

Installation Guide

1.0 Notice

These instructions cover the installation of the D9069 Fire System Annunciator in an analog system controlled by a Radionics D8024 or D10024 Analog Fire Alarm Control Panel (FACP).

Install, test and maintain the D9069 according to these instructions, NFPA 72, Local Codes and the Authority Having Jurisdiction. Failure to follow these instructions may result in failure of the device to operate properly. Radionics is not responsible for improperly installed, tested or maintained devices.



These instructions contain procedures to follow in order to avoid personal injury and damage to equipment.

NFPA 72 requires a complete system-wide functional test be performed following any modifications, repair, upgrades or adjustments made to the system's components, hardware, wiring, programming and software/firmware.

2.0 Device Description

Radionics' D9069 Fire System Annunciator is a remote annunciator designed for use in public places in an analog system controlled by Radionics' D8024 and D10024 Analog FACP's. It annunciates system events only and has no provision for system control. The FACP sends system status information to the D9069 over a two-wire Class A or Class B RS-485 circuit.

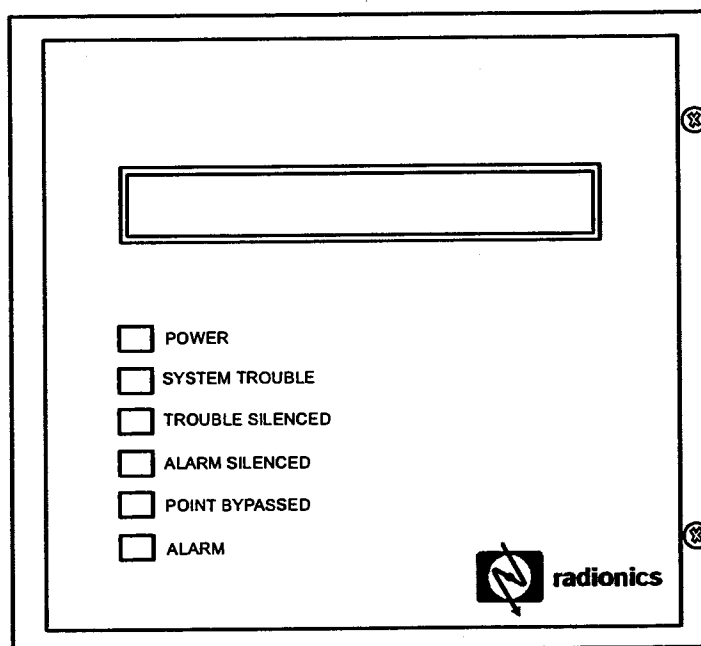
An 80-character back-lit liquid crystal display shows system events in English text. Forty of these characters are programmable to display individual device locations (20 for the zone and 20 for the device). System-wide text displays include Alarm, Trouble, Service, Missing Point and custom polling circuit and address text.

Six front panel display LEDs report system conditions. See Table 1 for a description of these LEDs. There are also four on-board LEDs that indicate system activity. See Table 2 for a description of these LEDs.

An internal sounder signals the annunciator's location in alarm conditions.

Each analog control panel can support up to 31 D9069 Fire System Annunciators.

