ALLEN-BRADLEY

Allen-Bradley Redundant Power Supplies

(Cat. No. 1771-P4R and 1771-P6R)

Installation Data

To the Installer

This document provides you with the following information:

- what this package contains
- tasks on installing your power supply module
- how to interpret indicators
- flow charts for troubleshooting your power supply module

What This Power Supply Package Contains

When you receive your 1771-P4R or -P6R power supply, you should see the following in the box:

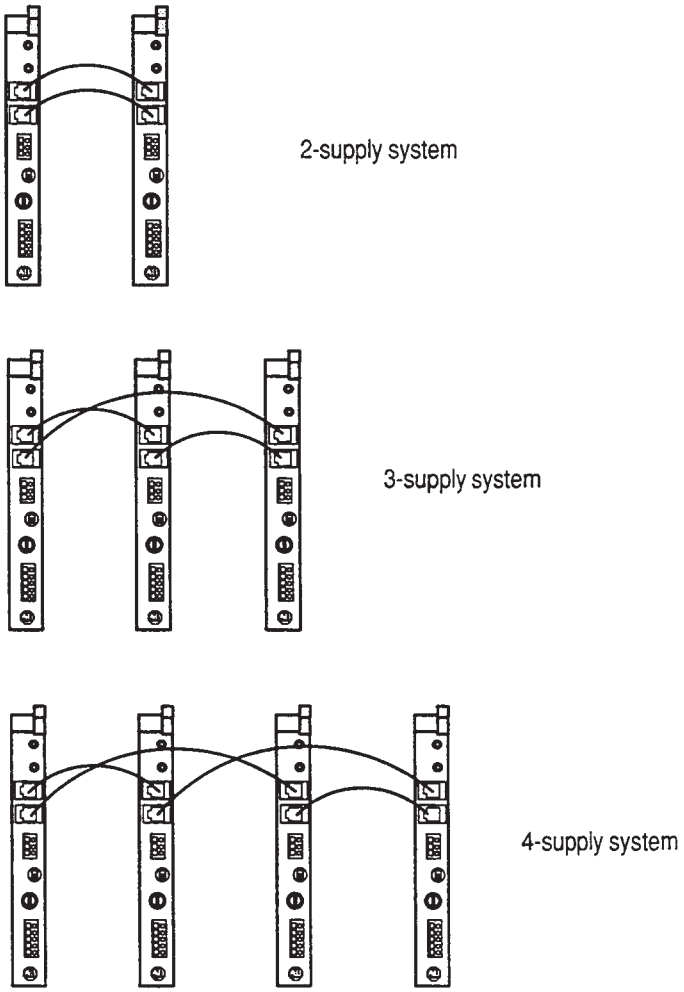
- one 1771-P4R or 1771-P6R power supply module
- one 3-position terminal block (attached to module)
- one 5-position terminal block (attached to module)
- one redundant cable

Installing the Power Supply Module

To install your power supply module you need to know how to perform the following tasks:

- set the jumpers
- set the I.D. selection and configuration switches
- place the power supplies
- connect the redundancy cables
- wire the alarm relay
- connect input power

Figure 3
Connecting the Redundancy Cables for a 2, 3, or 4 Supply System



Wire the Alarm Relay

A 3-position terminal block labeled RELAY on the front panel of the module provides you with a means of communicating the status of the power supply to some alarm device. The contacts on the relay are rated at 1 Amp, 250V ac maximum. The relay energizes within 0.5 seconds after sufficient input power is applied and no error conditions have been encountered. The error conditions include 5V output overvoltage, undervoltage, or overcurrent and internal reference error. The relay de-energizes within 10 seconds following detection of an error condition or loss of power. Contact bounce may occur for 100 ms.

