Installation Instructions

1.0   Description

The D220ATD Keypad (see *Figure 1*) is a low-profile, surface-mount, three-wire unit designed for use with the Bosch Security Systems D2112, D2112E, and D2212 Control/Communicators. The D220ATD features an illuminated keypad, LED display, three programmable emergency keys, and built-in sounder that emits several distinct tones.

The control/communicator supplies all power and data requirements for the D220ATD using a simple three-wire connection.

1.1   Display

The D220ATD Keypad uses LEDs to display system status. When events occur that affect points, the D220ATD illuminates the LED corresponding to the point number.

1.2   Keys

The D220ATD Keypad has a [CLEAR] key, three emergency keys (labeled A, B, and C), and number keys from zero to nine. These keys are used to enter functions and personal passcodes into the panel. The [*] key is not used.

1.3   Response Tones

The D220ATD Keypad uses a sounder to annunciate system conditions. You can disable the sounder if you choose.
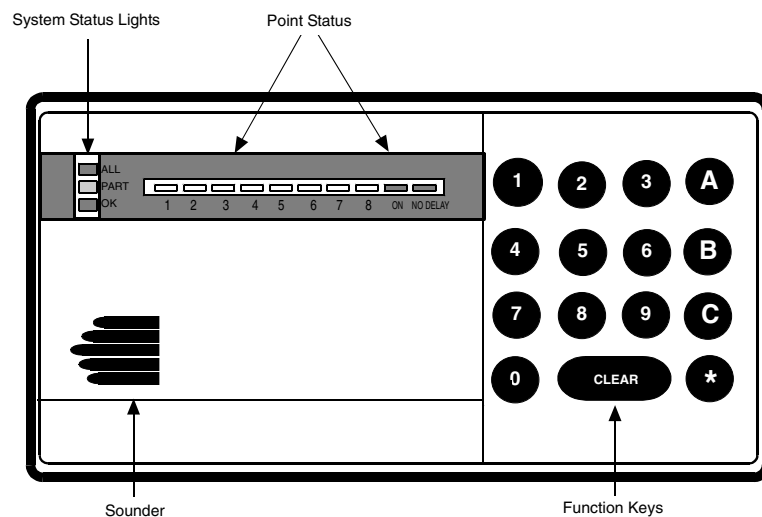

Figure 1: D220ATD Keypad

2.0   Specifications

Operating Voltage	Nominal 12 VDC supplied by the Control/Communicator auxiliary power supply.
Current Requirements	Maximum: 125 mA keypad backlights on, LCD on, LED on, tone on Standby: 30 mA backlight off
Enclosure Dimensions (H x W x D)	4.56 in. x 8.15 in. x 0.816 in. (11.6 cm x 20.7 cm x 21 mm)
Operating Temperature	+32°F to+122°F (0°C to +50°C)
Non-condensing Relative Humidity	5% to 85% at +86°F (+30°C)
Command Center Wiring	Three-wire cable supplies data and power

3.0   Installation

To install the D220ATD Keypad:

1. Select a mounting location.

    Do not locate the D220ATD in areas of extreme cold, such as an uninsulated building, refrigerated areas, outdoors, or in areas where the temperature can drop below +32°F. Do not mount the keypad in a location exposed to direct sunlight that makes the display less visible and can also damage keypad components.

    Mount the D220ATD on a flat wall or on the following Bosch Security Systems accessories:
    - D54B Brass Flush Mount Kit
    - D54C Chrome Flush Mount Kit
    - D55 Command Center Desk Stand
    - D56 Command Center Conduit Box

2. Route the keypad cable to the location where you mount the keypad.

    Refer to the panel's *Installation Guide* for information on the maximum length of keypad cables and wire resistance. Be sure to route data wire runs away from electrical, telephone, and other data wiring.

3. Wire the connector.

    The three-wire connector attaches to the keypad cable. Use solder to splice the three-wire connector to the keypad cable. Be sure to insulate all exposed splices with tape so they do not short to one another.

