Radionics™

D223 Keypad Installation Instructions

ENGLISH TEXT DISPLAY   STATUS LIGHT   FUNCTION KEYS

SOUNDER
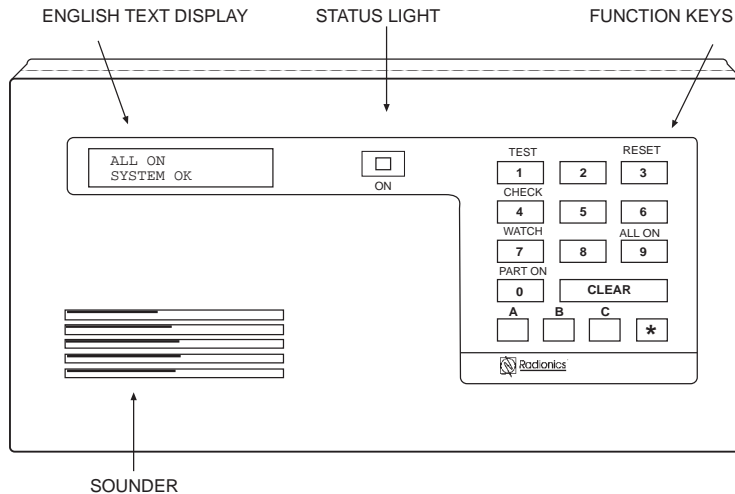
Description

The D223 Keypad is a low-profile, surface-mount, three-wire unit for use with the Radionics D2212 Control/Communicator. The D223 features an illuminated keypad, a backlit two-line LCD text display, an armed status indicator, three programmable emergency keys, and a built-in sounder that emits several distinct tones.

The control/communicator supplies all power and data requirements for the D223 using a simple three-wire connection. Depending on the panel's available auxiliary power, you can install up to eight D223 Keypads in one system.

You can program custom text locally using either the D5200 Programmer or keypad programming. If using the D5200, be sure to lock the panel's standby pin down *before* connecting the programmer. You can program text remotely using the D5300, RAM II.

The Display

The D223 Keypad continuously displays the latest status conditions of the security system.   It takes 15 seconds after the program has been received for the new text to replace the old text.When a series of events occur that affect the system, the D223 displays each event by priority, for example, the D223 displays alarms before point faults.

The LCD display is normally illuminated constantly. You can choose to make it illuminate only after a key is pressed. With this option, the display and backlights extinguish after approximately 20 seconds. Press and hold the **CLEAR** key for five seconds to turn this feature on or off.

The Keys

The D223 Keypad has a CLEAR 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.

Response Tones

The D223 Keypad contains a sounder used to annunciate several system conditions. You can disable the sounder if you choose.

Installing the Keypad

Select a Mounting Location - Do not locate the D223 in areas of extreme cold for example, in an uninsulated building, refrigerated areas, outdoors, or in areas where the temperature can drop below 32°. Do not mount the keypad in a location exposed to direct sunlight. Direct sunlight makes the display less visible and may also damage the keypad components.

You can mount the D223 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

Route Keypad Wire - Route the wire to the keypad location. See the panel's installation manual for information about the maximum length of keypad cables and wire resistance. Route data wire runs away from electrical, telephone, and other data wiring.

Splice Connectors to the Wires - The three-wire cable connects to the panel. Use solder to splice the connectors to the wires. Be sure to insulate all exposed splices with tape so that they do not short to one another.

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 bottom of the cover away from the base, then remove the cover.

Connect the Keypad - Plug the data wire into the serial data wiring connector (J1) in the keypad. (see Figure 3)

Mount the Enclosure Base - While pushing any excess keypad wire back into the wall or gang box, 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.

Connect the Keypad Wire to the Panel - The maximum length for all wires connected to D2212 terminal 8 combined is 500 feet. Route data wire runs away from electrical, telephone, and other data wiring.

Figure 2 shows a typical installation using one D223 Keypad. Use parallel connections for additional keypads. For more information refer to the *D2212 Installation Manual* (74-07361-000).

Assigning the D223 to a Device Address - Before you begin, be sure that the panel's standby pin is locked down to prevent missing point reports being sent.To set the D223 keypad's address, follow these steps:

1. Turn DIP switch #1 to the **ON** position.
2. The display shows:
   > *SET ADDRESS MODE*
   > *ADDRESS IS ##*
3. Enter the address (1 to 8) with a leading zero (for example, 01 for address 1).
   Important! Use only address numbers 1 to 8.
4. Set dip switch #1 back to the **OFF** position.
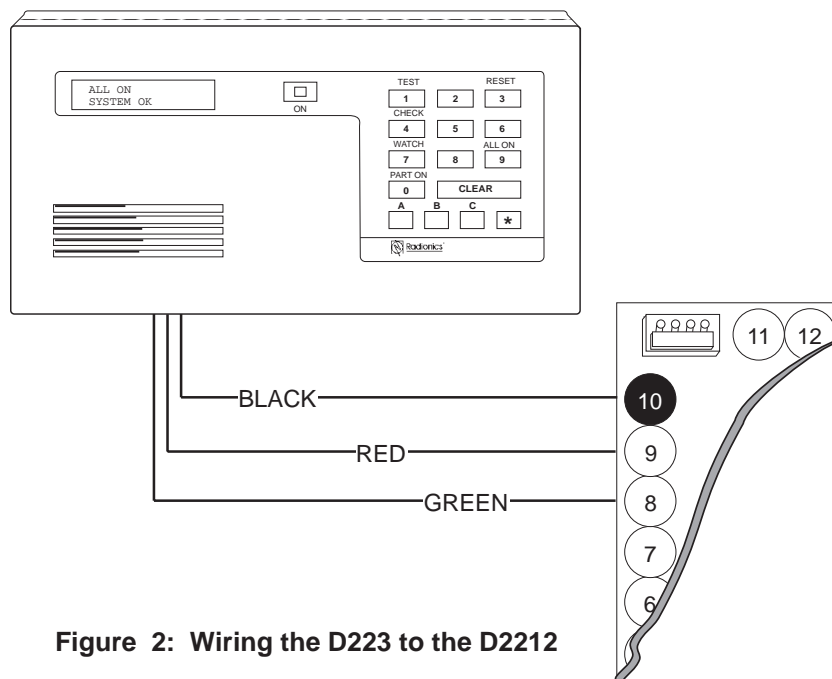   If you are going to use a D223 keypad, at least one D223 must be set to address 1.

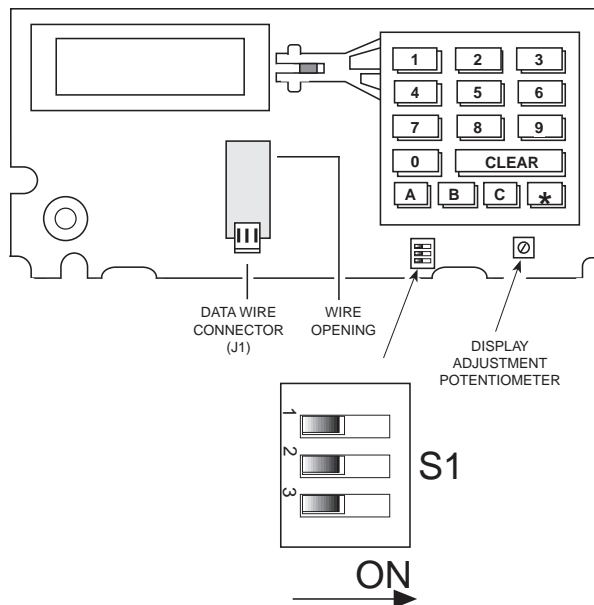**Figure 2: Wiring the D223 to the D2212**

Figure 3: Inside the D223

The panel's program affects the keypad's address:
Choose the keypad address in the panel's program.
Select **Text Keypad** for the device type of the chosen
address. For more information, see *Address Configuration* in the *D2212 Program Entry Guide* (74-07386-000).

If a D223 at address 1 is to be replaced, and the
system has custom text, you must do the following in
order to preserve the custom text:

1. Using a D5200, copy the panel's program.
2. Attach a new D223 at address 1.
3. Reprogram the panel using the copied program.

Keypad Sounder Disable - To disable the sounder,
turn DIP Switch #3 **OFF** (see Figure 3).

Fire Points need the trouble sounder: Disabling the
sounder with switch #3 stops the D223 from annunciating fire point trouble. If fire points are installed as part
of this system, contact the local AHJ to verify code
requirements for fire trouble sounders before disabling
the D223 sounder.

Enable sounder for UL systems: For UL installations,
the sounder on at least one keypad in the system must
remain connected.

Adjust the D223 Display - With the D223 mounted to
the desired surface, view the display from the approximate angle for the user. If the display requires adjustment for clarity, use the Display Adjustment Potentiometer (R50) in the lower right-hand corner of the D223
circuit board.

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.

Adjust the Keys - Push each key on the keypad
towards the top of the enclosure to ensure proper
mating with the openings in the top cover.

D223 Keypad Specifications

Operating Voltage:

Nominal 12 VDC supplied by the control/communicator auxiliary power supply.

Current Requirements:

Maximum: 140mA

Normal: 85mA   LCD on.

Standby: 30mA   No keypad backlighting.

Enclosure Dimensions:

Height 4.56",   Length 8.15",   Depth .816"

Color: Off white

Operating Temperature:

0 to 50 °C (32 to 122 °F)

Non-condensing Relative Humidity:

5 to 85% at 30 °C (86 °F)

Keypad Wiring:

Three-wire cable supplies data-in, common, and positive voltage.

Display:

ON Indicator: Lights when system is All or Part On.

LCD Display: Two-line 16-character, Liquid Crystal Display (LCD). The user can select to have the display backlit constantly, or when a keypad digit is pressed.

D223 Switch Settings

SWITCH #	ON	OFF
1	Set Address	Normal Operation
2	————	————
3	Enable Sounder	Disable Sounder