Installation Guide

1.0 Notice

These instructions cover the installation of the Radionics D7035/D7035B Octal Relay Modules in a fire system supervised by a Radionics D7024 Fire Alarm Panel (FACP).

Install, test and maintain the D7035/D7035B according to their 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.

WARNING

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

2.0 Device Description

The D7035/D7035B is an Octal Relay Module that provides eight Form "C" relay outputs for addition to the D7024 Control. It connects to the D7024 via the Option Bus. The outputs are fully programmable, and can be activated by several system events. Each output operates individually of the other seven outputs for complete flexibility.

3.0 Installation

CAUTION

Before installing the D7035/D7035B, disconnect all power (AC and battery) from the control panel.

3.1 Installing the D7035 inside the FACP Enclosure

Use the following steps when installing the D7035 inside the FACP enclosure:

1) Remove the two optional transformer studs from the enclosure using either pliers or a hammer to rock them loose. Push the studs back through the enclosure. If the enclosure is already mounted, pull the studs forward through the back of the enclosure instead of pushing them back. See Figure 1 for details.

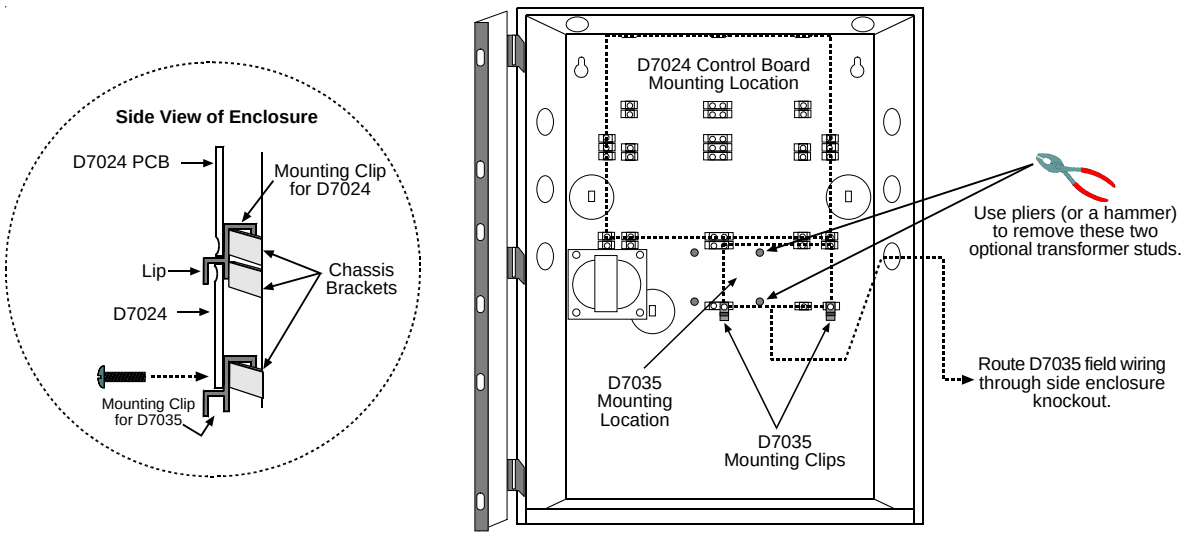

Figure 1: Installing the D7035 in the D7024 Enclosure

2) Place the mounting clips in the enclosure as shown in Figure 1.

3) Insert the upper length of the D7035 board underneath the lips of the mounting clips holding the control panel board in place. See Figure 1.

4) Fasten screws through the lower mounting holes on the D7035 and mounting clips from step 3. See Figure 1.

5) Refer to section 4.0 for wiring instructions.

3.2 Installing the D7035B Outside the FACP Enclosure

The preferred mounting for the D7035 is directly inside the FACP enclosure, using the provided mounting site. The D7035B kit (which contains a D7035 Octal Relay Module, one MP-D203 Mounting Skirt, and one AE203R Fire Enclosure) may, however, be mounted in its own enclosure near the FACP using the following procedure.

CAUTION

Refer to the FACP's installation manual to determine the maximum wire length between the panel's option bus and the D7035 Octal Relay Module. No more than 4,000 ft. (1,219 m) of wire may be attached to the FACP option bus terminals.

1) Choose an appropriate location for the AE203R enclosure.

