

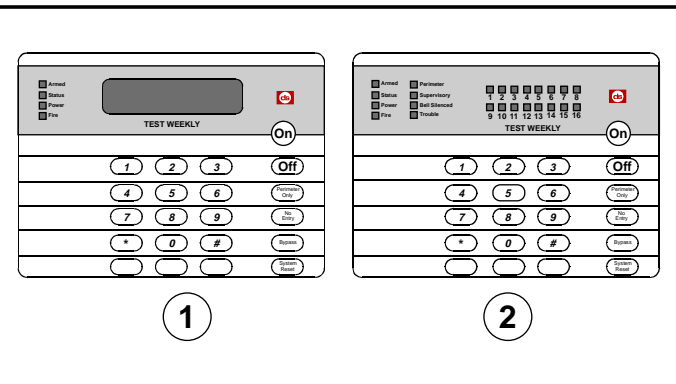
Installation Instructions

DS7445i and DS7447i/DS7447E Keypads

1.0 General Information

The DS7447i/DS7447E is a 4-wire Alpha-Numeric LCD keypad. The DS7445i is a 4-wire LED keypad. Both keypads are compatible with the DS7060, DS7080i Series, DS7200 Series and DS7400Xi Series of Control Panels.

Figure 1: One-column Wide



1 - DS7447i/DS7447E LCD Keypad
2 - DS7445i LED Keypad

The keypads can be surface mounted, or mounted to standard single or double gang boxes or to 10 cm (4 in.) square boxes.

See *Table 1* for general wiring guidelines:

Wire Gauge	#18 AWG is required for UL Fire Installations
Wire Type	no shield, 4-wire
Max. Resistance	wire resistance should not exceed 33 ohms

Maximum distance between control panel and each keypad should not exceed 305 m (1000 ft.)

Operating Voltage	Nominal 12 VDC supplied by Control/Communicator Aux. Power Supply		
Current Requirements		Alarm	Standby
	DS7447E / DS7447i	100 mA	100 mA
	DS7445i	75 mA	75 mA
Access Relay Option:	50 mA Current Sink (Not Tested by UL)		

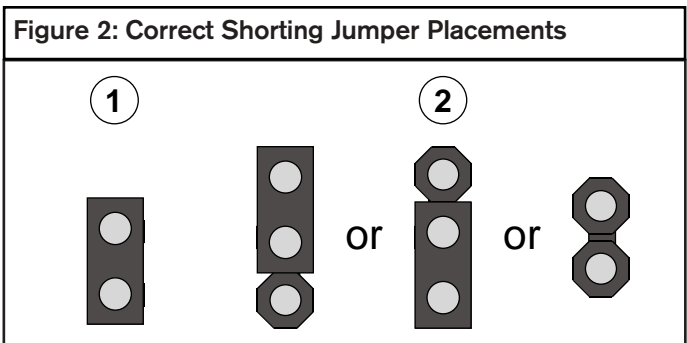
2.0 Keypad Addresses

Each keypad must have a unique address set with its address pins. The keypads must also be programmed at the control panel.

See *Figure 4* and *Figure 5* for Address and Mode Jumper locations.

1. Select a different address (0 to 32) for each keypad. See *Table 3* and *Table 4*.
2. Place the shorting jumpers over the address pins as shown in *Figure 2*.

Figure 2 shows proper shorting jumper placements.



1 - Jumper Plug ON (covers both pins)
2 - Jumper Plug OFF

Table 3: Keypad Address Selections for DS7060, DS7080i Series and DS7400Xi Series Control Panels

Module Address	Address Jumpers					MODE
	1	2	4	8	16	
0	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF

