

Installation Instructions

Notice

These instructions are for the installation of the D9051 RS 485 Bus Module in the Radionics D9024 or the D10024 Fire Alarm Control Panel (FACP). See the D9024/D10024 Programmer's Guide and Operator's Instructions for programming and operating Instructions.

Installing the D9051 in an analog Fire Alarm Control Panel (FACP) consists of:

- A. Removing power from the FACP
- B. Mounting the D9051 Module on the FACP Control Module
- C. Connecting the D9051 8-wire Ribbon Connector to the Control Module
- D. Connecting the circuit wiring to the D9051 terminal blocks
- E. Restoring Power to the system

CAUTION is used in these instructions to indicate procedures to follow to avoid damage to equipment.

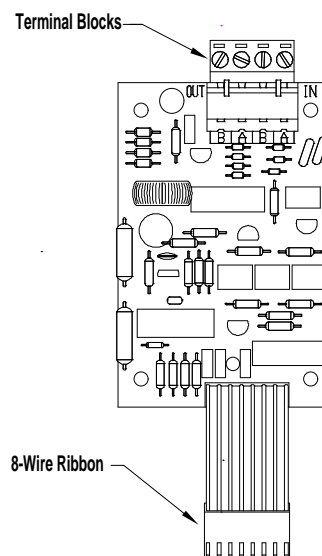


Figure 1: D9051 RS 485 Bus Module

Installation Standards

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

Description

The D9051 module is an RS 485 Network Expander that is powered by the FACP. It plugs into Port D on the D9024M or D10024M Control Module and provides an optically isolated data interface between the Control Module and peripheral devices.

Port D supports a peripheral circuit for D9069 remote annunciators, D9070 controllers, 4-way notification appliances, synchronized notification appliances, and other serial peripherals.

A. Removing Power from the FACP

Remove AC power from the system at the dedicated 120 V AC breaker, "lock out" the breaker, and remove the standby battery power before making or breaking any connections to the FACP.

Caution: Disconnect all power to the Fire Alarm Control Panel before installing this module.

B. Mounting the D9051 Module on the FACP Control Module

Depending on the circuit configurations, both the D9051 and the D9067 Circuit Modules may be mounted to the same four attachment points where a 10-wire ribbon socket is above an 8-wire ribbon socket. See Figure 4.

B.1. D10024 Attachment Points

On the D10024 Port D is below the 10-wire ribbon sockets labeled PL_LOOP5, which is a connecting point for the D9067 Polling Circuit Module. On the D10024M the D9051 and D9067 modules can mount together above Port D.

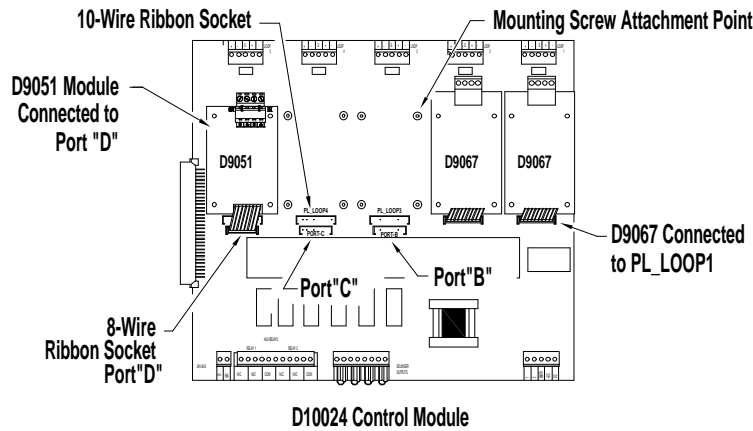


Figure 2: D10024 Control Module Configuration

B.2 D9024 Attachment Points

On the D9024 Port D is the port on the left side of the board. Port D is reserved for peripheral devices only. See Figure 4.

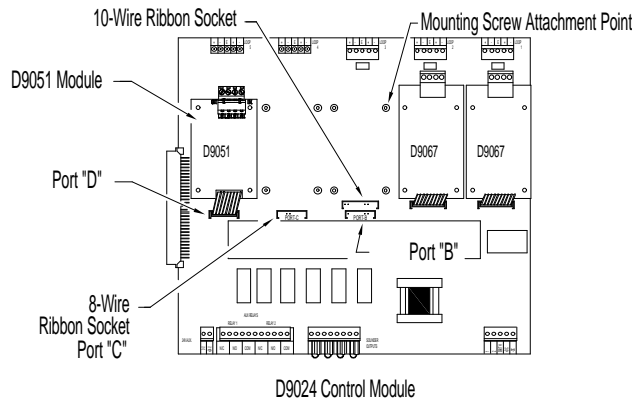


Figure 3: D9024 Control Module Configuration

B.3 Port Application

Port D supports a peripheral circuit for remote annunciators, controllers, 4-way notification appliances, synchronized notification appliances, and other serial peripherals.

