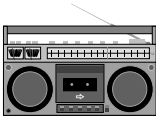


### Cautions and Warnings



**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 components 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 either a 4010-9809 or 4010-9829 City Circuit Option module into a 4010 Fire Alarm Control Panel (FACP). You can only have one of these modules installed in a 4010 FACP.

Refer to the *4010 Fire Alarm – Front Panel Installing, Operating, and Programming Instructions* (574-052) for configuration information. Refer to the 4010 Field Wiring Diagram (842-058) for additional wiring information.

### In this Publication

This publication discusses the following topics:

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Overview	1
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Wiring	4
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# 4010-9809 or -9829 City Circuit Module

## Introduction

The 4010-9809 City Circuit module (565-577 or 565-999) and 4010-9829 City Circuit module (566-078) connect to the SFI/O with a ribbon harness. The modules provide connections to either Remote Station (reverse polarity) or Public Service Fire Communications Center (local energy) receiving units (selectable). Each city circuit module has two circuits, which are configurable for alarm, trouble, or supervisory reporting. In the event of a CPU failure, a city module configured for a Trouble Output sends a trouble to the city circuit. See Figure 1 for connector locations.

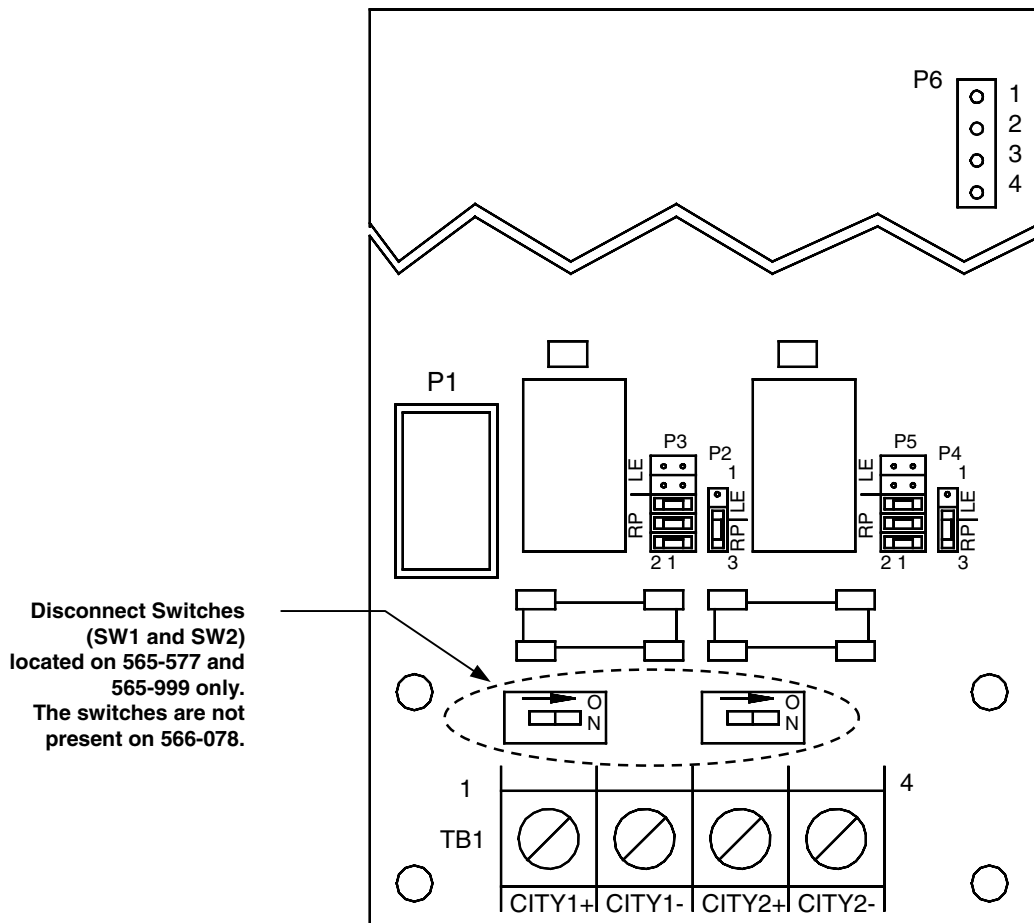


Figure 1. 4010-9809 City Circuit Module

# Configuration

## Jumper Settings

Use the information in Table 1 and the bullets below to set the jumper positions for reverse polarity and local energy operations.