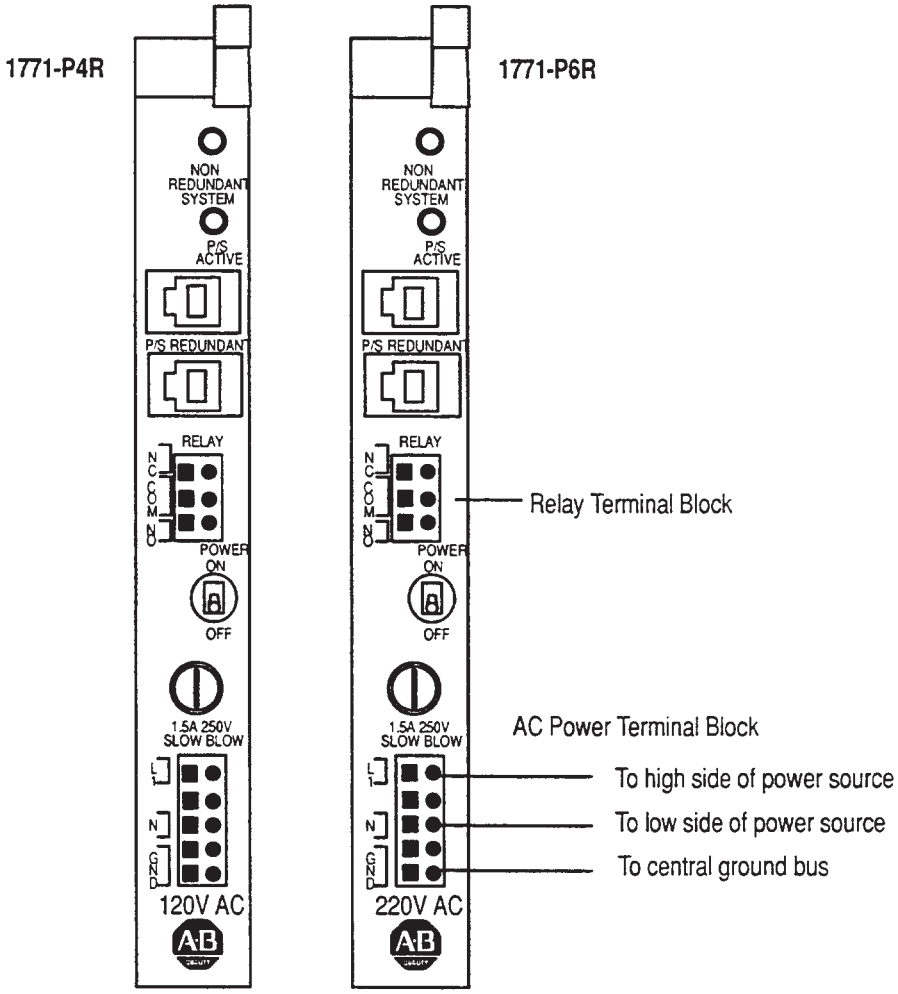
The terminal block has three lines (figure 4):

- NC (Normally Closed)
- COM (Common)
- NO (Normally Open)

Using the normally closed side of the block will keep the relay contacts open until unit failure (when it will close). Using the normally open side of the relay will keep the relay contacts closed until unit failure (when it will open).

To wire the relay, place the incoming line in the NC or NO position and out the COM position to the load. Any spare point on an input module can be connected and used for signaling by the relay.

Figure 4
Alarm Relay and AC Power Connections



Specifications

	1771-P4R	1771-P6R
Input Voltage	120V ac	220V ac
Input Voltage Range	97-132V ac rms	194-264V ac rms
Weight	2 lbs (0.84 kg)	
Frequency	47-63Hz	
Output Voltage	5V dc	
Output Current	8A	
Fuse	1.5 A 250V Slow-Blow	
Size	1 I/O slot per module	
Conductors Wire Size Category	 14 AWG maximum (single wire only) 2[1]	
Environmental Operating Storage Relative Humidity	0 to 60°C (32 to 140°F) -40 to 85°C (-40 to 185°F) 5 to 95% (without condensation)	
Wiring Blocks ac Power Relay	 A-B part number 941274-05 (Wago PN 231-205/000-008) A-B part number 941274-03 (Wago PN 231-203/000-008)	
Alarm Relay Rating	250V ac	
Maximum System Output Current at 60°C using N+1 Redundancy	8A (2 unit system) 14A (3 unit system) 20A (4 unit system)	

[1] Refer to publication 1770-4.1 Programmable Controller Wiring and Grounding Guidelines