B.4. Mounting the D9051 Module over the D9067 Control Module

In a system configuration where it is necessary to mount both the D9051 Module and the D9067 Module in the same port, the D9067 module always mounts next to the Control Module board. Remove the four 6mm screws that attach the D9067 to the Control Module and replace them with the four 30 mm pillars that are included with the D9051 Module. Use the four 6mm screws to attach the D9051 to the 30mm pillars. See Figures 3 and 4

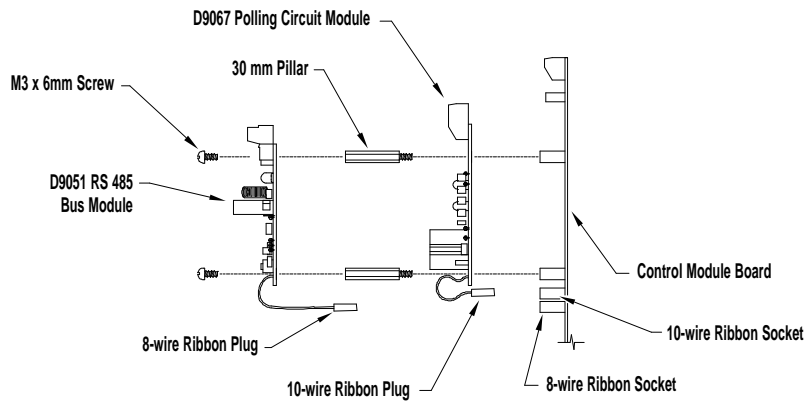


Figure 4: Stacked Modules

B.5. Mounting the D9051 directly to the Control Module

To mount the D9051 by itself, use the four pillars to attach the module directly to the Control Module. See Figure 5.

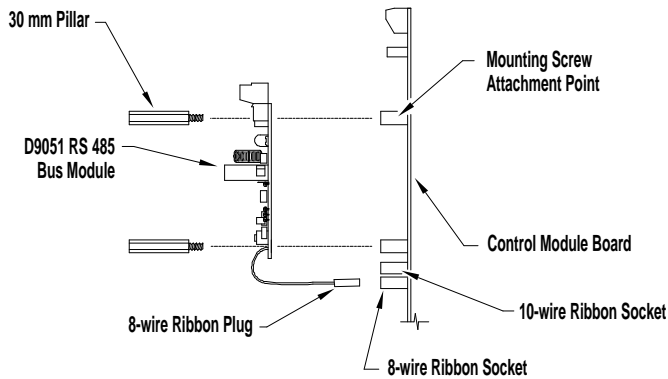


Figure 5: D9051 Mounting

C. Module to Control Module Connection

The 10-wire ribbon connector from the D9067 Polling Circuit Module plugs into the 10-wire socket immediately below it. The D9051 8-wire ribbon connector plugs into the lower socket.

Caution: Do not try to plug the 8-wire ribbon connector into the upper (10-wire) socket.

D. Connecting Circuit Wiring to the D9051

Circuit Length is the distance over the circuit wire from the connection at the D9051 Module to the most distant device and back to the D9051 Module. The maximum RS 485 circuit length is 4,920 ft. using shielded twisted pair wiring such as the Data Grade Cable D293, or non-shielded 18 gauge cable from Atlas, Guardian Sound & Security, or their equals.

RS 485 Bus Circuit Length	Wire Gauge
Up to 4,920 ft.	18

Table 1: Circuit Length/wire Gauge

Connect the unused terminals of the last device in the circuit with an End of Line (EOL) resistor. Two 150Ω 1/4 W EOL resistors are provided with each D9051 Module.

The two-wire RS 485 communication circuit may be connected to either or both sides ("IN" or "OUT") of the D9051 terminal block.

Connect the "B" wire to the "B" terminal (the terminal on the left) of the terminal block at the top of the D9051 Module. Connect the "A" wire to the "A" terminal next to it.

If Shielded cable is used, connect the drain wire(s) to the "E" terminal of the terminal block at the top of the Control Module Board as shown in Figure 7.

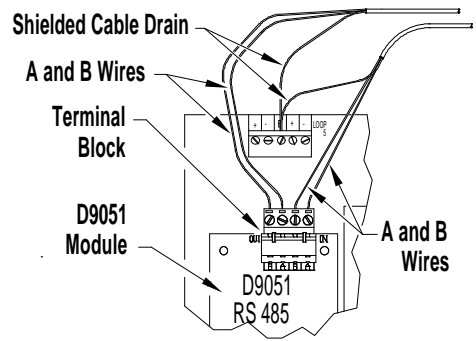


Figure 6: D9051 Wiring Connections

E. Restoring Power to the System

Connect the standby batteries and close the 120 V AC dedicated breaker that controls the power input to the FACP. The green AC Power LED on the panel display lights to show that the 120 V AC power supply is on and the standby power supply is connected.