"ON" indicates a shorting jumper across both pins

Table 4: Keypad Address Selections for Other Control Panels

Module Address	Address Jumpers					MODE
	1	2	4	8	16	
0*	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	ON
2	OFF	ON	OFF	OFF	OFF	ON
3	ON	ON	OFF	OFF	OFF	ON
4	OFF	OFF	ON	OFF	OFF	ON
5	ON	OFF	ON	OFF	OFF	ON
6	OFF	ON	ON	OFF	OFF	ON
7	ON	ON	ON	OFF	OFF	ON
8	OFF	OFF	OFF	ON	OFF	ON
9	ON	OFF	OFF	ON	OFF	ON
10	OFF	ON	OFF	ON	OFF	ON
11	ON	ON	OFF	ON	OFF	ON
12	OFF	OFF	ON	ON	OFF	ON
13	ON	OFF	ON	ON	OFF	ON
14	OFF	ON	ON	ON	OFF	ON
15	ON	ON	ON	ON	OFF	ON
16	OFF	OFF	OFF	OFF	ON	ON
17	ON	OFF	OFF	OFF	ON	ON
18	OFF	ON	OFF	OFF	ON	ON
19	ON	ON	OFF	OFF	ON	ON
20	OFF	OFF	ON	OFF	ON	ON
21	ON	OFF	ON	OFF	ON	ON
22	OFF	ON	ON	OFF	ON	ON
23	ON	ON	ON	OFF	ON	ON
24	OFF	OFF	OFF	ON	ON	ON
25	ON	OFF	OFF	ON	ON	ON
26	OFF	ON	OFF	ON	ON	ON
27	ON	ON	OFF	ON	ON	ON
28	OFF	OFF	ON	ON	ON	ON
29	ON	OFF	ON	ON	ON	ON
30	OFF	ON	ON	ON	ON	ON
31	ON	ON	ON	ON	ON	ON
32	OFF	OFF	OFF	OFF	OFF	ON

* **Installer's Mode Address Setting:** Use for direct connection of Installer's Keypad.

"ON" indicates a shorting jumper across both pins

Module Addresses 15-32 are for use with the DS7200 Series only.

3.0 Location

Ideally, locate one keypad close to the primary entry/exit door of the premises within 305 m (1000 ft.) of the control panel. Do not mount the keypad outdoors (See *Section 8.0 Commercial Fire Applications*).

4.0 Mounting

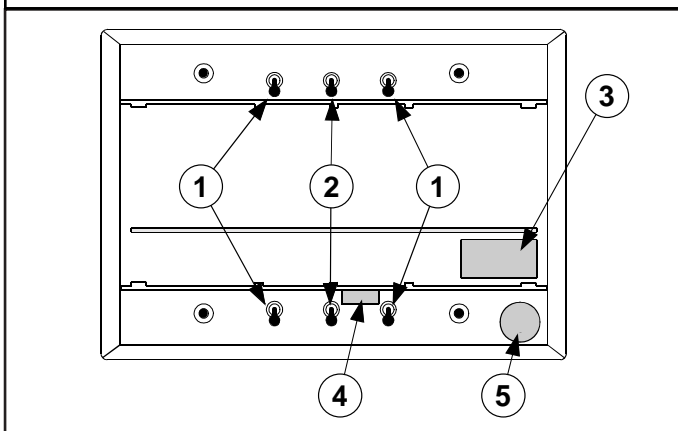
Mount the keypad no higher than shoulder height of the shortest person using the system.

1. Remove the keypad's cover.
2. Insert a small flat-head screwdriver in each slot at the bottom of the base. Press up, and pull the cover off.

4.1 Surface Mounting:

1. Use the base as a template and mark the location of the mounting holes (use any holes).
2. Provide an opening in the mounting surface for the wiring.
3. Pre-start the mounting screws but **do not secure the base at this time!**

Figure 3: Back View of Keypad

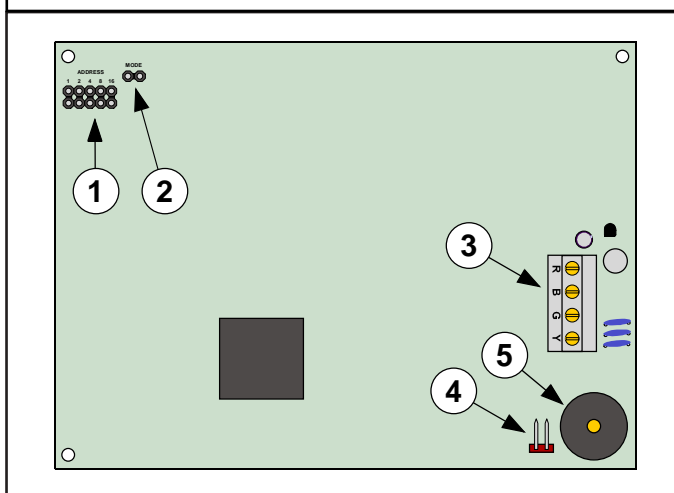


- 1 - Double gang mounting holes
- 2 - Single gang mounting holes
- 3 - Terminal Strip opening
Do not use as wire entrance!
- 4 - Wire Entrance
- 5 - Sounder Opening

