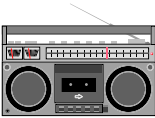


Cautions and Warnings



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 is likely to 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 4010-9811 Dual RS232 or 4010-9812 RS232/Service Modem Optional Cards into a 4010 Fire Alarm Control Panel (FACP). **Only one of these option cards is allowed per system.** Refer to the *4010 Fire Alarm - Installation Instructions (574-052)* for configuration information. Refer to the *4010 Fire Alarm - Front Panel Programming Instructions (Part No. 574-054)* for programming information. Refer to the 842-058 Field Wiring Diagram for additional wiring information.

In this Publication

This publication discusses the following topics:

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FCC and IC Requirements

FCC Requirements

1. The Federal Communications Commission (FCC) has established Rules which permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin lines.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.
3. The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes.
4. If the telephone company requests information on what equipment is connected to their lines, inform them of:
 - a) The telephone number that this unit is connected to,
 - b) The ringer equivalence number [0.8B]
 - c) The USOC jack required [RJ11C], and
 - d) The FCC Registration Number [5QWUSA-32100-AL-E]

Items (b) and (d) are indicated on the label. The ringer equivalence number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all device on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

Service Requirements

In the event of equipment malfunction, all repair should be performed by our Company or an authorized agent. It is the responsibility of users requiring service to report the need for service to our Company or to one of our authorized agents. Service can be facilitated through our office at:

Simplex Time Recorder
1 Simplex Plaza
Gardner, MA 01441
TEL: (978) 632-2500

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FCC and IC Requirements, *Continued*

Equipment Attachment Limitations

“NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user’s satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.”

Continued on next page

FCC and IC Requirements, *Continued*

Applying the FCC and/or Industry Canada Label

When an RS232 card is installed in the 4010 Fire Alarm Control Panel, the panel must be labeled to indicate this fact. The label informs all persons servicing the system that the panel is configured with an RS232 card and complies with FCC Part 68 (Part No. 519-749) and Industry Canada (519-751) listings. To apply the label, do the following:

