

# FA271KP KEYPAD

# With Built-in Single-Zone Expander

# INSTALLATION GUIDE

### **GENERAL INFORMATION**

The FA271KP is a general-purpose keypad that provides one 2K EOLR zone. The general features of the FA271KP can be used with any Honeywell control panel that supports the FA270KP keypad. To utilize the zone feature of the FA271KP, the control panel must be capable of supporting the 4219 ECP zone expander module. Depending on the keypad option selected, the zone can either be configured as EOLR or double-balanced supervised zone. Check the control panel's Installation Guide for the supervision type(s) supported.

### **KEYPAD DISPLAYS AND LEDS**

The FA271KP has the following features:

- Large backlit, fixed word LCD.
- 16 large telephone-style backlit keys.

The following table shows the LEDs and their functions:

LED	Function
ARMED	Lights when the system is armed in any
(Red)	mode.
READY	Lights when the system is ready to be
(Green)	armed.

### **FUNCTION KEYS AND LABELS**

The keypad also features four function keys. These keys may be programmed for panic alarms or other special functions such as single button arming, macros, device activations, etc. See the control's instructions for details.



The A, B, C, and D keys must be pressed and held down for at least two seconds to activate their programmed panic functions.

A set of adhesive labels with typical panic symbols is provided. Place the appropriate label in the indented area on each key, so that the user can easily identify each key's function.

### **BUILT-IN SOUNDER**

The built-in sounder has the following functions:

- Produces warning sounds during alarm and trouble conditions, and also during entry/exit delay periods.
- Provides acknowledgment tones when keys are pressed, and confirmation tones for successful command entries.

### ZONE-INPUTS

The 2K EOLR zone has a 300mS response. A local programming option allows selecting conventional EOLR type or double-balanced type. The double-balanced zone type supports up to 10 sensors.

### **CASE TAMPER**

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For UL (and ETL) installations, the case tamper must be enabled; otherwise the zone must be programmed as a 24-hour zone. When utilizing the tamper, the front and rear case must be secured with the provided screw.

An on-board tamper switch detects removal of case front from case back, and removal of the case back from its mounting surface. A local programming option allows you to disable the detection of a tamper condition.

Note: The factory default for this feature is disabled.

For tamper protection, an additional mounting screw must be used in the case back, as shown in Figure 2.

When the FA271KP keypad is used in the addressable mode, it will report a tamper condition to the control panel as a 4219 case tamper when the zone feature is enabled, or as a general keypad tamper when the zone feature is disabled. This feature should be enabled for a more secure installation or when the on-board zone is used.



The FA271KP will not support general keypad tamper reporting when set to the non-addressable mode (keypad address 31). In the non-addressable mode, tamper will be reported as if it were a "C" function key/zone 96. Program this zone as a Type 5 Day/Night (trouble by day/alarm by night) zone for proper reporting. Also, not all control panels support general keypad tamper reporting. Check with the control panel's instructions.

#### MOUNTING AND WIRING

The FA271KP has terminal blocks for connection to keypad power, data wires and sensor/contact zone wires. Removing the keypad's case back allows access to these terminal blocks.

The FA271KP can be surface mounted directly to walls, or to a single- or double-gang U.S. style electrical box. Follow these steps to mount and wire the keypad:

1. Detach the case back as follows:

Push the two case release snaps at the bottom of the keypad with the blade of a medium screwdriver (this will push in the release snap), then pull that side of the case back away. Insert the screwdriver in the side of the keypad (between the front and back case) and gently twist to release the side locking tab.

Repeat for the other side. Refer to Figure 1 for location of the case back release snaps and locking tabs.

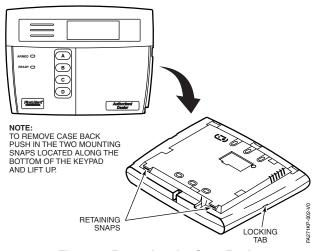


Figure 1. Removing the Case Back

2. Mount the case back to a wall or to an electrical box using the 25mm-long self-tapping screws supplied (anchors for drywall are not supplied).

**Note:** If you wish to tamper-protect the keypad for removal from the wall, use an additional mounting screw in the tamper hole in the case back (see Figure 2 for location).

3. Pass the four power/data wires and zone wires through the opening in the case back. If surface wiring is being used, wiring may be routed through the top or the bottom left-side breakout in the case back. See Figure 2. The breakouts must be punched out using a screwdriver before mounting the case back. If desired, wires may be strain-relieved to the wire tie point on the inside of the case back with a tie wrap (not supplied).

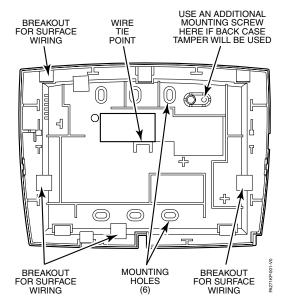


Figure 2. Wiring Entry (Case Back)

4. Connect the power/data wires to the four screw terminals on the keypad's PC board marked as shown in Figure 3 and as follows:

Wiring Table					
Keypad		Control Panel	Color		
▼	Data Out	Data In	Green		
	GND	– Aux Pwr	Black		
	+12VDC	+ Aux Pwr	Red		

Data Out

Yellow

5. Connect the wires for the 2K EOLR zone to the screw terminals on keypad PC board as shown in Figure 3 and as follows:

Data In

Keypad	Wired Zone
ZN1 LEGEND L= -	+ Zone 1 - Zone 1 return

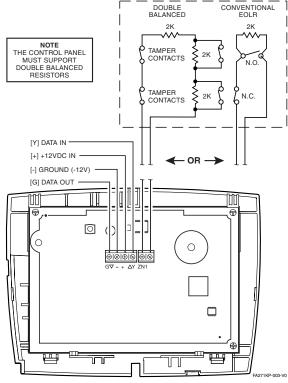


Figure 3. Wiring Details

Reattach the keypad to the mounted case back. Attach the top of the keypad first, and then press the bottom section down until it snaps into place securely.

