
Installation Guide

1.0 Description

The D621/D623/D625 Command Centers are low-profile, surface-mount, units for use with Radionics control panels. All three command centers are illuminated and have an armed status indicator, three programmable emergency keys and a built-in sounder that emits several distinct tones.

The D623/D625 can be used for local programming of a compatible control panel.

The control panel supplies all power and data requirements for command centers using a simple four-wire connection. Depending on the control panel, up to 32 command centers can be installed in one system.

2.0 Displays

The D621 Keypad uses light-emitting diodes (LED) to indicate system status. The D623 has a backlit liquid crystal display (LCD) and the D625 has a vacuum fluorescent display.

The D623's backlighting and the D625's brightness are adjustable.

The D623/D625 command centers use a two line, 16 character display to show system status and programming prompts to assist the user and installer in entering data.

3.0 Keys

- The command centers have a [Cmd] key, [*] key, three emergency keys labeled A, B, and C, and number keys from 0 to 9. These keys are used to enter functions and personal passcodes into the panel.
- The command centers also have the following arming keys: All On (turns the system All On), Part On (turns the system Part On), No Delay (eliminates the Entry/Exit Delay timers and arms the system immediately) and Bypass (bypasses points when arming the system).

For more information on the command center keys, see the *Text Command Center User Guide* (P/N: 46841) or the *LED Command Center User Guide* (P/N: 46840).

4.0 Response Tones

The command centers contain a sounder used to annunciate several system conditions. Sounder volume is adjustable.

5.0 Installing the Command Center

1. **Select a Mounting Location:** Do not mount the command centers in areas of extreme cold (for example, in an unheated building, refrigerated areas, outdoors, or in areas where the temperature can drop below 32°F/ 0°C). Do not mount the command centers in locations that are exposed to direct sunlight. Direct sunlight makes the display less visible and may also damage the command center components.

You can mount the command centers on a flat wall, or on the following Radionics accessories:

- D54B Brass Flush Mount Kit
 - D54C Chrome Flush Mount Kit
 - D55 Command Center Desk Stand
 - D56 Command Center Conduit Box
2. **Route Keypad Wire:** Route the wire to the command center location. See Table 1 for information about the maximum length of command center cables. Route the data wire runs away from electrical, telephone, and other data wiring.
 3. **Splice Connectors to the Wires:** The four-wire cable connects to the panel. Use solder to splice the connectors to the cable. Be sure to insulate all exposed splices with electrical tape to prevent from shorting to one another.

Wiring the Command Center

4. **Remove the Front Cover:** Remove the front cover from the enclosure base. Use a small flat-bladed screwdriver to gently push the two bottom cover tabs back. As you push back the tabs, lift the front cover away from the base to remove the cover. See Figure 1.

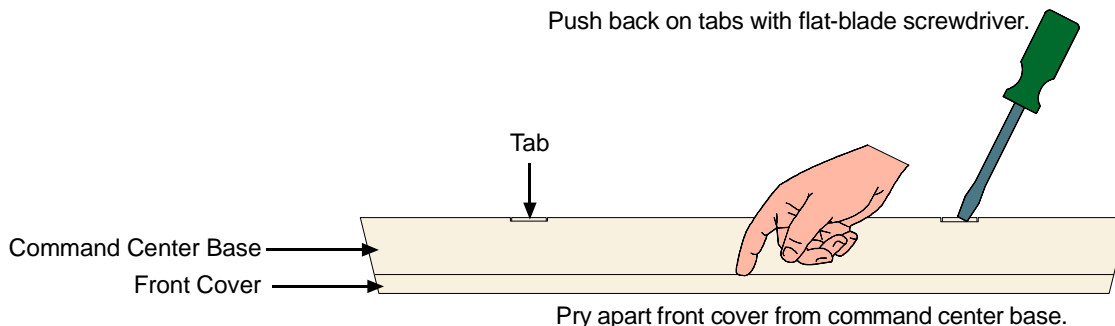


Figure 1: Removing the Front Cover

5. **Connect the Keypad:** Plug the connector into the command center.
6. **Mount the Enclosure Base:** Push any excess command center wire back into the wall or gang box, and then place the enclosure base on the wall in the desired location. Use a center punch or a pencil to mark the locations of the mounting holes.
You can mount the enclosure base to a recessed single-gang wall box if desired. Secure the enclosure base to the wall or gang box.