1. Refer to Figure 1 and locate the LCD Display and the Touch Pad keys below it.

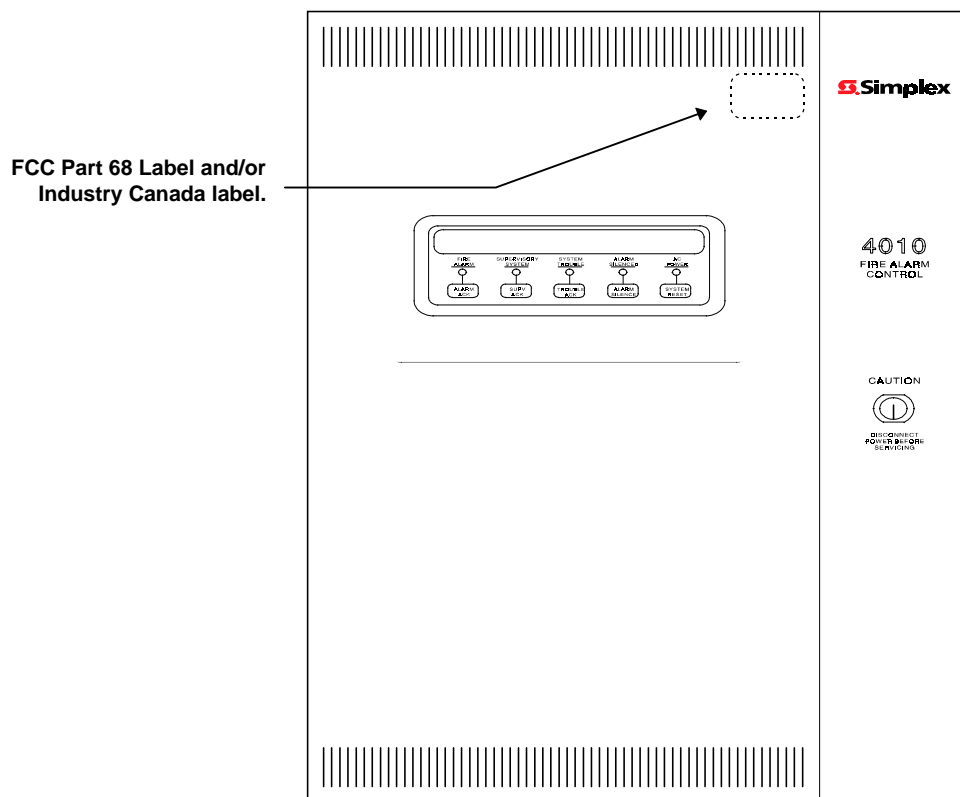


Figure 1. Placement for FCC Part 68 and Industry Canada Labels

2. Notice the placement of the labels above and to the right of the LCD Display and the Touch Pad keys in Figure 1.
3. Place the FCC and Industry Canada labels on the 4010 Fire Alarm Control Panel door in the same position as that shown in Figure 1. **Be sure not to cover vent holes.**

4010-9811 Dual RS232 Card

Overview

The 4010-9811 Dual RS232 Card (Part No. 565-810) is connected to the N2 communication lines. The 4010 can vector messages to RS232 ports by category. The RS232 ports may be configured as follows:

- Two serial printers (80 or 40 column).
- One serial printer and one CRT/Keyboard (command line interface).

The RS232 ports on the option card are electrically isolated from earth, allowing connection of an AC powered printer or CRT/keyboard without causing a power supply Earth Fault trouble at the FACP.

Figure 2 shows the location of connectors and switches.

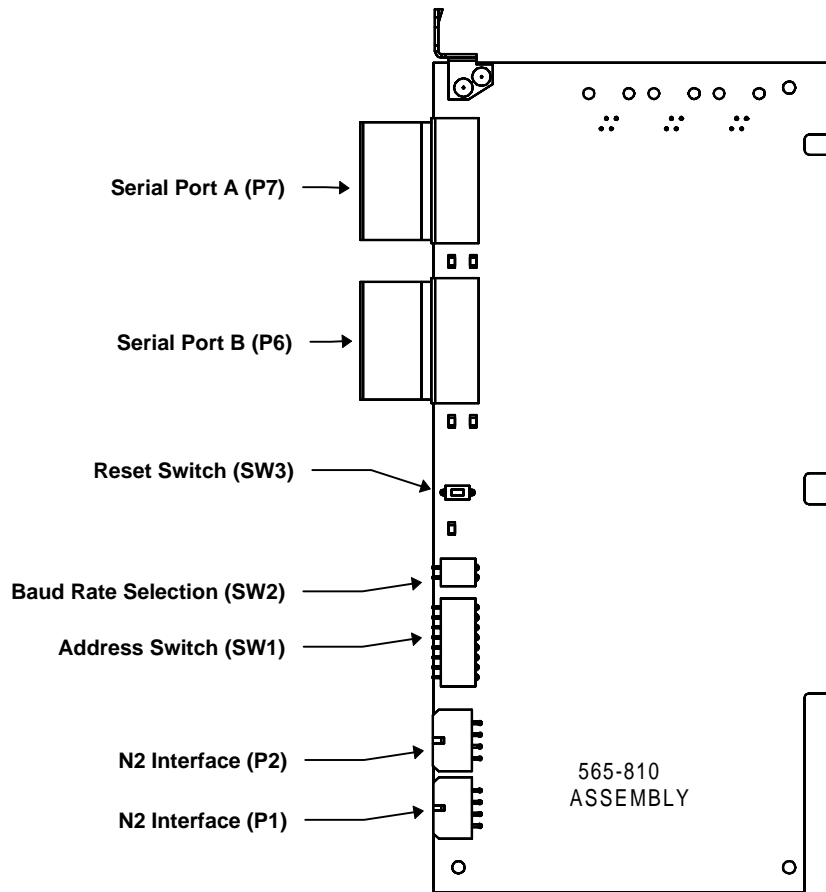


Figure 2. 4010-9811 Dual RS232 Card

4010-9812 RS232/Service Modem Card

Overview

The 4010-9812 RS232/Service Modem Card (Part No. 565-811) is similar to the dual RS232 card except that one port is a dedicated Service Modem port (command line interface). The second port (Port A) may be programmed for use with a serial printer or left unused. Event vectoring by category is supported on the modem and RS232 ports.