### **SETTING THE KEYPAD OPTIONS**

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For UL (and ETL) burglary installations, where the tamper is disabled the zone must be programmed as a 24-hour audible zone type.

The FA271KP allows seven items to be programmed via local keypad programming mode:

- Keypad address
- Tamper enable
- Zone expander enable
- · Display option
- Zone expander address
- Sound option
- Zone type

These settings are maintained even when keypad power is removed.



The keypad options may only be programmed within 60 seconds of applying power. After that, they are not accessible for editing or viewing. The Address can still be viewed by holding down the 1 and 3 keys for approximately three (3) seconds. To re-enter programming mode, remove and reapply power and proceed as follows:

Perform the following steps to change the keypad options. You must enter all options in order for the entries to be saved. Use the [\*] key to advance through the options.

1. Enter the keypad's local program mode within 60 seconds of power-up by pressing and holding down the [1] and [3] keys at the same time for 3 seconds. The following will be displayed:



2. The current keypad address will be displayed with the cursor under the "tens" digit. If the current keypad address setting is acceptable (the default = 31), press the [\*] key to advance to the Zone Expander Enable field and go to step 3.

To change the current keypad address, first reset the current address to "00" as follows: press [0] to clear the "tens" digits. The cursor will move to the "ones" digit position. Press [0] again to clear the "ones" digit. The cursor will move back to the "tens" digit position. Now set the desired keypad address as follows:

Enter the proper "tens" digit for the keypad's address. The cursor will move to the "ones" digit. Enter the proper "ones" digit for the keypad's address.



If you connect more than one keypad, on control panels that support addressable keypads (i.e., FA130CP/148CP/168C/168CPS), you must ensure that a unique address has been programmed for each keypad.

Press the [\*] key to store the displayed address and to advance to the Zone Expander Enable field. The following will be displayed:

### *E0*

- 3. By pressing the [1] or [0] key, you can toggle the Zone Expander Enable option (default = OFF, O).
  - a. To use the zone contacts, set the option to ON [1]. Use the [\*] key to advance to the next option. The Zone Expander Address field will appear. Go to step 4.
  - b. To use the FA271KP as a regular keypad set the option to OFF [0]. Use the [\*] key to advance to the next option. The Tamper field will appear. Go to step 6.



In order to use the built-in zone, you must enable a 4219 zone expander in the panel. Each expander address takes up eight zones (i.e.: if using two FA271KP keypads, zone 9 would be on module address 07, and zone 17 would be on module address 08). Unused module zones can still be used for wireless devices.

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4. Set the Expander device address in the same way as the keypad address (Default = 07).

Consult the control panel's installation guide to select the correct address. Use the [\*] key to advance to the Zone Supervision type option. The following will be displayed:

### R1

5. By pressing the [1] or [0] key, you can toggle the zone supervision type option. Either conventional EOL resistor supervised zone or double-balanced zones (see Figure 3) may be selected. Enter [1] to select EOLR or [0] to select double balanced (default = conventional EOLR, 1). Consult the panel's installation guide for proper zone type selection. Use the [\*\*] key to advance to the Tamper option. The following will be displayed:

### b₽

6. Enter [1] to enable the tamper feature or enter [0] to disable the feature (default = 0 - disabled).

Use the [\*] key to advance to the LCD display option. The following will be displayed:

### c 1

7. By pressing either the [1], [2], or [3] keys you can select the LCD display option (default = 1).

Option 1: The display is always active (default = 1).

Option 2: The display and LEDs are blanked until a key is pressed, then displays for 45 seconds after the last key was pressed.

Option 3: The display and LEDs are blanked 45 seconds after the panel is armed and remains blanked until the panel is disarmed (default = 1).

Use the [\*] key to advance to the Sounds option.

# d 1

8. By pressing the [1] key, you can toggle the Sounds option (default = 1).

Option 1: To produce all sounds set the option to ALL SOUNDS (default = 1).

Option 2: To produce only key click and alarm sounds set the option to ALARM.

### **SPECIFICATIONS**

### **Dimensions:**

4-7/8"H x 6-1/4"W x 1"D

Wiring

Terminals:	Description
G▼	Data In to Control Panel
_	– Ground (12 VDC –)
+	+ 12 VDC Power Input
▲Y	Data Out from Control Panel
ZN1	+ Wired Zone 1
Ţ	- Wired Zone 1

### **LEGEND**

**I** = -

Note: The keypad will display "OC" and beep periodically when there is a fault that prevents

data from reaching the keypad.

### Display:

Fixed word LCD, backlit.

### Sounder:

Piezo (fire alarm sound is loud, temporal pattern pulsed tone; burglary alarm sound is loud, continuous, dual tone).

### Voltage:

+12 VDC

### **Current:**

Alarm rating: 80mA (LCD backlight on, sounder on)
Standby rating: 50mA (LCD backlight on, sounder off);
35mA (LCD backlight off, sounder off)

The control panel determines whether LCD backlighting is on or off. When determining the capacity of the control panel's backup battery, use the following chart:

If Backlighting is	Then
On steadily	Use the 50mA current rating
Off when keypad is inactive	Use the 35mA current rating.

REFER TO THE INSTALLATION INSTRUCTIONS FOR THE CONTROL PANEL WITH WHICH THIS DEVICE IS USED FOR WARRANTY INFORMATION AND FOR LIMITATIONS OF THE ENTIRE ALARM SYSTEM.



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