarming, and Entry Delay. All of the examples below assume that **CLOSING CODE** is **YES** in the panel's programming.

DOOR STRIKE

Area and All/Perimeter Door Strike - From the Status List, present your card to the reader. Once it is validated by the system, the Door Strike relay activates. See **Door Strike Relay Operation** above. Home/Away systems only activate the Door Strike relay when arming and disarming.



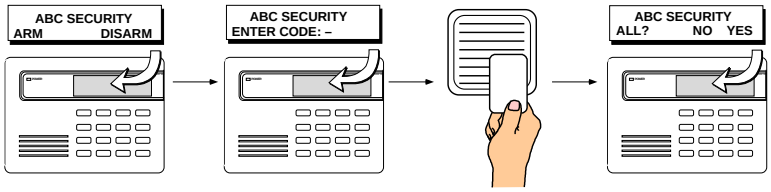
While the keypad is in the Status List, present your access card.

The relay activates for five 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 Soft-Shunt expires.

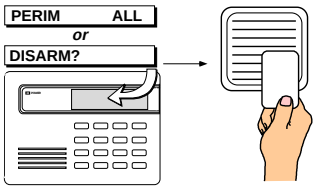
ARMING AND DISARMING

Area system Arming and Disarming - Press Command. The keypad displays **ARM DISARM**. Press the Select key under either option. The keypad displays **ENTER CODE: -**. Present your card to the reader. Once it is validated by the system, all areas accessible by you arm or disarm automatically and the Door Strike relay activates.



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

All/Perimeter system Arming and Disarming - Press Command. 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 it is validated by the system, both areas arm or disarm automatically and the Door Strike relay activates.



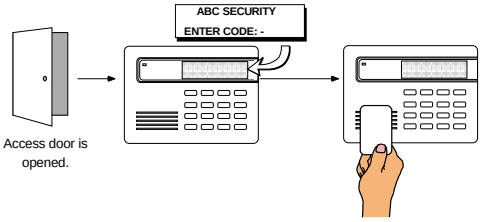
The system arms or disarms the areas and activates the Door Strike relay.

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 it is validated all areas are armed in the AWAY mode.

ENTRY DELAY

All Systems - Once the protected door is opened and the entry delay starts, the keypad displays **ENTER CODE: -**. Present your card to the reader and, once it is 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 Arming and Disarming above.



The system disarms the areas and activates the Door Strike relay. Area systems may allow a delay for you to select only certain areas. See Arming and Disarming.

Using the access reader for user menu access

You can also use a card reader to access the User Menu when the **MENU? NO YES** display is shown.

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