The RS232 port (Port A) on the option card is electrically isolated from earth, allowing connection of an AC powered printer without causing a power supply Earth Fault trouble at the FACP.

Figure 3 shows the location of connectors and switches.

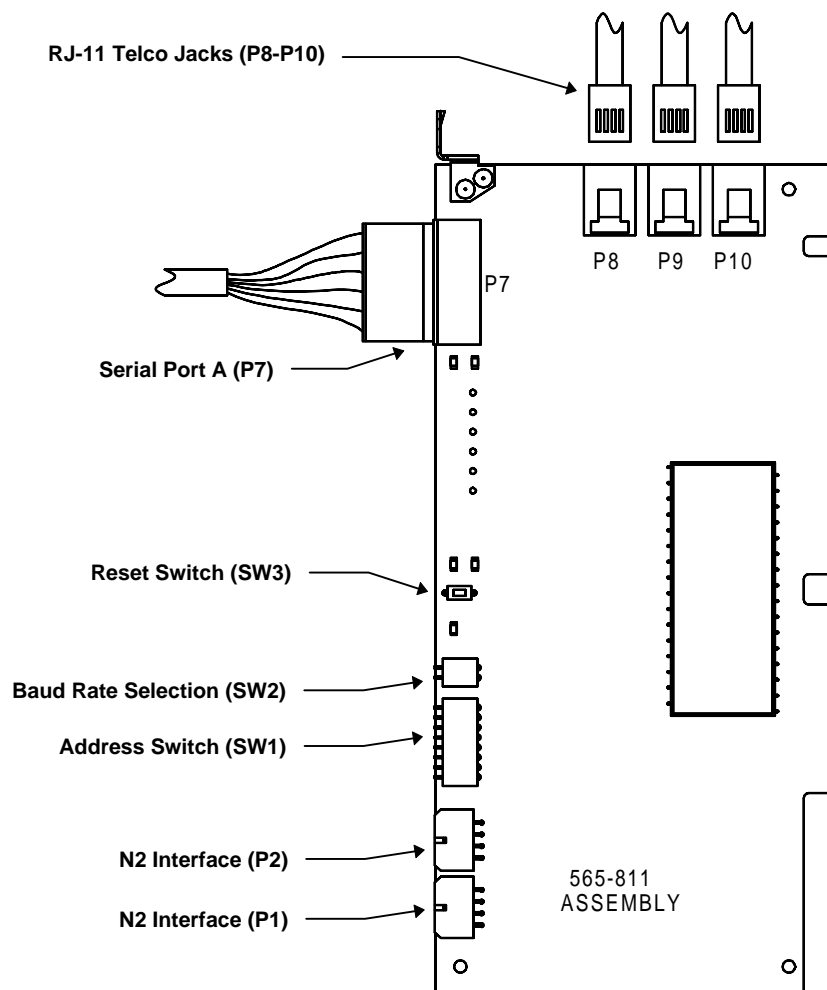


Figure 3. 4010-9812 RS232/Service Modem Card

Configuration

Switch Settings

Card Address Setting (SW1)

Option cards in the 4010 system have specific addresses. The card address setting for both the Dual RS232 and RS232/Service Modem cards is Card 4. Set SW1-3 to the ON position and set the remaining dip switches to the OFF position.

Use the “Quick CFG - Add NEW Hardware” function described in the *4010 Fire Alarm - Installation/Operation Instructions (574-052)* to add the card to the system.

Baud Rate Setting (SW2)

N2 Communications on option cards must be set at the same baud rate as the 4010 FACP. Both the Dual RS232 and RS232/Service Modem card's baud rates are set from SW2. Use the information in Table 1 to set SW2 to the appropriate baud rate. The default setting should be 9600.

