4005 Fire Alarm City Circuit Card Installation Instructions

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.

Introduction

The 4005-9809 City Circuit Card (Part No. 565-550) provides alarm, supervisory, and trouble reporting to a Proprietary or Municipal monitoring station and supports three different types of city circuits (Local Energy, Reverse Polarity, and Form "C"). This publication describes how to install and configure the 4005 Fire Alarm City Circuit Card (refer to Figure 1).

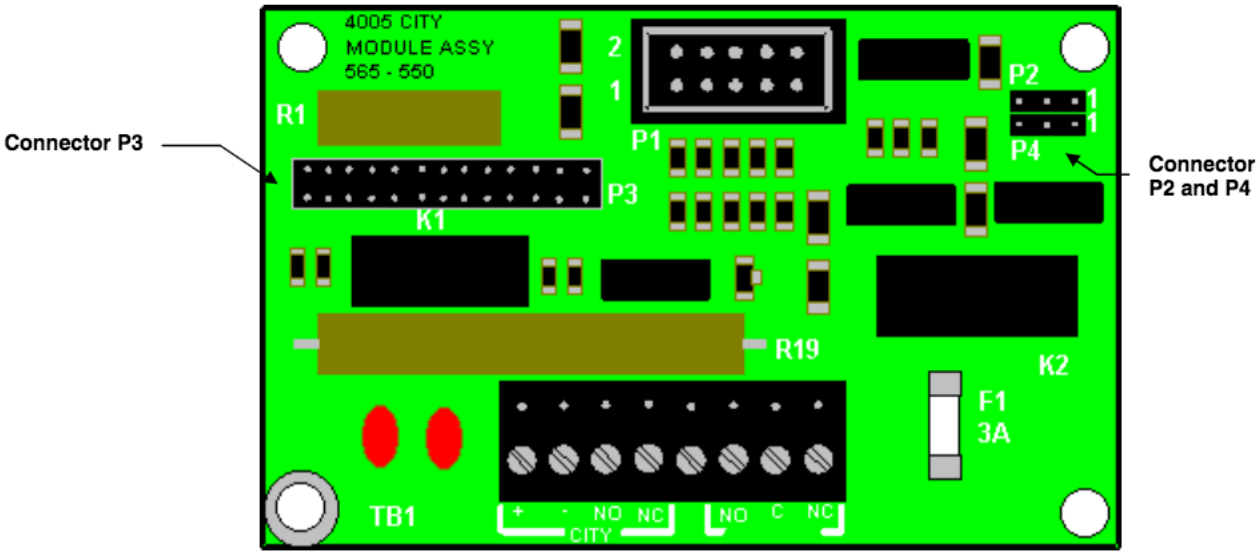

Figure 1. 4005 City Circuit Card

CAUTION! DO NOT APPLY AC OR BATTERY POWER TO THE 4005 UNLESS IN THE PRESENCE OF A SIMPLEX TECHNICAL REPRESENTATIVE. Power down the 4005 before installing a city circuit card.

Installation

Refer to Field Wiring Diagram #841-990 for all TB1 wiring information. Refer to the Module Identification Chart on the inside of the panel door for the placement of the city circuit cards.

1. Install the City Circuit Card Bracket below the CPU using the two screws provided.
2. Determine the designation of your City Circuit (1 or 2) and mount the card on the bracket stand-offs.

Note: City Circuit 1 mounts on the left side of the bracket and City Circuit 2 mounts on the right (refer to the silk-screen on the CPU board below connectors P5 and P6).

3. Using the ribbon cable provided, connect P1 of the city circuit card to either P5 (left side) or P6 (right side) of the CPU.

Configuration

Each city circuit card has two different circuits. Circuit 1 provides Local Energy, Reverse Polarity City, and Form "C" reporting. When configuring Circuit 1, use the table below for Connectors P2 & P4 jumper settings and Figure 2 for Connector P3 jumper settings. Circuit 2 provides a Form "C" contact that operates on system Trouble (see Note 4). For additional information, read the following notes and refer to the 4005 Field Wiring Diagram (841-990).