4.2 Electrical Box Mounting:

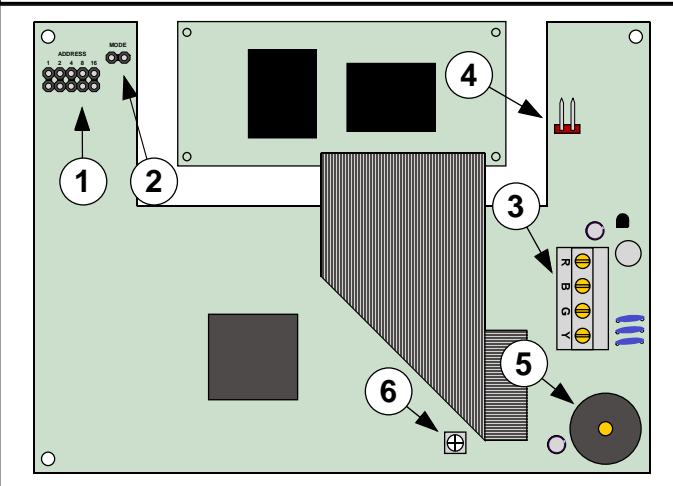
- See *Figure 3* to select the mounting holes, but **do not secure the base at this time!**

Figure 4: Internal View of DS7445i LED Keypad



- 1 - Address Jumper Pins
- 2 - Mode Pins
- 3 - Option Bus Terminals
- 4 - Access Relay Option Pins
- 5 - Sounder

Figure 5: Internal View of DS7447i/DS7447E LCD Keypad



- 1 - Address Jumper Pins
- 2 - Mode Pins
- 3 - Option Bus Terminals
- 4 - Access Relay Option Pins
- 5 - Sounder
- 6 - Contrast Control

3. Secure the base.
4. Connect the wiring to the keypad terminal strip. (Figure 6).
5. Place the keypad cover onto the base. While feeding the excess wiring out of the rear of the base, press the cover straight in until it latches.

6.0 DS7447i/DS7447E Contrast Control

Turn the DS7447i/DS7447E Keypad's contrast control clockwise to increase contrast. Turn it counter-clockwise to decrease contrast.

See Figure 5 for the location of the Contrast Control on the DS7447i/DS7447E LCD Keypad.

7.0 Special Key Labeling

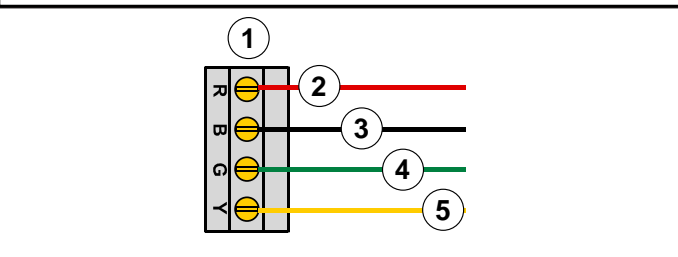


Do not label if keys are unprogrammed..

Consult your control panel's programming instructions for specific function key assignments.

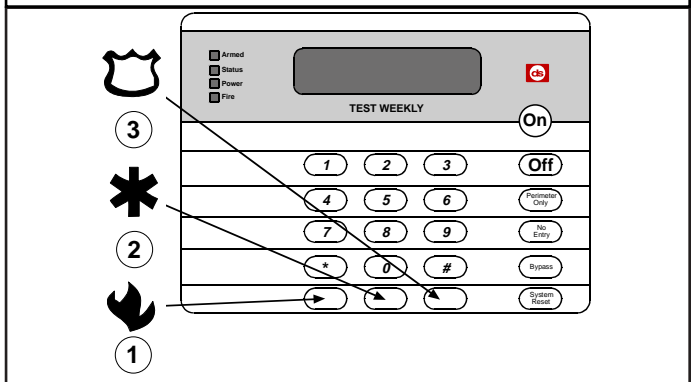
Figure 7 shows typical function key assignments (DS7447i/DS7447E shown - same button layout/assignment applies to DS7445i).