4. 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 and then remove the cover.
    - When using the D220ATD with the D2112/D2112E, cut and remove the R30 resistor. See *Figure 2* on page 3.
    - If disabling sounder, do so before connecting the keypad to the cable. Disable the sounder by cutting and removing resistor R22 located in the lower left-hand corner of the board, next to the sounder. Refer to *Figure 2* on page 3.
    - Fire Points need the trouble sounder. Disable the sounder (by removing R22) stops the D220ATD 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 D220ATD sounder.
    - Enable sounder for UL systems. For UL installations, the sounder on at least one keypad must remain connected.

5. Connect the keypad.

    Route the three color-coded flying leads through the opening in the back of the enclosure base and plug into the serial data wiring connector (J1) in the keypad (see *Figure 2*).

6. Mount the enclosure base.

    While pushing 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.

    If desired, mount the enclosure base to a recessed single-gang wall box. Two mounting screw holes on the base are positioned for standard single-gang compatibility. Secure the enclosure base to the wall or gang box.

7. 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.
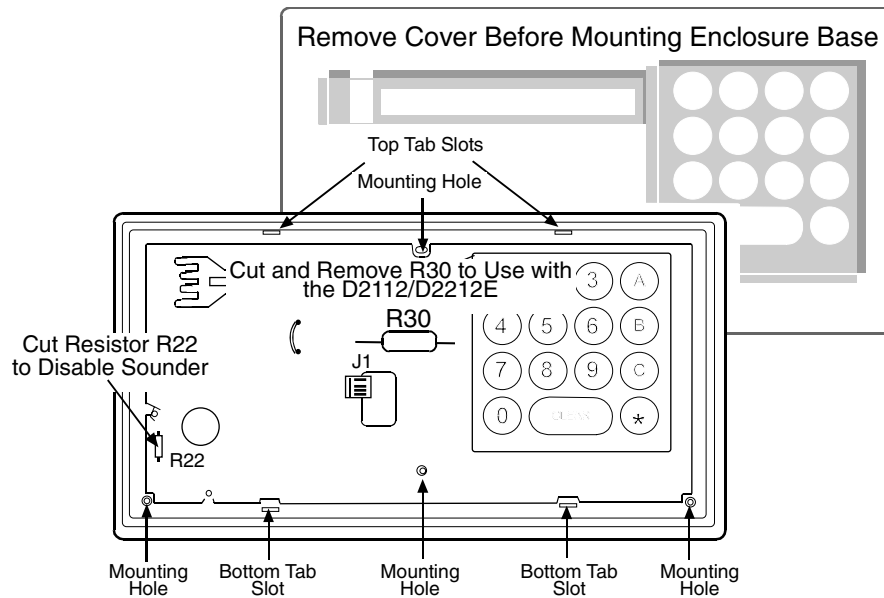
Remove Cover Before Mounting Enclosure Base

Top Tab Slots

Mounting Hole

Cut and Remove R30 to Use with the D2112/D2212E

R30

Cut Resistor R22 to Disable Sounder

J1

R22

Mounting Hole | Bottom Tab Slot | Mounting Hole | Bottom Tab Slot | Mounting Hole

Figure 2: Inside the D220ATD Keypad

8. 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.

9. Connect the keypad cable to the panel.

    Figure 3 shows a typical installation using one D220ATD Keypad. Use parallel connections for additional keypads or expanders. For more information refer to the panel's *Installation Guide*.

D220ATD Keypad

Black (Common)

Red (+12 VDC)
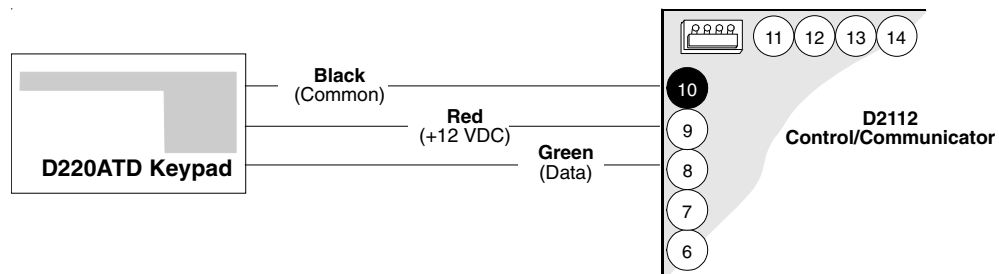
Green (Data)

11 12 13 14

10

9

8

7

6

D2112 Control/Communicator

Figure 3: Wiring the D220ATD to the Panel

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