CITY CIRCUIT	P2	P4
Reverse Polarity (Alarm and Supervisory/Trouble)	Jumper Pins 1-2	Jumper Pins 1-2
Reverse Polarity (Alarm and Trouble)	Jumper Pins 2-3	Jumper Pins 1-2
Reverse Polarity (Alarm Only)	—	Jumper Pins 1-2
Reverse Polarity (Supervisory Only)	—	Jumper Pins 2-3
Local Energy (Alarm Only)	—	Jumper Pins 1-2
Local Energy (Supervisory Only)	—	Jumper Pins 2-3

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Configuration, *Continued*

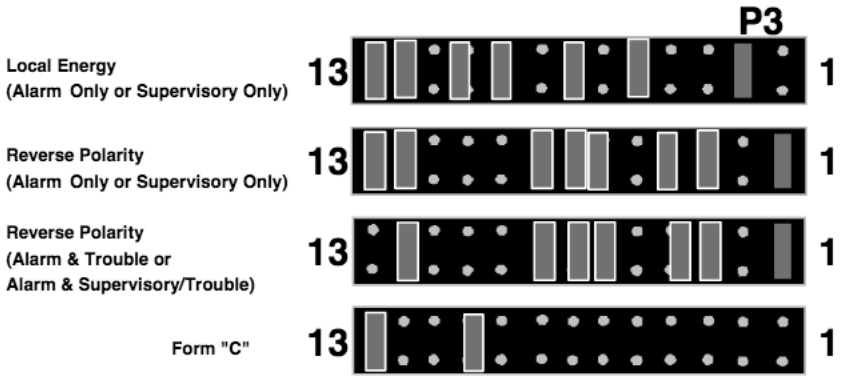

Figure 2. P3 Connector

NOTES:

1. The city circuit card supports three common varieties of city connections: Reverse Polarity, Local Energy, and Form "C". Select the type of city circuit by configuring the jumpers on Connector P3 (see Figure 2). Shunt city connections are not supported by the 4005 city circuit card. They are possible in a 4005 FACP using an external relay controlled by an 8-Point I/O driver output. Refer to the 4005 Field Wiring Diagram (841-990) for details.

2. You can configure the city circuit to activate on either an alarm or a supervisory condition. Make this selection by configuring the jumper on Connector P4. Installing a jumper on Pins 1 and 2 activates the circuit on alarm; installing a jumper on Pins 2 and 3 activates the circuit on a supervisory condition.

3. When configuring the circuit as reverse polarity, there are a few special considerations. You may configure a Reverse Polarity to indicate a supervisory/trouble or trouble condition to the city by de-energizing the city loop. If installing the jumper on Pins 1 and 2 on Connector P2, the city loop de-energizes if a supervisory or trouble condition is present in the panel. If installing the jumper on Pins 2 and 3 on Connector P2, the city loop de-energizes if a trouble condition is present in the panel. You can prevent a supervisory/trouble indication by installing Jumper 13 on Connector P3.

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Configuration, *Continued*

4. When not configured as reverse polarity, the spare form "C" Contact on TB1-6 through TB1-8 may be used. The operation is configured by jumper P2 as follows:

   - Pins 1-2 channel 3 (supervisory) or channel 4 (trouble)
   - Pins 2-3 channel 4 (trouble)

CITY CIRCUIT*	P3-4	P3-6	P3-10
Local Energy, Shunt, Form C spare contact is TRBL or TRBL/SUPV depending on P2 jumper setting	NO	NO	YES
Reverse Polarity spare contact not available	YES	YES	NO

*** Refer to pages 2 and 3 for a complete selection of jumpers**

5. Removing jumpers 4 and 6 from P3 prevents the trouble relay from dropping out when the city circuit is activated and does not cause a trouble in the panel. When configuring for Reverse Polarity, you must ensure that either jumper 13 is installed on Connector P3, or jumpers 3 and 4 is installed on P3. Failure to do so may result in the inability to notify the city if a fire alarm occurs when the panel is in trouble!!

6. City circuit troubles are not annunciated on the city circuit trouble control (Channel 4). That is, the city circuit does not de-energize if the city trouble is the only trouble in the panel, and a “true” set of trouble contacts excludes city troubles.