**Table 1. Jumper Positions for Reverse Polarity and Local Energy**

	Jumper Positions	
	Reverse Polarity	Local Energy
City Circuit 1	P3: 1-2, 3-4, 5-6 P2: 2-3	P3: 7-8, 9-10 P2: 1-2
City Circuit 2	P5: 1-2, 3-4, 5-6 P4: 2-3	P5: 7-8, 9-10 P4: 1-2

- To configure City 2 for supervisory activation, install jumpers to Positions 1-2 and 3-4 of P6. City 1 sends a trouble to the city by dropping circuit power when reverse polarity is selected.
- To configure City 2 for trouble activation, install a jumper in Positions 2-3 of P6. City 1 sends alarms only to the city.

## Disconnect Switch Settings

The 4010-9809 City Circuit module (565-577 or 565-999) has two disconnect switches (SW1 / City Circuit 1 and SW2 / City Circuit 2). Turn the switches to the ON position for normal operation and to the OFF position to test the system without transmitting alarms to the city. The 4010-9829 City Circuit module (566-078) does not have disconnect switches.

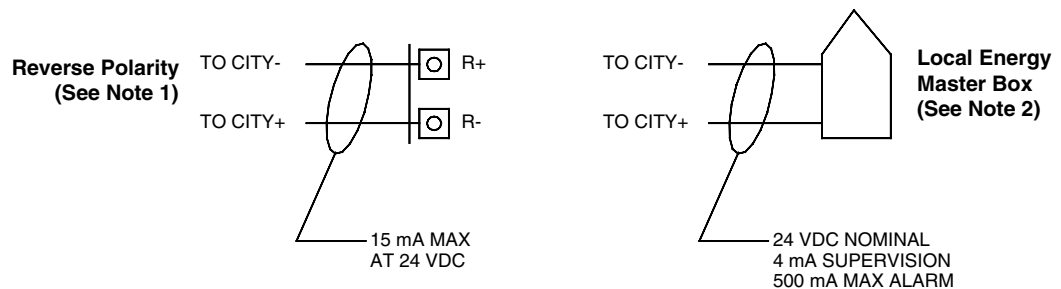
# Wiring

## City Circuit Wiring



Use Figure 2 and the notes below to wire the city module for reverse polarity or to a local energy master box. All wiring is terminated at TB1 on the city circuit module. Leave the 3.3k  $\Omega$ , 1/2W resistor (378-155), Orange / Orange / Red installed from + to - terminals of unused circuits on TB1.

**IMPORTANT: Wiring is NOT power limited. Pay careful attention to the routing for power limited and non-power limited wiring. You must maintain a 1/4-inch separation between these two types of wiring. Neatly dress all harnesses and wiring. Minimum wire size is 20 AWG for reverse polarity, and 18 AWG for local energy. Conductors must test free of all grounds.**



### Notes:

1. Intended for connection to a polarity reversal circuit of a remote station receiving unit having compatible ratings of 2V p-p ripple maximum.
2. Intended for connection to 14.5  $\Omega$  trip coil.

