

1	-48 Volts: This terminal screw connects to a -48 Volt DC power source.
2	Return: This terminal screw connects to the power source return.
3	Ground: This terminal screw connects the card to the chassis ground.
4	Power: This green LED indicator is ON when -48 VDC power is being supplied to the unit.
5	3 Amp GMT Fuse: These two fuses (F1 and F2) protect the 1251 card from input power shorts.

General

The 1251 Power Maintenance Card is designed to provide temporary power to a 1555 APC chassis during shelf maintenance periods which involve the removal or replacement of the Power and Alarm card.

Caution: The 1251 card is not mechanically or electrically compatible with the Power and Alarm card slot. Do not insert this card into Slot 1.

The 1251 front panel contains a screw terminal strip with 3 connectors, two GMT type power fuses, a power LED indicator, and two card-retaining thumb screws.

Design Features

- The card may be installed in any vacant 1557 APC card slot.
- The card is compatible with any 1555 APC chassis.
- The card provides fused input protection and a power indicator.

Operation

Refer to the front panel diagram above and to the simplified circuit diagram below for the following operational features.

An external -48 VDC fused source is fed into the card from the front panel screw terminal strip. This power is then fed through front panel card fuses F1 and F2 (GMT type, 3 Amps). The power is then fed to both the A and B power bus pins of the card connector. Both A and B feeds are diode protected from power reversals.

The front panel power indicator is diode biased to allow the LED to be on only when the proper polarity of -VDC is wired to the front panel terminal connections.

Specifications

Mechanical

Dimensions: 10.5" H, 1" W, and 11" D
Weight: approximately 10 ounces

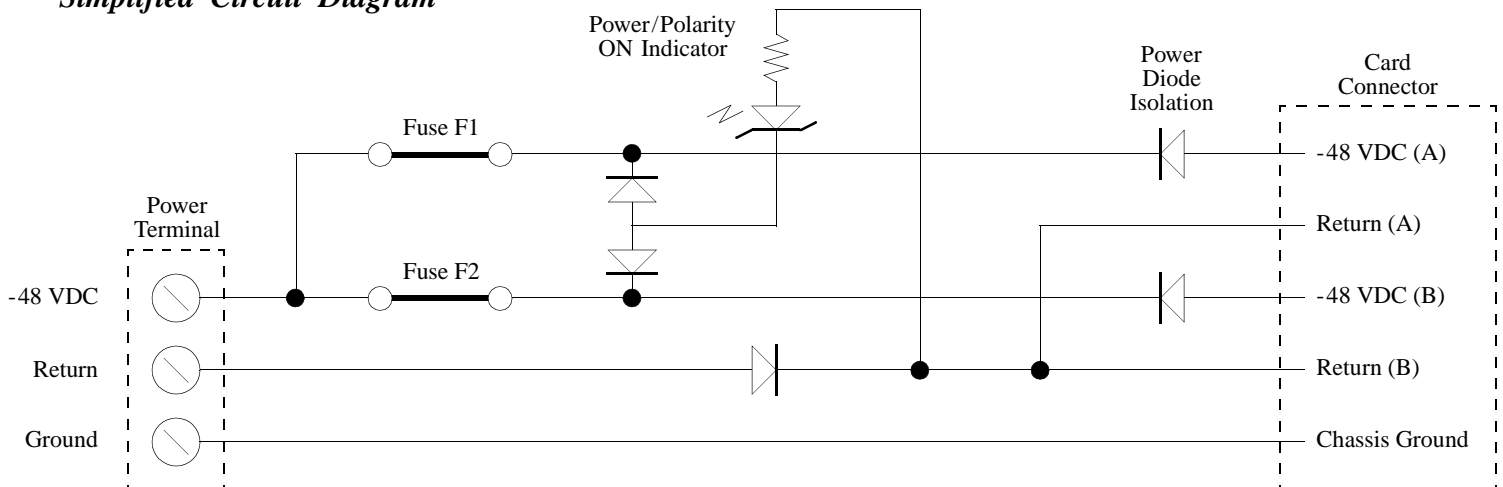
Environmental

Operating Temp: 0° to 50° C (32° to 122°F)
Storage Temp: -20° to 85° C (-4° to 185°F)
Humidity: 95% max (non-condensing)

Part Number

F-1251-001--11

Simplified Circuit Diagram



1251 Card Installation

The following procedures should be followed to insure proper installation of the 1251 card.