Table 1. Baud Rate Settings

Baud Rate	SW2-1	SW2-2
OFF-Line	ON	ON
9600	OFF	ON
19200	ON	OFF
38400	OFF	OFF

Wiring

4010-9811 Dual RS232 Card

This section describes the wire terminations for Port A (P7) and Port B (P6) on the Dual RS232 card. Refer to the “Card Installation” section of this publication for information on connecting the card to the FACP.

Remove the terminal block before attaching wires from the RS232 cable. Once the wires are attached, reconnect the terminal block after the card is installed. Use Figure 4 and Tables 2 and 3 to wire Port A and/or Port B.

Table 2. Wiring Distance

Baud Rate	Max. Wiring Distance
1200	1300 ft
2400	800 ft
4800	500 ft
9600	300 ft
19200	300 ft
38400	300 ft

Table 3. RS232 Pin Connections

Signal	From P6 or P7 Pin	To DB-25 Pin	To DB-9 Pin
TXD	1	3	2
RXD	2	2	3
RTN	3	7	5
RTS	4	5	8
CTS	5	4	7
Shield	6	-	-

Notes:

1. Port A is dedicated for use with a printer. Port B is dedicated for use with a CRT/keyboard.
2. The RS232 ports are isolated from the 4010 power supply. Ground fault supervision is performed by the card itself.

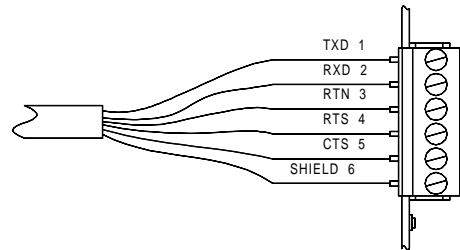


Figure 4. RS232 Wiring

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Wiring, Continued

4010-9812 RS232/Service Modem Card

This section describes the wire terminations for Port A (P7) and the Telco RJ-11 jacks (P8 through P10) on the RS232/Service Modem card. Refer to the “Card Installation” section of this publication for information on connecting the card to the FACP.

Remove the terminal block before attaching wires from the RS232 cable. Once the wires are attached, reconnect the terminal block after the card is installed. Use Figure 3 and Tables 2 and 3 to wire Port A.

Use Figure 5 to connect the RJ-11 jacks to connectors P8 through P10.

Notes:

1. Telco line interface is analog, 2-wire, with a UL-Listed RJ-11 jack.
2. The Telco lines should be connected to the RS232/Service Modem card as follows:
 - A. If a single line is available and service phone is desired, connect to the secondary line (P9) and connect a telephone to the service phone line (P8). This configuration permits voice calls on the service phone while the modem is NOT in use. Otherwise, connect to the primary line (P10).
 - B. If two lines are available, connect one to the primary line (P10) and the other to the secondary line (P9). Connect a telephone to the service phone line (P8). This configuration permits simultaneous use of the service phone on the secondary line and the service modem on the primary line.

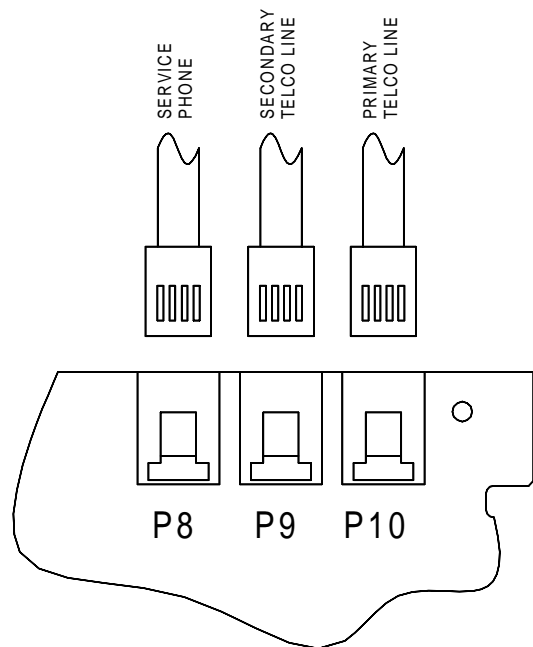


Figure 5. RJ-11 Telco Line Connections

Card Installation

Mounting

Install a single option card in Expansion Slot 2 shown in Figure 6. When an option card is already present, install the additional option card in Expansion Slot 1. Each option card comes with all necessary harnesses and mounting hardware. Use Steps 1 through 5 to install either card into the 4010 FACP.