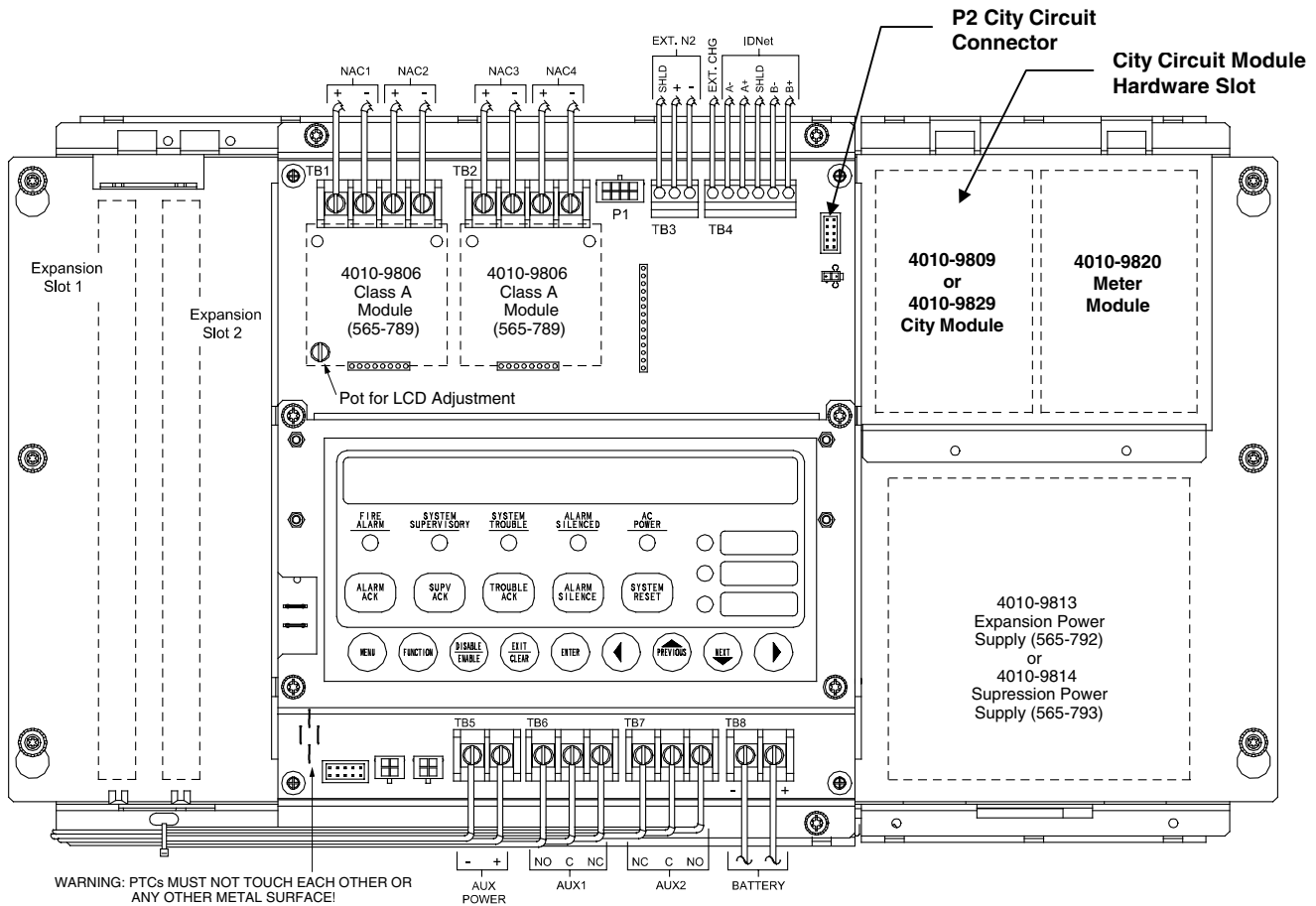
Figure 2. City Circuit Wiring

# Installation

## Mounting the Module

The 4010-9809 or -9829 City Circuit module installs in its own hardware slot located to the right of the 4010 SFI/O module (see Figure 3). Use Steps 1 through 4 to mount the module.

1. Disconnect battery and then AC power at the breaker from the FACP.
2. Set all appropriate jumpers and DIP switch settings. Terminate all wiring to their appropriate connectors.
3. With TB1 of the city module in the top position, slip the top hole of the city module metal bracket over the flange located on the 4010 chassis.
4. Use the supplied slotted Torx screw (441-002) and lock washer to secure the other end of the module bracket to the chassis.



**Figure 3. City Circuit Module Hardware Slot**

*Continued on next page*

## Installation, *Continued*

### **Communications/Power Connections**

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Each city module comes with a Communications/Power Harness (733-952) used to interface the module with the FACP.

Use Steps 1 through 3 to connect the communications/power harness from the city module to the FACP.

1. Disconnect battery and then AC power at the breaker from the FACP.
  2. Verify that all jumpers and switches are set correctly.
  3. Using the 733-952 harness, connect one end from P1 of the city module to P2 of the 4010 FACP (see Figure 3 for the location of P2). You can now apply AC power at the breaker and then battery power to the FACP.
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