6.0 Wiring the Command Center



Remove all power to the system (AC and standby battery) before making or breaking any connections. Failure to do so may result in personal injury and/or damage to the equipment.

Refer to Table 1 for SDI bus wiring length requirements.

	#22 AWG (0.8 mm)	#18 AWG (1.2 mm)
Control Panel to D621/D623	1000 ft. (305 m)	2000 ft. (610 m)
Control Panel to D625*	225 ft. (69 m)	600 ft. (183 m)
Control Panel to D621/D623/D625 using an External Power Supply	1000 ft. (305 m)	2000 ft. (610 m)

Table 1: Command Center Wire Lengths

* Due to higher current requirements for the D625 Vacuum Fluorescent Command Center, the wire lengths shown in Table 1 must be used when wiring it from the control panel.

If an external power supply is used, follow the lengths as shown in Table 1.

Wire length may be restricted by panel limitations. See the control panel's installation instructions for more information.

Figure 2 shows a typical installation using one command center. Use parallel connections for additional command centers. Refer to the control panel's installation guide for more information.

Wiring the Command Center

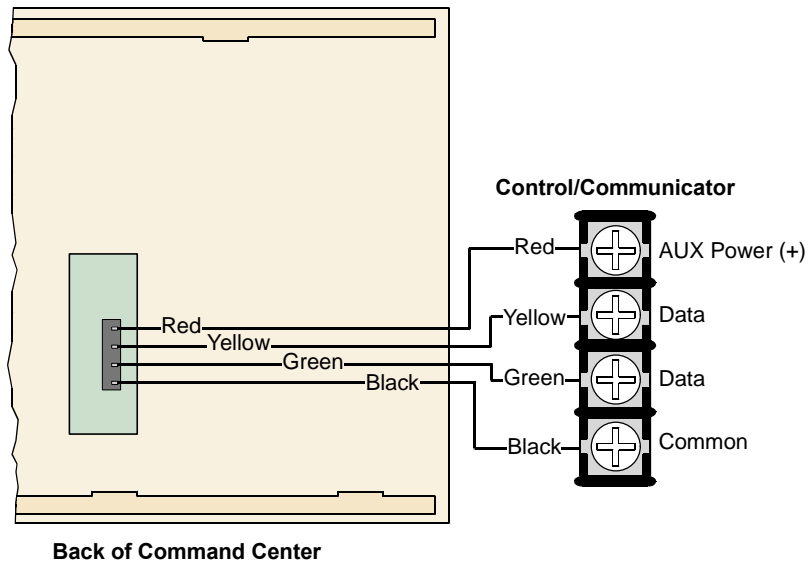


Figure 2: Wiring the Command Center to the Control panel



Do not connect the stand-alone power supply to earth ground.