Specifications

Model Number	D9051
Operating Current Draw	59 mA/module
Operating Temperature	32°F to 120°F
Maximum Humidity	85% RH-Non Condensing (@104°F)

Dimensions

Width: 2"

Height: 3"

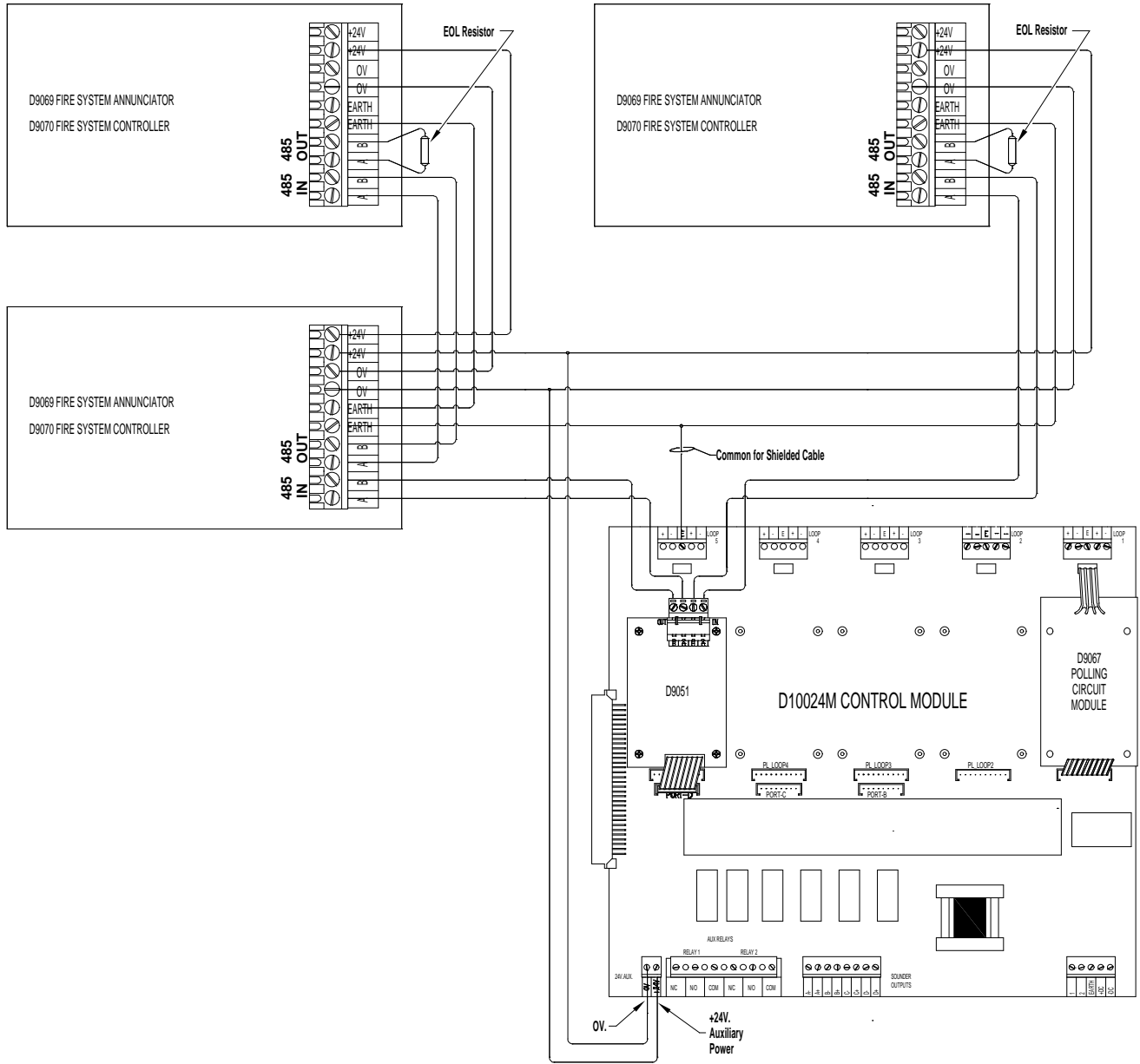


Figure 8: D9051 Peripheral Bus

Peripheral Bus Device Address Record Sheet

Notes: A number in the switch column indicates that switch is in ON
 Address 1 through 15 are reserved for D9070 Fire System Controllers

		Switch Setting									
Address Value	1	2	4	8	16	32	64				
Address	1	2	3	4	5	6	7	8	Device	Notes	
1	1								D9070		
2		2							D9070		
3	1	2							D9070		
4			3						D9070		
5	1		3						D9070		
6		2	3						D9070		
7	1	2	3						D9070		
8				4					D9070		
9	1			4					D9070		
10		2		4					D9070		
11	1	2		4					D9070		
12			3	4					D9070		
13	1		3	4					D9070		
14		2	3	4					D9070		
15	1	2	3	4					D9070		
16					5						
17	1				5						
18		2			5						
19	1	2			5						
20			3		5						
21	1		3		5						
22		2	3		5						
23	1	2	3		5						
24				4	5						
25	1			4	5						
26		2		4	5						
27	1	2		4	5						
28			3	4	5						
29	1		3	4	5						
30		2	3	4	5						
31	1	2	3	4	5						
32						6					