Do not remove the Power and Alarm card until all the following steps are completed. Premature removal of this card will result in a service outage of all APC cards. Do not start this procedure without a spare APC power and alarm card on site.

- 1) Remove the 1251 card from the shipping container and inspect for any physical damage which may have occurred during shipping. If damage is visible, do not attempt to install this card. Follow the normal internal maintenance procedures for returning the card and obtaining a replacement.
- 2) Insert the 1251 card into any vacant APC slot. Ensure that the card is fully seated and secure the card into the chassis by hand tightening the two front panel thumb screws.
- 3) Remove the front panel fuses (F1 and F2) from the 1251 card.
- 4) Connect a wire (26 gauge or larger) from the 'Ground' screw terminal to a frame ground.
- 5) Connect a wire (26 gauge or larger) from the '-48' screw terminal to the respective -48 VDC lead of the external office supply.
- 6) Connect a wire (26 gauge or larger) from the 'Return' screw terminal to the respective return lead of the external office supply.
- 7) Insert fuses F1 and F2 back into the 1251 card.
- 8) Observe the green 'PWR' indicator, which should be ON after the fuses are inserted. If so, proceed to step 9. If the LED is OFF, perform the following checks:
 - a) Remove fuses F1 and F2. Using a DC voltmeter, verify the presence of -48 VDC by placing the positive probe on the '-48' post and the negative probe on the 'RTN' post. If -48 VDC is present, proceed to paragraph 'c'.
 - b) If -48 VDC is not present, check and correct all wiring and fuses to the external office power source. After the source power supply

screws. Verify that the 'PWR' indicator is ON and that the red 'Fuse Alarm' indicator is OFF.

1251 Card Removal

Do not remove the 1251 card without performing and verifying all items in Step 3 above.

- 1) Remove fuses F1 and F2 from the 1251 card. Visually verify that one or more LED indicators are still ON for each of the installed 1557 cards.

Caution: Remove the external office power source before removing the 1251 front panel wiring. This safety measure prevents accidental shorting and other safety hazards.
- 2) Remove the temporary wiring from the external office power supply.
- 3) Remove the temporary wiring from the '-48', 'RTN', and the 'GND' front panel screw terminals.
- 4) Remove the 1251 card from the chassis. Replace fuses F1 and

is corrected, -48 VDC will be present at the 1251 front panel terminal. Insert fuses F1 and F2 and verify that the 'PWR' indicator is ON. If so, proceed to step 9.

c) If -48 VDC is present, but the 'PWR' indicator is OFF, reverse the '-48' and 'RTN' power lead connections to the card. Then insert fuse F1 and verify that the LED is ON.

Caution: Do not perform the Power and Alarm card replacement steps until the green 'PWR' indicator is ON.

9) Visually verify that the 1251 card is firmly seated into the card slot, that the front panel card retaining screws are tightened securely, and that the 'PWR' indicator is ON.

The installation of the 1251 card is now complete.

Power and Alarm Card Replacement

The following procedures should be followed for the replacement of the APC Power and Alarm card.

The replacement card's DIP address switches must be set to match those of the Power and Alarm card presently in the chassis.

- 1) Before removing the card, set the DIP address switches (positions 1 - 4) on the replacement card to match those of the card to be replaced.
- 2) Remove the Power and Alarm card (located in Slot 1 of the 1555 APC chassis) by removing the two front panel thumb screws. When the card is removed, the 1251 card then supplies power to the 1555 chassis and the 1557 APC cards.
- 3) Insert the replacement Power and Alarm card into the chassis by seating it firmly into Slot 1. Secure by tightening the two thumb



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