Figure 1: D9069 Front Panel Display



D9069

Mounting the D9069

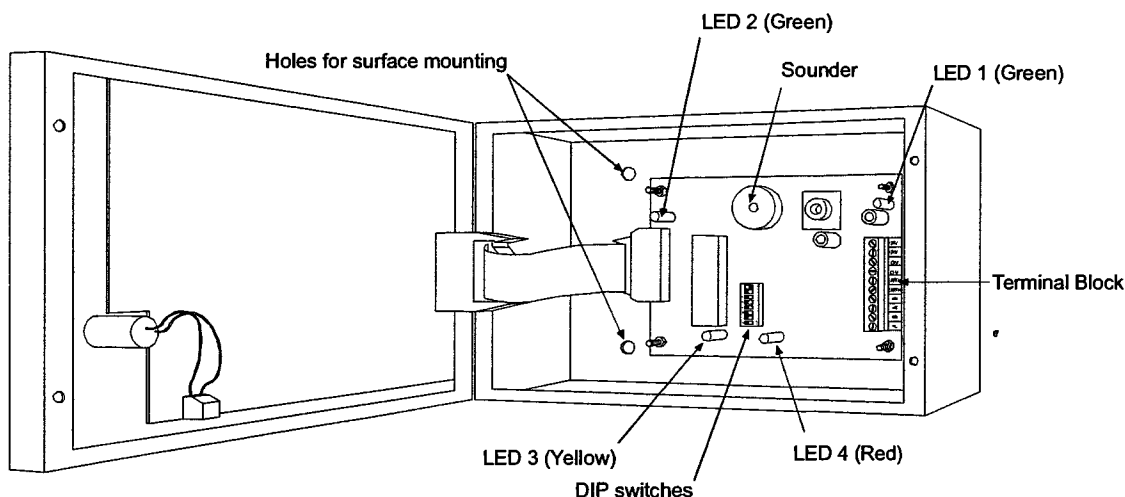


Figure 2: Internal View of D9069

Note: Although the D9069 has a DIP switch block, it cannot be learned into a system. Leave all DIP switches in the OFF (down) position.

3.0 Mounting the D9069



Inform the operator before installing this device in an existing system. Remove all power (AC and battery) to the FACP before installing this device. Failure to do so may result in personal injury and/or damage to the equipment.

3.1 Semi-flush Mounting the D9069

- 1) Prepare an opening in the wall 9 1/8 in. x 6 5/16 in. (23.2 cm x 16.0 cm)
- 2) Remove the knockouts from the D9069 as necessary for wiring conduit fittings.
- 3) Mount the D9069 enclosure in the wall.
- 4) Run the necessary wiring throughout the premises and pull the wires into the enclosure. Knockouts are provided at the top and bottom of the enclosure.
- 5) Mount the D9081 Flush Mount Trim Ring to the enclosure.

3.2 Surface Mounting the D9069

- 1) Remove the necessary knockouts and install conduit fittings.
- 2) Mount the enclosure in the desired location. Use all four mounting holes (see Figure 2 for mounting hole locations).
- 3) Run the necessary wiring throughout the premises and pull the wires into the enclosure. Knockouts are provided at the top and bottom of the enclosure.

4.0 Wiring the D9069

The D9069 terminal block connects to the D9051 RS-485 Bus Module on the FACP's port reserved for peripheral devices. See the *D9051 Installation Guide* (P/N: 34048) or the FACP's Installation Guide for port assignments. See Figure 3 for wiring details.

- 1) Remove AC power from the system at the dedicated 120 VAC breaker and remove the standby battery power before making or breaking any connections to the FACP.
- 2) The "A" and "B" wires must be connected to their respective terminals. Crossing the terminal connections (connecting the "A" wire to the "B" terminal) will result in the FACP receiving corrupted data.
- 3) The annunciator in a Class B (two-wire) circuit must have a 150 Ω , 1/4 watt EOL resistor across the 485 OUT "A" and "B" terminals.
- 4) The D9069 receives 24 VDC power from the FACP or an auxiliary power supply. Connect the (+) 24 VDC wire to the (+) 24 V terminals. Connect the (-) 24 VDC wire to the 0 V terminal.

Note: Do not connect 24 VDC power to the "A" or "B" terminals. Doing so may result in personal injury and/or damage to equipment.

- 5) Connect the earth ground wire to the EARTH terminal. If shielded wire is used, connect the drain wire to the EARTH terminal.

Note: Unless shielded cable is properly grounded, it may aggravate rather than eliminate noise problems. Shielded cable must be reconnected each time the cable is cut to install a device.

- 6) Restore power to the system by connecting the standby batteries and closing the 120 VAC dedicated breaker that controls the power input to the FACP. The green AC Power LED on the panel display will light to show that the 120 VAC power supply is on and the standby power supply is connected.