Figure 6: Keypad Terminal Connections



- 1 - Keypad Terminals
- 2 - Red (Power +)
- 3 - Black (Power -)
- 4 - Green (Data In)
- 5 - Yellow (Data Out)

Figure 7: Special Key Labeling



- 1 - Fire
- 2 - Special Emergency
- 3 - Panic

5.1 Control Panel to Keypad Wiring



Be sure all wiring is unpowered before routing.

1. Route wiring from the control panel to the keypads.



Up to two keypads may be placed along any single 305 m (1000 ft.) run of #22 AWG (0.8 mm) wire. Three keypads may be used on any single 305 m (1000 ft.) run of #18 AWG (1.2 mm) wire..

2. Insert wiring through the Wire Entrance in the keypad base (see Figure 3).

8.0 Commercial Fire Applications (DS7400Xi Series)

8.1 Single Keypad Use in Commercial Fire Systems

The keypad must be used on the keypad bus and mounted to the front of the control enclosure. If the keypad is within the same room as the control equipment, with the wire run in conduit (or equally protected against mechanical injury) within 6 m (20 ft.) of the control equipment.

The keypad must be assigned as Keypad Address 1.

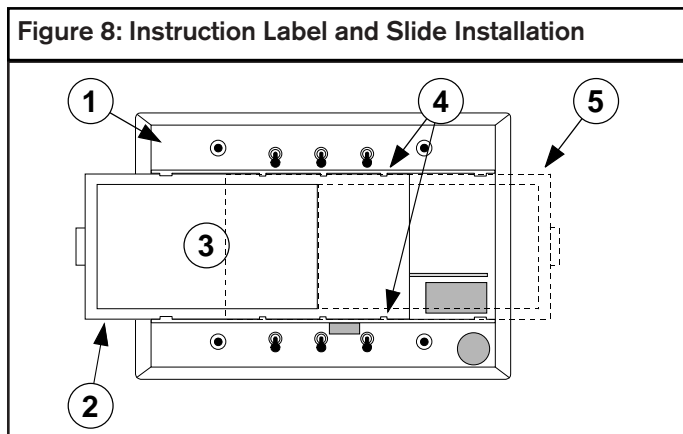
8.2 Multiple Keypad Use in Commercial Fire Systems

Only one keypad must be used on the panel's option bus and assigned as Keypad Address 11-14.

The keypad must be mounted to the front of the control enclosure. If the keypad is within the same room as the control equipment, with the wire run in conduit (or equally protected against mechanical injury) within 6 m (20 ft.) of the control equipment.

9.0 Instruction Label and Slide

Two instruction labels are provided and one must be placed onto the pull-out slide. The slide may be installed to pull from the left or the right (slide it into rear of base).



1 - Back of keypad

2 - Pull-out slide

3 - Instruction label (Writing on other side)

4 - Pull-out slide guide track

5 - Alternate location of pull-out slide

- Use Instruction Label (P/N: 28815) if the keypad(s) you are installing are for use with the DS7060, DS7080i Series and DS7400Xi Series Control Panels.
- Use Instruction Label (P/N: 49646) if the keypad(s) you are installing are for use with the DS7200 Series Control Panels.



Be careful when installing the label. Place it as close to the pull-tab as possible.

10.0 Troubleshooting

See Table 5 for troubleshooting tips.

Table #: One-column Wide

Keypad Notification	Possible Causes
DS7445i Continuous Sounder.	The yellow and green wires have been disconnected The control panel has malfunctioned. Replace the control panel.
DS7447i/DS7447E Continuous Sounder and System Fault display.	The yellow and green wires have been disconnected The control panel has malfunctioned. Replace the control panel.
DS7445i Continuous Sounder	The keypad has not been programmed properly at the control panel.
DS7447i/ DS7447E Continuous Sounder and Not Programmed Display.	The keypad has not been programmed properly at the control panel.
DS7445i 3-beep Error Tone on All Keypads.	Two or more keypads have the same address. DS7400 Series Only: DS7430 MUX Module not installed on main board correctly. Check pin alignment. DS7400 Series Only: Keypad and another device on the option bus have the same address.
DS7445i/DS7447i/ DS7447E 3-beep Error Tone on All Keypads and Entry Error. Please Try Again Display on DS7447i/DS7447E Keypad.	Two or more keypads have the same address. DS7400 Series Only: DS7430 MUX Module not installed on main board correctly. Check pin alignment. DS7400 Series Only: Keypad and another device on the option bus have the same address.