1. Disconnect battery and then AC power from the FACP.
2. Set all appropriate dip switch settings and terminate all wiring to their appropriate connectors.
3. Slide the option card into the appropriate expansion slot (see Figure 6).

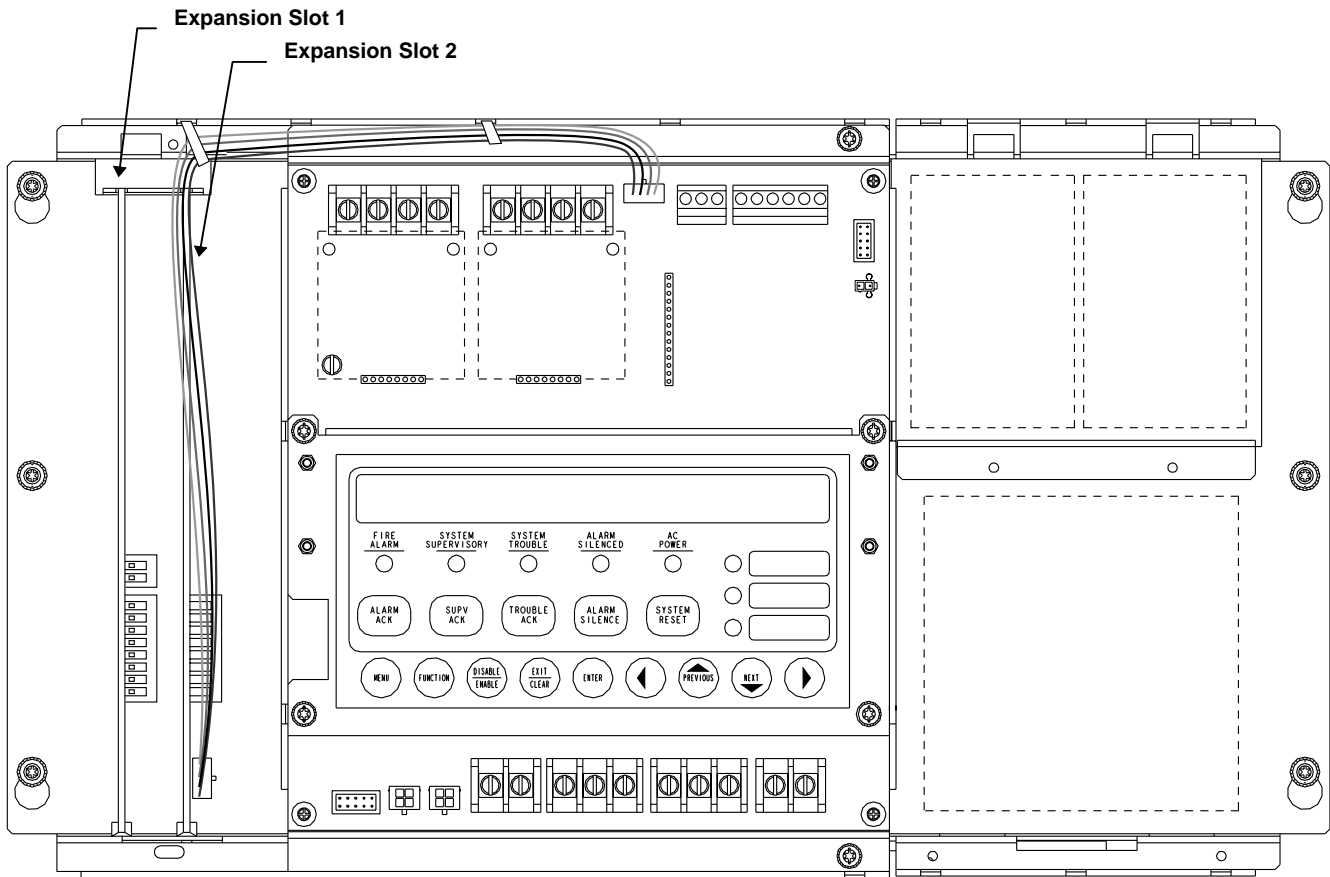


Figure 6. Option Card Expansion Slots

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Card Installation, *Continued*

Mounting (*continued*)

- Using the screw and lockwasher provided, secure the mounting bracket to the system chassis (see Figure 7).