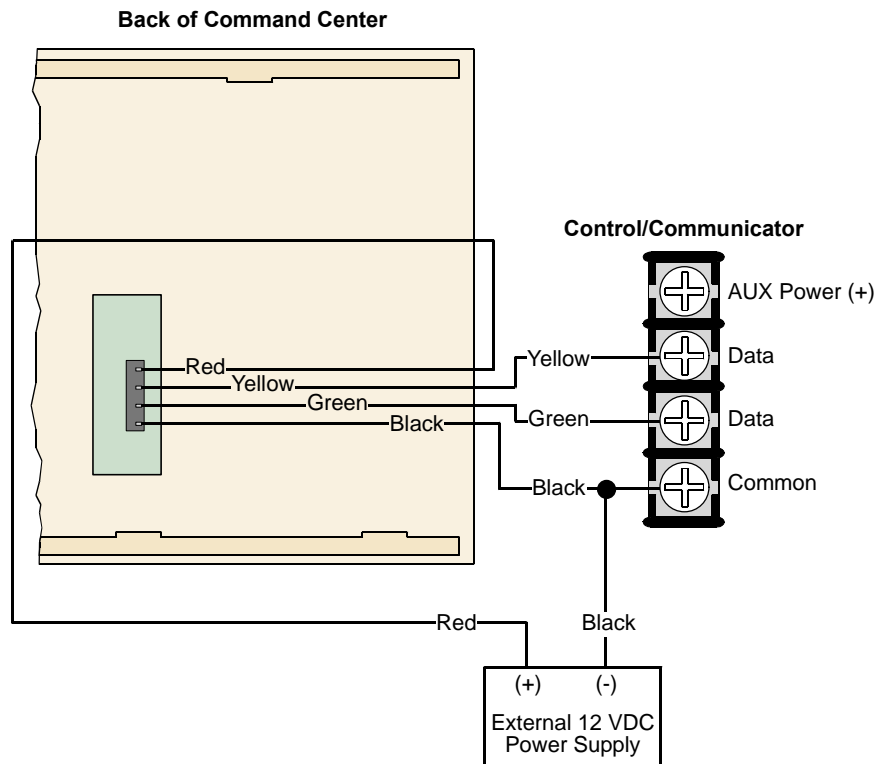


Figure 3: External Power for Command Centers

Assigning a Device Address

7.0 Assigning a Device Address



IMPORTANT

Each time you change the address switches, you need to cycle the power to the command center (turn the power off and then on) for the address change to take effect.

To set the command center's address, set the DIP switch as shown in Figure 4. See Table 2 for address DIP switch settings.