2) Using the enclosure as a template, mark the mounting holes on the mounting surface and make openings for the unit's wiring. It is recommended that the option bus wiring enter the AE203R enclosure from the left and the D7035 output wiring exit the enclosure to the right. See Figure 2.

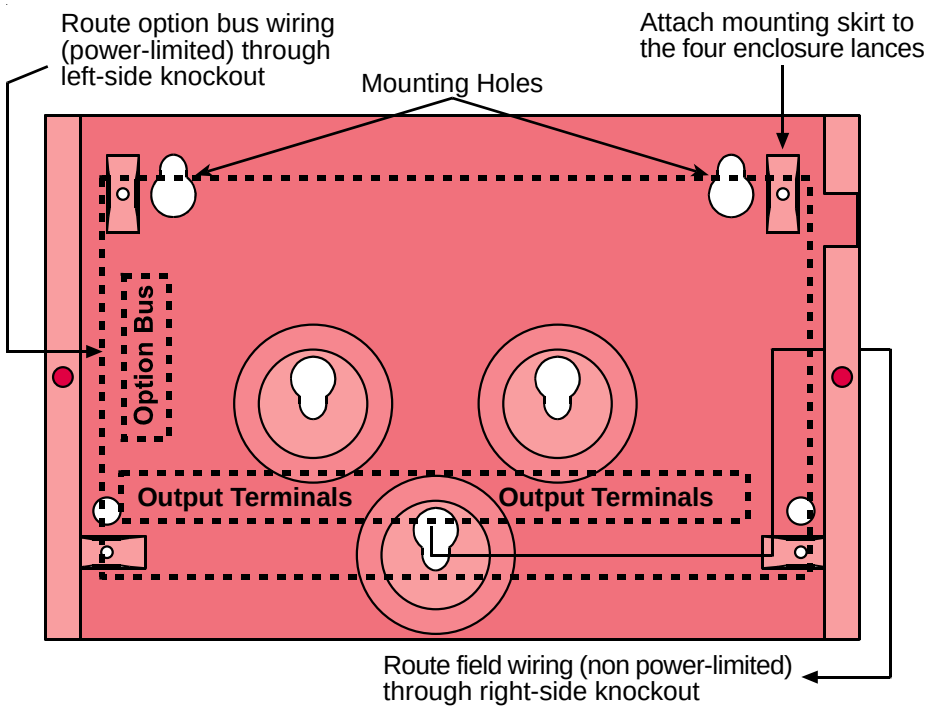

Figure 2: Mounting the AE203R Enclosure

3) Snap the four plastic standoffs onto the appropriate raised tabs on the mounting skirt (see Figure 3) and then use the longer supplied screws to attach the D7035 module to the plastic standoffs.