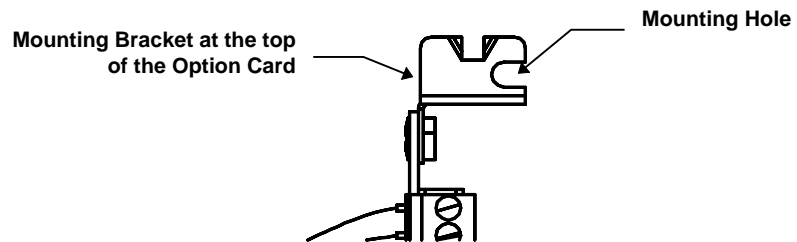


Figure 7. Option Card Mounting Bracket

- Slide the card lock bracket into the bottom hole in the option card. Secure the bottom of the option card by tightening the card lock bracket screw (see Figure 8).

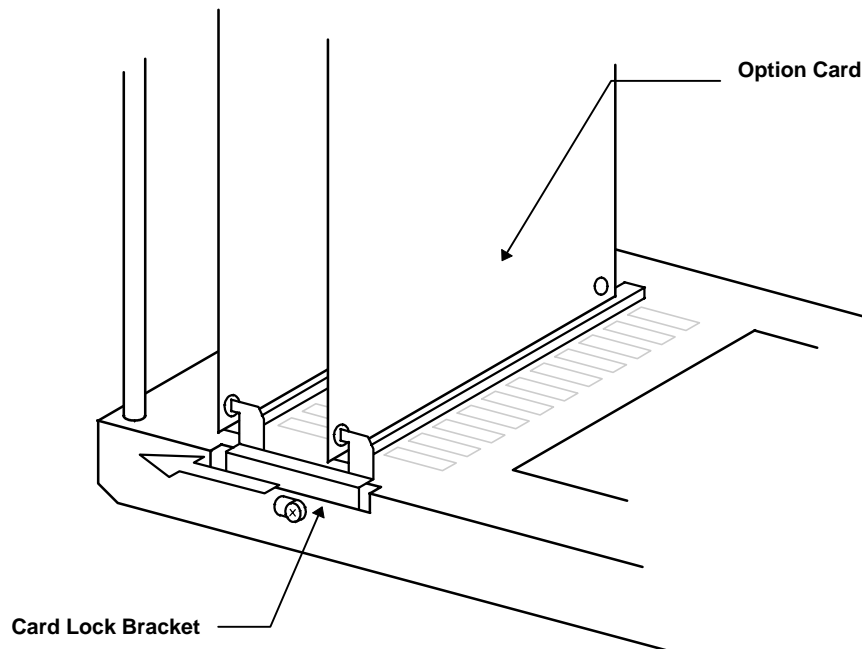


Figure 8. Card Lock Bracket

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Card Installation, *Continued*

N2 Communications/Power Connections

Each option card comes with two N2 Communications/Power Harnesses; the 733-953 is a long harness used to interface the option card with the FACP, the 733-956 is a short harness used to “daisy-chain” one option card to another.

Use Steps 1 through 4 to connect the N2 Communications from the option card to the FACP.

1. Remove battery and then AC power from the FACP.
2. Verify that all switches are set correctly.
3. Using the 733-953 harness, connect one end from P1 of the option card to P1 of the 4010 FACP. P1 on the FACP is located between TB2 and TB3.



IMPORTANT: 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.

4. If another option card is installed that is already connected to the FACP, use the 733-956 harness to connect P2 of one option card to P2 of the other. You can now apply AC and then battery power.