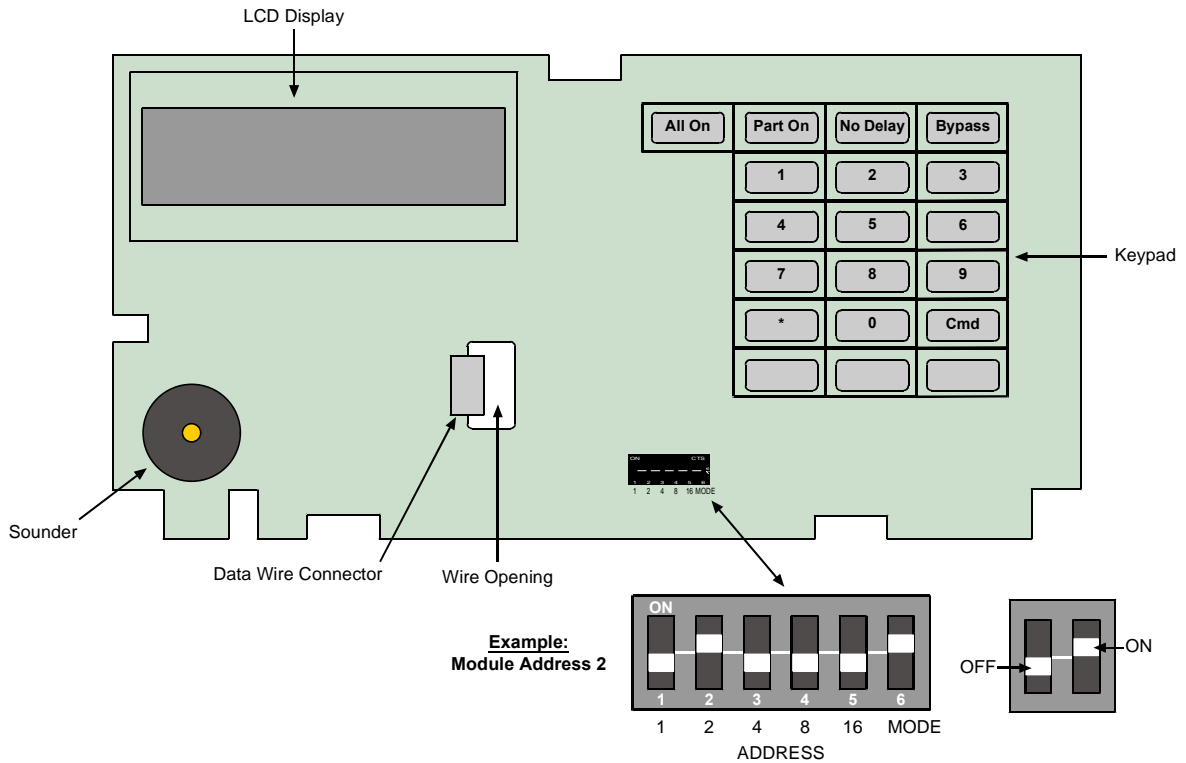


Figure 4: Inside View of Command Center

Completing the Installation

An “X” indicates that the DIP switch is ON. See Figure 4 for DIP switch orientation.

Dip Switches	DIP Switch Settings						Dip Switches	DIP Switch Settings					
	S1	S2	S3	S4	S5	S6		S1	S2	S3	S4	S5	S6
Module Address	1	2	4	8	16	MODE	Module Address	1	2	4	8	16	MODE
0*							17	X				X	X
1	X					X	18		X			X	X
2		X				X	19	X	X			X	X
3	X	X				X	20			X		X	X
4			X			X	21	X		X		X	X
5	X		X			X	22		X	X		X	X
6		X	X			X	23	X	X	X		X	X
7	X	X	X			X	24				X	X	X
8				X		X	25	X			X	X	X
9	X			X		X	26		X		X	X	X
10		X		X		X	27	X	X		X	X	X
11	X	X		X		X	28			X	X	X	X
12			X	X		X	29	X		X	X	X	X
13	X		X	X		X	30		X	X	X	X	X
14		X	X	X		X	31	X	X	X	X	X	X
15	X	X	X	X		X	32						X
16					X	X							

Table 2: Command Center Address Assignments DIP Switch Settings

* Address 0 is reserved for the installer’s keypad. This keypad is not intended for permanent installation and should remain on-premises for future programming sessions. See the control panel’s installation instructions for more details on the Installer’s Keypad.

8.0 Completing the Installation

- 1. Replace the Front Cover:** Align the top two tabs of the enclosure cover with the top two tab slots in the enclosure base. Slide the top of the cover into the base. Gently push the bottom of the cover down on the base until it snaps into place.
- 2. Adjust the Keys:** Push each key on the command center towards the top of the enclosure to ensure proper mating with the openings in the top cover.
- 3. Restore Power to the System:** Reconnect both AC and standby battery power to the system.
- 4. Test the System:** If used for fire applications, test per NFPA 72.

9.0 Command Center Specifications

Operating Voltage	Nominal 12 VDC supplied by control/communicator auxiliary power supply		
Current Requirements	D621	Maximum	115 mA
		Normal	35 mA
		Standby	35 mA
	D623	Maximum	100 mA
		Normal	100 mA
		Standby	100 mA
	D625	Maximum	270 mA
		Normal	270 mA
		Standby	270 mA
Enclosure Dimensions (HxWxD)	4.56 in. x 8.15 in. x 0.816 in. (11.6 cm x 20.7 cm x 2.1 cm)		
Color	Off white; white (D621W, D623W, D625W)		
Operating Temperature	+32° to +122°F (0° to +50°C)		
Non-Condensing Relative Humidity	5 to 85% at 86°F (30°C)		
Command Center Wiring	4-wire cable supplies data, common and positive voltage		
Display	D621	LED	
	D623	2-line, 16-character LCD. Backlighting is adjustable.	
	D625	Vacuum-fluorescent 2-line, 16-character display. Brightness is adjustable.	
Control Panel Compatibility	D6412 Control/Communicator		