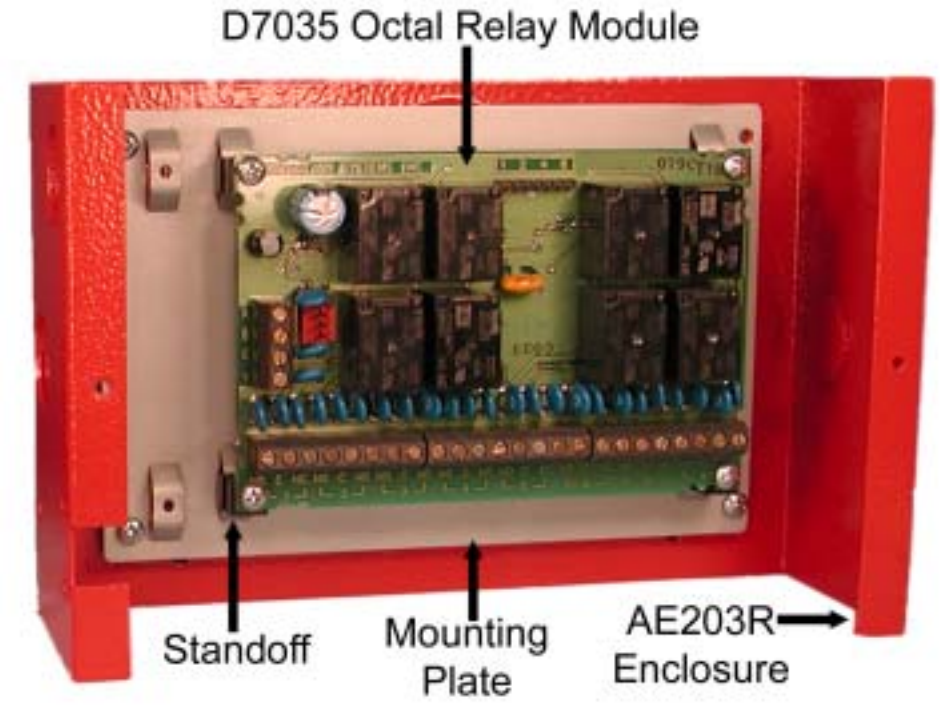

Figure 3: Mounting Plate Assembly

4) Attach the mounting skirt (with the circuit board attached) to the AE203R enclosure using the hardware provided. See Figure 2 and/or Figure 3.

5) Refer to section 4.0 for wiring instructions.

4.0 Wiring the D7035/D7035B

The D7035/D7035B is wired to the control panel's option bus. As this module has relatively high current draw to be able to operate the eight relays, it must be located near the control panel (mounting directly in the control panel enclosure, using the provided mounting site, is preferred). Depending on the number of and types devices connected to the Option Bus, the maximum length of #18 AWG (1.2 mm) wire allowed between the Panel and the Relay Module is 500 feet (152 m). Refer to the control panel's installation guide for additional wiring information. See Figure 4.

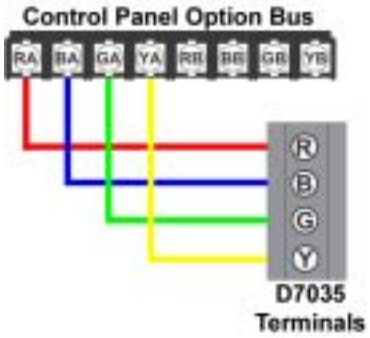

Figure 4: Option Bus Wiring

CAUTION

All option bus devices must be connected to the same bus (either Bus A or Bus B). Do not connect some devices to Bus A data terminals (YA, GA) and some to Bus B (YB, GB). Power (RA and RB terminals) and ground (BA and BB) may be connected interchangeably to either set of terminals.

There are three terminals for each of the eight relays: Normally Open (NO), Common (C) and Normally Closed (NC). To wire the contacts, see Figure 5.

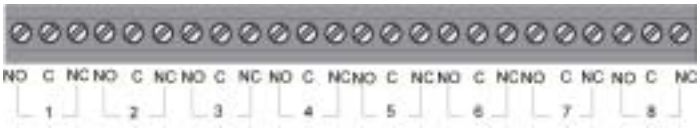

Figure 5: Wiring the D7035/D7035B Contacts

5.0 Selecting the Option Bus Address

The D7035/D7035B must be selected as an option address 1-15. Use the Option Address Pins to select an option address with the jumper plugs provided. See Figure 6.

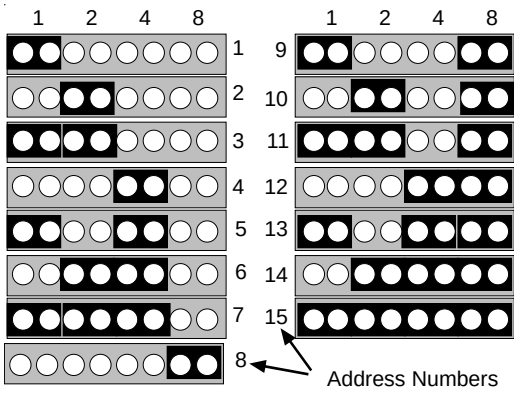

Figure 6: D7035/D7035B Option Bus Addresses

6.0 Programming the D7035/D7035B

The D7035/D7035B must be programmed through the control panel. See your control panel's installation guide for output programming information.

7.0 Specifications

D7035/D7035B Specifications	
Current Draw (from option bus)	10 mA + 40 mA for each energized relay (used for voltage drop calculations, operates at 12 VDC)
Current Draw (from 24 VDC standby battery)	8 mA + 30 mA for each energized relay (used for battery standby calculations, drawn from the 24 VDC battery)
Contact Rating	5.0 A @ 28 VDC (resistive loads)
Listings and Approvals	UL864, CSFM