

### Cautions and Warnings



**DO NOT INSTALL ANY SIMPLEX PRODUCT THAT APPEARS DAMAGED.** Upon unpacking your Simplex product, inspect the contents of the carton for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify Simplex.

**ELECTRICAL HAZARD** - Disconnect electrical power when making any internal adjustments or repairs. Servicing should be performed by qualified Simplex Representatives.

**STATIC HAZARD** - Static electricity can damage components. Therefore, handle as follows:

1. Ground yourself before opening or installing components (use the 553-484 Static Control Kit).
2. Keep uninstalled component wrapped in anti-static material at all times.

**RADIO FREQUENCY ENERGY** – This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

### Overview



This publication shows how to install the 4010-9803 Relay Module (566-058) into a 4010 Fire Alarm Control Panel (FACP). Only one of these modules can be installed in a 4010 FACP.

**IMPORTANT: A 4010 FACP supports either a 4010-9803 Relay Module or 4010-9809 or -9829 City Circuit card.**

Refer to the 842-058 Field Wiring Diagram for additional wiring information.

### In This Publication

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### Relay Module Parts

**Table 1. 742-310 Service Parts List**

Quantity	Description	Part Number
1	Relay Module	566-058
1	Ribbon Harness	733-952
1	Metal Bracket	636-801
4	TORX Screws	430-206
1	TORX Screw with Lock Washer	441-002

# Introduction

## 4010-9803 Relay Module

The 4010-9803 Relay Module connects to the SFI/O board of a 4010 FACP with a ribbon harness (733-952). The relay module provides connections to different devices through three dry relay contacts providing Alarm, Supervisory, and Trouble reporting. If a CPU failure occurs, the relay module's trouble output transfers. See Figure 1 below for connector locations.

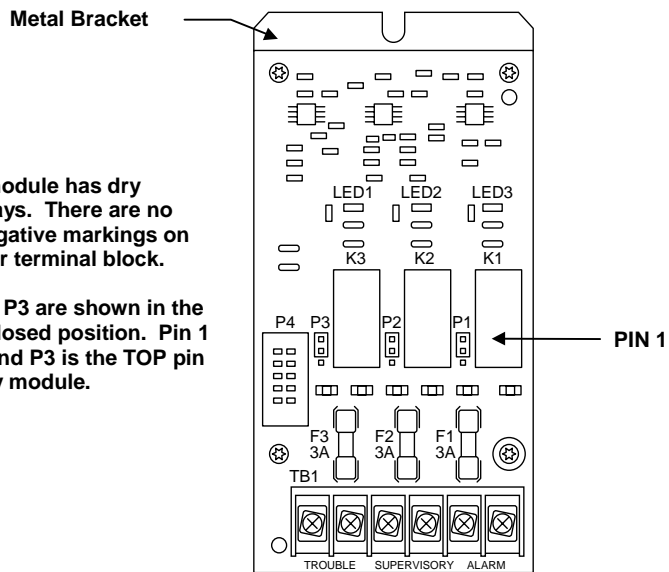
For applications requiring relay contact outputs for Alarm, Supervisory, and Trouble, the 4010-9803 Relay Module converts the open collector City/DACT outputs into individual relay contacts that can be jumper selectable as either Normally Open (NO) or Normally Closed (NC).

**Note:** Troubles on the relay card report as a **City Circuit Trouble**.

Each relay output is rated **2A @ 32 VDC** maximum and is for controlling power from a power limited fire alarm power supply listed for the application. The Alarm relay activates on an Alarm condition until reset. The Supervisory relay acts on a Supervisory condition until clear. The Trouble relay activates on a Trouble condition until clear. Each relay has an LED to indicate its ON/OFF status.

**Notes:**

1. The relay module has dry contact relays. There are no positive/negative markings on the board or terminal block.
2. P1, P2, and P3 are shown in the Normally Closed position. Pin 1 of P1, P2, and P3 is the TOP pin on the relay module.



**Figure 1. 4010-9803 Relay Module**

## Configuring the Relay Module

Use the information in Table 2 to set the jumper positions for relays K1, K2, and K3 to utilize Normally Open (NO)/Normally Closed (NC) contact positions.