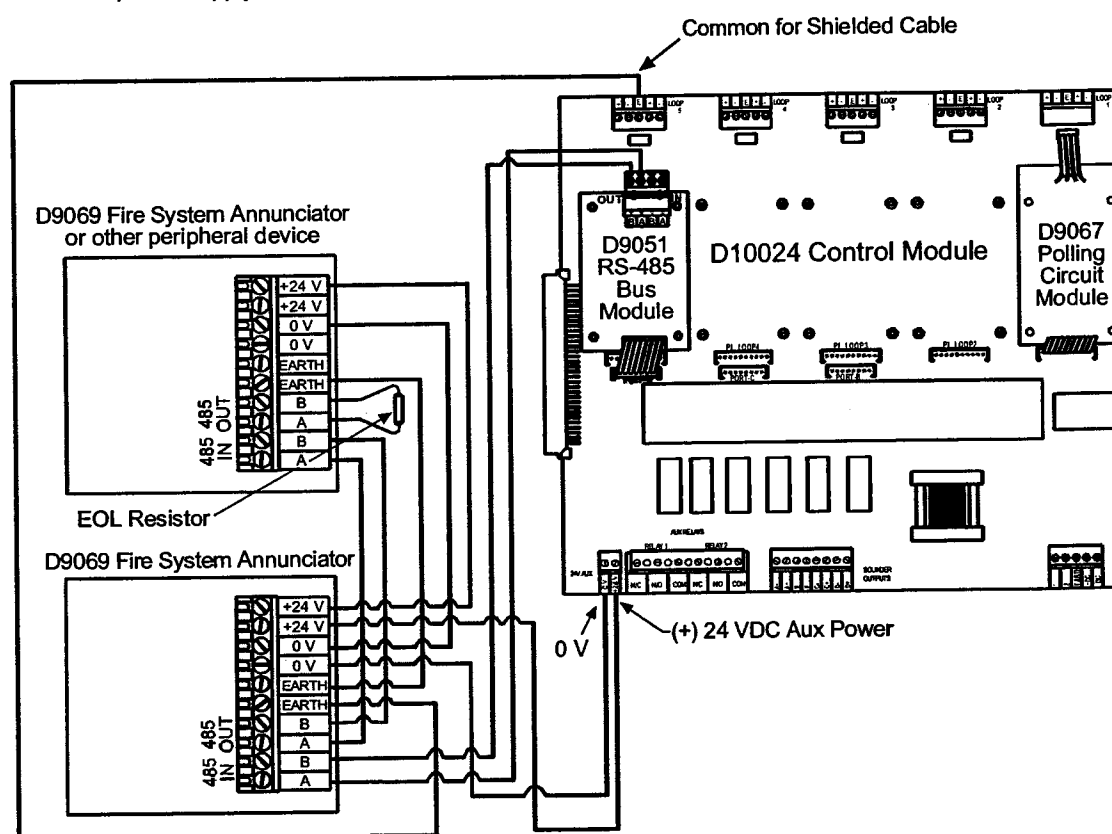


Figure 3: D9069 to FACP Connections

Note: The wiring example shown in Figure 3 also applies to the D8024 Analog FACP.

Note: The D8024 and D10024's auxiliary power is limited to 340 mA. Each D9069 draws 125 mA at display.

5.0 D9069 LED Operation

There are two sets of LEDs on the D9069 Fire System Annunciator: the Front Panel Display LEDs and the System Activity LEDs. The Front Panel Display LEDs are located on the outside of the D9069's enclosure door. See Figure 1. The System Activity LEDs are located on the D9069 PCB. See Figure 2. See Tables 1 and 2 for the functions of these LEDs.

Front Panel LED	Function
Power	Indicates that acceptable AC power is present
System Trouble	Indicates that there is a fault in the system (SLC wiring, power fault, etc.). This clears when the fault has been corrected and the panel has been reset.
Trouble Silenced	Indicates that the annunciation of a fault condition has been manually silenced by an operator. This clears when the fault condition has been corrected and the panel has been reset, or another fault occurs.
Alarm Silenced	Indicates that notification appliances have been manually turned off, but the system is still in an alarm state. This clears when the system is reset.
Point Bypassed	Indicates that one or more inputs have been manually disabled. This clears when the point(s) are returned to service.
Alarm	Indicates an input point is in alarm state, or has latched into an alarm state. This clears when the system is reset.

Table 1: Front Panel Display LEDs

System Activity LED	Color	Function
LED 1	Green	Lights to indicate the board is receiving DC power.
LED 2	Green	Flashes to indicate CPU activity at the FA \oplus .
LED 3	Yellow	Flashes to indicate the board is receiving data from FA \oplus .
LED 4	Red	Not used on D9069.

Table 2: System Activity LEDs

6.0 Specifications

D9069 Specification	Value
Operating Voltage	20 to 28 VDC
Nominal Supply Voltage	24 VDC
Current Draw	35 mA inactive; 125 mA at display
Operating Temperature	+32°F to +122°F (0°C to +50°C)
Relative Humidity	5 to 85% RH-non condensing (@ 86F, 30 C)
EOL Resistor	150 Ω , ¼ watt