**Table 2. Jumper Positions for NO and NC Relay Contacts**

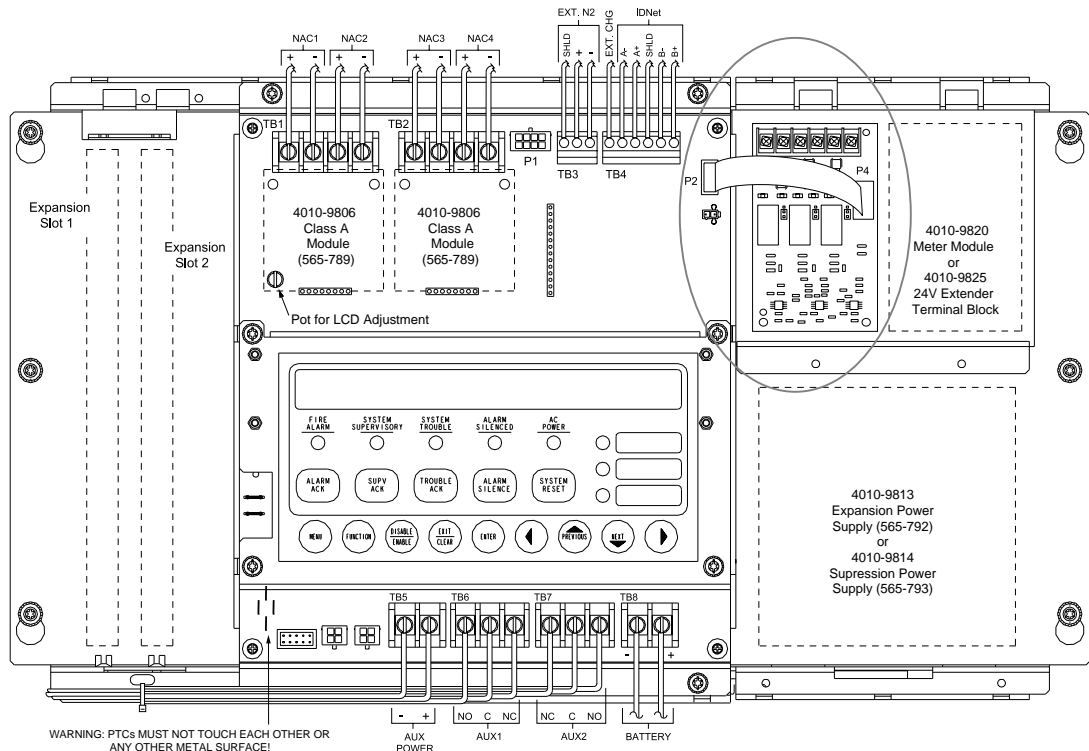
Relay	Normally Open	Normally Closed
Relay K1 (Alarm)	P1-2 to P1-3	P1-1 to P1-2
Relay K2 (Supervisory)	P2-2 to P2-3	P2-1 to P2-2
Relay K3 (Trouble)	P3-2 to P3-3	P3-1 to P3-2

# Installation/Programming

## Installation/Programming

The relay module (circled in Figure 2) installs in a hardware slot located to the right of the 4010 SFI/O board. Use Steps 1 through 9 to install and program the relay module.

1. Disconnect battery power from the 4010 FACP.
  2. At the breaker, disconnect AC power from the 4010 FACP.
  3. Ensure the jumpers on the module are set to the proper position before mounting.
  4. With TB1 of the relay module in the top position, slip the top hole of the relay module bracket over the flange located on the 4010 chassis.
  5. Use the supplied slotted TORX screw (441-002) and lock washer to secure the bottom end of the module bracket to the chassis.
  6. Terminate all wiring to the appropriate connectors.
  7. Using the ribbon harness, connect one end from P4 of the relay module to P2 of the 4010 SFI/O Board (refer to Figure 2 for the location of P2).
- Note:** The ribbon harness is keyed to the LEFT to ensure proper orientation.
8. From the breaker, apply AC power to the FACP.
  9. Apply battery power to the FACP.



**Figure 2. 4010-9803 Relay Module Location**

*Continued on next page*

## Installation/Programming, *Continued*

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### Installation/Programming (Continued)

After installing the 4010-9803 Relay Module, follow Steps 10 through 16 to program it for the 4010 FACP.

10. Log in to the 4010 FACP at Level 4 (Simplex Service Mode).
11. Press the <MENU> button and then the <NEXT> or <PREVIOUS> button until **Programming** is displayed. Press <ENTER>.
12. Wait for the trouble piezo to sound and press <ENTER>.  
**Note:** The trouble LED continuously blinks while in the programming mode.
13. Press the <NEXT> or <PREVIOUS> button until **System Options** is displayed. Press <ENTER>.
14. Press the <NEXT> or <PREVIOUS> button until **Enable City Circuit** is displayed. Press <ENTER>.
15. Press the <NEXT> or <PREVIOUS> button until **NEW:ON** is displayed. Press <ENTER> to update the option. Press <ENTER> to confirm.
16. Save your CFG with the new settings now in place.



**IMPORTANT:** If the 4010-9803 Relay Module is not programmed into the system, it will work as designed, but **WILL NOT** indicate a card trouble.